

How the Qaddafi Regime Was Driven into Nuclear Disarmament

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Abstract

How can we drive *atomic renegades* – states that run illegal nuclear weapons programs – into disarmament with the help of negotiations? This question, which puts the design of negotiation strategies at the focus of attention, has puzzled foreign policy makers for decades. It has, thus far, lost nothing of its relevance. But despite its importance, bargaining dynamics with *atomic renegade states* – so-called Nuclear Reversal Negotiations (NRN) – were largely omitted in International Relations (IR) literature. A systematic and theoretically grounded analysis on NRN is still missing.

We chose to close this veritable research gap by a “single hard case approach” which studies the impact of *diplomatic design* that was affecting the U.S.-Libyan negotiations on the Qaddafi regime’s nuclear weapons program (1987-2011). Among the 14 examples of NRN we encounter in the history of the nuclear bomb, this bargaining process was particularly antagonistic and hostile and therefore signifies the “hard case” for successful negotiations.

In order to evaluate the performance of the 20 individual design elements (and the 8 alternative explanations) that shaped the American-Libyan diplomatic struggle, we applied the so-called “fit approach” – an analytical scheme that investigates whether and to which degree the solutions provided by the individual design elements *fit* into the scope and nature of the various challenges and hurdles that needed to be resolved in order to achieve a complete nuclear disarmament.

Despite being the “hard case” among the different NRN examples, we revealed that the overall performance of *diplomatic design* was the most important explanation for Tripoli’s decision to abandon its WMD programs. This finding nourishes our general assumption that effective negotiations are possible even in relatively adverse strategic constellations – if they are only designed well. *Diplomatic design* is not an epiphenomenon but has genuine explanatory power for successful bargaining outcomes and is independent from broader structure-, actor-, or process-related impact factors.

Dedication

To Manuela, Erik, and Bero for their enduring patience, love, and support during this project as well as all my other endeavors.

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Abbreviations

AU	African Union
CTBT	Comprehensive Test Ban Treaty
CWC	Chemical Weapons Convention
E+	Egalitarian Optimum
HEU	Highly Enriched Uranium
IAEA	International Atomic Energy Agency
IBE	Inference to the Best Explanation
ILSA	Iran-Libyan Sanction Act
IR	International Relations
IRA	Irish Republican Army
LNBSR	Libyan National Board of Scientific Research
LoW	Logic of Wisdom
M	Maximin Solution
MTCR	Missile Technology Control Regime
N	Nash Equilibrium
NPT	Nuclear Proliferation Treaty
NRN	Nuclear Reversal Negotiation
NSG	Nuclear Supplier Group
OAU	Organization of African Unity
OPCW	Organization for the Prohibition of Chemical Weapons
OPEC	Organization of the Petroleum Exporting Countries
P	Pareto Optimum
P+	Qualified Pareto Optimum
PD	Prisoners' Dilemma Game
PLO	Palestine Liberation Organization
PSI	Proliferation Security Initiative
RAF	Rote Armee Fraktion/Red Army Faction
TCG	Theory of Collective Goods
UK	United Kingdom
UN	United Nations
UNODA	UN Office for Disarmament Affairs
UNSC	United Nation Security Council
UNSCOM	United Nation Special Commission
WMD	Weapon of Mass Destruction

1. INTRODUCTION

There are many similarities between rock n' roll and International Relations (IR) – the discipline our PhD project belongs in.¹ Both rock n' roll and IR are relatively fragmented, plural, and marked by a variety of “styles”. It has occasionally been said that “rock n' roll is dead”. Similar claims were made in recent years with regard to IR and its theories (e.g. special issue *European Journal of International Relations*, 2013, vol. 19, no. 3). Like IR, rock n' roll is assumed to have had an important, although under-appreciated, impact on major historic events in world politics. Some claim, for example, that the demise of the Soviet Union and its satellite states could not be fully understood without taking the subversive power of secretly listening to Western rock n' roll music into account (e.g. Ryback 1990; Troitsky 1987). Others have pointed out that rock n' roll was essential for the rise of postmodern values which have heavily shaped the political landscape at least in the Western world (e.g. Inglehart 1997). Moreover, one could claim that famous IR scholars have many things in common with rock stars. Similar to the hits of prominent rock n' roll bands and singers, there is a good chance that when we drop the names of famous IR thinkers, even first year undergraduate students could pinpoint their major contribution to the discipline.

Yet, there is another similarity between rock n' roll and IR which is of particular relevance for our PhD project. Both rock n' roll and IR are “consumed” in very similar ways. While most of us follow a “more of the same attitude” most of the time, most of us do also adore “thrilling moments” which both IR and rock n' roll are capable of delivering from time to time.

The “more of the same attitude” is certainly the most common “pattern of consumption” in rock n' roll and IR. After having tried and tested different schools and styles, most rock n' roll fans develop a particular taste. They like to hear the same songs and albums over and over again and stay attached to certain bands and artists. The “more of the same attitude” is not necessarily an expression of musical narrow-mindedness or of an aesthetic tunnel vision. It is instead the logical reaction to the relatively large fragmentation and pluralism of styles and trends in the field. Likewise, cultivating an inclination for a particular style does not necessarily exclude innovation. Most rock n' roll listeners are open to change and incrementally develop their taste over time within the margin of the style they have developed a weakness for. New bands and songs that

¹ The reader will find that this doctoral thesis was written in the first person plural. I speak about “our” project and the research that “we” conducted. I am aware that, if taken literally, this formulation could cause raised eyebrows. The last thing a PhD should be is teamwork. But I can assure critical readers that I use the first person plural exclusively for aesthetic reason. It is a matter of style which shall not obscure the fact that my doctoral thesis is the product of a lonely, arduous, and occasionally desperate academic journey which lasted four years in total.

contribute to the preferred schools are often welcomed for the fresh impulses they provide. In most of cases, this “within-style-innovation” results from selective integration and adaptive interpretation of influences and trends stemming from musical genres other than rock n’ roll such as blues, folk, or reggae.

Readers of IR studies show a very similar “pattern of consumption”. Once they have developed an inclination for a particular “style”, they apply the same set of theories, analytical approaches, and methods over and over again. Often they stay attached to the same set of empirical puzzles. Like with rock n’ roll, there is nothing wrong with the “more of the same attitude”. Developing a genuine “taste” is rather a normal – if not even natural – expression of academic maturity. Like with rock n’ roll, this way of consuming IR is not opposed to change. The “more of the same attitude” is compatible with innovation. However, in most cases, innovation is synonymous with adapting approaches, methods, and (meta-)theories from neighboring disciplines.²

In addition to the “more of the same attitude”, there is another aspect most of us love about rock n’ roll and IR: “thrilling moments”. From time to time, listeners of rock n’ roll music and recipients of IR research witness intriguing breakthroughs which cross the border of a particular style and qualify as something “completely new”. These thrilling moments do not signify innovation by selective integration and adaptive interpretation. Rather, “thrilling moments” are “innovation by discovery”. For example, rock n’ roll fans who had turned on the radio in the mid-1970s or early 1990s and were electrified by listening for the first time to a punk or a grunge song could still describe this “thrilling moment” in colorful details today (*where were you when you listened for the first time to...?*). They immediately knew that they were listening to something completely new – music that was transgressing the conventional styles.

In general, “thrilling moments” are rare. But we also encounter them from time to time in IR when a new approach, method, or (meta)theory provides a new perspective into the “clockwork” of trans- and international politics that were nonexistent beforehand. For example, for many scholars in foreign policy, reading Graham Allison’s “Essence of Decision” was a “thrilling moment” (Allison 1971). According to John Ikenberry, Allison’s book was a “blockbuster” and “inspired generations of scholarship on bureaucratic politics and American foreign policy” (Ikenberry 1999).

We know it is a very bold statement but we are convinced that our doctoral thesis gives readers the chance to satisfy their longings for both “patterns of consumption”. While most of our PhD project follows the “more of the same attitude”, it also allows for a “thrilling moment”. As we will outline in more detail towards the end of our research project (ch. 6.2), we unintentionally discovered a new mode of strategic action and decision making: the logic of wisdom (LoW). LoW has never been studied before. It is a completely new academic concept. It is promising to reveal a rare but very significant

² In the context of German IR, perhaps the most prominent example of this “within-style-innovation” was the adaption of Jürgen Habermas’ philosophical concept of “communicative action” (e.g. Müller 1994, 2004).

phenomenon in foreign policy that is likely to be of particular relevance in strategic situations where actors are weak, in a hurry, or impelled to tackle challenging problems.

In the following section, we will first give an introduction to the research we have conducted under the “more of the same attitude” (ch. 1.1) followed by a brief outline of the “thrilling moment” we discovered (ch. 1.2).

1.1 “More of the Same”: Doing Research on the Design of Nuclear Reversal Negotiations

What “style” of IR do we follow in our PhD project? Very briefly, this PhD project locates itself to the IR sub-discipline of negotiation research.³ It studies international negotiation dynamics and bargaining processes in the nuclear policy field through the lens of the so-called Enlightened Rationalism, by applying qualitative methods with an orientation towards the practitioners of foreign policy, and by focusing on *diplomatic design*.⁴ Within this particular field, our project is certainly innovative. But typical for the “more of the same attitude”, the new findings and insights that we are revealing build primarily on selective adaptations of approaches, methods, and (meta)theoretical impulses originating from other fields and IR (sub-)disciplines.

Nuclear Reversal Negotiations (NRN): We choose to contribute to the field of negotiation research by focusing on a relatively frequent, puzzling, but understudied type of bargaining dynamic: *nuclear reversal negotiations* (NRN). NRN are negotiations that aim for the complete elimination of illegal nuclear weapons programs run by *atomic renegades* – state actors that contest the *global nuclear order* by their quest for atomic bombs. After the Non-Proliferation Treaty (NPT) came into force (March 1970), this type of bargaining dynamic occurred relatively frequently. Since the early 1970s, we count 11 successful and 3 failed cases of NRN.⁵ The most recent and prominent examples of NRN were certainly the negotiations that halted the Iranian nuclear program in July 2015 and the currently suspended talks on North Korea’s nuclear ambitions (the so-called Six-party talks).

However, although NRN occurred relatively often in the history of the nuclear bomb and marked major events that were intensively debated among foreign policy practitioners, these types of bargaining dynamics were widely neglected in IR research. The diplomatic struggles aiming to disarm *atomic renegade states* are perceived primarily as isolated

³ In general, we define negotiation as a *communicative and interactive process between two or more actors that is characterized by the effort of combining conflicting positions into an agreement by joint-decision making* (see also: ch. 2.2.2).

⁴ Note that we use the “negotiation” and “bargaining” interchangeable in this PhD project.

⁵ Argentina, Algeria, Belarus, Brazil, India, Iran, Kazakhstan, South Korea, Spain, Libya, Pakistan, North Korea, Taiwan, and Ukraine (see Table 3, ch. 2.2.2)

nonproliferation crises. And while individual negotiation events were often covered by detailed descriptive analysis, this particular type bargaining dynamic was never thought as a unique phenomenon of international politics. Thus, a comprehensive, systematic, and theory-based analysis of NRN is still absent.

Apart of being understudied, NRN is an intriguing research objective because it signifies the most crucial explanation for one of the two major surprises in the nuclear policy field: the startling finding that most states that desire to acquire a nuclear weapon reverse their course after a certain time.⁶ Of the 40 nuclear weapon programs that were started in the history of the atomic bomb, 31 were reversed after a certain time. *Nuclear reversal* is therefore far more frequent than continued proliferation – a fact that explains why there are “only” nine states in possession of atomic bombs today (China, France, India, Israel, North Korea, Pakistan, Russia, the UK, and the USA).

The historic evidence suggests that this major surprise is primarily explained by NRN. In particular, after the end of the Cold War, bargaining dynamics became the major driving force behind the decision of *atomic renegade states* to abandon their nuclear weapons programs. Since the early 1990s, negotiations played apparently a central role in 11 of the 14 cases of *nuclear reversal*. No other explanation – be it for example military intervention, technological problems, or internal regime shifts – had a comparable impact. At least after the end of the Cold War, *nuclear reversal* is first and foremost a “negotiated phenomenon”. Consequentially, it is impossible to think about effective non-proliferation policy without taking diplomacy and bargaining dynamics into account.

Obviously, the focus on NRN and *nuclear reversal* provides a new, more optimistic perspective on the nuclear policy field. It challenges the conventional narrative that describes the history of the atomic bomb primarily as an inexorable and accelerating pursuit of *renegade states* for the “absolute weapon” (Brodie et al. 1946). If we resist the temptation of the dominant view which perceives the evolution of the nuclear policy field as a series of proliferation crises, we will recognize, for example, that there is currently no state endeavoring to acquire a nuclear weapons capacity – a historic novelty that not occurred since the 1940s. All recent *atomic renegades* have either stopped their ambitions (Iran in 2015, Syria in 2007) or have managed to cross the “nuclear threshold” (North Korea in the late 2000s). Moreover, the perspective of *nuclear reversal* and NRN reveals the fact that in the last 20 years, no state has started a new nuclear weapons program – a remarkable fact given the high frequency of newly setup atomic programs in the previous 50 years of nuclear history. In addition, looking upon the history of the atomic bomb as a history of negotiated *nuclear reversal* is strongly emphasizing the role of the United States as a “benevolent hegemon”. No other states had so persistently campaigned in favor of non-proliferation than the United States and have put so much effort into maintaining the *global nuclear order*.

⁶ The other major surprise of the nuclear policy field, which is closely related to *nuclear reversal*, is the fact that the pace of nuclear proliferation was relatively slow (Hymans 2010a). Most states that had the scientific and technological capabilities to start a nuclear weapons program have either not taken this step or have reversed it after a certain time – on average, after 15 years (ch. 2.2.1).

Policy Paradigm: But what exactly shall we study about NRN. NRN has many aspects one could possibly address in our PhD project – such as their genesis, their actor constellations, or their strategic environment. Consequentially, we have to decide about the focus of our research. What facilitates our choice is the overarching principle that is guiding our entire research project – the so-called *policy paradigm*.

As we have already said, our PhD project is oriented towards the practitioners of foreign policy. We are convinced that policy makers and IR scholars need each other and that both spheres – academia and the world of practical foreign policy – could substantially improve their genuine functionality by dialogue and bridge building. In our view, there are two central aspects lying at the very heart of the *policy paradigm*. First, it is marked by the effort to study what policy makers *should know* about those phenomena in international politics they *want to know* about. Under the *policy paradigm*, revealing empirical puzzles is no end in itself but it is always done in order to improve foreign policy. Second, – and very closely connected to the first aspect – the *policy paradigm* is characterized by the simultaneousness between “backward-looking analysis” and “forward-looking prescription”. This paradigm is about studying past or present structures, events, process, and actors in world politics (backward-looking analysis) and developing on those basis analytical concepts and approaches that allow for improved strategic decision making and actions under given circumstances (forward-looking prescription).

It is worth emphasizing that the *policy paradigm* is not synonymous with writing non-theoretical and method-free policy briefs, op-eds, and think tank papers. On the contrary, sound analytical methods and theory in particular are very central to the *policy paradigm*. This paradigm is more than presenting academic findings in a non-abstract language and trying to infiltrate research results into the “foreign policy machinery”. Rather, the *policy paradigm* is first and foremost an academic approach. As we will explain in more detail later (ch. 2.1), many of those scholars who think their work would be very relevant for practical foreign affairs do not follow the *policy paradigm*.

Diplomatic Design: In light of the central position of the *policy paradigm*, the question “what exactly shall we study about NRN?” is quickly answered. It has to be what we called the *diplomatic design*. *Diplomatic design* is defined as the varying, sub-dividable, and malleable shape of negotiations. Economic sanctions, rewarding strategies, or mediation interventions by third parties are presumably the most well-known examples of *diplomatic design*.

In view of the *policy paradigm*, *diplomatic design* is an interesting and fruitful research template for the analysis of NRN. There is solid ground to assume that among the different elements of bargaining dynamics (such as their genesis, actor constellations, social and institutional environment, etc.), *diplomatic design* represents the aspect that is most relevant for foreign policy practitioners. Decision makers normally *want to know about* the malleable shape of negotiation dynamics. Studying diplomatic design is providing them with insights *they should know about* this particular phenomenon.

Diplomatic design is a newly coined term that we borrowed from the literature on institutional design – in the adaptive logic of the “within-in-style-innovation”. But although *diplomatic design* as a comprehensive analytical concept was introduced for the first time into research on international negotiations with our PhD project, the malleable and varying shape of international negotiations was, of course, previously studied by IR scholars (e.g. studies on sanctions and rewarding strategies applied in bargaining dynamics). However, by reviewing the literature on negotiation research we found that *diplomatic design* was thought of mainly as an epiphenomenon. It was studied most of the time as a “projection surface” for larger impact factors and was regarded as subordinated to broader structure-, actors-, or process-related explanations (see e.g. Kremenyuk 2002; Zartman 2009; Zartman 2002). By putting *diplomatic design* on the central stage, we emphasize it as an independent factor with genuine analytical powers. In this PhD project, we will show that *diplomatic design* is crucial for our understanding of success and failure in international bargaining dynamics. Like neo-liberal scholars who showed in the 1980s and 1990s that international institutions are not mere epiphenomena (e.g. *International Organization*, 1982, vol. 36, no. 2), it is one of the central objectives of our doctoral thesis to “liberate” *diplomatic design* and prove its autonomy. Although *implicitly* shared by numerous scholars, it is only in our PhD project that this central assumption is made *explicitly* for the first time.

In that sense, our research project is in essence part of a general philosophic tradition which endorses the optimistic view on the performance of man-made procedures and structures. By giving priority to *diplomatic design*, we become advocates of the assumption that *in general*, each and every problem negotiation parties face in bargaining dynamics is resolvable with the right *diplomatic design*. Other impact factors in bargaining dynamics – such as varying actors’ constellations or the impact of historic trends – play a subordinated role and, if needed, could be leveled by proper design elements. Thus, *in principle*, one could even negotiate with the Devil and make him give in – if only the negotiation strategy is well designed (Mnookin 2010).

The Fit Approach: *Diplomatic design* has many aspects. One could, for example, study its dissemination (the frequency with which particular design elements are applied) or its robustness (how resilient design elements are in light of changing negotiation environments). However, against the background of the *policy paradigm* that the most important aspect of *diplomatic design* is its performance. To which degree a particular design element is contributing to the resolution of a certain problem is the information that is most valuable to practitioners in foreign affairs. Insights into the performance of *diplomatic design* have immediate implications for practical foreign policy. Consequentially, we will focus in our PhD project on the performance of *diplomatic design*.

Effectiveness is certainly the most common concept in IR to study performance. Broadly speaking, effectiveness is the degree to which a particular structure, process, or behavioral pattern helps to solve or to mitigate the problem that motivated its creation

(e.g. Underdal 2002; Young 1999; Young 2011). But despite its common use, we will study the performance of *diplomatic design* not through the lens of effectiveness, but instead apply a relatively young and less prominent analytical concept which we deem to be more relevant in terms of the *policy paradigm*: the *fit approach*.

While the *fit approach* is a concept that is used constantly by scholars and laypersons alike, it was only rarely employed as a systematic scientific approach in the past. While primarily used in evaluation studies on international environmental policy (e.g. Brown 2003; Folke et.al. 2007; Galaz et.al. 2008; Vatn & Vedeld 2012), we encounter only very few studies in the IR literature that recur explicitly to the *fit approach* (e.g. Ostrom 2007; Young 2002; Young 2008).

The *fit approach* could be either used to prescribe, to evaluate, or to explore how a certain impact factor (such as diplomatic design elements) affects a given problem and contribute to its solution. The essential question is whether and to which extent the solution provided by the impact factor is matched with the scope and nature of a given problem. The *fit approach* is in effect studying functional coherence. Its immediate outcome is insights into the “varieties of (mis)fit”.

At first glance, the *fit approach* shares many similarities with the conventional concept of effectiveness. Both study the performance of impact factors. And both concepts focus on the solution or the mitigation of real-world problems. However, a more careful look reveals that there is a thin but distinct line of demarcation between effectiveness and the *fit approach*. Real-world problems are studied from different angles. In essence, we could think of the *fit approach* as a more policy relevant extension of the effectiveness concept.

Although there are numerous ways to study effectiveness (e.g. Mitchell 2008), what the different approaches all have in common is that they evaluate the degree of problem resolution by comparing real-world observations against a defined “standard of success”. Scholars who study effectiveness are primarily interested in *whether* and *to which extent* a defined problem is resolved. The *fit approach* goes one step further and gives particular priority to causal relations. It describes not only the varying degrees of problem resolution but also provides insights into the question of *how* a particular problem was resolved or mitigated. Unlike effectiveness, what is studied is less the problem solution but the *strategy* of problem solution. Moreover, effectiveness is normally analyzing the performance of single impact factor across a variety of problems.⁷ Research projects that study the “problem of fit” – such as our PhD project – are instead organized in the opposite way. A variety of impact factors are studied in light of a single problem. Consequentially, compared to effectiveness, the *fit approach* digs deeper into the micro-structure of a given problem and focuses on its sub-components in more detail (ch. 2.4).

Against that background, it is obvious that the *fit approach* is very much in line with the logic of the *policy paradigm*. Certainly, foreign policy leaders are also interested to learn

⁷ See for example the studies on the effectiveness of international regimes: Miles et.al. 2002; Underdal & Young 2004; Young 1999.

more about the varying effectiveness of the different instruments they use. However, the *fit approach* is far closer to the questions that *really* haunt practitioners of foreign affairs: “What particular diplomatic tool is matching the actual problem I am facing in a given situation?” While effectiveness is providing decision makers with insights about general performance, the *fit approach* is revealing knowledge about the impact of a set of design elements in view of a specific problem. As David Baldwin has made clear, that is exactly the information that decision makers need. “Policy makers have little use for research findings regarding one technique of statecraft”, Baldwin said, but “need information that will help them choose among alternative policy-options” (Baldwin 2013: 289). Thus, the fit approach is answering what decision makers in foreign affairs *should know* about the questions they *want to know about*.

As we will explain later in more detail, the best way to operationalize the *fit approach* is by *fit taxonomies* (ch. 2.4). *Fit taxonomies* condense the structure of real-world problems to a level of abstraction that the “optimal problem solution” – the so-called *fit demand* – becomes salient. According to Oran Young, *fit taxonomies* are “attempts to disaggregate (...) issues, identifying elements of individual problems that are significant from a problem-solving perspective and reaching conclusions about design features necessary to address each element” (Young 2002: 176). Elinor Ostrom has seconded that view and has conceptualized *fit taxonomies* as “nested multitier maps” (Ostrom 2007) which – when developed properly – would indicate the scope and nature of a problem in a way that gives scholars the decisive orientation to find well-matching design elements.

The Fit Taxonomy and its Genesis: The *fit taxonomy* we developed in order to analyze the performance of diplomatic design in NRN is a “nested multitier map” which is composed of two problem dimensions (*substantial* and *procedural negotiation problem*) and three social traps (the *colliding interest*, the *distrust*, and the *injustice trap*). This structure is operationalized by two rationalist theories: game theory and the *public bad approach* – a sub-component of the broader Theory of Collective Goods (TCG) which was introduced into negotiation research for the first time by our PhD project.

Our *fit taxonomy* had neither fallen from the sky nor represented as a pre-existing concept used in the past to analyze stalemates and deadlocks in negotiation dynamics. Rather, we have developed it by using an eclectic approach based upon the so-called “Inference to the Best Explanation” – the preferred way of logical reasoning in Scientific Realism (ch. 2.5).

Eclecticism is in vogue in IR (e.g. Checkel 2013; Lake 2013; Sil & Katzenstein 2010). We saw in recent years growing interest in building middle-range theories beyond the Great Debates by integrating and merging approaches and ideas originating from different fields and IR sub-disciplines. The promise of eclecticism is innovation (in the logic of the “more of the same” attitude). It gives the chance to develop new concepts which could provide a more fruitful and detailed picture of social reality.

Our *fit taxonomy* delivers on that promise. Since it was condensed from a relatively large pool of academic and practical knowledge on difficult negotiations, the *fit taxonomy* signifies an approach that is exhaustive and detailed. Moreover, we will show in our PhD project that the *fit taxonomy* is also innovative and groundbreaking. With the parallelism of the *substantial* and *procedural problem dimension*, the three types of *social traps*, and the application of the underappreciated *public bad approach*, it allows a perspective on international bargaining that is thus far unknown in negotiation research. In addition, since our *fit taxonomy* was developed by “rummaging through” the extensive and amorphous literature on international negotiations originating from different policy fields and issue areas, there is ample ground to believe that it has relevance for diplomatic dynamics beyond the narrow focus on NRN and would also achieve fruitful insights in other fields of international security policy.

The Research Question: All of what we have said thus far boils down to our central research question: *How to design well-fitting NRN that drive atomic renegade states into nuclear disarmament.*

Apparently, this question encapsulates the different approaches and concepts we have introduced: *nuclear reversal* and NRN, *diplomatic design*, and the *fit approach*. But although less visible in its actual wording, the research question’s most essential part is the *policy paradigm*. This guiding principle, which spans across our entire PhD project, finds expression in the research question by the characteristic parallelism of “backward-looking analysis” and “forward-looking prescription”. We deliberately shaped our research question in a way that it gives equal credit to both research orientations and could be read both forward and backward.

On the one hand, we could read the overarching research question in terms of a “normal” research project where past events, trends, and actors in the nuclear policy fields are studied by a backward-looking inquiry. Scholars are asked to investigate historical diplomatic efforts that aimed to reverse atomic weapons program with the objective to reveal the “varieties of (mis)fit”. The backward-looking perspective calls upon identifying all the diplomatic design elements with a high fit-performance as well as the various challenges and hurdles that hamper their application. In that view, the central research question “how to design well-fitting NRN” translates into the sub-question, “What diplomatic design had a particular high fit-performance in previous bargaining dynamics with atomic renegades?”

On the other hand, there is also a forward-looking spin to the research question. When moving from the “backward-looking analysis” to policy oriented prescription, the overarching research question (“how to design well-fitting NRN”) translates into the sub-question: “how to compose a successful NRN bargaining strategy based on well-fitting design elements capable to drive *atomic renegade states* into nuclear disarmament”. What is now at the center of attention is the development of successful negotiation strategies. Our focus is no longer on *diplomatic design* but on the diplomatic *designing*. In terms of practical research, it is required that scholars take the results stemming from the

“backward-looking analysis” and apply them to a forward-looking mode. Scholars are asked to link the results of the previous “backward looking analysis” to the resolution of current and future negotiation problems.

The overarching research question is probably the best proof that our PhD project endeavors to go beyond general references of political relevance and mere lip services paid to political orientation. Instead, the research questions function as its primary transmission belt that is implementing the logics of the *policy paradigm* onto the levels of practical research. That is challenging and demands extra work beyond “normal” research projects. In particular with regards to the prescriptive implications, the policy paradigm drives our PhD project to analyze aspects and respond to questions we would have normally not taken into account if we had applied a more conventional academic perspective.

Sources & Data: Doing research on international security policy and nuclear weapons is, in general, challenging given that the relevant data is often relatively difficult to acquire. Research on NRN and on the fit-performance of its diplomatic design further aggravates this situation. First, data collection on NRN is complicated. Most of the bargaining processes took place behind closed doors and were withdrawn from the eyes of the public. Since negotiating about illegal nuclear weapons programs is sensitive, the level of concealment is high and the relevant sources are often classified. Biased or false descriptions about the actual diplomatic dynamics are also very common since the negotiating parties in NRN are often adversaries and rival states. In many cases, NRN are marked by relatively antagonistic and hostile bargaining dynamics. Moreover, NRN signify a relatively “elitist” bargaining process. These types of negotiations were normally not conducted by subordinated bureaucratic players but are, in most cases, directly managed by foreign policy leadership of the involved state actors – a fact that further reduces the accessibility of relevant information. Second, the research on the performance of diplomatic design is particularly “data hungry”. In order to reveal whether and to which degree individual diplomatic design elements *fit* or *misfit* to a particular negotiation problem, we have to disclose in detail the scope and nature of their impact by digging deep into the microstructure of their causal performance. Third, the *fit approach* and in particular the parallel research orientation of the *policy paradigm* – “backward-looking analysis” and “forward-looking prescription” – further increases the amount of data we have to take into consideration in order to arrive at a satisfactory answer to our overarching research question. In particular, the development of the *fit taxonomy* is absorbing – as will be shown later in chapter 3 – considerable academic resources and demands information and sources (i.e. data about the beliefs, world views, and desires of the involved actors) that are different from those required to investigate the performance of *diplomatic design*.

Practical Operationalization – the Libyan NRN: It is obvious that this challenging data situation is immediately affecting the way we operationalize our PhD project. On the one hand, we decided to apply the “qualitative research paradigm”. Our attempt is to answer

the central research questions of the technical “thick description” and process tracing of past bargaining dynamics (ch. 4). On the other hand, we chose to analyze NRN by a “historic single case study” investigating the performance of *diplomatic design* applied in the bargaining dynamic between the United States and the Qaddafi regime about the Libyan nuclear weapons program. The U.S.-Libyan negotiations took place between the late 1980s and the mid-2000s and found its climax in the public announcement on 19th December 2003 when Tripoli declared it would reverse all its nuclear and chemical weapons related activities, allow inspections into its clandestine WMD sites (weapons of mass destruction), abandon all its strategic missile capabilities and return to the institutional architecture of the “global nuclear order”.

Of course, in an ideal world, we would have rather preferred a mixed-method approach and a comparative analysis of different historic NRN cases. If we had applied a comparative case study approach and had studied two or more historic examples of NRN, we would have arrived at a broader and more representative understanding about the performance of *diplomatic design*. If we had applied, in addition, a large-N analysis based on quantitative-statistical data, we could have tested, broadened, and extrapolated the findings stemming from the qualitative process tracking and thick descriptive analysis.

However, under the given circumstances, a qualitative single hard case study seems to be the best choice. A comparative case study instead of a single hard case analysis would have provided us with broader insights into the nature of NRN. But it would have done so at the expense of an in-depth analysis of complex causal relations that lies at the very heart of the *fit approach*. And speaking more in terms of “research economics”, the very fact that a detailed study on the Libyan NRN already consumed nearly 160 pages shows that there is relatively little room for a more comparative approach if we want to stay within the margins of a reasonable readable doctoral thesis. Moreover, *diplomatic design* of NRN is a research objective where the quantity of relevant impact factors is high and the number of available cases is low. Social research on such constellations has *generally* a relatively strong leaning towards the “qualitative research paradigm” given that, in practical research, scholars are confronted with numerous methodic challenges – such as complex causal relations, over-determination of the independent variable, equi-finality or multi-finality – which are particularly difficult to handle with quantitative research designs. In these situations, an in-depth and triangulated analysis of historic process and events based on multi-sourced data acquisition is more reliable.

Least Likely Case Selection & the “Double Hard Case”: While single case studies allow detailed studies of complex phenomena, their results are neither generalizable nor representative. However, all those who would have preferred to gain broader insights into the understudied phenomenon of NRN and the performance of *diplomatic design* beyond the American-Libyan negotiations must not despair. There is at least a little remedy to the lacking representative. Our choice for the Libyan NRN was not taken at random. Rather, it is the outcome of a deliberated “least-likely case selection”. The American-Libyan negotiations on the Qaddafi regime’s nuclear weapons program

represent the “hard case” among the 14 historic examples of NRN. Given the relatively challenging “negotiation environment” that both sides faced, the Libyan NRN was a case where diplomatic design had *a priori* relatively little chance to lead to successful *nuclear reversal*. The conditions for an effective and fruitful bargaining process were relatively low in comparison to all other examples of NRN.

The “least likely case selection” has two central advantages: First, we chose to apply this approach because it makes our research project safe against accusation of “confirmative research design” where those examples are chosen that allow the most straightforward validation of the central hypothesis – a very common methodic problem in case study approaches (e.g. Leuffen 2007). Second, among the different procedures one could possibly apply, the “least-likely approach” represents the concept that – *ceteris paribus* – produces results with the highest relevance beyond the studied “hard case”. As we have said above, the results of single case studies are never representative or generalizable. But the results achieved by studying a “hard case” are – in comparison to non-hard case studies – assumed to have higher relevance beyond the specific settings where these findings were revealed. Factors that were found to exert impacts under particular challenging conditions of the “hard case” are generally expected to yield even better results in more favorable settings. Consequentially, in the literature, the “hard case” approach is occasionally labeled as the “Sinatra inference” – referring to Frank Sinatra’s famous song “New York, New York” and the prominent verse “If I can make it there, I’m gonna make it everywhere” (Levy 2002; Leuffen 2007: 210). Applied to our research project, the Libyan “hard case” encourages the assumption that diplomatic design elements that were found to have a high fit-performance would – in all probability – work in other bargaining dynamics even more effectively and efficiently.

Moreover, we dare to claim that in our PhD project, the least-likely logic goes beyond the U.S.-Libyan negotiations. As we have said above, NRN represent a relatively challenging type of international negotiations where the relationship between the involved players is often tense and antagonistic. While the diplomatic process on the Qaddafi regime’s nuclear weapons program represents the “hard case” among the different NRN examples, NRN is likely to represent a “hard case” for a series of less difficult and conflict-laden bargaining dynamics in other fields of international security policy. Thus, the Libyan NRN signifies in essence a “double hard case”. Although we could only speculate about the *exact* scope of the “double hard case logic”, we assume that the lessons we draw about well-fitting design elements from the Libyan NRN have at least some relevance beyond the nuclear policy field *in general*.

Results & Findings: Turning to the results of our PhD project, it becomes clear that our innovative multi-layered research design is not merely “academic shadow-boxing” but has considerable explanatory power. The painstaking development of the analytical concepts and (meta)theoretical positions was worth the effort. We were able to provide a complete and comprehensive response to our overarching research question and revealed numerous new and counterintuitive findings about the U.S.-Libyan negotiation

dynamic. In the end it is not an exaggeration when we say that we unearthed a new narrative of Libya's *nuclear reversal*.

Above we have explained that our overarching research question is determined by the *policy paradigm* and therefore requires both a "backward-looking analysis" as well as "forward-looking prescription". Consequentially, we present the summary of our findings likewise along these lines.

The central finding of the ***backward-looking analysis*** was that – despite the relatively challenging and difficult circumstance – the Qaddafi regime's nuclear reversal was "won" by diplomacy. The overall performance of *diplomatic design* is the most important explanation for Tripoli's decision to abandon its WMD programs. Alternative explanations – non-diplomatic interventions or structural factors – played a certain role at some point in the 23 years of the American-Libyan diplomatic struggle (in particular, ideational and liberalist explanations). However, when taken in isolation, none of these rival factors could properly explain Libya's disarmament. It speaks volumes in favor of *diplomatic design* as the major explanation that we counted in the American-Libyan negotiation process in totality 20 individual design elements but only 8 alternative impact factors (five structural factors and three non-diplomatic interventions) (ch. 6.1.1.1). The case of the Libyan NRN is therefore nourishing our general philosophical assumption that negotiations could succeed even under adverse circumstances – if they were designed well.

However, despite its convincing overall performance, the impact of *diplomatic design* and its individual elements was relatively diverse. In the diplomatic struggle between Washington and Tripoli, we encounter a very distinct "variety of (mis)fit" (ch. 6.1.1.2).

While some categories of design elements – such as confidence building measures – achieved a relatively successful "fit performance", other diplomatic tools – such as coercive instruments or design elements providing positive inducement and rewards – had at best only a limited impact and were at some points even counterproductive. And process related design elements (such as quiet diplomacy or confidential communication channels, see ch. 6.1.2.1) were even described as "hidden champions" in the effort to resolve diplomatic struggles. These factors had a relatively high "fit performance" but received in the past relatively little attention from policy makers and IR scholars.

Apart from their actual contribution to the problem resolution in the Libyan NRN, design elements varied also with regard to the causal pathways. We encountered, for example, *multiple (mis)matching* design elements which positively or negatively shaped the American-Libyan bargaining process on several occasions (ch. 5.3.2.2). *Ambiguous (mis)matches* instead were diplomatic impact factors which had opposite implications during the different negotiation phases or regarding the negotiating parties. Another distinct causal pattern we revealed were the so-called "evergreen matches" – design elements that have relatively stable positive implications over time and contributed to

the resolution of negotiation problems not just in one but across several phases of the diplomatic process (ch. 5.3.2.2).

Moreover, the performance of *diplomatic design* was also diverse with regard to the two problem dimensions we identified to be central for the analysis of stalemates in diplomatic struggles – the *substantial* and *procedural negotiation problem*. While the *procedural negotiation problems* Washington and Tripoli faced were relatively convincingly resolved by the diplomatic tools, they achieved only unsatisfactory results with regard to the *substantial negotiation problem*. Starting from a relatively hostile and antagonistic situation in the late 1980s, the United States and the Qaddafi regime managed to overcome, *peu à peu*, the numerous procedural problems. With the help of game theory, we have described this incremental movement from a malign constellation in the late 1980s to a relatively benign situation in the mid-2000 as the passage through a five-stage cascade of *social traps* (*deadlock game* (1987-1990), *imposed deadlock game* (1990-2003), first *alibi game* (March - December 2003), second *alibi game* (December 2003), *biased stag hunt game* (since January 2004). On the *substantial problem dimension* – which we analyzed with the help of the *public bad approach* – the performance of diplomatic design elements, however, remained limited and incomplete. While the infrastructure of the Libyan nuclear weapons program was swiftly dismantled in 2004 after the United States and the Qaddafi regime had achieved a major breakthrough in their diplomatic engagement in December 2003, other elements of the *substantial problem dimension* remained unresolved – for example, the Libyan strategic missiles program. As a consequence, the “WMD issue” remained a continuing factor in the slowly improving American-Libyan ties until the Muammar al-Qaddafi and his *entourage* was toppled in 2011 and lead occasionally to veritable crises and set-backs (e.g. halted removal of highly enriched uranium (HEU) or failure to destroy all Libyan chemical weapons (ch. 5.3.5)).

Certainly, the dissimilar resolution of the *substantial* and the *procedural negotiation problems* does not belittle the fact that Libya was “won” by diplomacy. However, it is still an annoying finding for all those practitioners and academics – including ourselves – who are implicitly or explicitly inspired by the assumption that bargaining and diplomacy is in essence the “engine room” of today’s inter- and transnational affairs capable of providing solutions for all different kinds of problems and challenges. After all, this finding nourishes traditional suspicions against negotiation and bargaining and is fueling the argument that diplomacy is – in comparison to non-diplomatic interventions (such as military force) – more likely to fail when asked to handle “real global issues” and provide solutions beyond procedural hurdles.

Another surprising shortcoming of *diplomatic design* revealed in the Libyan NRN was the varying “fit performance” with the regard to the three different types of *social traps* which build an important part of our *fit taxonomy*, and lie at the very heart of intractable bargaining dynamics (i.e. the *distrust*, the *injustice*, and the *colliding interest trap*). While the diplomatic tools applied in the 23 years of the American-Libyan negotiation process

were found to have a relatively high “fit performance” in terms of overcoming distrust and suspicion between the conflict parties, they were remarkably weak in resolving states of unjust and unequal distributions of gains and losses between Washington and Tripoli. By and large, one can say that (in)justice was not on the agenda in the American-Libyan bargaining dynamic. Even more surprising was the finding that diplomacy is also weak in resolving the *colliding interest trap*. That is remarkable given that we encountered in the struggle on the Qaddafi regime’s nuclear weapons programs numerous diplomatic tools aiming to contribute to the resolution of interest conflicts between Libya and the United States. Moreover, while the “(in)justice problem” of trans- and international negotiations was widely discussed among IR scholars in recent years (e.g. Albin 2009; Albin & Druckman 2014; Müller & Druckman 2014), we found no reference in the IR literature that bargaining dynamics would be weak in resolving interest conflicts. On the contrary, the idea of the *colliding interest trap* and the chance to resolve by diplomatic interventions is rather situated at the very heart of negotiation research. Again, this finding does not change the fact that the Libyan NRN was a “diplomatic success story”. But it is adding to the overall diagnosis that the performance of diplomacy was, in the Libyan hard case, very amorphous as soon as we dig deeper into the causation of the individual design elements.

Finally, the performance of *diplomatic design* was also varying with regard to negotiation parties. Libya’s inactivity was, in that regard, particularly remarkable. Apart from a single instrument (i.e. Tripoli’s failed charm offensive in the late 1980s) and the series of back-door initiatives Libya launched through various intermediaries starting by the early 1990s, we saw no independent diplomatic efforts by the Qaddafi regime to shape and influence the negotiation dynamic. Instead, Libya showed a reactive and passive behavioral pattern. Almost all of Tripoli’s bargaining activities took place within the margins of formats, actions, and initiatives where the United States was involved in equal terms or which had been even initiated by Washington in the first place. The Qaddafi regime’s strategic lethargy is in particular astonishing given that it stood in stark contrast to the adventurous and ambitious activities the Qaddafi regime showed in other fields of its foreign policy.

Apart from “backward-looking analysis”, the “**forward-looking prescription**” is likewise essential to respond to the central research question of our PhD project. As we have explained above, the “forward-looking prescription” represents the second essential research orientation that is mandatory for the policy paradigm as we understand it.

The prescriptions of successful problem resolution are obviously difficult to formulate if we do not have a particular *atomic renegade state* in mind (such as North Korea). How to design well-fitting strategy to reverse WMD programs by diplomacy is, in essence, an empirical question that has to be subjected to individual cases. After all, it is one of the central assumptions of the fit approach that there are no “blue print” or “one size fits all solutions” to real-world problems. Thus, the most general answer we could give to the question “how to design well-fitting NRN” is therefore methodic in nature. IR scholars and

foreign policy makers who face nuclear proliferation crises and search to resolve it by diplomacy should (1) take the general *fit taxonomy* we developed and apply it in prescriptive mode to the given strategic constellation, (2) with its help, identify the “optimal problem solution”, (3) consider on that basis the available diplomatic tools – including unconventional measures – which are likely to fit well to the ascertained problem and (4) compile them into a coherent negotiation strategy.

For all those readers who think that our response to the forward-looking part of our research question is a little feeble, we have run a prescriptive “thought experiment” in the conclusion of our PhD based on our analysis of the Libyan NRN (ch. 6.1.2) in order to show the “forward looking”, policy oriented capacity of our findings. We have asked ourselves: *In light of the findings we achieved in our PhD project, what could Libya and the United States have done differently in order to improve the negotiation outcome, if they have had the chance to rerun the bargaining dynamic by systematically applying the fit approach?*

Certainly, elaborating this “thought experiment” in length and detail would necessitate an extra research project. However, in the conclusion chapter, we will at least cursorily outline five examples of critical aspects that could have led to a better negotiation outcome – if Tripoli and Washington had been aware of the insights we disclosed and given that they had the willingness to act accordingly. These five strategic leverages that would have allowed an even more successful NRN on the Qaddafi regime’s nuclear weapons program are the following recommendations:

- (1) Use “hidden champion” design elements (e.g. process related diplomatic design elements).
- (2) Take systematic advantage of “evergreen” and “multiple fitting” diplomatic tools.
- (3) Give special credit to the design of agreements.
- (4) Tap the “dormant resources” of negotiation dynamics.
- (5) Unleash the impact of coercive diplomacy (such as economic sanctions) and positive inducement by thinking both design elements in terms of the “shotgun” and the “pre-modern cannon analogy”.⁸

Since the Libyan NRN in essence signifies a “double hard case”, there is a good chance that these five “lessons learned” would also improve the outcome of negotiation dynamics in other fields of international security policy.

⁸ For detailed discussion of these leverages see ch. 6.1.2

1.2 The Thrilling Moment: The Logic of Wisdom (LoW)

The different results we achieved within our PhD project are new and intriguing. They reveal groundbreaking insights about NRN and the performance of its *diplomatic design*. However, returning to our parable of rock n' roll, we have to admit that these findings remain within the margin of negotiation research. They do not push the border of this particular "style". All the pioneering results we achieved represent in essence "within-style-innovation". Be it the *diplomatic design*, the *problem of fit*, Enlightened Rationalism, or the *public bad approach*. All these concepts signify selective adaptation from analytical schemes stemming originally from neighboring (sub-)disciplines.

However, while the large majority of our research followed the "more of the same attitude", we also encountered a "thrilling moment" in this PhD project. Without having searched for it, we unintentionally discovered a new mode of strategic action and decision making: the logic of wisdom (LoW, or the *wise strategy*).

In the common sense view, *wisdom* is primarily perceived as a static stock of knowledge, a personal competence, or even a virtue. We however claim – based on the discovery we made in the Libyan NRN – that *wisdom* is first and foremost a behavioral pattern. What we describe as the LoW is not reserved to elderly, knowledgeable, experienced, and charismatic personalities. It is not esoteric *hermeticism* or a secrete science. Rather, LoW signifies a purposive and strategically applicable approach of decision-making and action. It is a systematic process, which is scientifically explainable and understandable. It is a rational strategy relevant for ordinary people – such as foreign policy makers.

Residing in the realm of rational choice, LoW is clearly distinct from ideational or constructivist approaches of social change. However, LoW also differs from the logic of conventional rational strategy. In its general reading, the conventional rational strategy is understood as "the art or science of shaping means so as to promote ends in any field of conflict" (Bull 1968: 593). LoW represents exactly the opposite. What was unintentionally discovered in our PhD project is the idea of a "strategic self-manipulation" of one's own desires. LoW represents the rare but influential act where actors deliberately adapt their ends (E) to the available means (M) and the given strategic context (S) (i.e. the trans- or international problem in a given situation). In essence, LoW is a phenomenon most of us might have already experienced at some point in our professional careers or in private lives. It is in many respects synonymous with the painful but liberating decision to let go of cherished but increasingly unrealistic goals for the sake of regaining new opportunities. If ordinary people apply this strategy, why should state actors not do the same?

LoW is the *research desiderate* of our PhD project. It is not the finding of our analysis in the narrow sense of the meaning since LoW was neither part of our research question nor have we actively studied it. It is rather an interesting question we stumbled upon. What

we believe to have discovered *en passant*, is in essence a new strategic mode that is rare but highly relevant since it is assumed to apply particularly to those situations where power differences are prominent, where foreign policy challenges are high, or foreign policy makers are impelled to take decisions and actions under high time pressure.

At the moment, LoW is nothing more than an intriguing hypothesis that is urgently demanding further research. But given that we found evidence for this phenomenon on several occasions in the Libyan NRN, there is solid ground to assume that at least some of the great success stories and some of the big failures we saw in the general history of foreign policy are the product of a proper or a false application of “wise strategy”.

Although we find fragments of LoW in recent IR studies and in the writings of historic intellectuals seen as the founding fathers of modern strategic studies (see ch. 6.2), LoW has never been studied before. It is a completely new academic concept. In that sense, LoW has all what is needed to qualify for a real scientific “discovery”. It goes beyond the conventional innovation by translation or interpretation. Provided that future research will show that this phenomenon has relevance beyond the Libyan NRN, the “wise strategy” is likely to push the border of the discipline at least in the specific field of foreign policy and strategic studies. After IR scholars have debated the role of *hard*, *soft* and *smart power* for the last two decades (Nye 2011), the time has come to think about “wise power”.

1.3 Plan of the PhD

Before we get started, we would like to make a final remark. While appearing as a banal platitude at first sight, it is nevertheless important to bear in mind that this is a doctoral thesis and not a book proposal. This distinction is essential for an understanding of how we have organized our study.

Many PhD candidates endeavor to write doctoral theses that are at least close in structure and logical for a future book proposal. Having one’s eye on what editors and publishers like to read gives priority to a single, attention-drawing argument, a brief and concise theory chapter, mainly uncontroversial methods, and straightforward testing of hypotheses preferably on a reasonable broad empirical basis comprising three or more cases. However, we have thought our PhD project more in terms as a proof of “analytical mastery” and not as a future book proposal. These days, doctoral theses (and maybe *Habilitationen*) are presumably one of the few genres in academic literature that allow the freedom to dig deep into (meta)theoretical considerations, apply unconventional methods and research design, and give new and untested analytical templates a trial. We wanted to take advantage of it. If we had written our PhD project in view of a future book proposal, we would have boiled down the theory section (namely the development of the

fit taxonomy), we would have been less innovative with regard to the different new approaches we introduced (such the *fit approach* or the *public bad approach*), and we would have studied more historic cases less in-depth in order to give a broader overview on the understudied phenomenon of NRN.⁹

With this general structure in mind, the plan of our PhD is as follows: We will at first introduce in detail the different analytical concepts we have presented in the introduction. Apart from the *policy paradigm* (ch. 2.1), we will explain the understudied phenomena of *nuclear reversal* and NRN (ch. 2.2.1 and 2.2.2), *diplomatic design* (ch. 2.3), and the *fit approach* (ch. 2.4). In addition, we will elaborate on Scientific Realism in a meta-theoretical section and will show why the “logic of consequence” and not the “logic of persuasion” or the “logic of appropriateness” is the preferred action-theoretical approach of our analysis (ch. 2.5.1). Based on a critical review of Orthodox Rationalism, we will then introduce the reform project of Enlightened Rationalism explaining in detail several of its characteristic features that we deem as particularly relevant for our PhD project – such as a revised concept of rational motivation, the chances and difficulties of surveying endogenic motivations, and dynamic sequencing (ch. 2.5.2 and ch. 2.5.3). Finally, we turn to the general epistemological question of how Scientific Realists draw conclusions and introduce the so-called “Inference to the Best Explanation” (IBE) (ch. 2.5.4). The major focus of this last section is to propose ways and means of how this epistemological approach could be applied in practical IR research – an aspect that was thus far neglected by the literature (ch. 2.5.4.2).

The following chapter is marked by the *fit taxonomy*. In the first part, we introduce the *fit taxonomy* and its different components highlighting the structure of two problem dimensions, three social traps, and two rationalist analytical approaches (ch. 3.1). With the help of two fictitious examples (the problem of fare-dodging and the famous metaphor of the Prisoner’s Dilemma (PD)), we will show how *fit taxonomies* are operating and how they could be used to identify the “optimal problem solution” (ch. 3.2). Finally, we will describe how the *fit taxonomy* was developed based on a systematic IBE selection process (ch. 3.3).

In the fourth chapter, we elaborate on the applied methods and the case selection in detail. Apart from briefly introducing the way we employ the “qualitative research paradigm” (ch. 4.1), we will focus in particular on the mapping of endogenic motivations which we realize by the “interest profile approach” (ch. 4.2.1) and the concept of “operational codes” (ch. 4.2.2). This section is followed by the introduction of the so-called “re-enactment method” – a scheme we have developed in order to allow a

⁹ But, despite being no book proposal, this doctoral thesis shall nevertheless not disgrace the norm of readability and the “loveliness” of a clear line of argumentation. In order to keep our PhD project within the margins of a reasonable number of pages and not running the risk of losing out in terms of innovation and (meta)theoretical conceptual depth, we decided to radically shorten (!) our empirical analysis. We chose to discard two NRN examples we have likewise analyzed (the negotiations on the successfully dismantled South Korean nuclear weapons program (1975-1976) and the failed bargaining efforts on the Indian nuclear capacity (1990-2001)) and instead concentrated on the Libyan “hard case” as the most important and intriguing example of *nuclear reversal*.

systematic and structured translation of the surveyed actor's motivations in concrete and action-guiding strategic constellations (ch. 4.3). Finally, we will apply the "least-likely case selection" and show how the American-Libyan negotiations were identified among the 14 historic examples of NRN (ch. 4.4).

In the fifth chapter, we will study the Libyan NRN. Following the logic "interpretative validation" – an important quality criterion in qualitative research – we will at first give the reader an overview on the evolution of the negotiation process and the Qaddafi regime's nuclear weapons program (ch. 5.1). In the following section, we apply our *fit taxonomy* to the Libyan case (ch. 5.2). Based on the *public bad approach* and the concept of *dilemma games*, we will identify a "nested multitier map" of the problematic bargaining constellations Tripoli and the United States faced in their effort to reverse Libya's nuclear weapons program by diplomacy. With help of the *fit taxonomy*, we are able to study the "fit performance" of the numerous diplomatic design elements applied during American-Libyan negotiation process in detail (ch. 5.3).

In the final chapter – the conclusion of our PhD project – we will summarize the revealed findings and respond to our overarching research question (ch. 6.1). The most interesting part of the conclusion chapter is, however, our elaboration on the "thrilling moment" – the discovery of the "logic of wisdom" (ch. 6.2).

2. THE SETUP CHAPTER – KEY CONCEPTS AND APPROACHES

In the introduction we have touched upon a series of analytical approaches and (meta)theoretical concepts: the *policy paradigm* (ch. 2.1), *nuclear reversal* and NRN (ch. 2.2), *diplomatic design* (ch. 2.3), the *problem of fit* and *fit taxonomies* (ch. 2.4), as well as on Enlightened Rationalism and the Inference to the Best Explanation (IBE) (ch. 2.5). All these approaches are new and innovative in the sense of the “more of the same attitude.” None of them was thus far systematically discussed in negotiation research. In this chapter we will elaborate in detail on these concepts.

2.1 The Policy Paradigm

There is hardly any research project in IR that would not claim to be relevant for policy makers. As Gunther Hellmann has pointed out, almost all IR scholars emphasize that their work has important implications for actual decision makers (Hellmann 2006a: 19). However, the *policy paradigm* how we understand it goes beyond these ubiquitous claims for relevance.

Of course, there is already a considerable stock of literature discussing policy-oriented research in IR (e.g., George 1994; George & Smoke 1974: 616-642; Hellmann 2006b; Leggold & Nincic 2001; Nau 2008; Nye 2009a; Perthes 2007). In recent years the debate rotated primarily around the questions: Is there a gap between academia and practical foreign policy or not? Is it widening or not? And how can we bridge it (e.g., Jentleson 2002; Martinsen & Rehfeld 2006; Nye 2008a; Walt 2005)? However, what has remained underdeveloped and unprecise is a clear understanding of the actual mission of the *policy paradigm*, what it meant for the role of the individual researchers, and how it differs from other general paradigms in IR.

As we have already said in the introduction chapter (ch. 1.1), the central mission of the *policy paradigm* is, in our view, that IR scholars study what policy makers *should know* about those phenomena in world politics they *want to know about*. On the one hand, this postulate expresses the conviction that practitioners of international and transnational politics – be it state actors or non-governmental players – need IR scholars and their advice. Decision makers are often “in the dark” about important problems and challenges. Foreign policy is improving if based on sophisticated IR research. But, on the other hand, the *policy paradigm* is not only encouraging for a self-confident engagement

with policy makers. It is also calling for a realistic self-restraint. It signifies a plea for focusing IR research on those aspects that are important for practical foreign policy and for studying those questions that haunt governmental and non-governmental decision makers in transnational and international affairs.¹⁰

But the symbiotic relationship between academia and politics which lies at the very heart of the *policy paradigm* shall not be confused with an appeal to turn IR into a “service industry” for decision makers. It is not demanding for uncritical “court jesters” (Perthes 2007), hectic adaption of scientific research to the frequency of the day-to-day business of foreign affairs, or efforts to boil down each and every research result to formats that are immediately usable for policy makers. Certainly, the *policy paradigm* is opposed to the “ivory tower”, to “academic escapism”, “meta-theoretical esoteric”, and “scholastic word games” (e.g., Hacke 2003: 364; Hellmann 2006a: 15; Wallace 1996: 305). But as long as there are bridges and dialogue, the *policy paradigm* – as we understand it – is not against the gap between academia and the policy. On the contrary, this gap has its benefits and even signifies one of the major cultural achievements of modern times. The gap separates two spheres which follow two distinct logics. It bestows the academic world with calm and with a shelter that allows the development of new ideas and concepts, and avoids that scholars fall easily prey to seductive political manipulation (Behrens 2010: 104; Martinsen & Rehfeld 2006: 47; Offe 2008: 72-3). Moreover, given that IR (at least in Germany) was for a long time in many respects a “political surface science” (*politische Oberflächenwissenschaft*; Hellman 1994; see also: Czempiel 1986) with little theoretical and methodic depth, it is only logical that the gap between academia and practical policy has widened in the last two decades (Kruzel 1994; Leggold & Nincic 2001: 3; Newsom 1995-6; Nye 2009a).¹¹ Rather, it appears that the widening gap was a necessary “evolutionary consequence” of the welcoming professionalization process the discipline underwent during the 1990s and 2000s.

Consequentially, the *policy paradigm* is not opposed to theory development or abstract philosophical debates as long as they signify necessary academic practice for the resolution of empirical puzzles and not self-referential customs. What is essential for the *policy paradigm* is not immediate usability but a general *transferability* of IR research. That scientific results are instantly applicable is in general more illusion than reality. Even the outputs of disciplines which are believed to have a high practicability – such as engineering, business, or medicine – often have no direct usability and normally run through a “translation process” until they reach “marketability.” Against the background that the foreign policy machinery is characterized by decision making under high time pressure, constant shifting between different crises hotspots, and an “oral culture” (in

¹⁰ Of course, IR scholars could also focus on aspects policy makers – from the governmental or from the non-governmental side – *do not want to know about*. In such a scenario research is used to set the agenda for urgent problems in world politics. However, it is illusory to assume that IR scholars, who attempt to “speak truth to power” (Nau 2008), would achieve any meaningful impact in constellations where policy makers tend to ignore their message. In such a situation of “public deafness,” scholars could only make themselves hear by leaving academia and becoming themselves political players – performing a metamorphosis from “academics” to “intellectuals” (*j'accuse*). Thus, highlighting what policy makers *should know* about phenomena in world politics *they do not want to know about* is not part of a genuine research paradigm anymore but a political effort.

¹¹ According to a survey conducted in 2011 (Teaching and Research in International Politics (TRIPS)), 85 % of the interviewed U.S. IR scholars claim that there is a gap between the academia world and practical politics and that it was growing in size (Maliniak et al. 2012: 66).

contrast to the written culture in the academia world; Nye 2008c: 654), the direct usability of IR research is in particular unlikely (George 1993).

Apart from the effort to study what policy makers *should know* about those phenomena they *want to know about*, another central element of the *policy paradigm* is, in our view, the simultaneousness between “backward-looking analysis” and “forward-looking prescription.” The *policy paradigm* is about studying past or present structures, events, process, and actors in world politics (“backward-looking analysis”) and is developing on that basis analytical concepts and approaches that allow to improve strategic decision making and actions under given circumstances (“forward-looking analysis”). The parallelism of these two orientations is a distinct feature of the *policy paradigm* that makes this approach an academic concept through and through. The *policy paradigm* is about methods, research in line with strict scientific quality criteria, and – most important – it is about theory.¹²

The central role of theory must come as a surprise for all those scholars who deliberately write un-theoretical and method-free studies in non-abstract language (e.g., think tank papers, op-eds, policy brief, etc.) in order to increase the receptiveness of their research by foreign policy leaders. But in light of what we defined as the *policy paradigm*, one could say that these scholars are wrong. They misleadingly water-down crucial substance of IR research in exchange for relatively meager tactical communication gains. Consequentially, many of those scholars who think their studies would be very relevant for practical foreign affairs miss the point.

The history of the discipline shows that IR research was most relevant to foreign policy leaders and substantially influenced the conduct of foreign affairs when theoretical concepts, which had both backward-looking descriptive and forward-looking prescriptive implications, were put at central stage. The “success stories” of IR research which were widely adopted by policy makers in the 20th century – such as deterrence theory, balance of power, research on arms control regimes, or the theory of democratic peace – were all following this playbook (Daase 2010; George 1993; Nye 2008c: 650-1).¹³ Moreover, foreign policy leaders appear to have a “longing” for IR theory (Mearsheimer & Walt 2013; Silver 2012: 96-7). As Joseph Nye has put it “in practice, theory is unavoidable” (Nye 2008c: 648). And, as was shown by a recent survey, the aspect of IR research that is most relevant to senior U.S. foreign policy makers is – theory. The authors, Paul Avey and Michael Desch, conclude: “Policymakers appear to want mid-range theory (...) They seem not so much to be looking for direct policy advice as for background knowledge to help them put particular events into a more general context (...) [T]he thing policymakers most want from scholars are frameworks for making sense of the world they have to operate in” (Avey & Desch 2014: 244).

¹² Against that background it is only logical that Alexander George explicitly used the term “policy theory” to describe what we understand to be the *policy paradigm* (George & Smoke 1974: 616; George 1993).

¹³ Alexander George has further specified three stocks of theoretical IR knowledge that are most relevant to policy makers: “abstract conceptual models of strategies”, “generic knowledge of strategies”, and “actor-specific behavioral models” (George 1993: 115-134).

Consequentially, the non-theoretical and method-free descriptive studies provided by think tanks and alleged policy-oriented scholars often “talk past” their designated audience. Practitioners of foreign policy often have a very detailed understanding about the scope and nature of the challenges they face. In particular, are they very well aware of the bureaucratic dimension and the various fault lines of (inter-) departmental “turf wars” that are attached to nearly every issue in international affairs – an aspect that is in many cases not visible for external observers. Moreover, in terms of topicality and degree of detail, IR scholars could, in most fields, not stand up to journalists and the intelligence community (George 1993: 132). Thus, without theories and methods policy-oriented IR is abandoning its “unique selling point.”

Moreover, non-theoretical and method-free policy-oriented IR research is potentially superfluous and is, in addition, sowed with numerous analytical pitfalls. For example, scholars who follow that path are particularly endangered to get trapped into incorrect historic analogies (Neustad & May 1986), have – in order to attain more attention by the media and policy makers – often an inclination for naysaying and alarmism (Schneckener 2006), tend to draw “oversimplified and/or irrelevant generalization to their present crisis or problem” (George & Smoke 1974: 625), and often apply without knowing inappropriate, incomplete, and contradicting theories (Daase 2006: 205-7). After all, even scholars and think tankers who indulge the attitude of theory-free policy research do use theories and conceptual frameworks “whether consciously or not” (George 1993: xviii). As John Maynard Keynes once said, “practical men [sic], who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist” (cited by Nau 2008: 635).

2.2 Nuclear Weapons, Nuclear Reversal, and Nuclear Reversal Negotiation

Nuclear weapons are an “evergreen issue” in international affairs. It emerged in the course of the Second World War when Allied powers were racing against Nazi Germany in an effort to acquire an atomic bomb. Since then, the nuclear issue has lost nothing of its actuality. It continues to occupy the minds of foreign policy leaders and international security experts around the world. Considerable parts of our strategic thinking today are still rotating around the question of nuclear weapons and their proliferation.¹⁴

The “evergreen issue” of nuclear weapons has many facets. In the last two decades policy makers puzzled, for example, about the nature of nuclear deterrence, the state of arms control regimes (e.g., Cirincione et.al. 2005; Müller 2009), the danger of nuclear or radiological terrorism (e.g., Bunn & Wier 2005; Neuneck 2002), or the prospects of global nuclear disarmament – also known as “global zero” – which is currently closely intertwined with the so-called “humanitarian approach” (e.g., Sauer & Pretorius 2014). In the following section we will show however that *nuclear reversal negotiations* (NRN) are the most relevant aspect of the nuclear issue. This type of international bargaining not only has a high relevance for the practitioners of foreign policy, NRN signifies in addition a relatively frequent, puzzling, and understudied phenomena in international security policy.

However, before we move on to NRN, we have to say some words about *nuclear reversal* – the broader phenomenon NRN are part of. Without a clear picture on *nuclear reversal*, our understanding of NRN will remain limited and incomplete.

2.2.1 Nuclear Reversal – Frequent, Understudied, and Puzzling

Ariel Levite was one of the first scholars who studied *nuclear reversal*. According to him, *nuclear reversal* signifies a process “in which states embark on a path leading to nuclear weapons acquisition but subsequently reverse course” (Levite 2003: 61).¹⁵

The nuclear ambitions of those states that strive for an atomic bomb vary widely and are often relatively diverse (Table 1). In the history of nuclear proliferation, we encounter, for

¹⁴ While the vast majority of experts think that the spread of nuclear weapons is a global problem, there is a small group of analysts who draw an optimistic picture of nuclear proliferation. These “proliferation optimists,” of whom Kenneth Waltz is the most prominent protagonist, argue by referring to the historic lessons of the Cold War that the spread of atomic bombs has positive implications for international security. They postulate the assumption that nuclear deterrence would bring strategic stability to world regions which are today plagued by wars and violent conflicts (for the debate between the “proliferation pessimist” and “proliferation optimists” see: Sagan & Waltz 2003).

¹⁵ Note that other scholars have used other expressions which coincide or overlap with the notion of “nuclear reversal” such as “deproliferation” (Müller & Schmidt 2010), “inhibition” (Gavin 2015), “nuclear forbearance” (Paul 2000), or “nuclear renunciation” (Potter 1995).

example, states actors that have embarked on this pathway only briefly and with great caution (e.g., Canada and Norway). Others have instead invested considerable resources and have pursued their objectives persistently (e.g., Libya or North Korea). And again others have “inherited” their nuclear weapons capacities when the chaotic demise of the Soviet Union turned them virtually overnight into nuclear weapons states (Ukraine, Belarus, and Kazakhstan).

Table 1: Cases of Nuclear Reversal

		NUCLEAR REVERSAL*							
		State	Nuclear Deliberation	Nuclear Pursuit	Nuclear possession	Nuclear Reversal	Reference (Selection)		
Post Cold War	NPT-era	Algeria (a) (b)	1983-1991	-	-	1994	e.g. Albright & Hinderstein (2001), Fitzpatrick (2008a)		
		Argentina (a)	1968-1990	-	-	early 1990s	e.g. Redick, Wrobel & Carasales (1995), Goldemberg (2006)		
		Belarus (a) (c)	1990-1994	-	-	1994	e.g. Potter (1995), Reiss (1995)		
		Brazil (a)	1966-1974	1975-1990	-	early 1990s	e.g. Carasales (1995), Redick (1998)		
		Chile (b)	late 1960s	-	-	early 1990s	e.g. Müller/Schmidt (2010)		
		Iraq	1970-1973	1974-1991	-	1991	e.g. Samore (1994), Solingen (2007)		
		Kazakhstan (a) (c)	1990-1994	-	-	1994	e.g. Potter (1995), Reiss (1995)		
		Libya (a)	1970	1970-2003	-	2003	e.g. Bowen (2006)		
		Nigeria (b)	late 1970s - early 1990s	-	-	approx 1991-1995	e.g. Adibe (1997)		
		Post Revolution Iran (a)	1984	1984 till 2015	-	2015	e.g. Fitzpatrick (2008b), Perthes (2008)		
		South Africa	1969-1973	1974-1977	1978-1991	1991	e.g. Burgess (2006), Liberman (2001), Villiers (1993)		
		Syria	1995	1996-2007	-	2007	e.g. Laipson (2004), Spector (2010),		
		Ukraine (a) (c)	1991-1992	1992-1994	-	1994	e.g. Martel (1998), Reiss (1995), Sokov (2010)		
		End of Cold War (November 1990)							
Cold War	Pre NPT-era	Australia	1956-1973	-	-	1973	e.g. Broinowski (2006), Hymans (2000), Walsh (1997)		
		Pre-Revolution Iran	1974-1979	-	-	1979	e.g. Fitzpatrick (2008b), Perthes (2008)		
		Romania (b)	late 1970s	1981 bis 1989	-	1989	e.g. Prosser (2010)		
		South Korea (a)	1969-1970 and again 1976-1982	1971-1975	-	1982	e.g. Hersman & Peters (2006), Pollack & Reiss (2004)		
		Spain (a) (b)	approx. between 1971 or 1975-1986	-	-	late 1980s	e.g. Vinas (1985)		
		Taiwan (a)	1967-1976 and again 1987-1988	1982-1988	-	1976 and again 1988	e.g. Mitchell (2004), Wang (2008), Harkavy (1981)		
		Yugoslavia	1949-1952 and again 1974-1982	1953-1963 and again 1982-1987	-	1963 and again 1987	e.g. Hymans (2011), Mukhatzhanova (2010), Potter (2000)		
		Non-Proliferation Treaty (NPT) enters into force (March 1970)							
		Canada	1945	-	-	late 1940s	e.g. Bratt (2002), Buckley (2000), Cleanwater (1998)		
		Egypt	1955-1962 and 1968-1970 and again 1980-1981	-	-	1962, 1970 and again 1981	e.g. Einhorn (2004), Rublee (2006), Walsh (2001)		
		Indonesia	1964-1967	-	-	1967	e.g. Cornejo (2000)		
		Italy	1955-1957	-	-	1957	e.g. Kelle (1996), Nuti (1993)		
		Japan	1941-1945	-	-	1945	e.g. Campbell & Sunohara (2004), Solingen (2007)		
		Nazi Germany	1939-1945	-	-	1945	e.g. Müller (2003), Schneider (2015)		
Norway	late 1940s -1962	-	-	1962	e.g. Forland (1997)				
Post War Japan	late 1960s-1970	-	-	1970	e.g. Campbell & Sunohara (2004), Solingen (2007)				
Sweden	1946-1970	-	-	1970	e.g. Agrell (1990), Cole (1997), Fehrm (1985)				
Switzerland	1945-1969	-	-	1969	e.g. Jasper (2013), Stüss-Lauterbach (1995), Falkenstein (1997)				
West Germany	1956 -1960	-	-	1960	e.g. Müller (2003), Schneider (2015)				

* This table builds upon previous research on “nuclear reversal”: Prosser (2011), Bleek (2010), Müller/Schmidt (2010), and Levite (2003)

(a) Cases where negotiations played an important role

(b) Under-studied cases. No comprehensive research has been conducted so far (vgl. Müller/Schmidt 2010)

(c) “Inheritance” (nuclear weapons and atomic programs on the territory inherited from former empire or occupation force) (Müller/Schmidt 2010: 158)

There are a number of states which were suspected of having pursued at least some nuclear efforts in the past but on which the information is still relatively dim and uncertain: Finland (Levite 2002/3), Greece (Levite 2002/3), Burman (Selth 2010), Venezuela (Noriega 2010), Turkey (Fuerth 2004; Varnum 2010), Saudi Arabia (al-Marashi 2010; Fitzpatrick 2008a; Lippman 2004), and the Netherlands (Levite 2002/3)

The most obvious way to categorize these different nuclear weapons programs is to systematize them according to their “maturity.” Following the concepts introduced by

Bleek (2010), Posser (2010), and Müller & Schmidt (2010), we distinguish three “stages of maturity” (Table 1):¹⁶

- (1) “Nuclear Deliberation”: In this *stage*, *atomic renegades* explore the possibility to start a nuclear weapons program. This phase is primarily marked by secret studies on the utility and feasibility of nuclear weapons acquisition.
- (2) “Nuclear Pursuit”: In that phase, state actors actually start to acquire nuclear weapons and take practical steps in that regard. Setting up and operating a nuclear program is the major characteristic of the “nuclear pursuit stage.” That includes concrete actions such as the constructing of facilities for the production of weapons-grade uranium or plutonium, the development of the necessary means of delivery for a future nuclear weapon (i.e., special aircrafts, ballistic missiles, or cruise missiles), and the testing of nuclear explosive devices.
- (3) “Nuclear Possession”: This phase signifies the final “stage of maturity” where state actors have eventually managed to cross the “nuclear threshold” and have acquired militarily deployable atomic weapons.¹⁷

Nuclear reversal is an interesting and relevant phenomenon in international security policy because it is frequent, understudied, and puzzling. Moreover, studying *nuclear reversal* gives rise to a new and more benign narrative of the nuclear policy field and is challenging the conventional perspective that describes the history of the atomic bomb primarily as an inexorable and accelerating pursuit for nuclear weapons.

Nuclear Reversal is Frequent: *Nuclear reversal* has occurred relatively often in the 71 years history of the atomic bomb. Of the 40 nuclear weapons programs that were started since the Second World War, 31 were reversed after a certain time (Table 1). On average, it took 15 years until a state decided to abandon its unconventional weapons program.¹⁸ *Nuclear reversal* is therefore far more frequent than continued proliferation. Compared to the 31 examples of *nuclear reversal*, there are “only” nine that have started *and* continued their quest for an atomic bomb (China, France, India, Israel, North Korea, Pakistan, Russia, the United Kingdom, and the United States, see Table 2).

¹⁶ With regard to the dates and periods of historic *nuclear reversal* cases, we would like to raise a point of caution (cf. Table 1). Coding nuclear (non)proliferation is a challenging task which involves a significant proportion of uncertainty. It is, for example, difficult to say when exactly a state has started “nuclear deliberation” and when it moved over to the stage of “nuclear pursuit.” Consequentially, the different evaluation projects (e.g., Bleek 2010; Posser 2011; Müller/Schmidt 2010; Levite 2003) showed variations in terms of timelines and also in the number of coded cases. Posser (2011), for example, had not taken Chile and Nigeria into account even though these states were – according to Müller & Schmidt (2010) – at least deliberating to start a nuclear weapons program. Bleek (2010) instead had not coded Canada – although the country played together with the UK and the USA an important role in the “Manhattan Project.” The data on *nuclear reversal* presented in table 1 is the effort to harmonize the different coding projects. In cases of inconsistencies, we conducted our own research in order to close gaps and resolve contradictions.

¹⁷ Note that there is a debate about the question of when exactly a state becomes a nuclear weapons state: see in particular Hymans 2010b.

¹⁸ Note that there are also cases of “swaying” nuclear proliferation. That is when a nuclear weapons program is suspended and restarted several times (see, e.g., Egypt, Taiwan, Yugoslavia, and South Korea, table 1).

Nuclear Reversal is Understudied: The literature on nuclear weapons is very much focused on the opposite trend of *nuclear reversal* – nuclear proliferation. What is primarily at the center of academic attention is the spread of nuclear weapons, as well as the proliferation of related technologies, materials, and know-how. The most prominent analytical approaches on nuclear weapons still circle about the question when, how, and why states cross the “nuclear threshold.”¹⁹ Although the number of studies on *nuclear reversal* have increased in recent years thanks to the work of several protagonists who have actively advocated for this research object (e.g., Levite 2003; Müller 2008; Paul 2000; Reiss 1995; Yager 1997), it still represents a phenomenon that is underappreciated by IR research.²⁰

However, even though *nuclear reversal* signifies a relatively young field of study, we still could distinguish roughly three generations of research. The “first generation” (mainly from late 1990s to the early 2000s) focused primarily on exploring and defining the general nature of this phenomenon (e.g., Campbell, Einhorn & Reiss 2004; Doyle 1997; Levite 2003; Reiss 1988; Reiss 1995, Schneier & Dowdy 1998). The “second generation” of research (mainly from the early 2000s to the late 2000s) started to study *nuclear reversal* more systematically. This phase was primarily marked by large-N studies that tried to reveal generalizable insights about trends and factors that affect the decision-making of *atomic renegade states* (e.g., Müller & Schmidt 2010; Prosser 2010).²¹ The “third generation” (mainly from the late 2000s onward) of which our PhD project is part of is studying specific explanation factors of *nuclear reversal*. This last generation is characterized by the fact that most of the studies do not exclusively focus on *nuclear reversal* but also take cases and aspects of nuclear proliferation into consideration – a feature that made the research more fruitful and in-depth but also more amorphous. Another characteristic of the “third generation” is the increasing importance of theoretical explanations. Following the scheme of general IR theories, we could distinguish in that context ideational, liberal, and neo-realist research projects on *nuclear reversal*.²²

Scholars who are associated with the *ideational approach* have studied nuclear decision making by looking upon the attitudes, identities, norms, and role concepts of state leaders (e.g., Chafetz et.al. 1996; Chafetz 1993; Hymans 2006; O’Reilly 2015; Schneider 2015). Maria Rost Rublee has, for example, analyzed how international nonproliferation

¹⁹ For an overview on the different approaches on nuclear proliferation, see: Hymans 2006b; Monteiro & Debs 2014; Ogilvie-White 1996; Sagan 2011; Thayer 1995.

²⁰ In that context, we should emphasize that studying *nuclear reversal* is not simply reading its opposite trend (i.e., nuclear proliferation) backwards. Although the approaches on nuclear proliferation provide valuable “food for thought” for the research on *nuclear reversal*, both types of nuclear decision making are following divergent logics. To put it simply: Trying to obtain something is different from abandoning something that one has already obtained.

²¹ In that context, we should also mention several quantitative studies that focused primarily on nuclear proliferation but revealed also fruitful insights about *nuclear reversal* (e.g., Bleek 2010; Jo & Garzke 2007; Singh & Way 2004).

²² Interestingly, the approach of *neo-liberal institutionalism* which played in IR in general a very important role is, apart from some exceptions, nearly inexistent as an explanation for *nuclear reversal* (see e.g., Hymans 2010: 26-7; Reiss 1995).

norms affected state actors' decision making in favor of nuclear restraint (Rublee 2009; see also: Müller, Fischer & Kötter 1994). Another ideational analysis was, for example, applied by Ursula Jasper, who resorted to a linguist-pragmatist approach and studied nuclear (non)proliferation as an intersubjective discourse of conflicting interpretations on armament and disarmament (Jasper 2013).²³

Other research projects have applied a *liberal template* and have focused on the domestic structures of state actors striving for nuclear weapons. Etel Solingen has, for example, studied whether and to which extent *nuclear reversal* is promoted by the rise of an "outward-looking" elite that is interested in free trade and economic reforms (Solingen 1994; Solingen 2007). Harald Müller and Andreas Schmidt have studied whether the change in states' domestic political system – namely the transformation from autocracy to democracy – is conducive in terms of nuclear disarmament (Müller & Schmidt 2010). Other scholars have instead analyzed how national crises of political legitimacy (Cho 2009) or struggles of different domestic bureaucratic actors affect *nuclear reversal* (Walsh 2001; Walsh 2006: 35-47).

Table 2: Official & Unofficial Nuclear Weapons States

	State	Nuclear Deliberation	Nuclear Pursuit	Nuclear Possession
Official NPT Nuclear Weapons States	China	-	1955-1963	1964
	France	1945-1953	1954-1959	1960
	Russia (UdSSR)	-	1945-1948	1949
	United Kingdom	-	1945-1951	1952
	United States	early 1940	1941-1945	1945
De Facto Nuclear Weapons States	India	1947-1971	1972-73	1974
	Israel	1948-1954	1955-1965	1966
	North Korea	1962	1963-2005	late 2000s
	Pakistan	-	1972-1986	1987

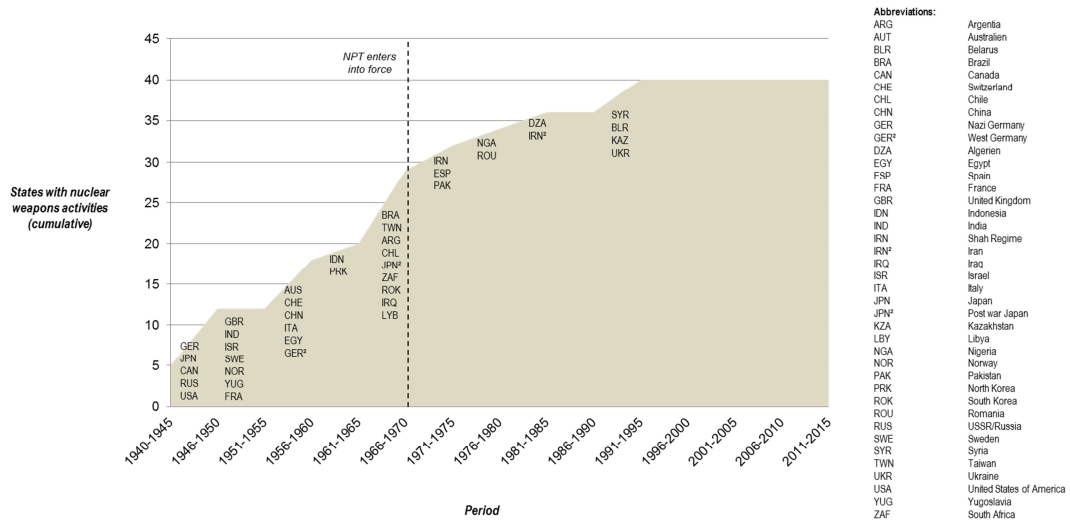
* The figure builds upon previous research on "nuclear reversal": Prosser (2010), Bleek (2010), Müller/Schmidt (2008), and Levite (2003)

While *neo-realism* is the "standard approach" for the opposite trend of *nuclear reversal* (i.e., the spread of nuclear weapons), we encounter in the literature also several neorealist concepts that explain nuclear disarmament by recurring to threat, power, or alliance relations. For example, some scholars have pointed out that *atomic renegade states* are likely to embark the pathway to *nuclear reversal*, if those external threats decline which once initiated the decision to start a nuclear weapons program (e.g., Costanzo 1998; Paul 2000). Another neo-realist explanation is based on strategic alliance and the quality of nuclear guarantees. Those scholars emphasize that guarantees by powerful nuclear allies (e.g., the United States) have a positive impact on nuclear decision making and could propel *atomic renegade states* into *nuclear reversal* (e.g., Betts 1993;

²³ In his single case study on the Indian nuclear weapons program, Itty Abraham has shown that the perception of nuclear weapons as a "natural insignia" of high-modern states is leading to nuclear proliferation. According to Abraham, state actors are ready to embark the pathway of *nuclear reversal* when they start to internalize "post-modern" values which render the quest for nuclear weapons into an "old-fashion fetish" (Abraham 1998, Abraham 2009).

Davis 1993; Reiss 2005). Other scholars have turned the conventional realist explanation for nuclear proliferation upside down. They claim that state actors chose nuclear reversal *because* of external threats. Running a nuclear program is risky, they say, and makes *atomic renegades* vulnerable for vigorous counter-proliferation measures by Western states (e.g., military intervention). *Nuclear reversal* is a viable option to avoid this risk, these authors say (e.g., Gerzhoy 2012).²⁴

Figure 1: Historic Trajectory of Newly Started Nuclear Weapons Programs



Nuclear Reversal is Puzzling: Situations where actors change accustomed behavioral patterns and take costly decisions to overcome path dependencies signify *in general* interesting research objects and promising academic riddles. The puzzling nature of *nuclear reversal*, however, goes beyond conventional “U-turning.” *Nuclear reversal* provides a new and more benign perspective onto the nuclear policy field. It challenges the dominating neo-realist research of nuclear proliferation which gave rise in the past decades to a pessimistic if not even alarmistic perception of the nuclear issue.²⁵ If we look through the neo-realist lens and assume that the international order is structured according to the principle of anarchy where actors rely on the strategy of self-help and do not indulge the hope to be rescued by the international community when facing severe threats, *nuclear reversal* is indeed puzzling. Why should state actors who live under these circumstances abandon their nuclear weapon programs and give away the chance to acquire the “absolute weapon” (Broodie et al. 1946) which would make them untouchable for potential external aggressors? Moreover, given that all permanent members of the UN Security Council are at the same time in possession of nuclear weapons, makes abandoning the quest for atomic bombs synonymous with turning down

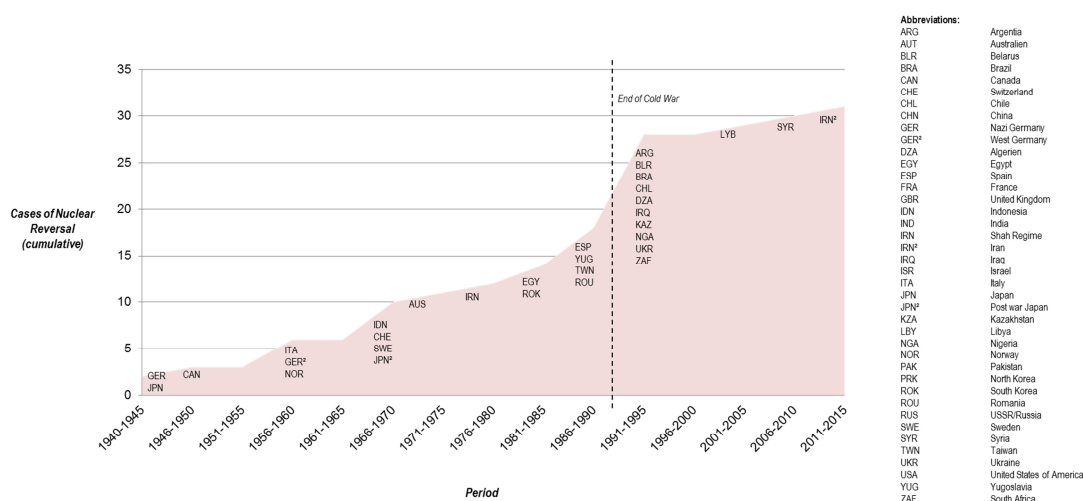
²⁴ Moreover, we could refer in context of neo-realist approaches also to the “high posture” assumption introduced by Enid Schoettel. According to Schoettel nuclear proliferation is unattractive for smaller aspirant states as long as the big powers have substantive nuclear weapon capacities. But if the big players disarm, the value of smaller arsenals is rising and so do the incentive to set up a nuclear weapons program (Schoettel 1979).

²⁵ Some authors have described the academic fixation on the spread of nuclear weapons as an “obsession” (Mueller 2009) or as a false and potentially harmful historic narrative (Pelopidas 2011). And, in the overview chapter of their recent compendium on nuclear proliferation, William Potter and Gaukhar Mukhatzhanova said that the “pendulum” in the research on nuclear weapons has in recent years “swung far in the direction of alarmism” (2010: 1).

the prospect of obtaining one of the most crucial insignias required to be regarded as a great power.

In addition, *nuclear reversal* is also puzzling for all those scholars who analyze the nuclear policy through the prism of the so-called “technological pull theory.” This approach, which was in particular prominent in the 1960s and 1970s, assumes that nuclear proliferation is triggered by scientific and technological progress. Nuclear arms races are regarded as a “natural” process that is kicked off as soon state actors have acquired the necessary ability to start nuclear weapons programs. Following the “technological pull theory,” U.S. policy makers and security experts have described the history of the atomic bomb for a long time as an inexorable and accelerating pursuit for nuclear weapons. The number of nuclear weapons states was assumed to rise constantly.²⁶

Figure 2: Chronology of Nuclear Reversal



A New & Optimistic Narrative: Studying *nuclear reversal* is refuting these pessimistic descriptions and is instead providing a more optimistic perspective on the nuclear policy field. The analytical template of *nuclear reversal* emphasizes that the nightmares of the “technological pull theory” have not come true. With “only” nine states having crossed the “nuclear threshold,” we live today not among a “nuclear armed crowd” (Wohlstetter 1976; see also Table 2).²⁷ The vast majority of the around 50 states that have the scientific and technological abilities to pursue successful nuclear weapons programs have either not taken this step or have abandoned their quest for atomic bombs in the past (Hymans 2010a; Stroll 1996).

Protagonists of the pessimistic view have often claimed that the conventional nonproliferation tools and institutions – first and foremost the Nonproliferation Treaty (NPT) – are ineffective and would promote a “false sense of security” (Cirincione et al.

²⁶ For example, the Kennedy administration expected that the international order would be shaped in the foreseeable future by approximately 25 nuclear weapons states (Potter & Mukhatzhanova 2010).

²⁷ The closest the world ever came to the scenario of a “nuclear armed crowd” was in the year 1990 when 12 states had crossed the “nuclear threshold” (apart from the official five nuclear powers: Israel, India, South Africa, Pakistan, Ukraine, Belarus, and Kazakhstan (Sagan 2011: fig. 1))

2005: 20). However, if we describe the history of the atomic bomb first and foremost as a series of *nuclear reversal*, we discover that the NPT had a very decisive impact. If we analyze the historic trajectory of newly started nuclear weapons programs in the past 71 years, we find that the entry into force of the NPT in the spring of 1970 ushered the entire nuclear policy field into a new era. It brought an abrupt end to the phase of accelerated nuclear proliferation we witnessed after the end of the Second World War (Figure 1). In all probability, the NPT functioned as a sort of “show stopper” for the all those states that were toying with the idea to set up a nuclear weapons program. While we count in the 30 years before the NPT (1940-1970) 29 cases of newly started nuclear weapons programs, this number decreased significantly in the 30 years after the NPT entered into force (1970-2000). In that period, only 11 states started to strive for nuclear weapons (Figure 1).

Moreover, studying the nuclear policy field through the prism of *nuclear reversal* also reveals that the post-Cold War era was in particular benign in terms of nuclear nonproliferation. While the entry into force of the NPT coincides with a sharp decline of nuclear proliferation, the end of the Cold War appears to correlate with an abrupt increase of *nuclear reversal* (Figure 2). In the first half of the 1990s alone we saw as many cases of *nuclear reversal* (10 examples) as during the first 30 years after the Second World War (1940-1970). If we resist the mainstream perspective to perceive the evolution of the nuclear policy field as a series of proliferation crises, we will recognize that there is currently no state endeavoring to acquire a nuclear weapons capacity – a novelty in the history of the atomic bomb. All recent *atomic renegades* have either stopped their efforts to acquire an atomic bomb (Iran in 2015, Syria in 2007) or have managed to cross the “nuclear threshold” (North Korea in the late 2000s). Moreover, the perspective of *nuclear reversal* highlights the historic fact that in the last 20 years (since the start of the Syrian program in the mid-1990s), no state has started a new nuclear weapons program – a remarkable development given the high frequency of newly set up atomic programs in the first 50 years of nuclear history (Figure 2).²⁸

²⁸ However, while the phenomenon of *nuclear reversal* provides us with a more benign picture of nuclear history, we should not be too optimistic either. Although the dominant “alarmist view” is certainly incorrect, there are at least five arguments why we should be cautious in postulating a bright future. *First*, the relevance of those atomic weapons possessed by the nine “nuclear haves” appears to increase. In recent years we saw across the board in all nine nuclear weapons states efforts either to modernize or augment national nuclear arsenals (e.g., Thränert 2016). *Second*, it is certainly true that the nine nuclear weapons states make a percentage of less than 6% when put in relation to the totality of UN member states (Müller/Schmidt 2010). However, if we take into consideration that only approximately 50 states today have the necessary technological and economic capability to build nuclear weapons (Hyman 2010; Stoll 1996), the nine nuclear possession states represent a proportion of 20%. *Third*, the likelihood of *nuclear reversal* appears to decrease with growing “maturity” of the nuclear programs. *Nuclear reversal* occurs primarily in the stage of “nuclear deliberation” (65%) or “nuclear pursuit” (36%). But there was in history only one state (South Africa) that abandoned its nuclear weapons program after having crossed the “nuclear threshold” (table 1). In most of the cases, achieving the stage of “nuclear possession” represents in terms of *nuclear reversal* a “point of no return.” Thus, the chance to alter the course of a state that already possesses nuclear weapons (i.e., North Korea, India, and Pakistan) is very dim. *Fourth*, we observe that the pattern of nuclear proliferation had changed with the entry into force of the NPT. While the number of states striving for nuclear weapons has decreased significantly since the early 1970s, those who continue their efforts were more determined in achieving their objective. In the era before the NPT entered into force, all

2.2.2 Nuclear Reversal Negotiations (NRN) – Frequent and Even More Understudied and Puzzling

Nuclear reversal is in general a very interesting research objective. Nevertheless, we will not study *nuclear reversal* but rather will focus only on a particular aspect of this phenomenon which we deem especially intriguing and interesting: NRN.

NRN signify a specific type of bargaining dynamic that has never been systematically studied thus far. With our PhD project, NRN are for the first time introduced into IR research. This veritable research gap is astonishing since NRN occurred relatively frequent in the history of the nuclear bomb. In particular after the end of the Cold War, diplomacy and negotiation became the primer instruments to handle nuclear proliferation crises. The most recent and prominent examples in that regard were certainly the negotiations that halted the Iranian nuclear program and the suspended talks on North Korea's nuclear ambitions.

The Nature of International Negotiations: But before we start elaborating on NRN we will first of all say a few general words about negotiations in general. We define negotiation (or bargaining dynamics) *as a communicative and interactive process between two or more actors that is characterized by the effort of combining conflicting positions into an agreement by joint-decision making.*²⁹

Inter- and transnational negotiations vary with regard to the involved parties (e.g., state actors, NGOs, International Organization, etc.), the number of actors (e.g., bilateral, mini-lateral, or multilateral negotiations), and the outcome (e.g., tacit agreements or binding treaties). What, however, all negotiations have in common is the presence of conflicting positions and their resolution by joint decision making. This central aspect we highlighted in our definition is independent to the varying shape of negotiation dynamics in trans- and international affairs. Conflicts or conflicting views on certain issues urge parties to start bargaining processes and the outlook to resolve conflicts and common problems by joint agreement, impelling parties to maintain and complete diplomatic dynamics. This particular parallelism and overlap of conflict and cooperation makes negotiation distinct from other general concepts of conflict management such as voting, adjudication, or obedience (Zartman 2009; Lewicki et al. 2002: 4-6).³⁰ Bargaining actors are in essence

states that choose *nuclear reversal* have not moved beyond the stage of “nuclear deliberation” (Table 1). This picture changed after 1970. More than the half (55%) of those states that either continued or started a nuclear weapons program after March 1970 moved forward into the stage of “nuclear pursuit” and managed to cross the “nuclear threshold.. Thus, nuclear proliferation has become less frequent but more persistent and aggressive since the early 1970s. *Fifth*, although the spread of nuclear weapons is currently no real issue if we only resist the alarmist reflex, there is nevertheless no guarantee that this state will prevail. For example, it is in the realm of possibility that North Korea's recent rise as a nuclear weapons state and its accelerated efforts to improve its ballistic missile capacity might trigger proliferation attempts by East Asian states.

²⁹ For other definitions of international negotiations, see, for example, Druckman 2007; Jönsson 2002; Zartman 1977; Odell 2013.

³⁰ Although we have used Fred C. Iklé's famous quotation already at other occasions in our PhD project (see ch. 1.1 and 3.1.1), it is still helpful to refer again to his words. Iklé expressed in a very concise way

opponents *and* future cooperation partners in one. And, unlike other concepts of conflict management, all negotiation parties are bestowed with a veto. If the bargaining outcome does not reflect the interests of a negotiating party this actor would simply refuse to give its final consent and thereby would render joint-decision making impossible. Successful problem resolution is only possible if all involved actors work together and arrive at the end at outcomes that serve the interests of all sides.

Another central aspect of our definition is the postulate that negotiations are in essence communicative and interactive processes. Bargaining is a dynamic social practice. In comparison to negotiations, the alternative modes of conflict management (e.g., voting or adjudication) are more structure oriented and more demanding in terms of agreed upon procedures. As a consequence, bargaining dynamics require in most of the cases relatively little preconditions when applied to prevent, manage, or resolve conflicts and common problems.³¹ The more structure-oriented alternative concepts of conflict management necessitate in comparison far more requirements (e.g., voting = parliament/institutionalized assembly, adjudication = court/law, obedience = hierarchy/power/moral). This undemanding nature makes negotiations in particular attractive for all those situations where agreed procedures and structures of social interaction are amorphous, manifold, overlapping, contested, or inexistent. Many scholars are convinced that these situations increase in postmodern times and have become more and more common in nearly all areas of social life. This assumption gave rise to the argument that the relevance of bargaining dynamics is growing and that we are, in essence, at the dawn of a “negotiation century” where nearly everything is negotiated and negotiable (Fisher & Ury 2011; Hampson et al. 2007; Zartman 2009).

While we are inclined to *believe* that the assumption of the “negotiation century” is correct for social life in general, we are very *certain* that this view holds true under the specific conditions of inter- and transnational relations where agreed upon structures and procedures are available but far more shaky and frail than in other fields and areas of social reality. Negotiations are therefore one of the most central modes of (inter)action in world politics, building the groundwork for both conflict and cooperation. Bargaining is, so to speak, the “engine room” of international politics.

Moreover, it is important to acknowledge that negotiations are not limited to high-level meetings where foreign policy leaders of conflicting parties congregate at the negotiation table to bargain and sign agreements. Negotiations are not limited to summits and conferences. Rather, bargaining dynamics are complex and prolonged processes that could track on for considerable time and often last for years, if not even for decades. In essence, every bargaining process is divided in several phases, each characterized by a particular negotiation modus, strategic task, and specific actor constellation. In most of the cases we could distinguish between the *pre-negotiation*, the *pre-agreement*, the

the just-mentioned parallelism of conflict and cooperation by saying “without common interest there is nothing to negotiate for, without conflict nothing to negotiate about” (Iklé 1964: 2).

³¹ The only crucial requirement for negotiations is the so-called “ethos of equality” (e.g., Faure 2002; Zartman 2009). Negotiation parties have to acknowledge each other as potential future cooperation partners.

agreement, and the *post-agreement phase* (for more details on negotiation phases see ch. 5.1).

With that general understanding of negotiations in mind, we define NRN as *international bargaining dynamics that aim to drive atomic renegade states into nuclear disarmament and make them abandon their outsider status to the global nuclear order*.

What is the *global nuclear order*? And what is an *atomic renegade state*? The meaning of these two concepts, which signifies two important building blocks in our NRN definition, are not self-explanatory and therefore need to be elaborated upon.

The Global Nuclear Order: The “global nuclear order” includes many elements. Important to mention in that regard is, for example, the International Atomic Energy Agency (IAEA), the UN Office for Disarmament Affairs (UNODA), the Nuclear Suppliers Group (NSG) as the central export control regime in the field, or the different Nuclear Weapons Free Zones. However, the most crucial element of the “global nuclear order”, its backbone, is the Nonproliferation Treaty (NPT). This treaty, which came into force in March 1970s and was extended indefinitely in 1995, codifies the basic structure of the *global nuclear order*. With today 191 member states, the NPT is an international treaty that has almost reached universality. While calling for a cessation of nuclear arms race and nuclear disarmament (Art. VI), the NPT is *de facto* identifying five legal nuclear weapons states (China, France, Russia, the United Kingdom, and the United States; Art. IX, 3). For all other states the acquisition, development, and production of nuclear weapons is prohibited (Art. II).

Atomic Renegades: States – regardless of whether they are members of the NPT or not – which have started or continued nuclear weapons programs after spring 1970 are deviant to the “nuclear global order” and contest its fundamental norms and principles. We call these actors *atomic renegade states*.³²

³² Following the work of Miroslav Nincic (Nincic 2005: 46-72) we use the term “renegade state” instead of alternative approaches. Nincic has defined “renegades” as regimes “that defy core norms of the international behavior embraced by most members of the international community” (Nincic 2010: 138). On the one hand, the renegade concept is more precise than other terminologies used in the past which only emphasized the “outsider character” but neglected the aspect of contesting existing orders (for example, “atomic pariah” (Betts 1993; Harkavy 1981), “maverick state” (Arnold 1996), or “outlier regimes” (Litwak 2012)). On the other hand, the expression “renegade state” is less politically and morally charged than the expression “nuclear rouge state” (Lennon & Eiss 2004; Rubin 2014; Senn 2009).

Table 3: Overview of Successful & Failed Nuclear Reversal Negotiations (NRN)

State	Negotiating Party	Negotiation Period	Nuclear Reversal
Algeria	China, USA	1991	yes
Argentina	Brazil	1980-1994	yes
Belarus	Russia, USA	1990-1994	yes
Brazil	Argentina	1980-1994	yes
India	USA	1990-2001	no
Iran	China, France, Germany, Russia, UK, and USA	2003-2015	yes
Kazakhstan	Russia, USA	1990-1994	yes
Libya	UK, USA	2003	yes
North Korea	Japan, China, Russia, South Korea, and USA	since 1993	no
Pakistan	USA	1990-2001	no
South Korea	USA	1975-1976	yes
Spain	USA	1973 and 1977-1981	yes
Taiwan	USA	1976-1978 again 1987-1988	yes
Ukraine	Russia, USA	1990-1994	yes

The Nature of NRN: Following this logic and applying the *argumentum e contrario*, there were no *atomic renegade states* before the “global nuclear order” was established. States that strived for nuclear weapons before March 1970s – among them all permanent members of the UN Security Council – were not deviant to any meaningful order. They were not contesting essential principles and norms the majority of the international community embraced. Moreover, since there were by definition no *atomic renegade states* before spring 1970 there were, consequentially, also no NRN. The different diplomatic efforts that were undertaken to reverse nuclear weapons programs during the pre-NPT era (for example, the US attempt to halt the Israeli nuclear program (Cohen 1999: 193; Engelhardt 2004)), could not be regarded as NRN but as a “precursor” of this particular type of negotiations. These early bargaining dynamics were different with regard to their orientation and objectives. They marked individual diplomatic endeavors that were not embedded in a general normative framework. The outcomes of these negotiations were different from those of the later NRN since they were primarily structured according to the logic of regional stability and balancing.³³

Thus, only when conceptualized in correspondence to the *global nuclear order*, negotiations with *atomic renegades* turn from isolated bargaining efforts into examples of a unique and distinct diplomatic phenomenon. And only when thought as implementation of the “global nuclear order’s” norms and principles, NRN become distinguishable from other negotiation dynamics in the nuclear policy field.

For example, an important characteristic feature of NRN is their *prohibitive* orientation. Their goal is not to limit or contain the activities of *atomic renegades* but to reverse their nuclear weapons capacity. In light of the “nuclear global order”, this orientation is only

³³ With regard to the Israeli nuclear weapons program, Francis Gavin said that “[n]either Nixon nor Kissinger thought halting nuclear proliferation merited sacrificing other geopolitical goals” (Gavin 2012: 105). Avner Cohen seconds that view by saying: “Nixon and Kissinger accepted exceptions to the principle of nonproliferation and believed that this might be the case where the U.S. national interest permitted a state friendly to the United States to build its own nuclear arsenal” (Cohen 1999: 336).

logical given that the possession of nuclear weapons by any state other than the permanent members of the UN Security Council is outlawed by the NPT. And it is this prohibitive orientation that makes NRN clearly distinct from other negotiation dynamics in the nuclear policy field – such as arms control negotiations (e.g., the recent New START Treaty negotiations between the United States and Russia). The objective of arms control negotiations is not prohibition in the sense of disarmament. Rather, the central idea is to (re)establish strategic balance between two or more adversaries and avoid future arms races.³⁴

The *bipolar structure* is another example which highlights that the “global nuclear order” determines the unique nature of NRN. Regardless how many parties participate in NRN, the actor constellations are always marked by two antagonistic blocs with the *atomic renegade* on the one side and varying numbers of protagonists acting on behalf of the norms and principles of the “global nuclear order” on the other side. In the nuclear policy field, this particular bipolar structure makes NRN, for example, clearly distinct from regime formation and modification negotiations (for example, the eventually failed negotiations for the Comprehensive Test Ban Treaty (CTBT)) which are characterized by multipolar positions and actor constellations.³⁵

But NRN are not only a unique and distinct phenomenon in international security policy, they mark – as we have already said above – also a very intriguing research objective which goes in terms of relevance even beyond what we have explained in the previous section with regard to *nuclear reversal* (ch. 2.2.1). NRN are even more puzzling and understudied than *nuclear reversal*. Moreover, NRN signify the most comprehensive explanation for *nuclear reversal* and help to highlight the role of the United States as the “benevolent hegemon” for the nuclear policy field.

Even more Puzzling and Understudied than Nuclear Reversal: NRN is even more puzzling than *nuclear reversal*. Those scholars, who are already startled with regard to *nuclear reversal*, will be even more bewildered by NRN. That a hard-boiled *atomic renegade* would abandoned its nuclear weapons program because of such peaceful, non-kinetic, and relatively soft impact factors like diplomacy and negotiation must seem strange when looking upon world politics through a (neo)realist’s lens. That tough *renegade states* would change course because of bargaining dynamics appears in that view relatively

³⁴ Consequentially, arms control negotiations could in some cases even lead to rearmament for the sake of strategic stability (Müller & Schöring 2006).

³⁵ The bipolar nature and prohibitive orientation are certainly the two most central features of NRN. However, there are more characteristic elements of NRN that stem less from the *global nuclear order* but nevertheless signify a crucial element of this type of bargaining dynamic. *First*, NRN are conducted relatively often in a hostile environment. Not in all but in many historic examples the diplomatic struggles about illegal nuclear weapons programs took place between negotiating parties that had poor, unfriendly, or even antagonistic ties (e.g., the cases of the North Korean, the Iranian, or the Libyan nuclear weapons programs; Table 3). *Second*, the vast majority of the NRN cases were marked by relatively strong power asymmetries. The *atomic renegade states* had across the board fewer power resources than their diplomatic counterparts. *Third*, NRN is a state-centric type of bargaining. Although non-state actors (such as the IAEA or the European Union) played in some cases a certain role (e.g., the recent negotiations with Iran), state actors were the key players.

naïve. Military intervention, internal regime changes, or technical and management problems signify explanations that would be easier to accept by these analysts.

Moreover, NRN are remarkably understudied and were widely neglected in IR research. While numerous studies have been conducted on individual bargaining efforts to disarm *atomic renegade states*,³⁶ there is no systematic approach on NRN.³⁷ The few studies that addressed negotiations with atomic weapons states in a more comprehensive way (e.g., Avenhaus, Kremenyuk & Sjöstedt 2002; Clemens 2009; Siler 1992), have the character of preliminary studies and suffer from a weak theoretical foundation. Hence, there is thus far no systematic and theory based study on NRN.

NRN – The Most Comprehensive Explanation for Nuclear Reversal: Like *nuclear reversal*, NRN is a relatively frequent phenomenon. In the period after the NPT entered into force, we count 14 cases of failed and successful nuclear reversal negotiations (Table 3). In particular, NRN became common after the end of the Cold War. The vast majority of cases took place at that time (11 out of 14 cases, see: Table 3).

However, NRN is not only a relatively frequent phenomenon it appears that it is also the most comprehensive explanation for *nuclear reversal* – in particular in the post-Cold War era. NRN coincides significantly with successful *nuclear reversal*. In most of the cases where policy makers decided to bargain with *atomic renegade states*, *nuclear reversal* was the outcome. Cases where NRN did not lead to *nuclear reversal* occurred instead relatively seldom (e.g., India, Pakistan, and North Korea; Table 3). Hence, if we scrutinize the major explanations of nuclear renunciation since the 1970s by a cursory analysis, we find that NRN is apparently the most central driver for *nuclear reversal* (Table 3).³⁸ Other factors such as military interventions (e.g., Iraq and Syria), technological and management problems (e.g., Yugoslavia), or internal regime change (e.g., South Africa) played in comparison to NRN a less prominent role. Moreover, apart from military intervention, NRN is in many cases overlapping with these alternative explanations.³⁹ Consequentially, it is impossible to consider effective non-proliferation policy without taking negotiation and diplomacy into account.

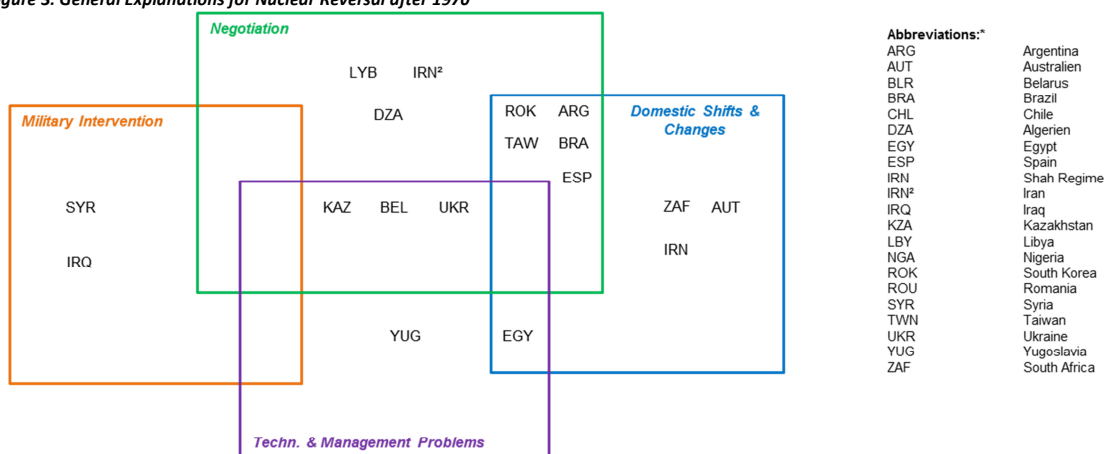
³⁶ See, for example, the different studies focusing specifically on the negotiations dynamic with Iran or North Korea (e.g., Blechman & Brumberg 2010; Curtis 2007; Saeed 2010; Miller 2008; Parsi 2012; Pickering, Luers & Walsh 2008; Saccone 2003; Sigal 1998; Snyder 1999).

³⁷ Of course, there is vast research on nuclear arms control negotiation (e.g., Arbatov 2002; Jensen 2006; Hopmann 2002). However, given that arms control negotiations differ in orientation, structure, and logic from NRN, we could not transfer the insights stemming from this field.

³⁸ *Nuclear reversal* is a complex and multifaceted phenomenon where numerous different factors mesh. Uni-causal explanations are seldom. In that regard, the analysis of apparent explanations expressed in Figure 3 signifies only a brief overview on the major driver of nuclear disarmament. In-depth analysis of the individual cases would certainly bestow us with a more colourful and nuanced picture than this cursory table. Moreover, the three alternative explanations (military intervention, internal regime change, and technical and management problems) represent only a selection of the most prominent impact factors. There are other explanations for *nuclear reversal* – such as nuclear guarantees and alliance relations – that were not taken into account. However, all this does not change the fact that NRN is – in all probability – the most dominant explanation for *nuclear reversal*.

³⁹ For example, it would be difficult to study the impact of internal regime changes on *nuclear reversal* without taking bargaining dynamics into consideration since both explanations overlapped in a number of cases (i.e., Taiwan, South Korea, Brazil, Argentina, and Spain; Figure 3).

Figure 3: General Explanations for Nuclear Reversal after 1970



* The understudied cases (CHL, NGA, ROU) were – due to lacking information – not classified in this tabel

The “Benevolent Hegemon”: We could describe NRN not only as a particular type of negotiations but also as a unique tool of U.S. foreign policy. NRN are inseparably linked with Washington’s firm nonproliferation stand. Except for the bilateral negotiations between Brazil and Argentina (1980-1994), Washington was in all NRN the key player (Table 3). Even when other actors took part in the bargaining process – such as in the negotiations with Iran and North Korea – the United States was always de facto in the “driver seat.” That we saw so many diplomatic efforts to reverse nuclear weapons programs is owed to Washington’s unrelenting nonproliferation effort. NRN is therefore a good indicator that the United States is in essence acting as a “benevolent hegemon” and provides in that role by far the most crucial contribution to maintain the global nuclear order (for a more detailed discussion on that aspect see also Gavin 2015).

2.3 Diplomatic Design – Successful Bargaining even with the Devil

The *policy paradigm* has steered our research interest towards analyzing bargaining dynamics with *atomic renegade states*. But now we have to make a choice since we cannot analyze each and every aspect of NRN (such as their genesis, their actors' constellations, their strategic environment, etc.). Confronted with the question "what part of NRN shall we study?", the *policy paradigm* provides us again with guidance. It leads us to focus on the *diplomatic design*.

What is Diplomatic Design? *Diplomatic design* is a newly coined term.⁴⁰ We have borrowed it from the research on the design of international regimes and institutions (see, e.g., Duffield & Mitchell 2003; Haas et al. 1993; Hasenclever & Mayer 2007; Mitchell 1994; Wettestad 2001).⁴¹ With this PhD project, we introduce the notion of *diplomatic design* for the first time into the research on international negotiations. We define diplomatic design as the *supplementary, sub-dividable, varying, and malleable shape of negotiations characterized by an intermediated and non-violent performance*.

In general, "design" does not cover the constitutive elements of a particular phenomenon. Rather, design has by definition a *supplementary* nature. For example, "car design" contains all supplementary add-ons to an automobile. "Car design" is everything that goes beyond the car itself. Having four wheels, a coachwork, and an engine are not aspects we would not describe as "car design."

The supplementary nature of "design" implies a *subdivision* into individual design elements. For example, when discussing the "design" of a particular automobile, we usually distinguish elements such as its color, its shape, its sound, or its performance. The "design" of a phenomenon is in that view the totality of its individual design elements.

Another central feature of "design" is its *varying shape*. Design is plural. There are always several types of "design." For example, if there would only be one single "car design" defining the shape of all manufactured automobiles around the globe, "design" as a

⁴⁰ While *diplomatic design* is in substance a new concept, we should note – for the sake of completeness – that this term had been occasionally used in the past to describe the work of in-house graphic artists and designers employed at the United Nations and other international organizations (Dobush 2014).

⁴¹ At that point it is noteworthy that our understanding of "design" is distinct from the research on "rational design" (e.g., Koremenos et.al. 2001a, 2001b; Duffield 2003). Apart from the fact that the research on "rational design" is focused on international institutions and not on negotiation dynamics, the most distinct difference is that IR scholars who follow this approach see the "design" primarily as the *dependent variable* while we (as well as the above cited protagonists of the research on regime design) conceptualize "design" as an *independent variable*. "Rational design" scholars focus in essence on the *formation* of international institutions. Our research interest is instead the *performance* of design (consequently, it would have been more appropriate if one had labeled this research approach not "rational design" but "rational *designing*").

genuine concept would be senseless since “car design” would indistinguishably coincide with the very nature of “car.” The supplementary nature of “design” would collapse.

Furthermore, “design” implies *malleability*. In the general reading, “design” is regarded as the product of a creative process. It is made by designers. And, in most of the cases, designers have the chance to alter, modify, and adapt it. But while assumed to be inherently malleable (or designable), the expression of “design” does not necessarily imply intention. Design and its individual elements could emerge either planned or unplanned. For example, there are numerous aspects of a “car’s design” (such as its sound or its ergonomic shape) which were not intendedly designed but rather signify the unplanned by-product of technical necessities.

Diplomatic design is marked by all these central characteristics we just described. For example, the *supplementary* nature of diplomatic design is expressed by the various features added on a certain negotiation process – such as sanctions, incentives, or mediation by third parties. It comprises all aspects that go beyond the very core of negotiation itself (i.e., the communicative and interactive processes between two or more actors that are characterized by the effort of combining conflicting positions into an agreement by joint decision making). By the same token, in bargaining dynamics we could also observe the *malleable* but often unintended nature of design. For example, negotiations always have an agenda, a venue, and involve a certain array of actors. These features are malleable, vary often considerably between different bargaining dynamics, and have on many occasions significant impact on the negotiation outcome (see, e.g., “hidden champions” of diplomatic design, ch. 6.1.3). However, these design elements have frequently an unintended nature and are often regarded by policy makers and diplomats not as strategic instruments but as “unpolitical” byproducts of bargaining dynamics.

Turning to the performance of *diplomatic design*, we could identify two additional characteristic features which are both inseparably linked with the very nature of diplomacy and international negotiation.

First, the performance of *diplomatic design* is *intermediate*. Diplomatic design affects the actions of targeted actors indirectly by changing their strategic calculation (see also case D, Figure 5). It is operating through the “manipulation of the mind.” Unlike non-diplomatic policy tools in foreign policy (for example, the use of military force), *diplomatic design* is not resolving problems by directly intervening into the behavioral patterns of targeted actors. Diplomatic design elements are not aimed at actively preventing, stopping, or slowing undesired actions. Rather, it is one of the core ideas of diplomacy and international negotiations that the initiator of a diplomatic intervention is primarily giving the impetus for the resolution of a particular problem but that the actual act of problem resolution (for example the actual dismantlement of WMD programs) – including the majority of the associate costs – are shouldered by the target actor.⁴² In that sense,

⁴² Admittedly, the line between diplomatic and non-diplomatic instruments is often very thin. For example, in order to “manipulate the mind” of target actor, diplomatic interventions often affect the

diplomatic design is clearly distinct from non-diplomatic tools – such as military intervention – where the costs of problem resolution are primarily taken on by the initiators.

Because of the intermediate performance, diplomacy and international negotiations are in general assumed to be relatively inexpensive in comparison to non-diplomatic foreign policy tools (e.g., Kristof 2008). The flip side is, however, that the intermediate performance renders *diplomatic design* into relatively complex and uncertain instruments. The intermediate principle, where changes in the behavioral patterns of targeted actors are achieved through the “detour” of manipulating this very actor’s mind, makes diplomatic interventions in particular prone to interference, planning errors, or implementation mishaps. It is, for example, often uncertain whether applied diplomatic design elements really affect the strategic calculation of the recipients or whether they overshoot this target. Likewise, it is often uncertain whether diplomatic interventions truly produce the outcomes the senders intended to achieve or whether they provoke unexpected and undesired results. Due to the intermediate nature of *diplomatic design*, it is marked by an “inexpensive-uncertainty trade-off.”

Second, the performance of *diplomatic design* has in general a non-violent nature. Being different from the use of physical force is presumably the most outstanding feature of the common-sense understanding of diplomacy (e.g., Cohen 1999: 4; Jönsson & Aggestam 2009). However, being non-violent does not mean that bargaining dynamics and international negotiations are the opposite of war. Diplomatic initiatives are often closely interwoven with military actions and warfare. According to Karin Fierke “[d]iplomacy is among the oldest forms of intervention to limit recourse to war but it has also been its handmaiden” (Fierke 2005: 21). The list of historic examples where important negotiation events took place within the midst of heavy military confrontation are long (e.g., the negotiations for the Westphalian Peace Treaty 1643 - 1648; Burkhardt 1992). Moreover, limited military actions could also be part of the “diplomatic repertoire” and often signify themselves as design elements. When military force is exclusively applied to alter an opponent calculation’s (for example, in the form of credible military threats) and is not used as a tool to intervene directly into the targeted actor, it is still operating under the intermediary logic that is characteristic for diplomatic intervention (see, for example, the concept of “coercive diplomacy” (Art & Cronin 2003; George 1991; George 1994)).⁴³

actions of actors. But unlike with regard to non-diplomatic interventions, the goal is to alternate in first place their strategic calculations and *not* to change by direct intervention behavioral patterns. A good example that highlights how the thin line between intermediate and direct performance of foreign policy tools is often blurred is the debate about the pros and cons of economic sanctions. Policy makers, but also IR scholars, often tend to confuse the impact of sanctions (the degree to which they, for example, affect the economic system of a targeted states) and their actual effect (the degree to which the impact of sanction is affecting the strategic calculations of the political elites in the targeted states). For example, the sanctions that were imposed in the 2000s on Iran had for a very long time no effects on Teheran’s actual decision making although they had relatively severe impact for the Iranian economy (Fitzpatrick 2008: 33-55; Parasiliti 2010).

⁴³ The most prominent protagonist of a “diplomatisation” of warfare was certainly Carl von Clausewitz (Clausewitz 2003 [1882]). Although he did not use the term “diplomacy” but “politics,” the idea to “manipulate the mind” of an opponent is nevertheless central in his theory of warfare. According to

Why Diplomatic Design Provides the Best Analytical Access to NRN. At the beginning of this section we said that the *policy paradigm* has steered our research interest towards *diplomatic design*. There are at least four arguments why *diplomatic design* signifies the best choice among the different aspects of NRN and provides the best analytical access to this particular type of bargaining dynamic.

First, studying *diplomatic design* is implementing the *policy paradigm* as the central guiding principle of our PhD project. Since policy makers normally *want to know* about the malleable shape of bargaining dynamics, studying *diplomatic design* is providing them with findings *they should know* about this particular aspect of inter- and transnational negotiations.

Second, *diplomatic design* allows a *comprehensive view on bargaining dynamics* since it focuses on the entire malleable shape of international negotiations and thereby covers not only policy tools that decision makers intendedly and purposefully apply (such as economic sanctions, rewarding strategies, or mediation efforts by third parties), but is also taking the unintended byproducts of bargaining dynamics into account, which are commonly not perceived as foreign policy instruments (such as the structure of the diplomatic process, see ch. 6.1.1.2). This broad perspective makes the analytical template of *diplomatic design* in particular promising for revealing new, unexpected, and counter-intuitive findings about negotiations dynamics.⁴⁴

Third and finally, the focus on *diplomatic design* allows the analysis of inter- and transnational negotiations to be embedded in a broader philosophic tradition. Research on *diplomatic design* is expressing in general an optimistic view, first, on the overall performance of human-made procedures and structures and, second, on the chance to change and alter them according to one's needs. It builds on the assumption that with design elements conflict parties have a leverage to steer the bargaining process into the direction that would best meet their desires and beliefs. In that view, negotiation dynamics are a "vessel" that gains its particular character only when filled with distinct *diplomatic design*. Consequentially, most of the scholars who implicitly or explicitly follow this approach would share the assumption that each and every problem conflict parties face in negotiation dynamics is resolvable, if only the diplomatic strategy is designed well. Other factors in bargaining dynamics – such as varying actors' constellations, the legal, social or ideational setting of negotiations, or broader historic trends and structural changes – play a subordinated role. It is assumed that – if needed – the impact of these factors could be outbalanced by sophisticated *diplomatic design*.

Clausewitz, war is a wrestling match in which physical violence is only the instrument to affect the other side motivation or – as Clausewitz has put it – an "act of force to compel our enemy to fulfill our will" (Clausewitz 2003 [1882] Book 1, ch. 1).

⁴⁴ In that sense, *diplomatic design* goes beyond the governance approach, which is broadly defined as a mode of coordination between autonomous but interdependent actors orientated towards the provision and/or maintenance of collective goods. Most scholars who apply this concept focus on intentional and purposive actions and structure. Byproducts and unintended side-effects are not explicitly part of the governance approach.

With that optimistic view on human-made structures and procedures, the research on *diplomatic design* aligns itself with a broader philosophic-theoretical tradition. The research on *diplomatic design* is, for example, in many respects on the same page with the thoughts of Immanuel Kant. Kant's conviction that the shape of the structures and procedures could contribute to the resolution of even complex and difficult problems, was most prominently expressed in his seminal book "Perpetual Peace" in which he emphasized that "[T]he problem of organizing a state, however hard it may seem, can be solved even for a race of devils" (Kant [1795] 2010: 1st supplement). But the research of *diplomatic design* stands certainly also in the philosophic tradition of federalist thinkers around James Madison and Alexander Hamilton who have likewise expressed the view that well-crafted institutional design such as the constitutional concept of "checks and balances" could resolve even delicate situations where neither "men [sic] where angles" nor where "angels were to govern men [sic]" (Federalist Paper no. 51). Most advocates who implicitly or explicitly follow the diplomatic design approach would share this general philosophic conviction and would assume that a properly designed diplomatic intervention allows successful negotiations even with the Devil (e.g., Mnookin 2010).

2.4 Problem of Fit and Fit Taxonomies

In the introduction chapter, we have made clear that we will evaluate and explore the performance of *diplomatic design* and its individual elements with the help of the *fit approach*. The “problem of fit” is still a relatively young research objective. Thus far, it was primarily used to evaluate international environmental policy (e.g., Brown 2003; Folke et al. 2007; Galaz et al. 2008; Vatn & Vedeld 2012). In general IR literature we only rarely encountered the *fit approach* (e.g., Ostrom 2007; Young 2002; Young 2008). Against that background, it is little surprising that this concept was never applied in negotiation research.

It is one of the most central premises of the *fit approach* that there are no “blueprint solutions.” There are no “one size fits all” tools in world politics (Ostrom et al. 2007; see also: Epstein 1997; Korte 1980). Rather, the instruments available to foreign policy makers vary. Their performance is unstable and is dependent on the given strategic context. Foreign policy tools that exert positive impact in one case could provoke negative consequences in other situations. Consequentially, studying “varieties of (mis)fit” is the core objective of the *fit approach*. In a concrete research situation the essential goal of the *fit approach* is to identify the “optimal problem solution” (also known as the *fit demand*) that would – if only satisfied comprehensively (for example, by a diplomatic design element) – lead to the complete resolution of a given problem. In that sense, the *fit approach* studies the problem constellations, the degree of their resolution, and the performance of resolution interventions.

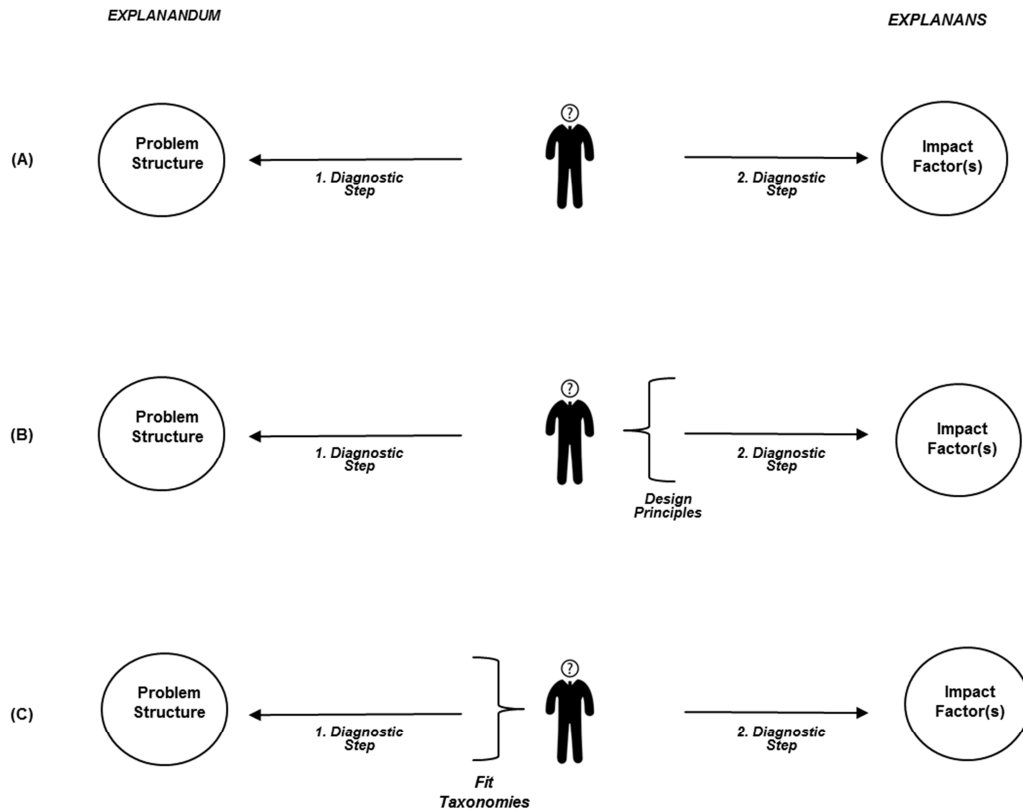
In the following section, we will elaborate primarily on the question “how to operationalize the *fit approach*.” We will conclude that *fit taxonomies* are the most suitable concept in that regard (ch. 2.4.2). Moreover, we will develop a six-stage yardstick that allows evaluating the varying “fit performance” of impact factors (ch. 2.4.4).

2.4.1 The Diagnostic Method: Design Principles and Fit Taxonomies

The under-appreciation of the *fit approach* is astonishing, given that this approach is in essence omnipresent in ordinary life. Regardless of who applies the *fit approach* – scholars or lay people – it always operates along two-step diagnostic methodic (Figure 4). Users of the *fit approach* acquire in the first step in-depth and detailed knowledge about the structure of a particular problem (i.e., the *explanandum*). The goal is to achieve as much “problem accuracy” as possible. The outcome of the first diagnostic step is the so-called “optimal problem solution” (also occasionally labeled as the *fit demand*). The “optimal problem solution” is an analytical statement that condenses the knowledge about the structure of a given problem in a way that makes its solution salient or even explicit. In the second step, a selected impact factor (i.e., the *explanans*) is compared with

the findings acquired about the problem structure. It is obvious that the more accurate the problem diagnosis was in the first step, the easier it is to run the second step. How close the impact factor is matching to the scope and nature of the problem structure is deciding whether we have a *fit* or a *misfit* or something in between (*overfit*, *partial fit*, and *underfit*; see ch. 2.4.1). Thus, the *fit approach* is studying causality in essence by functional coherence.

Figure 4: Diagnostic Method of Fit



Take for example, the daily practice of a country doctor (see also: Young 2002: 176). When examining the illness of her patients, she first investigates the complaints in order to decide on a second step based on her diagnosis which cure might *fit* best. Administering painkillers is in general a tempting option for many sufferings. However, there are often better matching treatments.

It is one of the strengths of the *fit approach* that it could be applied in three different ways. After having conducted the first diagnostic step and having identified the “optimal problem solution,” we could, *first*, evaluate the “fit performance” of a particular impact factor. In this most obvious application of the *fit approach*, we studied whether and to which degree a given intervention is able to meet the “optimal problem resolution.” *Second*, the *fit approach* could also be applied in an *explorative* mode. Once we have diagnosed the scope and nature of a particular problem and observed the degree to which it was resolved we could – in a backward-looking analysis – search for the impact factor that has caused this movement. This “search function” bestows the *fit approach* with an innovative potential and allows disclosing new, unconventional, and counter-

intuitive findings. *Third*, the *fit approach* has also *prescriptive* implications since applying the “optimal problem solution” to current problems provides guidance in terms of the question: what impact factors should be employed in order to achieve the most “optimal problem solution”?

The diagnostic method is essential and applies to all research projects that endeavor to study the “problem of fit.” However, there are different ways to operationalize this diagnostic method (see case A, B, and C, in Figure 4). Among them, *fit taxonomies* (case C) signify the concept that is most suitable to the requirements of our PhD project.

Case (A) – The unrestraint fit diagnostic: In that situation, the *fit approach* is studied without reducing the complexity of social reality in a given situation. The *explanans* and the *explanandum* are studied in a genuine and pure way. The matching between the problem structure and the studied impact factor(s) are not “funneled through” an analytical concept. The advantage is obvious. The risk of distorted findings, false interpretation, or over-simplifications is relatively limited. However, the operationalization of the *fit approach* by the unrestraint diagnosis quickly reaches its limits in situations where the data is thin or partly unavailable, where the problem structure is complex, and where the number of studied impact factors is high.⁴⁵

Case (B) - Design principles: In comparison to the “unrestraint fit diagnosis,” the operationalization of the *fit approach* by “design principles” is more promising for research in international affairs.⁴⁶ “Design principles” systematize and structure the matching between the problem structure and the studied impact factors. “Design principles” signify a small set of selected *sine qua non* conditions for the “optimal problem solution.” They intervene into the second diagnostic step (Figure 4). The central idea is to define preconditions which impact factors have to meet in order to *fit* to the given problem structure. For example, Nobel Prize laureate Elinor Ostrom has identified in her study on regulatory regimes a series of design principles (including monitoring, collective-choice arrangements, graduated sanctions, and conflict-resolution mechanisms) and was suggesting that scarce common pool goods would be successfully supplied and maintained, if these conditions were met (Ostrom 1990: 90).⁴⁷

While it is certainly appealing – in particular in view of policy-oriented research – to have a small set of requirements that specify the conditions for successful problem solution, it

⁴⁵ At that point it is also important to note that research on *diplomatic design* has – similar to the research on policy tools or governance instruments – a tendency towards over-determined independent variables. Most research projects are marked by too many variables and too little cases (for further discussion on that problem see Scharpf 2000: 52-61). *Design principles* or *fit taxonomies* are not resolving this problem. However, both provide guidance and help to sort the “causal chaos” that could easily result from over-determined independent variables.

⁴⁶ “Design principles” is a terminology primarily coined by Elinor Ostrom (1990: 90-1). It is not related to the concept of “diplomatic design” we introduced in the previous chapter.

⁴⁷ Other IR scholars have also used the concept of “design principles” – although they have explicitly not associated themselves with the *fit approach*. In his study on the implications of two-level gaming for the formation of international regimes, Bernhard Zangl has, for example, identified three design principles assuming that they were essential preconditions for success international regimes: sanction, control/monitoring, and distribution (Zangl 1994: 285-287).

was primarily Oran Young who revealed that the concept of “design principles” is problematic (Young 2002: 166-175). Two points of critique are in particular important. First, there is no agreed standard about relevant “design principles” in a given problem constellations. Scholars have in the past proposed different “design principles” for similar problem constellations (see Young 2002: 166-175). Second, the nature and scope of problems in international affairs are manifold and complex. Not every set of “design principle” applies to every problem in world politics. By using “design principles,” scholars are already very close to the “one size fits all” trap.

Case (C) - Fit taxonomies: In view of these shortcomings, scholars have started to analyze the “problem of fit” primarily through *fit taxonomies* (e.g., Galaz et.al. 2008; Mitchel 2008: 112-113; Ostrom 2007; Young 2002; Young 2008).⁴⁸ According to Oran Young, *fit taxonomies* are “attempts to disaggregate (...) issues, identifying elements of individual problems that are significant from a problem-solving perspective and reaching conclusions about design features necessary to address each element” (Young 2002: 176).⁴⁹ Elinor Ostrom has instead used the expression “nested multitier maps” to describe the logic of *fit taxonomies* (Ostrom 2007).

Fit taxonomies intervene in the first diagnostic step (Figure 4). Unlike “design principles,” they do not systematize the potential problem solutions but the actual problem structure. Consequentially, the “fit taxonomies” look at first sight very similar to conventional problem typologies. What makes “fit taxonomy,” however, distinct from the ordinary typologies we often encounter in IR literature (see, e.g., Miles et al. 2002) is the level of abstraction. “Fit taxonomies” go beyond the detail description of inter- and transnational problems. They condense the problem structure in a given constellation to a degree that the “optimal problem solutions,” which is crucial to evaluate “fit performance” of impact factors against, becomes either salient or is even made explicitly.

Since *fit taxonomies* signify, in many cases, drastic reduction of complexity, it stands to question why they are assumed to be more suitable than the concept of “design principles.” Unfortunately, this question was thus far not addressed in the literature. However, in our view, the “locus of intervention” makes “fit taxonomies” superior to “design principles.” The central research objective of the *fit approach* is to evaluate, explore, and prescribe impact factors – be it an international regime or a diplomatic intervention. Speaking in methodic terms, the *fit approach* represents an x-centered research endeavor (Sieberer 2007). Studying the problem structure is not an end by itself. Rather, it is only of importance as long it helps to reveal insights into the “fit performance” of the studied impact factor(s). Consequentially, the overall relevance and validity of a research project is exposed to higher risk when we reduce the complexity on the side of the *explanans* as it is done by the concept “design principles.” *Fit taxonomies* instead reduce complexity on the side of the *explanandum*. It is quite an academic

⁴⁸ Even advocates of the “principle design,” such as Elinor Ostrom, have eventually started to apply “fit taxonomies” (e.g., Ostrom 2007).

⁴⁹ Note that Oran Young had introduced the term “institutional diagnosis” as an alternative label to “fit taxonomy” (Young 2002: 176).

challenge to develop and apply *fit taxonomies*. Analytical mistakes and errors are likely to occur. But in comparison to “design principles” these negative impacts would be less harmful and more limited if they occur in a taxonomy-based study. When instead the application of “design principles” is provoking misinterpretation, there is a high danger of distorting the core results of the entire research project since they affect immediately the *explanans* – the core research interest of the *fit approach*. “Design principles” are in that sense the “open-heart-surgery” of the *fit approach*.

2.4.2 Which Fit Taxonomy? Descriptive vs. Analytical Approach

Since we have come to the conclusion that *fit taxonomies* are the best way to operationalize the *fit approach*, we have to focus on the question of “how to develop them.” Most important in that regard is the so-called “specification-abstraction trade-off.” On the one hand, “fit taxonomies” have to cover comprehensively and exhaustively all aspects of a given problem structure. If we are already uncertain about the nature of the *explanandum*, we would be even more uncertain about the impact the *explanans* has on it. Moreover, with underspecified and under-complex *fit taxonomies*, we would be excessively exposed to the typical pitfalls scholars face when doing causal analysis – such as equi-finality, multi-finality, or false causality.⁵⁰ On the other hand, *fit taxonomies* have to have a certain level of abstraction since systematic descriptions of real-world problems always imply the danger of being hijacked by over-exhaustive details and unnecessary specifications. If taxonomies remain too closely rooted in an actual problem constellation, the risk is high that scholars will not succeed in revealing the means and ways leading to the solution of the given problem. In such a situation, the *fit demand* – the “optimal problem solutions” – remains hidden in details and is neither made salient nor explicit.

Consulting the nascent literature on “fit research” in international environmental policy, we find that scholars have resolved the just described “specification-abstraction tradeoff” by building “descriptive fit taxonomies” which provide detail accounts of the factual problem structure. For example, Oran Young has proposed a “descriptive fit taxonomy” for the study of international environmental regimes based on three general categories:

⁵⁰ All these three analytical problems occur if the *explanandum* (i.e., the problem structure) is not covered probably by *fit taxonomies*. *False causality* is, for example, the consequence when “fit taxonomies” cover irrelevant aspects that are not or only partly applicable for the “optimal problem resolution.” *Equifinality* instead would be ubiquitous in a taxonomy with limited level of detail. In such a situation we would not be able to say with certainty whether the studied impact factor or an alternative explanation with a very similar “causal fingerprint” was responsible for the actual outcome. But an underspecified *fit taxonomy* is also likely to lead to the problem of *multifinality*. These are situations where our understanding about the problem structure and the “optimal problem resolution” remains at the surface and were we could not pin down with certainty the actual impact scope of the individual factors we study. While acknowledging that the studied factors have an impact, we could not say how far their impact is reaching and what aspects are included (e.g., George & Bennett 2005: 157-8; Ragin 2006).

structural, process-oriented, and linkage-orientated aspects. Within these categories, he is listing a series of more detailed descriptions (Young 2002: 61).⁵¹

While acknowledging that “descriptive fit taxonomies” might be relevant in some policy fields and issue areas, it is relatively obvious that this concept is, with regard to the “specification-abstraction-continuum,” relatively far on the specification side.⁵² Already for the development of detailed taxonomies, we have to have extensive expertise and knowledge of the nature and structure of the given problem. Developing “descriptive fit taxonomies” without nitty-gritty insights upon a given problem is hardly possible. Thus, “descriptive fit taxonomies” are always exposed to the danger to drift off into over-excessive details and exaggerated specifications, which renders the practical operationalization of the *fit approach* difficult if not even impossible. Take, for example, the study of Arun Agrawal, who has identified in this “descriptive fit taxonomy” on resource regimes more than 30 relevant variables (Agrawal 2001). Elinor Ostrom and her team have even listed 42 relevant factors (Ostrom 2007).⁵³

In light of these shortcomings, we propose an alternative concept – the so-called “analytical approach” to *fit taxonomies*. We claim that this approach is more balanced in view of the “specification-abstraction continuum.” Its central idea is to “bring theory back in.” The “analytical approach” of *fit taxonomies* makes usage the strengths of theories – namely their descriptive, analytical, specifying, and prescriptive powers – in order to systematically decipher the scope and nature of the problem structure in a given constellation.

Due to their more universal nature, “analytical fit taxonomies” have a higher “travel ability” and apply not only to the specific context where they were developed but are likely to have relevance across different issue areas and policy fields. Apart from being familiar with relevant theories, *analytical fit taxonomies* require rather modest in-advance expertise and knowledge about the actual nature and scope of the studied problems. Moreover, given that abstraction is one of the principle characteristics of theories, the danger of being entangled and embroiled in over-excessive details is likewise relatively low. In addition, the risk of too abstract, under-specific, and distant analysis is likewise limited, given that “analytical fit taxonomies” are unlikely to stick to just one theory but instead represent “nested multitier maps.” In most of the cases, different aspects of a given problem structure are grasp by different theories and

⁵¹ (1) structural aspects: complexity, homogeneity, interdependence (2) process-oriented aspects: productivity, growth, stabilization, change (3) linkage-oriented aspects: boundary conditions and transboundary interactions (Young 2002: 61).

⁵² For other examples of descriptive fit taxonomies see: Agrawal 2001, Galaz et.al. 2008, or Ostrom 2007.

⁵³ In addition to that, “descriptive fit taxonomies” are closely bound to the specific problem structure and have often little use in other policy fields and issue areas. Oran Young has self-critically admitted that apart from the “(...) diagnostic method itself” the concept of “descriptive fit taxonomies” are hardly “transportable” across different cases (Young 2008: 143).

approaches which are built into a single *fit taxonomy*. Consequentially, *fit taxonomies* signify in the end eclectic analytical schemes.⁵⁴

2.4.4 Varieties of (Mis)Fit: The Yardstick of Fit Performance

Now that we have decided to operationalize the *fit approach* through *fit taxonomies*, we have to think also about a scale of “fit performance” that allows us to evaluate the impact of *diplomatic design* and its different elements. What we need for the practical application of the *fit approach* is a series of benchmarks that reveals the “varieties of (mis)fits.”

As we have explained in the introduction chapter (ch. 1.1), the *fit approach* operates on a different logic than the effectiveness approach. Nevertheless, the “standard of success” of the effectiveness approach – the degree of problem solution – is also relevant to the *fit approach*. It likewise signifies an appealing yardstick for our PhD project. We will therefore incorporate it into our scale of “fit performance” – as a benchmark, not as an analytical evaluation concept. In addition, another interesting and relevant benchmark for the evaluation of “fit performance” is *efficiency*.

Table 4: Varieties of (Mis)Fit

Varieties of (Mis)Fit	Overall Performance	Combined Benchmarks (Effectiveness & Efficiency)	Explanation
fit	👍👍👍	effective and efficient	<i>Efficient problem solution. The evaluated impact factor has resolved the problem. The allocated resources were appropriate.</i>
overfit	👍👍	effective but inefficient	<i>Inefficient problem solution. The evaluated impact factor is overdosed in terms of allocated resources.</i>
partial fit	👍	only partly effective but efficient	<i>Some but not all aspects of the defined problem are solved with an appropriated allocation of resources.</i>
underfit	👍👎	inefficient and only partly effective	<i>Partial effective problem solution because of too little or toom many invested resources.</i>
misfit	👎👎	ineffective and inefficient	<i>The problem was not resolved. The invested resources are squandered.</i>
negative fit	👎👎👎	problem increasing	<i>The given problem is intensified by the studied impact factor.</i>

⁵⁴ “Analytical fit taxonomies” are among the different ways to operationalize the *fit approach*, the concept that is most akin to the daily work of the country doctor we have mentioned above. When examining patients, she will – in all probability – rely on a scheme of symptoms that indicate the scope and nature of the illness and allow, in a second step, to choose a well-fitting treatment (case C, Figure 4). Her scheme of symptoms is intervening in the first diagnostic step (i.e., the examination of the patient) and is systematizing the problem structure (i.e., the range of possible illnesses) to a degree that the “optimal problem solution” (i.e., the most suitable cure) becomes salient. Certainly, based on what we know from the history of medicine (e.g., Eckart 2008), healers and shamans who were no charlatans but instead were really interested in curing illnesses, have examined their patients in pre-modern times according to the same diagnostic principles. They, however, used schemes of symptoms that were akin to “descriptive fit taxonomies” building on years of experience and in-depth practical knowledge on treating patients. Since the country doctor in our metaphor is a figure of modern times, her concept of symptoms is different. It is primarily based on medical research, bio-chemical theories, the application of the latest medical technologies, and is ideally reflecting the newest research findings. In essence, her scheme of symptoms signifies a “nested multitier map” of appropriated medical treatments applicable to range of illnesses – a constellation that is very much akin to the concept of “analytical fit taxonomies.”

Efficiency is defined by appropriate allocation of resources. It is regarded as the “little brother” of effectiveness, since it is logically subordinated to “optimal problem solution”. The achieved degree of problem resolution is the major yardstick for evaluating the appropriated allocation of resources. Efficiency signifies an outcome where the allocated resources harmonize with the degree of problem resolution. The appropriate allocation of resources does only make sense in the light of the overall problem solution. It is only in that context that we are able to ask how many resources had been invested to achieve this goal and whether a given problem could have been resolved more efficiently. Inefficiency instead represents a result where either too little or too many resources have been invested in light of the achieved problem resolution. If a given problem remains unresolved, all investments were for nothing. In that case, inefficiency and ineffectiveness coincide and efforts to analyze the appropriate allocation of resources make no sense. By definition there is no efficient ineffectiveness.

However, apart from being logically subordinated, the other reason why efficiency is regarded as the “little brother” of effectiveness is that it was rarely studied in IR and decision makers appear to primarily focus on problem solution and are less concerned about the costs of foreign policy (e.g., Mitchell 2008; Wolter 2007).⁵⁵ However, efficiency is not irrelevant. On some occasions, the appropriated allocation of resources could play an important role in decision making and affect foreign policy (e.g., Stiglitz & Bilmes 2008).

If we combine these two benchmarks – problem resolution (i.e., effectiveness) and appropriate allocation of resources (i.e., efficiency) – we are able to develop a comprehensive six-stage yardstick which allows to evaluate the “varieties of (mis)fit” (Table 4).

(1) Fit: *Fit* is certainly the most important stage of our evaluation scheme. It represents situations where the studied impact factor resolves a given problem under the condition of an optimal allocation of resources. If we identify a *fit*, it represents a problem solution that is effective and efficient. If an impact factor is fitting, it is perfectly matching – in both qualitative and quantitative terms – to the “optimal problem solution” identified by the *fit taxonomy*.

(2) Overfit: The *overfit*, instead, represents an inefficient problem solution. While matching with the nature of the problem, the impact factor is “overdosed.” The problem would have been resolved even with fewer resources. The *overfit* is a situation where foreign policy makers would celebrate the successful problem solution but would deplore the avoidable extra-costs. In that sense, *overfits* signify effective but ineffective outcomes.

⁵⁵ Efficiency is often too narrowly thought of in terms of financial costs. But there are numerous other resources – such as social or political capital – that could likewise be studied through the lens of appropriate allocation.

(3) Partial Fit: *Partial fits* are situations where the performance of an impact factors do only address certain aspects of a given problem. The performance of the impact factors are imperfect and do not fully match with the “optimal problem solution.” But while being only partially effective, the aspects of the problem that were resolved were achieved with an appropriate allocation of resources. Consequentially, a *partial fit* is an outcome that is efficient but not full effective.

(4) Underfit: The *underfit* is in many respects the mirror-inverted constellation of the *partial fit*. *Underfits* signify only partly effective but inefficient outcome. The evaluated impact factor is only in parts matching with the problem structure and contributes only to a certain degree to its resolution. Moreover, *underfits* are situations where the allocation of resources are disproportional. Either because too little resources were invested to achieve a better “fit performance” or too many resources were allocated despite the mismatching problem resolution.

(5) Misfit: *Misfit* is the opposite of *fit*. It signifies a state where the performance of the studied impact factors are not contributing to the problem solution and where the resources invested were for nothing. *Misfits* represent ineffective and inefficient outcomes.

(6) Negative Fit: Finally, there is the *negative fit*. It signifies constellations where impact factors are not only ineffective and inefficient but where they even further increased the problem. In the realities of world politics, *negative fits* often occur in the form of unintended side effects to diplomatic interventions.

2.5. Meta-Theoretical Foundation: Scientific Realism, “Enlightened Rationalism” and the “Inference to the Best Explanation”

Since we are primarily interested in resolving empirical puzzles, we try to keep the part on the (meta-)theoretical foundations of our PhD project as brief and concise as possible. However, it is important to flag that this section is not a “scholastic finger exercise” we felt obliged to write because every doctoral thesis has to have a theory chapter. Rather, all the methodological remarks we made have immediate implications for the analysis of NRN and its *diplomatic design*.

Probably the best example to show the direct linkage between theory and practical research is the problem of fit we elaborated in the previous chapter (ch. 2.4). While being an intriguing and fruitful research template, this approach builds on three basic premises, which all refer back to our meta-theoretical position: First, the *fit approach* is expressing the view that problems are products of lacking solutions. This perspective implies that there is, *in principle*, a solution to every problem. The remedy to every deplorable state in international affairs is synonymous with designing a well-matching cure. The *fit approach* operationalizes problems primarily as “projection screens” for problem resolution. And, admittedly, since problems and solutions are always though in parallel, the “fit approach” turns a blind eye on situations that are either inherently unresolvable⁵⁶ or that follow the logic of “auto-resolution”.⁵⁷ Second, applying the *fit approach* determines a particular concept of causality. When studying the “problem of fit” we apply the “logic of compatibility” (Young 2002: 20). This is an essential feature of the *fit approach* and is therefore independent of the applied methods and research. The central assumption is that the “fit performance” is increasing the more and the particular factor (in our case diplomatic design) is matching to the scope and nature of a given problem (in our case negotiation problems). Third, the *fit approach* is, in general, relatively optimistic about the cognitive and creative capabilities of “designers.”⁵⁸ In order to establish *fitness*, designers have to have a relatively detailed understanding not only about the available design elements but also about the scope and the nature of the relevant problem – even

⁵⁶ For example, the geo-political impact of non-human-induced climate change (see, for example, the “Little Ice Age” in Early Modern Europe; Dipper 1991: 10-18).

⁵⁷ “Auto-resolution” of problems is, for example, common in closed ecological systems (e.g., reduction of overpopulation despite lacking predators by epidemics; Kalchreuter 1984). But it is also an important aspect in political thinking – see, for example, dialectic historic development as they were described in classical Marxism (Marx 1932 [1872]).

⁵⁸ As we are now talking about the “designer” it is time for a general note: The notion of “fit” is obviously borrowed from Evolution Theory original introduced by Charles Darwin. The Evolution Theory is operating on the mechanism of “trial and error” and is also a good example of “auto-resolution” that was just described (see footnote 57). While “designers” (e.g., policy makers) are essential in *fit approach* that we apply, it was the most criticized part of the Evolution Theory (even until today, see: Creationism) that it operates without a “designer” (e.g., God). The concept of the “designer” is therefore the most important distinction between the natural scientific and the social scientific “fit approach.”

when they are themselves a genuine part of it. Moreover, the *fit approach* also implies that designers are capable to overcome path-dependencies and have the flexibility, power, and greatness to discard accustomed and cherished policy tools in order to choose more appropriate but less pleasant strategies. Of course, in reality a well-fitting design element that is resolving a particular problem is often the outcome of a complicated and protracted process which the involved players often only partly understand. However, studying the “fit performance” would be reduced to absurdity if we do not accept the principle assumption that “designers” (e.g., foreign policy makers) are rational actors who are – under favorable circumstances (e.g., after having received training and consultancy by IR scholars) – *in principle* capable to design well-matching problem resolution strategies. Analyzing the “problem of fit” would make little sense if we do not accept the assumption that actors are rational and capable of purposive actions.

In short, these three basic assumptions make clear that the *fit approach* builds on a rational foundation. It inevitably requires that actors not be determined by the given social context or by discourses but have, in principle, a chance to act autonomously and are provided with an independent epistemological access to the outside-world(s). The *fit approach* is certainly incompatible with a post-positivist ontology. But that does not necessarily impel us to side with positivism either. Since our primary interest is not “theoretical puritanism” but empiric research, we opt for a methodological approach that is assumed to signify the middle ground between the positivist and post-positivist poles: *Scientific Realism*.⁵⁹ Situated on the continuum between these two opposite meta-theoretical approaches, Scientific Realism is assumed to bring together the “best of both worlds.”

Without going too much into detail and by recurring to the most influential Scientific Realists in IR – Alexander Wendt⁶⁰ – one can very briefly say that this methodological approach revolves about three central ideas.⁶¹

First, Scientific Realism embraces an ideational ontology and, thereby, takes a *non-positive* stance.⁶² According to Wendt, social reality is constituted by “ideas all the way down” (Wendt 1999: 68) and has an unobservable nature which cannot be studied beyond any doubts in experiments and laboratories. Scholars have to accept, Wendt says, that our entire knowledge about the outside-world (as well as our knowledge about the

⁵⁹ For an introduction on Scientific Realism see: Chernoff 2009; Chernoff 2002; Dessler 1999; Jackson 2008; Joseph & Wight 2010; Patomäki and Wight 2000.

⁶⁰ At that point we highlight that Alexander Wendt’s understanding of Scientific Realism has also provoked criticism. While some scholars have followed his approach (e.g., Patomäki and Wight 2000), others have revealed certain flaws and inconsistencies in Wendt’s argumentation (e.g., Guzzini 2006; Kratochwil 2000: 89).

⁶¹ Opting for the “*via media*” is thereby in the tradition of negotiation research. Scholars who have studied international bargaining and negotiation dynamics have in the past avoided to side with one of the contesting paradigms of the so-called Third Debate (Jönsson 2002: 227).

⁶² Note that “Scientific Realism” is often debated within IR under the alternative label of “critical realism” (see, e.g., Jackson 2010).

unobservable elements of the natural world – such as atoms or electrons) is inescapable theory-laden (Wendt 1999: 62).⁶³

Second – and despite its ideational ontology – Scientific Realism is also challenging post-positivism by taking a clear *pro-science* orientation underscoring the relevance of causal research. According to Alexander Wendt, there is a social reality beyond ideas. He has emphasized that all elements of the outside world are “[t]o varying degrees (...) materially grounded, self-organizing phenomena with intrinsic powers and dispositions that exist independent of the minds and/or discourse” (Wendt 1999: 77). Of course, false discursive descriptions take place constantly and distort the actual nature of the outside world all the time. However, social reality has, according to Alexander Wendt, the chance to resist against misinterpretation and incorrect ascriptions.⁶⁴ The central proof in Scientific Realism for the assumption that the outside-world is not determined by interpretation is “scientific progress.” The self-organizing nature of social facts bestows them with the power to oppose false discourses. Over time social facts challenge – based on their self-organized internal structure – incorrect descriptions. Thereby they bring theories and social science into line with actual reality (Wendt 1999: 73), provide a better understanding of the outside world, and allow scientific progress.

Third, scholars (and laypersons) are able to access social reality via scientific methods. Theories – in particular “mature theories”⁶⁵ – play in that regard a central role for Scientific Realism. Our observation of social reality is assumed to consist first and foremost of ideas and theories. Consequentially, scholars have to take this “single-access point” to the outside-world serious. According to Alexander Wendt, “[o]bservation may be theory-laden, but it is not (...) theory-determined” (Wendt 1999: 63).

We *believe* that among the other available methodological positions Scientific Realism is the most fruitful and most suitable approach for our PhD project. Scientific Realism as a “via media” (Wendt 1999) merges the “ontology of social construction with the epistemological practices of so-called ‘positivist’ science” (Jackson 2008: 129). With regard to the so-called Third Debate in IR, it is Alexander Wendt’s declared goal to “adopt an idealist and holistic ontology while maintain a commitment to science” (Wendt 1999: 47). Moreover, Scientific Realism has a relatively high adaptability in academic debates. Many

⁶³ Wendt goes on and explains further that there is no “rigid distinction between theory and observation” (Wendt 1999: 62). “What we see in the world is always and necessarily mediate by the background understandings we bring to bear on our inquiries” (Wendt 1999: 106).

⁶⁴ Probably the one most salient example Wendt gives to bolster his argument of the “resisting power” of social facts is the collapse of the Aztec empire and the lethal fate of the Aztec king Montezuma II (Wendt 1999: 56-7 and 74). Although the Aztec interpreted in 1519 the arriving Europeans as Gods, the Spanish conquistadors had a “self-organized internal structure” that was independent of the Aztec discourse and eventually led to resistance to the false interpretation with the dire consequence that Montezuma II was “killed and his empire destroyed by an army hundreds of times smaller than his own” (Wendt 1999: 56). Wendt takes this cruel example as a proof that the social world is not synonymous with discursive patterns but displays an internal structure.

⁶⁵ According to Alexander Wendt, “mature scientific theories” are those causal and descriptive explanations which have not been dismissed by “rebellious reality” and have survived ongoing resistance by social facts. With regard to IR, Wendt is listing three approaches that would in his view meet the standard of mature theories: rational choice, democratic peace, and balance of power (Wendt 1999: 68; Wendt 2004: 56).

IR scholars follow this approach either implicitly or explicitly (Alker 2000: 141; Krasner 2000: 131).⁶⁶

As a broad meta-theoretical approach, Scientific Realism provides us only with basic coordinates. However, when turning towards practical research we have to be more precise on the nature and scope of our theoretical fundamentals.⁶⁷ Our scientific realist position needs further specification. There are three aspects that appear in that regard in particular relevant for our Ph.D project:

First, action is the primary nature of negotiation and diplomatic dynamic. Consequentially, we have to be precise about the *action theoretical* position. In terms of action theory, Scientific Realism is relatively flexible and allows the application different approaches (Risse 2003). In the following section we will show that the “logic of consequences” is the most appropriate concept for our research project (ch. 2.5.2). Given the adverse and unfavorable context conditions that dominate international security policy, the two alternative action-theoretical approaches – the “logic of appropriateness” and the “logic of persuasion” – are instead unlikely to apply (ch. 2.5.1).

Second, while the “logic of consequences” is assumed to be relatively convincing for the study of behavioral patterns in NRN, this particular action-theoretical approach has shortcomings too. In its conventional application, the “logic of consequences” is closely related to “Orthodox Rationalism.” “Orthodox Rationalism” has a solid footing in micro-economic research and was vehemently challenged during the last two decades by post-positivist scholars. Addressing this critique, we base the “logic of consequences” on a more moderate and revised version of rationalism: the so-called “Enlightened Rationalism” (ch. 2.5.3).

Third, causal inference is central for studying the “fit performance” of *diplomatic design*. Consequentially, we have to elaborate in detail about the mode of reasoning preferred by Scientific Realists – the “Inference to the Best Explanation” (ch. 2.5.4). IBE will play a central role not only in the causal analysis of *diplomatic design* elements but in particular in the genesis of our *fit taxonomy* (ch. 3.3).

2.5.1 Why the “Logic of Appropriateness” and the “Logic of Persuasion” Are Unlikely to Apply

In reality the different action-theoretical logics debated in IR literature do not necessarily exclude each other. As Duncan Snidal said, it is perfectly plausible that real-world actors follow more than just one behavioral script (Snidal 2013: 94). However, if we evaluate the

⁶⁶ In the “academic biotope” of German IR Scientific Realism – occasionally labeled as “soft positivism” or “hermeneutic informed positivism” – it appears to be the most dominant methodological position (e.g., Wolf & Hellman 2003: 598-99; Zangl & Zürn 1996: 34).

⁶⁷ Of course, there are many other aspects one could possibly discuss about Scientific Realism – such as its intellectual genesis or its dissemination. As we have said, we have no inclination to do so. We leave this debate to scholars specialized in this field and instead follow an “empirics-first” attitude.

three action-theoretical approaches in light of the strategic conditions that dominate international security policy, we come to the conclusion that the “logic of appropriateness” and the “logic of persuasion” are unlikely to apply in NRN.

For an action-theoretical approach, the “logic of appropriateness” is very structural. It starts from the assumption that real-world actors are not identical with the concept of the *homo economicus* but instead represents *homo sociologicus*. Consequentially, behavioral patterns are assumed to be determined by socio-cultural settings (Deitelhoff 2006: 79-80; Rothstein 2005). According to March and Olsen – the two scholars that made this action-theoretical approach known to a wider audience in IR – the “logic of appropriateness” is based on the hypothesis that policy makers “follow rules that associate particular identities to particular situations, approaching individual opportunities for action by assessing similarities between current identities and choice dilemmas and more general concepts of self and identities” (March & Olsen 1998: 951).

There are two reasons why the “logic of appropriateness” is – in all probability – irrelevant for our bargaining dynamics in security policy in general and for the bargaining dynamics with *atomic renegade states* in particular:

First, when the “logic of appropriateness” is asked to explain social change – for example, by the concept of norm cascades (Finnemore & Sikkink 1998) – it is in essence recurring to the “logic of consequences” and utilities maximizing actors. In the “logic of appropriateness,” shifting collective identities and socio-cultural settings are primarily attributed to the work of “norm entrepreneurs” – actors who contest existing normative orders and endeavor to replace them with alternative social scripts. While the concept of “norm entrepreneurs” has undoubtedly revealed new and intriguing insights about change in trans- and international politics, it nevertheless lacks a genuine explanation as to why these actors take all these efforts. Since “norm entrepreneurs” are obviously opposing the existing normative order, their behavior is unlikely to be determined by the dominant socio-cultural setting – the major explanation for actions under the “logic of appropriateness.” Consequentially, “norm entrepreneurs” have to operate according to a different rationality – a finding that leads us back to the rational concept of self-interest. While not necessarily striving for material goods, “norm entrepreneurs” are expected to follow the “logic of consequence” and aim to maximize utilities (e.g., Deitelhoff 2006: 75-6). Thus, when it comes to change, the “logic of appropriateness” is recurring to the “logic of consequences.”

Second, the “logic of appropriateness” builds with social norms, collective identities, and cultural settings on relatively static and enduring formations. Consequentially, under the “logic of appropriateness” change could only occur in terms of as a relatively slow and gradual process when, for example, prevailing social norms are disapproved as inappropriate and step-by-step substituted by alternative socio-cultural scripts (see, e.g., Checkel 2001; Keck & Sikkink 1998; Klotz 1995; Price 1995; Risse, Ropp & Sikkink 1999; Tannenwald 2007). Negotiations are, however, relatively dynamic phenomena marked by often and abrupt changes. Sharp U-turns and game-changing outcomes are not unusual.

The relatively static orientation of the “logic of appropriateness” is therefore unlikely to apply.⁶⁸

But it is not only the “logic of appropriateness” that is unlikely to apply for bargaining dynamics in international security policy. The “logic of persuasion” is also assumed to fall short as an appropriate action-theoretical approach. Communicative action and the “logic of persuasion,” originally developed by the philosopher Jürgen Habermas (1981, 1992) and introduced into the IR debate by Harald Müller (1994), became prominent academic templates in recent years – in particular in German IR. It not only sparked lively debates (cf. ZIB debate⁶⁹) but also lead to a series of empirical studies (e.g., Albert et al. 2008; Crawford 2002; Holzinger 2001b).⁷⁰

Unlike the “logic of appropriateness,” the “logic of persuasion” is a relatively dynamic action-theoretical approach which is assumed to have high relevance for the research on international negotiations.⁷¹ However, it is relatively apparent that the “logic of persuasion” is sensitive to contextual conditions. After all, Jürgen Habermas has developed this approach as a general philosophic concept and had not thought about the specific situations of international security policy (Müller 1994). It is certainly true that the “arguing techniques” are applied constantly in international affairs in very different settings and under very diverse circumstances (e.g., Holzinger 2001a, 2001b). But “arguing” does not per se lead to persuasion. In recent years the protagonists of this action-theoretical approach have therefore specified a number of “scope conditions” listing the contextual requirement needed for successful persuasion (Deitelhoff 2006; Ulbert & Risse 2005; Risse & Kleine 2010; Checkel 2005).⁷² The problem, however, is that most of these “scope conditions” are unlikely to apply in the conflict-laden context of

⁶⁸ In international affairs there are numerous examples where even antagonistic and hostile negotiations between foes and opponents arrived in the end to a successful outcome (take, for example, the Dayton Agreement that ended the conflict in Bosnia and Herzegovina in the mid-1990s). Based on the “logic of appropriateness” it would be difficult to analyze these bargaining dynamics. In the perspective of this action-theoretical approach, conflicts primarily signify struggles over contradicting social norms and identities. Consequentially, conflict-laden negotiations would be first and foremost “shouting matches” where representatives from different socio-cultural settings clash at each other. While this description is certainly correct for some bargaining situations in world politics, it nevertheless does not cover those dynamics where conflicting parties arrive at sudden cooperation and where hostile diplomatic struggles are U-turning into successful negotiation outcomes.

⁶⁹ See, e.g., Keck 1995; Müller 1994; Risse-Kappen 1995; Schimmelfennig 1997; Schmalz-Bruns 1995; Schneider 1994; Zürn & Zangl 1996.

⁷⁰ The “logic of persuasion” bases on the power of the “better” argument. In a case of successful persuasion, actors manage to alter the preferences of their audience, establish a collective consensus (*Verständigung*), and thereby trigger profound and self-sustained social change. This is achieved by “arguing techniques” which primarily represent the discursive practice of reason-giving and justification (Müller 2004; Risse 2000).

⁷¹ It is obvious that there is a close link between the “logic of persuasion” and diplomatic processes. Negotiations are the places where arguing and persuasion take place. Advocates of this action-theoretical approach point out that the “logic of persuasion” is in particular suitable to grasp the abrupt and sudden changes. It is therefore not astonishing that evidence for the relevance of “arguing” and “persuasion” was in particular found in multilateral negotiations or in institutionalized bargaining process such as in the context of the European Union (e.g., Gehring & Kerler 2008; Joerges & Neyer 1997; Niemann 2006).

⁷² Note that a consensus about the actual set of “scope conditions” is still missing.

international security policy such as the WMD issue area. To illustrate our argument we sign three examples:

First, persuasion is assumed to be dependent on a *favorable negotiation environment*. Jeffrey T. Checkel has, for example, explained that the communication actions of “arguing” would have a higher impact if the targeted actors (i.e., the audience) do already belong or want to belong to the same “in-group” as the arguing actors (Checkel 2005: 81). Nicole Deitelhoff is supporting this argument by pointing out that persuasion is promoted by overlapping social realities (*Lebenswelten*) and shared yardsticks to evaluate the quality of exchanged arguments (Deitelhof 2006: 21-23). However, in international security policy, this favorable negotiation environment is often missing. Actors who are embroiled in diplomatic struggles usually do not share the same *Lebenswelt* and often disagree about the yardsticks applied to evaluate the quality of their arguments.

Second, the *authority of the speaker* is often assumed to be another “scope condition” for successful persuasion. The protagonists of this action-theoretical approach underscore that “arguing” in international negotiations is more likely to succeed if the involved actors are able to base their authority “on expertise and moral competence” or if there is a “neutral chair” within the negotiation process (Risse & Kleine 2010: 714). While this “scope condition” might be met in many bi- and multilateral bargaining dynamics, it is a requirement that is unlikely to apply to antagonistic and hostile diplomatic encounters where negotiating counterparts regard themselves as foes and opponents.

Third, the requirements of *no-lecturing* and a *serious deliberation of arguments* are another “scope conditions.” Checkel has, for example, made clear that persuasion is only possible if the actors do not “lecture or demand” but instead act under the “principles of serious deliberative argument” (Checkel 2005: 813). Nicole Deitelhoff has made a similar argument by emphasizing the absence of power politics as essential scope condition. What is required is an open, nonpartisan, and inclusive discussion (Deitelhoff 2006: 21-22). It is relatively apparent that this “scope condition” is likewise seldom met in conflict-laden negotiation dynamics.

2.5.2 “Logic of Consequences” and Orthodox Rationalism

Since the “logic of appropriateness” and the “logic of persuasion” are assumed to have little to no exploratory power for negotiations with *atomic renegade states*, the behavioral pattern of actors who are embroiled in NRN is – in all probability – guided by the “logic of consequences.”

In this third and most “classical” action-theoretical approach, actors are conceptualized as rational goal seekers who endeavor to realize individual goals. According to Jon Elster, being rational signifies “consistent, future-oriented, and instrumentally efficient behavior” (Elster 1989a: 35). David Lake and Robert Powell second this definition by

underscoring that rationalism assumes that “actors make purposive choices, that they survey their environment, and to the best of their ability, choose the strategy that best meets their subjectively defined goals” (Lake & Powell 1999: 6-7).

Both the “logic of appropriateness” and the “logic of persuasion” explained change by ideational shifts. The motivation of actors is either altered by persuasion or by a gradual change in the general social and cultural setting. In the “logic of consequence,” social change is achieved through a different avenue. The motivation of actors – their beliefs, desires, and preferences – is assumed to be stable. Change occurs not by ideational shifts but first and foremost by the modification of the strategic environment (Lake & Powell 1999: 19). Alterations in the behavioral patterns are the consequence of external manipulations of an actor’s strategic calculation. The primary techniques in that regard are “credible threats and promises” (Elster 2007: 419).

The “logic of consequence” is able to explain change and dynamics in situations in which the two alternative action-theoretical approaches are too demanding, static, and too protracted. As John Elster has pointed out correctly “[i]t is usually easier to change people’s circumstances and opportunities than to change their minds” (Elster 2007: 170). Manipulating the strategic environment of actors in international affairs by threats and promises is assumed to operate even under difficult circumstances.

However, the “logic of consequence” has also its limits. While it can explain swift behavioral changes under adverse conditions, it is weak in covering profound, sustainable, and self-supporting motivational shifts that endure even when the external manipulation is dwindling. As soon as the stimuli comes to an end and does not affect the strategic calculations anymore, the targeted actors are assumed to return to their accustomed behavior given that the original intentions have remained stable and have not changed.⁷³

However, since international negotiations signify primarily dynamic and rather short- or medium-term phenomena, this particular shortcoming of the “logic of consequence” is not completely irrelevant but less important than in other fields (such as in the research on international institutions). Far more relevant is instead to risk to be regarded as an “Orthodox Rationalist” as soon as we speak of rational actors and the “logic of consequence.” It is, however, one of the core arguments of our PhD project that the “logic of consequences” is not embroiled in a “Faustian pact” with Orthodox Rationalism but instead is free to strike a league with the more moderate Enlightened Rationalism – the meta-theoretical approach we prefer in our doctoral thesis.

Orthodox Rationalism is in general a very dominant approach in social sciences. Originated from micro-economic theory, it is associated with the assumption of *homo economics* and a materialist view on social reality. Orthodox Rationalism has

⁷³ The way out of this situation is to build lasting incentive structures (such as international institutions). Consequentially, the weakness of the “logic of consequence” in terms of long-term behavioral changes was widely debated in the literature on international institutions and regimes (e.g., Hasenclever, Mayer & Rittberger 1997).

shortcomings. Some of its weaknesses were identified by rationalist scholars (i.e., the approach of “bounded rationality”; Jones 1999). But most critiques came from post-positivist approaches. Challenged for more than two decades, the list of critical reviews has grown over the years.⁷⁴ We share many aspects of the critique and will introduce three outstanding shortcomings which are in particular important for our PhD project:

First, Orthodox Rationalism was often criticized for building on naïve hyper-rational assumptions. It is simply unrealistic, critics of this approach say, that actors are optimally informed about the entire set of potential strategic options. It is unlikely that real-world actors have in-depth knowledge about their opponents’ preferences, and that they dispose powerful calculation capabilities allowing them to draw always under all circumstances well-matching strategic conclusions. Real-world actors are no “walking encyclopedias.” Rather, the rationality of individuals or groups is assumed to be “bounded” to their cognitive capabilities, emotional dispositions, and the scope and nature of the available information (Deitelhoff 2006: 84; Jervis 1976; March 1986; Ostrom 1991; Stein 2013).⁷⁵

Second, Orthodox Rationalism was often criticized because it perceives the motivation of real-world actors as exogenous and given (Milner 1991; Ruggie 1998: 862-3). In particular (neo)realists scholars have often presumed fixed preferences and have inferred the assumption of the general striving for survival and self-help from the anarchic structure of international system and the distribution of power resources among state actors (e.g., Waltz 1979). Critics, however, have emphasized that actors’ intentions are endogenous and contingent. The motivations of state actors change over time and vary considerably even when they are operating under the same systemic conditions or when they have similar power capabilities (e.g., Barnett 1998; Checkel 1998; Finnemore 1996; Wendt 1994).

Third, Orthodox Rationalism is assumed to be weak in explaining dynamic processes. Its overall focus is rather on static situations. When dynamic forces are introduced into rationalist research designs, they often build on relatively simple concepts such as exogenous power shift. By neglecting change and dynamic forces, Orthodox Rationalism is turning a blind eye one of the most important and intriguing part of international politics, critics say (e.g., Deitelhoff 2006: 20; Snidal 2013: 99).

But while the critique is justified, we see that constructivist and post-positivist IR scholars tend to hold all other rationalist scholars hostage for Orthodox Rationalism (Snidal 2013; Stein 1999). It is often ignored that rationalism has moved onward the last two decades. Constructivist and post-positivist critics turn too often a blind eye on the numerous efforts that was undertaking to overcome or at least to mitigate the shortcomings and flaws of Orthodox Rationalism. In the following section we will introduce some of these

⁷⁴ For a comprehensive summary of the critical debate about rational choice in IR including its strengths and shortcomings see, e.g., Snidal 2013.

⁷⁵ In that context we would like to mention that there are numerous experimental studies showing that individuals often fail to act rationally (Kydd 2008: 430; Schneider 1994: 363; Jones 1999: 297).

reform efforts which were undertaken by a number of scholars we grouped together under the label of Enlightened Rationalism.

2.5.3 Enlightened Rationalism: An Ongoing Reform Project

The expression Enlightened Rationalism was originally coined by Jeffrey T. Checkel (Checkel 2001: 569).⁷⁶ Instead of being a well-defined methodological approach, Enlightened Rationalism signifies rather a “hotchpotch” of the different reform efforts. It is an (slowly) ongoing debate and an umbrella term uniting the numerous attempts to revise and modernize rationalism in light of the vehement critique this approach has faced in the last decades. Although the individual perspectives and concepts differ, we can say *in general* that Enlightened Rationalists have a tendency to downgrade conceptual rigidity and parsimony for the sake of a broader and more holistic view on social reality (Snidal 2013: 87).

What we will discuss in the following sections is a selection of enlightened rationalist arguments. We will focus on those aspects that are in particular relevant for our research project. To illustrate our argumentation we will on numerous occasions refer to one of the most influential metaphors in social science: the Prisoners’ Dilemma (PD).⁷⁷ Signifying a very concise description of a social dilemma where individual rationality leads to collectively sub-optimal outcomes, we deem the PD as a particularly useful example to clarify the (meta-)theoretical assumptions and logics of Enlightened Rationalism.

2.5.3.1 The Structure of Rational Motivation

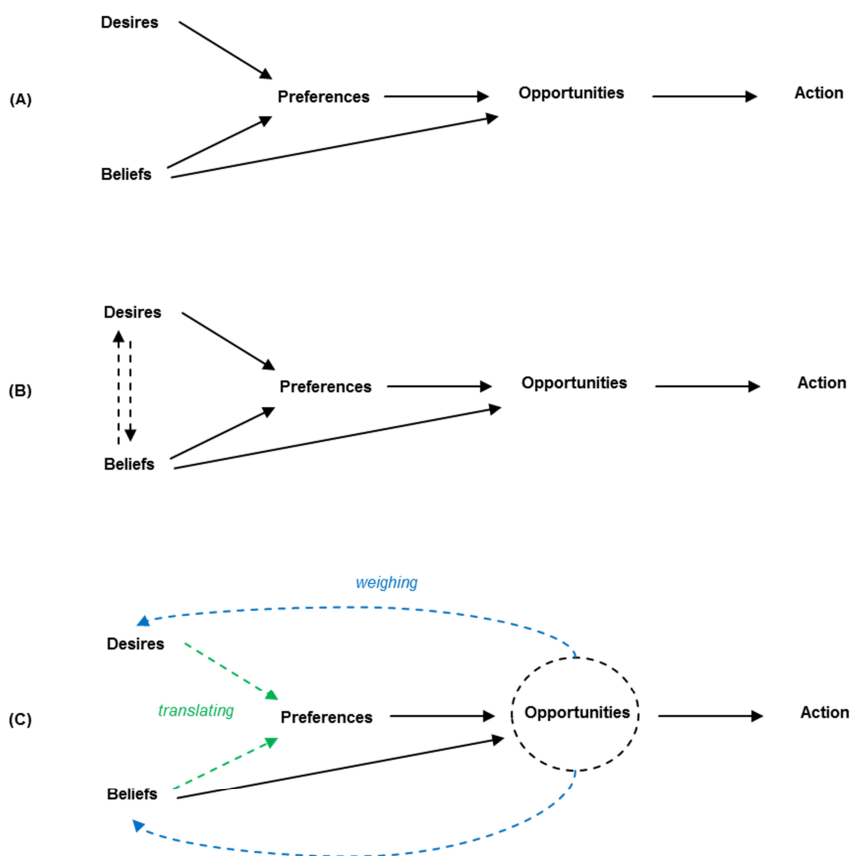
Rationalism “is subjective through and through” (Elster 2007: 209). It puts individual actors – regardless whether they are individuals or collective entities – at the center. Consequentially, the motivations of actors are essential in order to understand and explain behavioral patterns (e.g., Scharpf 2000: 110).

⁷⁶ Other expressions used in the literature are, for example: “soft rational choice” (Kydd 2008: 429) “nonmathematical approach of rationalism” (Snidal 2013: 87), “weak cognitivism” (Hasenclever, Mayer & Rittberger 1997), “actor-centered institutionalism” (Scharpf 1997; Zürn & Zangl 1999), or “second generation models of rationality” (Ostrom 1998).

⁷⁷ In IR literature we find many descriptions of the PD metaphor (e.g., Luce & Raiffa 1957: 94-5; Axelrod 1987: 112-3; Oye 1986: 7-8). In the conventional form it reads as follows: Imagine two criminals who were arrested by the police for committing a crime together (for example, burglary). Both are imprisoned in separate cells without the chance to communicate with each other. Since both decline to testify, the sharp-witted chief inspector offers each prisoner a deal with three options: (1) In case only one of the suspects testifies, the confessor goes free while his comrade will be jailed for 10 years (2) If both admit they committed crime, both will be sentenced for 5 years (3) If both, however, remain silent they will both be punished with 1 year in prison for a minor crime they have been already convicted for (for example, illegal possession of firearms). If we assume that the criminals are rational actors who follow the logic of individual utility maximization, they would, in all probability, both break their silence, fearing that their counterpart is choosing option (1) and they would suffer the worst case scenario of 10 years in prison. Option (2) is therefore the most likely outcome. The smart chief inspector has fulfilled her mission and has convicted both suspects. But by following the logic of individual rationality the two prisoners have, however, missed the collective optimum which would have been the best choice for both of them (option 3).

Against that background one would assume that IR scholars who follow the “logic of consequence” have a clear concept of rational motivations. But, strangely, that is rarely the case (e.g., Aggarwal 1996: 15-98; Frieden 1999; Stein 1999). Despite frequent calls for a “theory of motivation” (e.g., Allan 1983; Cohen 1990; Oye 1985; Powell 1994; Rittberger & Zürn 1990a; Snidal 1986; Stein 1999: 204), the current situation is still bleak. What is meant by “motivation” appears to vary widely among IR scholars. Definitions are often unspecific or mingled with other non-motivational aspects of rational choice theory – such as strategies or incentives (e.g., Frieden 1999: 39 & 47; Stein 1999: 204). Moreover, the debate about actors’ “motivations” is marked by an “inflation” of terminologies. The spectrum stretches from rather colloquial expression such as “goals,” “objectives,” “interests,” or “wishes” to relatively technical terms such as “utility concepts” or “payoffs.”⁷⁸

Figure 5: Motivational Concept



Adapted from Jon Elster’s concept(s) of rationality and rational choice (Elster 1989: 13-21,31; Elster 2007: 173-176; Elster 2009: 14-45)

However, it appears that those scholars we have associated with the reform project of Enlightened Rationalism do agree about the structure of rational motivation (Figure 5).

⁷⁸ In order to avoid additional confusion in terms of terminology, we have decided to follow the vocabulary introduced by Jon Elster – probably one of the leading philosophical experts on rationalism (see in particular Elster 1989a and Elster 2007). Only with regard to “preferences” we differ from Elster’s terminology since this aspect is in his concept relatively imprecise. Although Elster elaborates explicitly on the idea of “preferences” at several occasions in his writings (for example, in his analysis of collective decision making (Elster 2007: ch. 25)), he has not incorporated “preferences” into his motivation concept.

There is a certain consensus that the motivation of real-world actors is not monolithic but consists of different components, namely: opportunities, preferences, beliefs, and desires (e.g., Lake & Powel 1999; Elster 1989b 30-41, Zürn & Zangl 1999: 353-4). In particular, with regard to the ideational non-material concept of beliefs, the enlightened rationalist concept of motivation becomes clearly distinguishable from Orthodox Rationalism, which is dominated first and foremost by a materialist world view.

Opportunities: Opportunities are the set of all possible choices available to actors in a given strategic situation. Opportunities are all what actors possibly *could* do. For example, in the PD metaphor illustrated above (footnote 77), the arrested criminals have four possible opportunities – (1) confess together (2) remain silent together (3) unilateral confession (4) or remaining silent while the counterpart is confessing. However, while the opportunities of an actor represent a crucial element of his or her motivational concept, opportunities themselves are not *motivation* in the strict sense since they have not an ideational nature. Motivations (i.e., desires, beliefs, and preferences) are purely subjective. They are internal to actors. Opportunities, instead, are creatures of the outside world. They are objective and external to actors (Elster 1989a: 20).

Desires: Obviously, not all available opportunities are wanted by actors. Just because actors can do something does not mean that they also preferred the doable. Desires are (together with beliefs) crucial for the selection of opportunities. Desires are what actors want. "Desires define what, for the agent, counts as the best" (Elster 2007: 165). For example, the desire of the two prisoners in the PD metaphor is in all probability "freedom." They strive to avoid a prison sentence or at least endeavor to reduce their time in confinement to the minimum. Desires of actors vary. In many cases real-world actors have more than just one desire. Moreover, desires are assumed to be *relatively* stable formations (see also ch. 2.5.3.3). They are by and large supposed to be relatively independent for the particular interaction or the general strategic environment. For example, we could assume that the desire for "freedom", we assigned to the two criminals of the PD metaphor, is an integral part of their motivation and likely to prevail regardless of whether they are sentenced to several years in prison or set free.

Preferences: Enlighted Rationalists appear to agree that desires (and beliefs, see following section) do not directly affect the choice of opportunities but work through preferences (e.g., Elster 2007: 402; Lake & Powell 1999: 10; Powell 1994: 318; Zürn & Zangl 1997). Preference signifies the situation-specific implementation of desires (Frieden 1999: 41; Lake & Powell 1999: 9-10). While desires represent what actors want *in general*, preferences are the manifestation of this general will within a specific strategic constellation and in correspondence to the available opportunities. Preferences are in essence "desired opportunities."⁷⁹ Thus, preferences are not freely chosen by actors. Rather, preferences are the strict situation-specific implementation of desires (and

⁷⁹ At that point we shall note that the transitive nature signifies another important feature of preferences. Expressed by an example introduced by Andrew Kydd, transitive preferences mean that "if I prefer victory to a stalemate and a stalemate to defeat, I must prefer victory to defeat" (Kydd 2008: 429).

beliefs) (Figure 5). Actors have to *translate* their desires in light of the available opportunities and rank them in terms of “betterness.”⁸⁰ That actors are capable of stringently converting their desires (and beliefs) into preferences is a core assumption of rationalism. After all, being rational is defined by consistency between what actors want and what they do (Elster 1989a: 35).

Unlike desires, preferences are not stable. They are contingent upon concrete interactions and specific situations. When the set of available opportunities is changing, preferences change too – despite stable desires. In light of the available opportunities the very same desires are in these situations translated into different preferences. For example, with some imagination we could assume that the entire situation of the PD metaphor is changing because the case of the two arrested criminals is taken to court. The original PD is now transforming into a “juridical game.” Since a lawsuit differs in many respects from an interrogation situation with the general prosecutor, the set of opportunities available to the two prisoners is changing leading to different behavioral patterns despite the fact that the desire for “freedom” is assumed to remain stable. Due to the altered situation, the preferences of the two criminals are likely to vary. For example, in courtroom situations the two criminals would be supported by lawyers. As a consequence, the worst-case scenario of the PD metaphor (10 years of imprisonment if only one of the suspects is confessing) appears less threatening since the two suspects expect that their legal representatives are able to alleviate this draconic punishment. Consequentially, the inclination for a swift confession – inherent in the original setting of the PD metaphor – becomes less dominant. However, all that does not change the fact that “freedom” is the ultimate desire of the criminals.

Beliefs: Beliefs are another central component of rational motivation. Beliefs signify general cognitive assumptions actors have about the world and the nature of politics (Keck 1995: 8; Elster 2007; Lake & Powell 1999: 11; Scharpf 2000: 114-116). Unlike desires, beliefs signify convictions and not aspirations. While desires are what actors want to get in a given situation, beliefs are what they think they *could* get.⁸¹

Beliefs are assumed to affect the behavioral patterns of rational actors in two ways (case A, Figure 5). First, and similar to desires, beliefs work through preferences. Together with desires they lead to a ranking of available opportunities in a given strategic situation. Recurring again to the PD metaphor we could, for example, assume that one of the

⁸⁰ It is important to keep this particular point in mind since the translation of desires (and beliefs) into preferences by the so-called “reenactment method” will play a crucial part in our study on Libya’s *nuclear reversal* (see ch. 4.3).

⁸¹ Beliefs are purely subjective. Although they build on the knowledge and historic experiences of actors, it is important to underscore that beliefs are neither true nor justified information. Beliefs could be biased and false. Consequentially, in the quest to realize their desires, actors are exposed to the danger of “belief traps” (Elster 2007: 136-144, 211; Elster 1989: 19). For example, the desires actors have could, on the one hand, negatively influence their beliefs and distort the cognitive conviction about the nature of social reality (case B, Figure 5). In these situations actors are enthusiastic about certain opportunities (*Schwärmerei*) that would – if only they were real – fulfil what they so desperately want. On the other hand, false beliefs could also distort desires. In such a scenario actors only want what they believe they could get – a constellation we normally describe as *fatalism* (case B, Figure 5).

criminals believes that fellow human beings are in general benign and trustworthy. It is very likely that this cognitive conviction has implications on how the imprisoned suspect is ranking the four options available in the PD situation.⁸² Second, and unlike desires, beliefs are assumed to directly influence the set of opportunities (case A, Figure 5). In the end it is the actors' general convictions about the world that determine what is regarded as an opportunity and what is not. For example, due to a particular belief system, actors could be unaware of certain opportunities which are in reality available to them – a situation the former US Secretary of Defense, Donald Rumsfeld, has famously described as the “unknown unknowns” (Rumsfeld 12. Feb. 2002; see also: Elster 2007: 126). Returning again to the PD metaphor, one could, for example, imagine that one of the criminals has a particular negative belief system. The cooperative option of remaining silent together would in his eyes not qualify as a proper opportunity. Even though that option would – when only viewed soberly – fulfil his desire for freedom, he still would decline that opportunity, believing that this is a naïve and, in practice, nonexistent option.

2.5.3.2 The Substance of Rational Motivation

Enlightened Rationalists appear to have a relatively clear and multifaceted concept about the *structure* of actors' motivation and thereby distance themselves from Orthodox Rationalism. However, their understanding about the *substance* of rational motivation seems to be more conventional.

Most Enlightened Rationalists would agree that actors are “hybrid goal seekers” who are not exclusively focused on realizing instrumental rationality in the senses of utilitarian maximization of materialist benefits.⁸³ Rather, real players are assumed to strive also for social and immaterial desires such as general public welfare, a stable and clean environment, or the survival of endangered species (Keck 1995: 10-11, 1997; Schneider 1996: 361; Snidal 2002: 75; Elster 1989a: 46-49; Satz & Ferejohn 1994). In that sense, Enlightened Rationalists clearly demarcate themselves from Orthodox Rationalism.

However, the actual scope and nature of “hybrid goal seeking” remains unclear. In practical research, egoist utility maximization still remains the central orientation for Enlightened Rationalists – despite the assumption of the “hybrid goal seeker.” Since self-interested actions retained a “special place,” Enlightened Rationalists are in terms of the “substance” of motivation de facto very similar to Orthodox Rationalism (Kydd 2008: 427; Scharpf 2000: ch. 2). Constructivist critics have pointed out that, despite the theoretical possibility of social and immaterial intentions, Enlightened Rationalists quickly recur to

⁸² The role of beliefs in actual decision making is assumed, in particular, high under the condition of uncertainty. When actors have only limited information, they recur strongly to general convictions. Lake and Powell have, for example, pointed out that Thomas Schelling's (1961) description of a nuclear crisis is a good example for the role of beliefs in foreign policy decision making. A nuclear crisis is “a competition in risk taking”, they say, where “each state is unsure of the risk the other state is willing to run, but actors must still make some probabilistic assessments of whether the other is risk averse or risk acceptant” (Lake & Powell 1999: 11).

⁸³ In that context, the advocates of the “logic of consequence” have also emphasized that rational choice applies even for altruism – i.e., the state where an actor finds itself “deriving pleasure from other people's pleasure, even when there is no obligation or indeed no occasion to act for the sake of promoting their pleasure” (Elster 1989b: 47; see also: Keck 1995: 10-11).

egoist-utilitarian goal maximization as soon as they turn to empirical research (Müller 1995: 372).⁸⁴

However, in light of this critique it is important to underscore that the “pitch” for a reform on the substance of rational motivation is limited. Individual goal seeking is at the very heart of rationalism and signifies a central methodological building block of this methodological position that could not be abandoned. The assumption of actors (be it individuals or collective entities) aiming to maximize their goals (be it material or immaterial objectives) by intentional actions (be it physical or communication action) based on a calculation of costs and benefits (be it in favor of an individual actor or a larger community) is essential and inevitable in order to remain within the realm of the “logic of consequences.” In their attempt to revise and reform rationalism, Enlightened Rationalists could not move beyond these principle requirements.

2.5.3.3 Surveying Endogenic Motivation

Enlightened Rationalists demarcate themselves from Orthodox Rationalism by assuming that the motivation of actors is neither given nor fixed. Rather, they claim that desires, beliefs, and preferences have an endogenic nature and vary over time and between actors.⁸⁵ While this assumption allows drawing a richer picture of social reality, it comes at a price. If we discard the approach applied by Orthodox Rationalism and refrain from using theories (such as neo-realism or market theories) to infer the general interest of actors (such as such as political power or economic well-being), the assessment of desires, beliefs, and preferences turns into a demanding empirical endeavor. It requires a careful and case-specific mapping, a detailed study of different types of data (such as historical documents, interviews, and/or memorials of relevant decision makers), and the application of methods that are not genuine to rationalism but instead originate from socio-psychology or constructivist research. In addition to these practical challenges there are two methodological obstacles that further complicated the survey of endogenic motivations: (1) the “revealed-preference-problem” and (2) “varying degrees of unobservability.”

(1) Revealed Preference Problem: Intuitively it might appear logical that deeds reveal an actor’s intentions. But the attempt to disclose motivations by analyzing real-world players’ actions signifies, in essence, an analytical pitfall we often encounter among

⁸⁴ Against that background post-positivist critics have stressed that rationalism is unsuitable to analyze unselfish and intrinsically motivated actions. Scholars who follow the “logic of consequence” are unable to study ethic or moral orientations and dispositions, they say. Because rational choice is inevitably bound to individual goal seeking, it has only a “weak concept of altruism” in the sense that of “second order egoism” (Deitelhoff 2006: 85; Risse-Kappen 1995: 176; Müller 1995: 372; Schimmelfennig 1997: 222; Schmalz-Bruns 1995: 354). Undoubtedly, the critics have a point. However, while there are certain fields in international affairs where unselfish and intrinsically motivated actions do play a role (e.g., development aid, human rights, or disaster relief), their general relevance in world politics is very limited (Müller 1994: 372). The “weak altruism” of rationalism is more a theoretical than a particular problem of rational IR research.

⁸⁵ However, at that point we shall quote James Fearon and Alexander Wendt, who said that only very few Orthodox Rationalists are full-heartily “committed to the assumption (...) that preferences really are stable, for all time. For most it is merely a “methodological bet,” an analytical convenience that allows them to answer the question that interests them” (Fearon & Wendt: 64).

academics and policy makers alike. This particular challenge was widely discussed in IR literature under the label “revealed preference approach” (e.g., Snidal 1986: 40-1; Lake & Powel 1999: 18, 33; Zürn 1992: 238-9). On the one hand, the motivations of an actor are not necessarily reflected in his or her behavioral pattern. There are numerous frictions and translation problems which make it difficult to read intentions from actions. Misinterpretation and distorting simplifications are likely. On the other hand, such an approach implies the danger of tautology. The “revealed preference approach” bases in essence of a circular argumentation. When insights about an actor’s intentions, which were in a first step distilled from an actor’s behavior, are applied to analyses the behavior of the very same actor, the *explanandum* and the *explanans* is likely to coincide. In that case we have, obviously, a situation of “ex post rationalization” of past behavioral patterns which has no independent explanatory power.⁸⁶

The “revealed preference problems” highlights that we cannot study the motivation of actors through an observation of their behavior. Rather, we have to tap other, more “ideational” data. Surveying of actors’ motivation has therefore to focus directly on beliefs, desires, and preferences. That requires that we use methods that are specified for these tasks. Since there is no genuine rationalist approach to study ideational features of social reality, Enlightened Rationalists have to recur primarily to methods that originate from constructivist or social psychology (such as cognitive maps, or operational codes; see ch. 4). In terms of practical research, the need to study ideational formations often leads to a schizophrenic situation. Major parts of Enlightened Rationalist projects turn *de facto* into “constructivist” research endeavors. During this phase one would – given the applied methods and the studied data – have difficulties to identify the “rationalist nature” of the relevant research project. Moreover, the requirement to investigate ideational data makes Enlightened Rationalist projects often complicated, protracted, and demanding efforts. To considerable extent scholars have to do at first constructivist research before they could proceed to the actual “rationalist core” of their project – the analysis of the “logic of consequence.”

However, this particular survey of endogenic motivation also has benefits. Scholars who shoulder this burden are rewarded with detailed insights into the ideational nature of their research objective. As a consequence, they could clearly identify to which degree constructivist explanations challenge their rationalist approach. In terms of a rich and broad reflection of social reality, Enlightened Rationalist research projects not only exceed the Orthodox Rationalism but also the work of constructivist scholars.

(2) Varying Degrees of Unobservability: It is conventional wisdom that the motivations of actors are not directly observable. It was often said that IR research is difficult because scholars have no chance “to look into the mind” of foreign policy decision makers. Certainly, motivations are always invisible. What is, however, ignored by this general statement is the fact that the different components of the just introduced concept of

⁸⁶ For prominent examples of studies that have applied the “revealed preference approach” see, for example, Snyder & Diesinger 1977 or Oye 1986.

rational motivation differ in terms of their “unobservability.” Surveying preferences is more difficult than mapping beliefs and desires.

As we have explained above, preferences are situation-specific. Unlike desires and beliefs, their appearance varies depending on the available opportunities in a given strategic situation. Consequentially, preferences are the most dynamic and most short-lived component of an actor’s intention. Moreover, preferences are normally poorly documented. Policy makers tend to spell out their desires and beliefs. Both often find expression – in written or in verbal form – in strategic reflections (e.g., position and strategy papers, White Books, or foreign policy speeches and debates). But since preferences are the situation-specific translation of desires and beliefs, they often stay in the minds of decision makers or make – at best – appearance in backroom discussions where leaders weigh and consider their strategic options with their close confidantes.⁸⁷ Consequentially, IR scholars often have very little chance to decipher preferences in retrospective from the available historic evidence and data.

Hence, it is only logical to base the mapping of motivation primarily on desires and beliefs. With that, however, researchers who follow the template of Enlightened Rationalism put themselves in a dilemma. In analytical terms, preferences are the most interesting component in the rational concept of motivation since they directly affect actions. While desires and beliefs are rather distant from an actor’s behavioral pattern, preferences directly shape actions in given situations (case A, Figure 5). Consequentially, analytical approaches in rationalism – such as game theory – build primarily on preferences. A survey that is based exclusively on desires and beliefs is therefore incomplete and limited in terms of analytical applicability – although it is in most of the cases the only way to study an actor’s motivation.

In order to mitigate this dilemma we introduced the so-called “reenactment method.” When using the “reenactment method,” scholars are asked to replay the translation and weighting process that real actors do all the time when facing new strategic situations. As we have outlined in the concept of rational motivation, preferences are dependent on the available opportunities. When facing a new situation, real actors normally do not know their preferences by heart. Rather they develop them by a translation and weighting procedure. The “reenactment method” builds on that very logic (for more detail discussion see ch. 4.3). Scholars, who have completed a comprehensive mapping of desires and beliefs, put themselves “into the shoes” of the relevant players in the field they are studying and ask the very same question these very actors were confronted with when impelled to take strategic action: how to rank the available opportunities in consistency with the given desires and beliefs? By replaying this procedure, scholars have the chance to decipher at set preferences which would be otherwise inaccessible.

⁸⁷ In addition, in practical research it is often very difficult to distinguish preferences from opportunities. In social reality preferences find first and foremost expression in the way actors order opportunities. They are “desired opportunities,” as we have explained above. Therefore, preferences and opportunities are phenomenologically very close.

2.5.3.4 Dynamics through Sequencing

The lack of dynamics is another shortcoming of Orthodox Rationalism. Given that we live in a dynamic world, the critique of being too static and “motionless” is serious. Certainly, not all elements in international affairs are subjected to constant change. But negotiations and diplomacy – the research objective of this PhD project – certainly are unstable phenomena. Process is their primary nature. Assuming that there is no change in an actor’s motivation and that all dynamics are introduced by external factors would simply represent an unrealistic portrayal of social reality. Consequentially, those IR scholars we have associated with on the reform project of Enlightened Rationalism are in general very eager to introduce dynamic forces into the rationalist research. While acknowledging that motivations are neither fixed nor given, Enlightened Rationalists still assume that desires and beliefs are in *general* stable. While occasional change is likely and does occur from time to time, it is assumed that desires and beliefs have first and foremost a static nature. The assumption of “relatively stability” is one of the core ideas of rationalism.

“Sequencing” is the primary remedy Enlightened Rationalist proposes to overcome the static tradition in rationalism (e.g., Aggrawal 1996; Zangl 1999; Zürn 1992; see also: Snidal 2002: 83). It represents a way to work around this “dynamic-stability problem.” “Sequencing” allows for a certain degree of dynamic while, at the same time, maintains the core orientation of the rationalist research program: Exploring how variations of external factors (i.e., the *explanans*) affect the stable motivations of actors and their behavioral of patterns in a given strategic situation (i.e., the *explanandum*). What is at the very heart of the “sequencing approach” is the idea of a *strategic cascade* – a succession of different stable constellations. Apart from moments where one strategic sequence is transformed into another, stability is the norm. “Sequencing” is narrowing dynamic forces down to a limited number of strategic metamorphoses. In essence, this approach builds on the assumption that important and decisive changes in social reality do not occur in the form of incremental trends or gradual processes but rather take place through salient turning points and significant shifts.

At first glance, “sequencing” appears only as a weak solution for the shortcoming of Orthodox Rationalism, since this method is in the end more characterized by stability than by dynamics. However, we will show that close-meshed “sequencing” with a high frequency of strategic cascades could even cover fast-moving processes. It is able to register endogenic dynamics to an extent that even constructivist research – which is often claimed to be particularly sensitive for change – could hardly surpass.

In order to study even swift changes in international affairs, we suggest two overlapping modes of sequencing: (1) “sequencing by translation,” a large-scale approach which is based on shifts in an actor’s motivation and (2) “sequencing by weighting,” a more small-

scale procedure which works through alternation in the set of an actor's opportunities (case C, Figure 5).⁸⁸

(1) Sequencing by Translation: "Sequencing by translation" is in essence a byproduct of the motivation survey. When we discover significant shifts in an actor's beliefs and/or desires, these changes are translated by the "reenactment method" into altering preferences which lead to new strategic constellation. However, "sequencing by translation" is by itself not sufficient to cover fast-moving social processes. As alternations in ideational structure (i.e., beliefs and desires) are assumed to be rather slow, "sequencing by translation" is limited in terms of dynamics. We could only capture large-scale shifts and ideational evolution similar to what constructivist scholars study when they analyze social change. We therefore introduce "sequencing by weighting," an additional method which allows for a higher frequency in the cascade of strategic constellations

(2) Sequencing by Weighting: Apart from "ideational shifts" in desires and/or beliefs, endogenous change in an actor's intention could also occur through an alternation in the opportunity set.

In bargaining situations it is not unusual that the involved parties evoke by their own actions new opportunities. In the history of international affairs there are many examples where diplomatic breakthroughs and conflict settlements through negotiations have led to completely new constellations with new options for the involved players to take.⁸⁹ Acknowledging this particular avenue of change in international negotiations, scholars have introduced different concepts to phase bargaining dynamics which highlight that the diplomacy process go far beyond the actual meetings at the "negotiation table" but are rather marked by extended *pre-negotiation*, *pre-agreement*, and *post-agreement phases* (e.g., Druckman 2001; Hopmann 1996; Saunders 1985; Stein 1989; Zartman & Berman 1982). What is in terms of sequencing in particular important is each of these phases is assigned to distinct sets of opportunities.

Certainly, a new set of opportunities does not automatically result in a new strategic constellation. In many situations where we witness changes in opportunities, the preferences of the involved actors are assumed to remain stable. However, there is ground to believe that in some situations, when the shifts in an actor's opportunities set are decisive and profound, the motivation will become affected too, causing new strategic constellations. Dramatic changes in the set of an actor's opportunities let stable

⁸⁸ As we will show in the method chapter in more detail (ch. 4.3), both concepts of sequencing are operating on the "reenactment method."

⁸⁹ One has not only to think about the epochal diplomacy events like the Westphalian Peace (1648) or the Vienna Congress (1815) (Kissinger 2014: ch. 1 & 2). IR scholars doing research on international negotiations have revealed that even in more ordinary bargain dynamics the involved actors often change by their own actions the opportunity sets and thereby trigger new strategic constellations.

desires and beliefs “appear in a different light,” affect thereby the translation of preferences, and could lead to changing strategic constellations (see case C, Figure 5).⁹⁰

The idea of “weighting” allows different preferences and strategic behavioral patterns *despite* the fact that the desires and beliefs of the actors have not changed. Thus, “sequencing by weighting” is a concept that allows for a higher frequency of strategic cascades. It allows introducing additional dynamics in situations where the “sequencing by translation” is – due to stable desires and/or beliefs – not accounting for change and alternation. In the case study on Libya’s NRN we will elaborate this idea in more detail and will give practical examples.

2.5.4 How Scientific Realists Draw Conclusions – *Inference to the Best Explanation* (IBE)

Action theory is crucial when doing practical research on international negotiations. But the mode of reasoning signifies another methodological aspect that is likewise essential for practical research. The way we draw inference becomes in particular relevant when we aim to investigate unobservable facts which cannot be scrutinized directly but only through proxies – for example, the “fit performance” of *diplomatic design*.

As we have outlined above, Scientific Realism is, unfortunately, relatively indifferent in terms of action theory – a fact that obliged us to elaborate in detail on the nature of Enlightened Rationalism. However, when it comes to the drawing of conclusions, Scientific Realism gives relatively precise guidance. Most scholars who build their research on the fundamentals of Scientific Realism apply – either intendedly or unintendedly – a particular mode of reasoning: the Inference to the Best Explanation (IBE) (e.g., Harman 1965; Lipton 2000, Lipton 2004; Wendt 1999: 62-3).⁹¹ This type of inference, which was in modern philosophy of science primarily introduced by Charles S. Peirce (Reichertz 2010), is closely interwoven with Scientific Realism and could be regarded as a constitutive element for this methodological approach. Thus, *believing* in Scientific Realism goes hand in hand with applying to IBE.

⁹⁰ Take, for example, the PD metaphor. Above we have described the scenario in which the PD game is transforming from an interrogation situation into a lawsuit constellation. This shift is assumed to affect the set of opportunities of the two suspects – despite the fact that their motivation (i.e., the desire for freedom) remains unchanged. In a courtroom situation it is likely that the desire for freedom could appear in a “different light” due to the availability of well-vexed lawyers. As a result, the two criminals are likely to weight the translation of their desires into preferences in light of changed opportunities.

Knowing they have the support of a lawyer, the worst case scenario of 10 years imprisonment becomes, for example, less threatening. The two criminals expect that their lawyers are able to alleviate this draconic punishment. Consequentially, the inclination for a swift confession – inherent in the original setting of the Prisoner’s Dilemma – becomes less dominant and increases the likelihood of joint cooperation.

⁹¹ Instead, IBE scholars have often used alternative labels such as “abduction,” “method of hypothesis,” “hypothetic inference,” “method of elimination,” “eliminative induction,” or “theoretical interference” (Hartman 1965: 88-89).

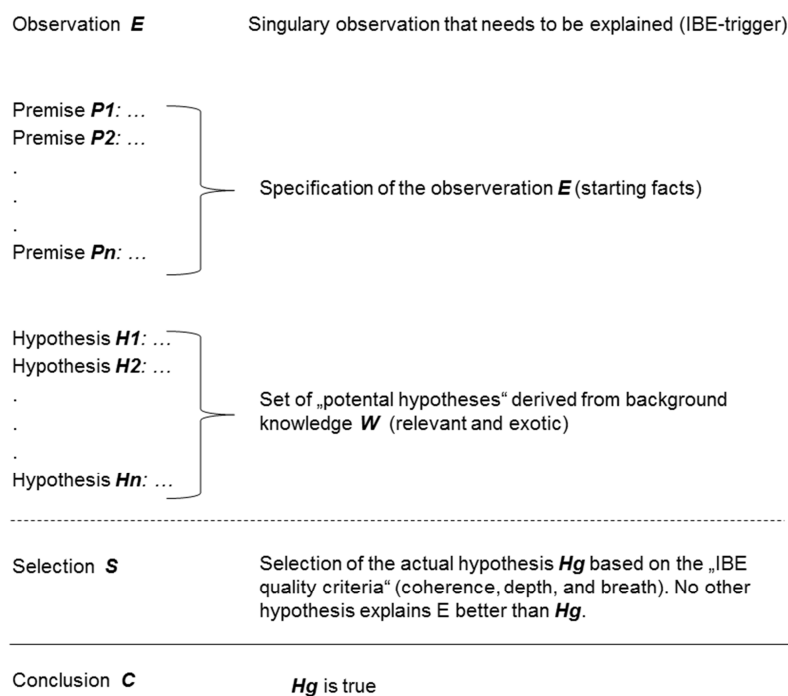
However, it is crucial that IBE is not only of relevance for our research project because it is a central expression of Scientific Realism. IBE has also very tangible and down-to-the-earth implications for practical research. We claim that this mode of reasoning allows research under conditions where the conventional approaches of inferences (i.e., deduction and induction) are likely to fail. Thus, even if we were not *believing* in Scientific Realism, there would be nevertheless good practical reasons to apply IBE anyway.

In the following section we will give a short introduction on IBE, highlighting two aspects. First, we will very briefly summarize the philosophical debate about the scope and nature of IBE. Second, we will propose a concept how IBE could be applied in the practical research – an aspect that was thus far widely neglected in the relevant literature.

2.5.4.1 IR Scholars as Detective – What is IBE?

It is very common in IR to study unobservable phenomena (such as power, motivation, ideas, norms, etc.). Consequentially, in numerous research projects, proxies and inquires by inferences play a central role. When we say “inference,” most of us will at first think about the deduction and induction. In the logic of deduction we draw conclusions about unobservable facts by inferring from law-like theories. If we want to know, for example, whether the sun is rising tomorrow morning, we would refer to planetary theories which specify the rotation of the earth and the inclination of the earth’s axis. With this information we could very precisely conclude the time at which the sun will rise the next morning. In the logic of induction we infer about unobservable facts based on our past empirical observation. Given that the sun has always risen in the morning hours since time began, we conclude that it will rise tomorrow too (Lipton 2000).

Figure 6: Inference to the Best Explanation



Adapted from Klärner 2003, Mackonis 2013; Schurz 2006

IBE represents a third approach of reasoning which is clearly distinct from the two conventional approaches of inference (Figure 6). IBE starts with a singular observation (E) which is regarded as puzzling and unusual. This initial observation (E) is so-called the IBE-trigger. The reasoning process then starts by specifying the nature and scope of the observation (P1...Pn). Based on these “starting facts,” the relevant background knowledge (W) is consulted. The background knowledge serves as a pool from which scholars (and laypersons) derive a set of potential hypotheses (H1...Hn) which could possibly explain the observation (E). In the following step the actual hypothesis (Hg), which is the “best explanation” of the observation (E), is selected from the set of potential hypotheses. The advocates of IBE conclude (C) that the selected hypothesis (Hg) ought to be “true” given that it is closer to the observation (E) than any other hypotheses (Glass 2012; Harman 1965).⁹²

There is ample ground to assume that academics and laypersons have applied IBE ever since. In natural sciences we could, for example, list a series of breakthrough and major achievements which are based in first place on IBE. For example, in the first half of the 19th century the astrophysicists John C. Adams and Urbaine Le Verrier observed an unusual deformation in the orbit of the planet Uranus. Recurring to IBE, they inferred that the “best explanation” for this distortion in Uranus’ trajectory was in all probability caused by the gravitational force of another yet undiscovered planet. Several years later when space telescopes improved their colleague, Johan G. Galle, was able to spot this undiscovered planet – Neptune (Lipton 2000; Schurz 2006: 53).⁹³

Certainly, in situations where we have either law-like theories or where we could recur to large-N empirical observations, there is little room for IBE. In these situations one could question the added value of this particular mode of inference.⁹⁴ But in international politics in general and international security policy in particular these favorable conditions are often not met. First, there are no unerring theories on international security policy. Democratic Peace is in general regarded as a very reliable IR theory. However, many would have doubts to ascribe to Democratic Peace the characteristic of a law-like theory. Consequentially, the chance to recur to deduction is limited. Second, international security policy is haunted by multifaceted data problems. As we have already outlined in the introduction chapter (ch. 1.1), the available data is thin and often marked by propaganda and misrepresentation.

IBE allows for epistemological sound inferences even in situations where there are no law-like theories. And in order to operate IBE, scholars do not need large and uniformed

⁹² For a critical review on the procedure of IBE see: Day & Kincaid 1994.

⁹³ Charles Darwin’s Theory of Evolution is another example of IBE. On his expedition into the Pacific, Darwin was puzzled by phenomenological variations within the same species and inferred that the “best explanation” for this observation was the adaption to varying environments based on the process of natural selection (Lipton 2000; Paavola 2004; Schurz 2006: 53).

⁹⁴ It is important to note that some Scientific Realists regard IBE as the *only* way of reasoning which is in methodological terms sound and reliable. Others instead propose a “contextualized” usage of IBE, meaning that it has priority in situations where the two conventional approaches of inference – deduction and induction – are unlikely to achieve solid results. We follow the latter approach of a contextualized IBE (for more detail discussion see: Day & Kincaid 1994; see also: Reichertz 2008).

observations but could yield comprehensive scientific results even when observations are ephemeral, varying, irregular, or exceptional. Thus, when scholars face difficult conditions which challenge conventional ways of doing research and foreclose a proper application of deduction or induction, IBE provides a chance to “bringing science back in.” It allows IR scholars to become active in fields that were beforehand considered as inaccessible and unexplorable for social science.

In essence, when using IBE the research of IR scholars becomes very similar to the strategies detectives and policy inspectors apply (at least in movies and novels) when investigating tricky crimes.⁹⁵ Normally detectives have not personally witnessed the crimes they investigate. Instead, they draw inferences by reconstructing circumstantial evidence based on their forensic background knowledge (W) (e.g., scene of the crime, trails of blood, the murder weapon, etc.). Starting from that point, detectives formulate different hypotheses about the crime and the murder (H1...Hn). From that set of potential hypotheses they eventually select the actual hypothesis (Hg) which provides the “best explanation” for the crime (E).

Of course, in the 1950s some viewer of crime movies might have believed that there is a law-like theory which applies to all murder cases (“it is always the gardener”). However, since there is in reality no “murderer theory,” deduction could not be applied to convict culprits. Moreover, induction is likewise not a viable option when required to investigate murder cases, given that each crime has a varying, singular, and irregular nature. For a police inspector it is certainly of interest that statistically males in their late teens and early twenties represent the most criminal section of the population. But this information is too general to help resolve a particular murder case. Thus, if there is no confession or an assured witness statement, detectives have no other choice but to follow the logic of IBE. IR scholars often are confronted with very similar challenges – in particular if they study international security policy – and they often work like detectives.

2.5.4.2 Proposal of Practical IBE Application

Although IBE has long historical roots,⁹⁶ its nature and scope is still an objective of ongoing contentious debates which mainly take place in the inner circles of the discipline of “philosophy of science” (Lipton 2004: 2; Klärner 2003: 214; Mackonis 2013: 976).⁹⁷ What is, however, for our research project most important are not abstract philosophical debates but practical guidance on how to apply IBE in actual research. While there is growing interest in IBE within social science and growing numbers of IR scholars became in recent years engaged in theoretical debates about this mode of reasoning (e.g., Chernoff 2002; Chernoff 2009; Hellmann et al. 2009; Hollis & Smith 1991; Jackson 2010;

⁹⁵ Note that the metaphor of “the scientist as detective” was often used in the literature on IBE (see, e.g., Eco & Sebeok 1988; Sebeok & Umiker-Sebeok 1980).

⁹⁶ Even though IBE was introduced into modern philosophy by the U.S. pragmatist thinker Charles S. Peirce, it was for the first time systematically addressed by Julius Pacius (1550-1635) (Reichertz 2008, 2010).

⁹⁷ Typical issues in these philosophical discussions are, for example, the question how IBE relates to “truth” (Is IBE truth? Could it only produce “approximate truth”? Or could it only track truth?) or to Bayesian logic (see, e.g., van Fraassen 1989; Glass 2012: 412).

Wendt 1998), there is, thus far, no discussion on how to apply this epistemological approach in practical research.⁹⁸ In this section we made a first step to address this particular problem. Reading the philosophical literature through the lens of practical research, we found two aspects that are in that regard of particular relevance: (A) the criteria that help to select the “best explanation” (B) and the mode how to proceed with background knowledge.

A. What Makes the Best Explanation? – Breadth, Depth, and Coherence

Probably the most crucial working step in the application of IBE is selecting the “best explanation” (Hg) from the set of potential hypotheses (H1...Hn). The question “*what makes the best explanation and how do we know it when we see one?*” is for the practitioners of IBE very essential. The advocates of this epistemological approach are aware of this problem. Peter Lipton said, for example, “[t]he difficulty of articulating IBE is compounded when we turn to the question of what makes one explanation better than another” (Lipton 2000). While scholars agree that IBE is in need for “quality criteria” (also called “explanatory virtues”) which give guidance to the selection process of the “best explanation,” there is currently no consensus on a concrete yardstick. Rather, we encounter in the literature numerous proposals ventilating different sets of “quality criteria.”

Following in many respects the argumentation of Adolfas Mackonis (2013), we will show that among the different potential “quality criteria,” *breadth*, *depth*, and *coherence* are likely to represent the best candidates. If we apply these three “explanatory virtues” in conjunction, the chance to identify among the set of potential hypotheses the “best explanation” is relatively high. But how did we arrive at that conclusion? What made us believe that *breadth*, *depth*, and *coherence* are the most promising quality criteria for IBE?

First, we excluded the so-called “non-explanatory virtues.” “Non-explanatory virtues” are criteria that make no statements about the relationship between the *explanans* and the *explanandum*. They focus instead on “academic *accessoires*” and not on the puzzling observation itself. “Non-explanatory virtues” are, for example, the various aesthetic yardsticks such as *elegance*, *symmetry*, *regularity*, or *visibility* (e.g., Barnes 1995: 273; Kuipers 2002: 299). Other “non-explanatory virtues” have an “inward look” and focus primarily on the adaptability of explanations for scientific debates. Typical criteria that fall into that category are, for example, *theoretical fertility*, *testability*, *systematic*, or *familiarity* (e.g., Rheinwald 1998).

“Non-explanatory quality criteria” are not trivial. An explanation that is, for example, elegant is certainly better than one that is not. However, since these criteria are not focused on what we see as the very heart of social science – resolving real-world puzzles

⁹⁸ The lack of systematic application is widely known among the advocates of IBE. Peter Lipton said, for example, that IBE is still “more a slogan than an articulated philosophical theory” (Lipton 2004: 57). And, according to David Glass, one of the key challenges IBE is facing is “how exactly” this approach “is to be understood and made precise?” (Glass 2012: 412).

– we decided to put them on the back-burner and will not use them as the primary yardstick in the IBE selection process.

Second, we review the explanatory virtues – those criteria that actually make reference about the actual observation – and sort those out which are absorbed by other, more broad yardsticks or which have a limited explanatory power. The two quality criteria that fall off the list are *parsimony* and *empirical adequacy*.

Parsimony (or *simplicity*) is an explanatory virtue that is held in high esteem by many scholars (e.g., Zellner 1984). It is therefore little astonishing that it was often proposed as a potential criterion for the selection of the “best explanation” (e.g., Beebe 2009; Sober 2001). However, *parsimony* is in many respects a “non-explanatory virtue” which is implementing aesthetic criterion (i.e., *parsimony* for the sake of elegance) and which has an “inward look” on academic discourse and debates (i.e., *parsimony* for the sake of higher testability). In addition, the function of *parsimony* is in many respects absorbed by the quality criterion *breadth*. Like *parsimony*, *breadth* is aiming to avoid trivial arguments (Mackonis 2013: 986-990; Schurz 2008: 219). However, unlike *parsimony*, *breadth* is not only boiling an explanation down to its essentials but is, in addition, prescribing how to operate this reduction: by climbing up the “ladder of abstraction.” *Parsimony* instead gives scholars no guidance on how to arrive at more simple and unifying explanations. In that sense, *parsimony* is absorbed by the more unifying criterion of “breadth.”

Empirical adequacy (or *empirical accuracy*) is another explanatory virtue that is often listed as a potential criterion for the selection of the best explanation (e.g., Rheinwald 1998). However, we decline *empirical adequacy* too. As Mackonis has pointed out correctly, *empirical adequacy* is less a “quality virtue” but rather an outcome of IBE. He said that this criterion is the “necessary effect of an inference that is actually best explanation” (Mackonis 2013: 989).

Breadth, *depth*, and *coherence* are the only three “quality criteria” that are left over. We will apply all three in our IBE selection process since we assume that all three have sufficient explanatory power. But what *exactly* is the nature of these three quality criteria?

Breadth: *Breadth* (or unification) works according to the principle “the more, the better.” *Breadth* signifies a wide explanatory range and indicates descriptions that provide the greatest degree of understanding (Mackonis 2013: 983-5; Psillos 2002).⁹⁹ An analytical finding is assumed to have more explanatory power, the more aspects of a particular observation it covers. Consequentially, the quality criterion of *breadth* has a “systematizing force” (Bartelbroth 2002). An explanation that is bestowed with *breadth* is assumed to absorb less unifying descriptions and is in that sense synonymous – as we have said already above – with “climbing up the ladder of abstraction.” *Breadth* appears at first sight more like an aesthetic or an “inward-looking” criterion given that it is very

⁹⁹ In essence, *breadth* is by and large synonymous with what Peter Lipton has described by the term “loveliness” (Lipton 2000).

close to the principles of *elegance, simplicity, or theoretical fertility*. But, despite its appearance, it is in terms of functionality clearly an “explanatory virtue.” More abstract and unifying explanations have, for example, more explanatory power, as they make facts of an observation comparable which have beforehand thought as separated.

Depth: The explanatory quality criterion of *depth* operates according to the principle “more of the same.” An explanation is assumed to be better than another if it is based on more knowledge. The primary value of *depth* is making an explanation more solid, accurate, and reliable by supporting it with more data. *Depth* is, for example, the central logic behind the qualitative research approach of “thick description” (Geertz 1973).

Coherence: *Coherence* is probably the most powerful explanatory criterion in IBE (Huemer 2009; Mackonis 2013: 980-3). *Coherence* signifies the “hanging together” between *explanans* and *explanandum* (BonJour 1985: 93). It denotes the degree of “closeness” between an observation and its explanation and is broadly understood as “logical consistency.” David Glass said, for example, “roughly speaking the *coherence* of a set of beliefs describes how well they fit together or to what extent they support each other and this seems to be what is required for IBE” (Glass 2007: 282).

B. How to Use Background Knowledge?

The background knowledge (W) is central for the application of IBE (Figure 6).¹⁰⁰ When facing a puzzling observation (E), IBE users will turn to the available background knowledge in order to derive a set of potential hypothesis (H1...Hn). Unfortunately, the role and nature of the background knowledge has received thus far very little attention in the philosophical debates about IBE. For the practical application of IBE, this omission is problematic given that the background knowledge has (a) *analytical*, (b) *innovative*, and (c) *pragmatic* implications.

- (a) A thoughtless and unsystematic selection of the background knowledge could reduce the *analytical* impact of an IBE-based research project. It would lead to an inappropriate set of potential hypotheses (H1...Hn) which might obscure the inference to the “best explanation” (Hg). In essence, this argument was already uttered in the critique on IBE most prominently uttered by Bas van Fraassen. Van Fraassen has pointed out that IBE users could only draw on hypotheses that are available to them and that availability is not necessarily the primary characteristic of the truth (van Fraassen 1989: 143-6).

¹⁰⁰ While having put the practical argument for the choice of IBE up front, it is important to note that giving priority to this mode of reasoning is – of course – also in meta-theoretical terms justified. That becomes in particular clear if we are now turning to discuss the role of “background knowledge” (W). Scientific Realists hold the conviction that access to social reality proceeds through theories. According to Patrick T. Jackson, Scientific Realists “argue that the objects under investigation in the social sciences are irreducible theoretical – their essential character is intimately intertwined with theories about them” (Jackson 2008: 140). As we have already pointed out above (ch. 2.5), “mature theories” are in that regard in particular important for Scientific Realists. Inferring the “best explanation” from the set of potential hypotheses which originate from the background knowledge (and not from actual observations) is therefore very much in line with Scientific Realism.

- (b) In addition, the inappropriate handling of the background knowledge could also undermine the *innovative* potentials of IBE. IBE is known to have a “selective” as well as a “creative” dimension (Day & Kincaid 1994: 272; Schurz 2008: 203). In social science IBE is widely perceived as an approach that allows “to make new discoveries in a logical and methodological ordered way” (Reichertz 2010: 7). What is in that regard, however, crucial is that much of this innovative potential emerges at the interface between puzzling observations (E) and the background knowledge (W). On the one hand, innovation is triggered when IBE users are confronted with new, surprising observations that are not consistent with the conventional background knowledge. Innovation could, on the other hand, also set in motion when it turns out that the background knowledge that is usually used to explain to a particular observation is partially or completely mismatching (e.g., Aliseda 1997; Peirce 1934, 5.189). Thus, tapping the inappropriate background knowledge could pull the plug on the creative power of IBE.
- (c) Moreover, if background knowledge is inappropriately selected, users of IBE could face serious *practical* challenges. In many fields, social scientists are confronted with the problem that there is not just one but several stocks of knowledge. The insights and available information about a particular phenomenon is often very large and amorphous (see, e.g., the knowledge about negotiation). When scholars are overwhelmed by vast background knowledge, IBE becomes unfeasible.¹⁰¹ According to Gerhard Schulze IBE users have to have a clear understanding about the “search space” where to look for potential hypothesis. And expressing the same idea, Charles S. Peirce – the ideas man of modern IBE (or abduction, as he has called it) – has underscored the importance of the “economy of research” which is assuring the practical applicability of this epistemological approach (Peirce, cited at Paavola 2004: 276; see also: Hintikka 1998).

In light of these three challenges, we propose to apply two criteria when selecting the appropriate background knowledge: *relevance* and *exoticism*.

Understandably, the background knowledge scholars “rummage through” in order to identify the set of potential hypothesis (H1...Hn) must be *relevant* to the observation (E). *Relevance* is given when we are able to distill from the background knowledge meaningful and substantive statements about the observation. *Relevance* is crucial in terms of the practical and the analytical problems we normally encounter with regard to selection the background knowledge in IBE reasoning. But *relevance* alone is not sufficient.

Despite meaningful and substantive statements, we could never exclude that the most substantive and meaningful hypothesis (Hg) is hiding out in remote corners of our

¹⁰¹ To further clarify the practical problems that arrive when IBE is applied at a too-large and too-complex background knowledge, Gerhard Schurz has given an revealing example: “think about someone in a hurry who asks an IBE-philosopher for the right way to the railway station and receives the following answer: ‘Find out which is the shortest way among all ways between here and the train station which are accessible to you – this is the way you should chose’” (Schurz 2008: 204).

background knowledge we would intuitively regard as little relevant. When we browse through the available stocks of knowledge in search of pertinent insights, we are always endangered to embark the “beaten tracks” laid out by previous research projects – a severe analytical pitfall. Thus, we need an additional criterion that is applied in parallel to *relevance* and that is impelling scholars to penetrate unexplored fields. We assume that *exoticism* fulfils this requirement. It is widening the scope of IBE projects and makes scholars explore parts of the background knowledge they would have normally not taken into consideration.

Applying these two criteria in parallel represents as mutual corrective. While *relevance* without *exoticism* could give rise to boring repetition of past findings, *exoticism* without *relevance* might lead to conclusions that appear at first sight innovative but signify in essence odd absurdities.

3. THE FIT TAXONOMY & ITS GENESIS

In the previous chapter we have explained that analytical taxonomies are essential to study the “problem of fit”. The *fit taxonomy* we developed in order to analyze the performance of *diplomatic design* in NRN is a “nested multitier map” comprised of two problem dimensions (the *substantial* and *procedural problem dimension*) and three social traps (the *colliding interest*, the *distrust*, and the *injustice trap*). This structure is operationalized by two rationalist theories. First, *dilemma games* – a sub-approach of the larger game theory and, second, the *public bad approach* – a sub-component of the broader Theory of Collective Goods (TCG) – which was introduced for the first time into negotiation research by our PhD project

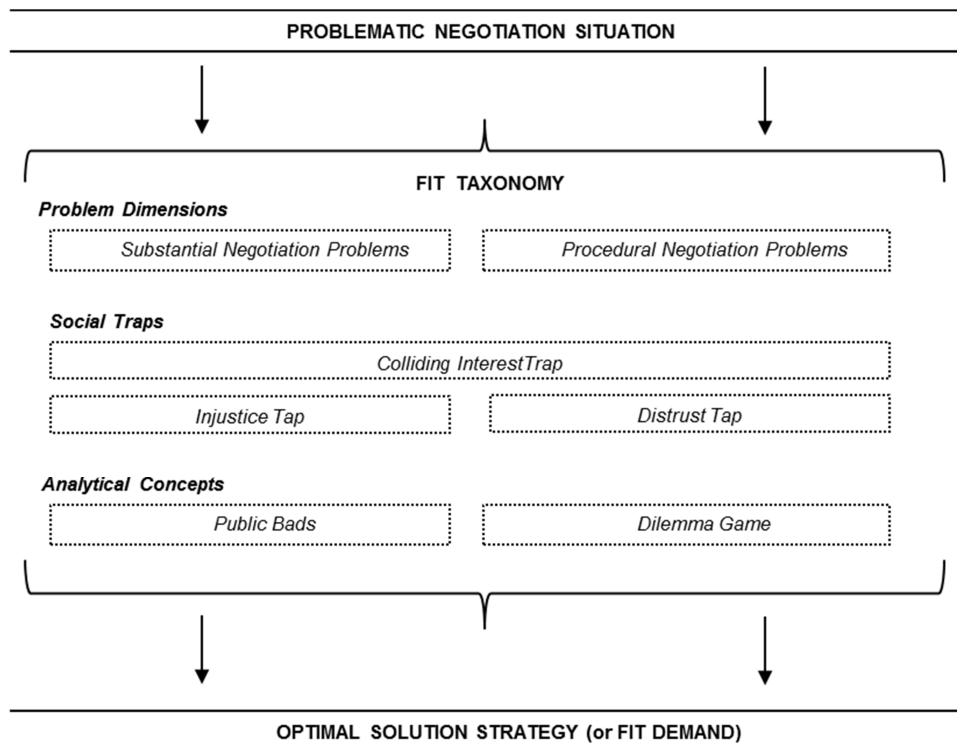
The *fit taxonomy* is a product of eclecticism. Its different “ingredients” were pieced together by the stringent application of the “Inference to the Best Explanation” (IBE) – the preferred way of logical reasoning in Scientific Realism. The central advantage of the IBE approach in comparison to other eclectic approaches is that it provides a genuine and meta-theoretical sound concept.¹¹⁰ We have not merged pre-existing theories and concepts but have systematically built a coherent model step-by-step by distilling the relevant components from the totality of potential hypotheses available in the background knowledge on problematic negotiation dynamics taking not only scientific results into account, but also insights and thoughts stemming from the practitioners’ literature on international negotiations. Given that the *fit taxonomy* was condensed from a relatively large pool of academic and practical knowledge negotiations, there is ample ground to believe that it has relevance for diplomatic dynamics beyond the relatively narrow focus on NRN and would also achieve fruitful insights in other fields of international security policy.

Moreover, the numerous innovative aspects of our *fit taxonomy* are likewise a direct outcome of the IBE selection process. It was only by this strict application of this epistemological approach that we were impelled to also take counter-intuitive and exotic aspects into consideration. With the parallelism of the *substantial* and *procedural problem dimension*, the three types of *social traps*, and the application of the underappreciated *public bad approach*, the *fit taxonomy* provides a detailed and comprehensive perspective on international bargaining unknown to negotiation research. Without the IBE approach, the eclectic development of a *fit taxonomy* would have certainly taken another route and would have probably looked more similar to the concept conventionally applied in negotiation research.

¹¹⁰ According to Jeffrey Checkel, efforts to build eclectic and theoretical pluralist approaches in IR recurred in the past primarily to the strategies of “scope conditions” (i.e. enlarging the picture on social reality by combining theories which explain different “home domains”) and “temporal sequencing” (i.e. combining theories which explain different “evolutionary stages” of real-world phenomena) (Checkel 2013; see also: Caporaso, Checkel & Jupille 2003: 21-23).

In this chapter we will, first, explain in detail the *fit taxonomy* and its different “ingredients” (ch. 3.1). Second, we will show with the help of two fictitious examples (the problem of fare-dodging and the PD metaphor which has already been discussed on several occasions) how the *fit taxonomy* is operating (ch. 3.2). Finally, we will elaborate in detail how the model was developed with the help of the IBE selection process (ch. 3.3).

Figure 7: Fit Taxonomy



3.1 Fit Taxonomy & Its Components

As we have outlined in the Setup chapter (ch. 2.4), analyzing the “problem of fit” necessitates the application of *fit taxonomies* which are understood as “nested multi-tier maps” that allow us to identify the “optimal problem solution” – the so-called *fit demand* – for a given problem. In this section we will describe the different “ingredients” of our *fit taxonomy* in detail and explain how they relate to each other.

3.1.1 Two Problem Dimensions: Substantial and Procedural Negotiation Problems

The two-dimensional structure was revealed in the IBE selection process as the best general template to study negotiation problems (ch. 3.3.1). All other potential hypotheses found in the background knowledge in terms of the three IBE quality criteria *breadth*, *depth*, and *coherence* achieved less convincing results.¹¹¹

Bargaining dynamics have to have an issue. Otherwise there would be no need to negotiate. Herbert Kelman has, for example, emphasized that negotiations always start with “a shared problem which needs to be solved by addressing the underlying causes and the dynamics of the conflict in an interactive process” (Kelman 1996: 99). The nature and scope of the negotiation issue signifies the *substantial problem dimension*. When studying the *substantial problem dimension*, we analyze the different features of the negotiation issue such as its degree of “malignity” or its actor constellation. Since the *substantial problem dimension* constitutes the overarching setting of negotiation dynamics, it is very obvious that its scope and nature is decisive for the way those parties involved in the conflict bargain. The *substantial problem dimension* determines to a considerable degree the chance to arrive at satisfying diplomatic solutions.

Substantial problems are necessary but not sufficient criteria for negotiation problems. A negotiation issue alone does not constitute a challenging bargaining process marked by stalemates and deadlocks. What is required in addition are conflicting views of the involved parties on how to resolve a given negotiation issue. If there is full agreement on how to handle the *substantial negotiation problem*, there would be no need for a bargaining process. Rather, short coordination meetings where the involved actors communicate over uncontroversial resolution strategies would be completely sufficient. In some cases, substantial issues are even resolved without communication by “tacit consensus”.

All the conflicts on how to resolve the *substantial problem* represent the *procedural dimension* of negotiation problems. The *procedural dimension* is the totality of operational hurdles that the negotiating parties face in challenging bargaining dynamics. What is at the

¹¹¹ Such as the “bargaining & problem solution concept” (H1.1), the “communicative approach” (H1.2), and “the value-claiming & value-creating bargaining approach”(H1.3), see Figure 14.

very heart of the *procedural problem dimension* is a conflict-laden process of interdependent decision making. In that sense, *procedural problems* are constituted by the various patterns of uncooperative behavior. Defection and delaying strategies and insufficient commitment to work jointly towards the resolution of the actual negotiation issue are the typical indicators of *procedural problems*.

The two dimensions of negotiation problems are closely interwoven. The *substantial problem dimension* represents the overarching frame for the *procedural dimension*. If negotiating parties fail, in the end, to resolve the central negotiation issue, all efforts undertaken to overcome the *procedural problems* were in vain. By the same token, when the conflict parties do not manage to resolve all *procedural problems*, the bargaining process is likewise doomed for failure. After all, overcoming the *procedural problems* and building a solid relationship is the indispensable precondition for a lasting and sustainable resolution of *substantial problem dimension*.¹¹² The resolution of the one dimension is unthinkable without the other.¹¹³

While we find in negotiation research many references to the *substantial dimension* of negotiation problems,¹¹⁴ the literature appears nevertheless biased in terms of the procedural dimension – a fact that is not so astonishing given that negotiations are primarily understood as social processes.¹¹⁵ As Anthony Wanis-St. John and Christophe Dupont put it: “In general, issues per se have been increasingly neglected in negotiation analysis and uncritically accepted” (Wanis-St. John & Dupont 2012: 211). In that sense it is a particularity of our PhD project – stemming directly from the innovative potentials of the IBE process – that we are studying these two dimensions in parallel.

3.1.2 Three Social Traps

When we moved on and searched with the help of the IBE selection process for further “ingredients” for our *fit taxonomy*, we came to the conclusion that negotiations problems – both on the *substantial* and *procedural dimension* – consist in essence of three social traps: the *injustice*, *distrust*, and the *colliding interest trap* (Figure 7).¹¹⁶ We claim that we find in

¹¹² In the conventional wisdom on negotiation strategies – expressed for example in journalist analysis and policy papers – these two essential dimensions of negotiation problems are often blurred or neglected. In particular, in those situations where the resolution of the *substantial negotiation* issue appears simple, salient, and straightforward, the *procedural dimension* is often regarded as a superfluous, diplomatic shadow-boxing which one could easily skip, if all negotiation parties would pull themselves together and work jointly towards resolution.

¹¹³ In general, one cannot say which of these two dimensions are more demanding in terms of problem resolution. Since substantial problems represent the actual negotiation issues, one might be inclined to regard this dimension as more challenging. But there are situations where overcoming procedural problems might be even more demanding than the resolution of substantial problems, and could wreck the entire bargaining dynamic.

¹¹⁴ The focus on the *substantial problem dimension* gave, for example, rise to a different sub-disciplines in negotiation research which are structured along particular issue areas such as the specific research on arms control, trade, environmental or crisis bargaining (e.g. Jönsson 2002: 223; Kremenyuk 1991).

¹¹⁵ See for example our definition of international negotiations and the following discussion of its elements in Ch. 2.2.2.

¹¹⁶ Of course, in the background knowledge on international negotiations we encountered several alternative hypotheses that could have been likewise used as tangible concepts to analyze *substantial* and

every problematic bargaining situation at least one of these social traps – regardless of the actual negotiation issue, the involved parties, or the actual negotiation setting. The varying degrees of intractability real-world actors face in bargaining dynamics is in that sense a function of the number of social traps encountered both on the *procedural* and *substantial dimension*.

But what exactly is a *social trap*? There is solid ground to assume that *social traps* denote one of the most meaningful concepts that rationalism has contributed to social science. *Social traps* have been used to analyze problems in all spheres of social life reaching from conflicts between superpowers to martial crisis. In that sense *social traps* represent a “meta-problem” in social science (Rothstein 2005: 21).¹¹⁷

Social traps signify a strategic interaction where the quest for egoist utility maximization renders all involved actors worse-off. But *social traps* are not only deplorable in terms of individual goal realization. Actors entangled in *social traps* also miss the so-called “collective optimal outcome” which would represent an attractive outcome for all parties. Put in the words of Anatol Rapoport – a forerunner in game-theoretical analysis – *social traps* defined by a “bifurcation of rationality into individual and collective rationality” (1988: 457).¹¹⁸ And according to Elinor Ostrom, *social traps* are given when at least “one outcome exists that yields greater advantage for all participants” (1998: 4).¹¹⁹

procedural negotiation problems – such as power struggles (H2.2), cultural clashes (H2.3), or inadequate and dysfunctional institutional negotiation environments (H2.6) (Figure 13). However, applying the three quality criteria of the IBE selection: (coherence, depth, and breadth), we found that only interest conflicts, distrust, and injustice signify a best contribution to our *fit taxonomy* (Ch. 3.2.2).

¹¹⁷ Since *social traps* are a central analytical concept in social science, we encounter numerous alternative labels such as “social dilemma” (e.g. Ostrom 1990) “public good problem” (Olson 1971), “the free-rider problem” (Grossman & Hart 1980), the “tragedy of common” (Hardin 1968), or the “shirking” (Alchian and Demsetz 1972). However, we decided to use the expression, “social trap” since it provides the best picture for this particular phenomenon (see also footnote 111).

¹¹⁸ The PD metaphor to which we have referred to at many occasions in our PhD project, is presumably the most often used concept to describe the nature of *social traps*. Individual rationality drives the two suspects to confess as soon as possible to the public prosecutor. But when following this strategy, both prisoners are worse off since a “double confession” gives rise to the unpleasant outcome of a 5 years long prison sentence for both suspects. The egoist and self-oriented quest for individual freedom steers both prisoners into a *social trap*. If they would follow the logic collective rationality instead, both would remain silent and achieve a far better result (1 year in prison). Certainly, the “collective optimum” is for the individual prisoners less attractive than their individual optimum (immediate release from prison) but it is certainly better than the *social trap*.

¹¹⁹ While the bifurcation of collective and individual rationality denotes the core criterion of *social traps*, there are additional characteristic features that make *social traps* distinct from other types of problems (such as misinformation, lack of resources, inappropriate incentive structure, etc.). *First*, *social traps* are particularly serious social problems since they have a “systematic character”. Even when triggered by a rather small minority or a single actor, *social traps* often lead to a vicious cycle and cause a race to the bottom that affects, in the end, the well-being of larger communities – and in extreme cases (see e.g. environmental pollution) the entire planet. *Second*, – and similar to actual traps – *social traps* have often a strong element of surprise. In the perception of the involved actors, *social traps* appear as a sudden deterioration. Negotiation parties who step into a *social trap* often find their goals and behavioral patterns subjected to a “strategic roller coaster” and quickly end at a completely different situation they had initially expected to achieve. For example, the two suspects in the PD metaphor find themselves all of a sudden confronted with the prospect of a 5 years sentence while they have indulged the minute before the hope to be set free due to their swift confession of the committed crime. *Third* – and again similar actual traps – once established *social traps* are likely to endure and the chance for trapped actors to break free are relatively limited. The more the participants become entangled in a self-enforcing spiral of reciprocal self-help, the more hopeless is the chance of escape.

We encounter *social traps* everywhere in social reality. In negotiation dynamics, however, they are in particular ubiquitous. Certainly, not each and every problem a real-world actor faces in a diplomatic process is a *social trap*. But *social traps* and the logic of negotiations are closely interwoven. The reason for this close connection lies in the interdependent decision making that resides – as we have explained in detail in the set up chapter (ch. 2.2.2) – at the very heart of bargaining dynamics. Actors who are involved in negotiations are bestowed with a veto – a characteristic feature that makes negotiations distinct from other types of conflict management (such as voting or adjudication). Consequently, successful problem resolution is only possible if all parties work together and arrive with outcomes that serve the interests of all actors. Lasting negotiation results are instead impossible if the involved parties stick to egoistic utility maximization. Rationality assumed, the disadvantaged actors will either veto biased bargaining proposals or will try to circumvent partial negotiation outcomes. Due to the characteristic interdependent decision making, sustainable resolution of *substantial* and *procedural negotiation problems* is only possible if the bargaining dynamics achieves a “collective optimum”. All negotiation parties would yield *collectively* more benefit if they worked jointly towards a cooperative problem management. Thus, negotiation problems are synonymous with *social traps*. And overcoming negotiation problems – both on the *procedural* and *substantial dimension* – is synonymous with the resolution of *social traps*.

Of course, the world is populated with biased negotiation agreements that miss the “collective optimum” and make one side better-off than the other involved parties. Most of the partial negotiation outcomes signify, however, ineffective and unstable situations. It requires, *ceteris paribus*, considerable governance resources (such as positive or negative sanctions and verification) to make the disadvantaged actors accept the unfavorable outcome – investments that would be unnecessary if a “collective optimum” had been achieved. Moreover, collective sub-optimal negotiation results are in general assumed to be unstable. It is very likely that biased outcomes are “gnawing” at the disadvantaged conflict parties and that these actors try – over time – to circumvent the negotiated agreements. Rationality assumed, cheating and noncompliance are the logical consequences of biased agreements.

With the help of the IBE selection process, we revealed that *social traps* in bargaining dynamics could occur in three distinct phenotypes: the *distrust*, the *injustice*, and the *colliding interest trap*. ***Sustainable resolution of negotiation problems could only be realized if the interests of all actors are fulfilled, if all involved parties have sufficient trust in their counterparts, and if the benefits of negotiation agreements are equally distributed between the conflict parties.*** If one of these three aspects is missing, lasting problem resolutions are impossible.¹²⁰

¹²⁰ Enlightened Rationalists have in the past criticized the approach of social traps as too narrowly bound to the idea of *colliding interests* and have demanded for a broader conceptualization which allows for a more realistic analysis of real-world actors’ motivation and behavioral patterns (e.g. Ostrom 1998; Rothstein 2005). By studying the *distrust trap*, the *colliding interest trap*, and the *injustice trap* in parallel, we make an attempt to fulfill this demand.

For example, just and attractive negotiation outcomes that serve the interests of all involved actors and establish an equal distribution of gains and losses are still likely to fail if distrust continues to prevail. Suspicion and doubts in the sincerity of the counterparts could quickly spoil negotiation dynamics. The same logic applies to situations that are regarded as unjust by the negotiation parties. Even in a state where the involved actors have collectively an interest in a joint solution and enjoy in general a trustworthy relationship, injustice could easily sabotage a diplomatic process. When the underprivileged actors become aware that they would, in fact, benefit from an agreement but do not gain as much as their counterparts, they are likely to challenge the negotiation outcome.¹²¹ Moreover, a negotiation outcome that is not serving the interest of the involved actors and is therefore falling short in resolving the *colliding interest trap* is likewise doomed to failure even though the negotiating parties have sufficient trust in each other's honesty and regard the unattractive negotiation outcome as just in the sense of equal distribution.

While it is obvious that these three *social traps* have a different form of appearance, they are all three marked by the characteristic bifurcation of individual and collective rationality. In the following section, we will elaborate this fact in more detail and provide an exact definition of these three *social traps* based on the general assumption that our entire PhD project is guided by the logic of Enlightened Rationalism.¹²²

But before we go on, we have to highlight that there is in our *fit taxonomy* a "division of labor" between the three *social traps*. In general, we assume that all three *social traps* apply to both dimensions of negotiation problems. However, in the IBE selection process, we have revealed that in light of our particular research objective (the Libyan NRN), only the *colliding interest trap* has relevance for both dimensions (ch. 3.3.2). The *injustice trap* is primarily significant for *substantial negotiation problems*. The *distrust trap*, instead, applies first and foremost to *procedural negotiation challenges* (Figure 7).¹²³

¹²¹ Of course negotiating parties are not always willing to resolve unjust constellations. Often they are content if they are able to resolve interest conflicts or overcome distrust. Research on conflict resolution has, for example, revealed that conflict parties who are plagued by war and violence are prepared to deal peace against justice (e.g. Albin 2009). However, in a medium and long-term perspective, stable and sustainable negotiation results are more likely if the condition of justice is met. Unjust and unfair bargaining outcomes are assumed to produce – over time – frustration and discontent.

¹²² The parallelism of different action concepts (interest, trust, and justice) allow us to distant ourselves from the "hyper-rationality" assumption held (at least implicitly) by many Orthodox Rationalists. It is one of the core results stemming from decades of experimental research that actors do not always strive to maximize their utilities but also follow different scripts – expressed in our PhD project by (dis)trust and (in)justice).

¹²³ In general, *injustice traps* apply to both *procedural* and *substantial problems*. On the *procedural dimension*, inequality signifies a biased representation of conflict parties. Procedural justice – the question of equal participation and recognition in negation process and forms – plays an important role in multilateral negotiations where normally many and different bargaining parties take place (i.e. state actors, international organizations, and NGOs). However, since NRN are dominated by states actors and have mainly a bilateral nature, procedural (in)justice is widely irrelevant in this particular type of bargaining dynamic. Against that background, we decided to focus injustice only on the *substantial problem dimension* (Figure 7).

With regard to the *distrust trap*, the opposite logic applies. In general, *distrust* has also implications for the *substantial problem dimension*. After all, the suspicion of bargaining actors often arises from the specific nature of the negotiation issue. However, *distrust* is first and foremost a procedural aspect. It surfaces in the negotiation process and materializes in the form of operational bargaining hurdles. Therefore, we

3.1.2.1 Distrust Traps & the Maximin Solution (M)

Distrust in the other side's sincerity is very common in international negotiations. Negotiating parties could either overcome this problem jointly (for example by applying mutual confidence building measures) or by recurring to individual self-help (for example by intelligence reconnaissance). While self-help might yield positive results in a short-term perspective, it is very likely to increase the *distrust* among conflict parties over time. Expressing the characteristic bifurcation between individual and collective rationality, unilateral confidence building is assumed to incite the other actor's *distrust* and likewise breeds mutual suspicion. Thus, the chance to achieve the "collective optimum" is foreclosed if the negotiation parties attempt to reduce distrust by a self-help strategy.

Speaking in more technical terms, scholars who follow the meta-theory of rationalism could describe the *distrust trap* by the so-called Maximin Solution (M) (also known as Minimax Solution) (e.g. Lendenmann & Rapoport 1980; Scharpf 1990: 475; Ullmann-Margalit 2004: 70-1; Zürn 1992: 317-8). The Maximin Solution is the self-help strategy rational actors chose if they expect malevolence. When negotiating parties assume the worst-case scenario, the Maximin Solution guarantees at least a minimum benefit. When bargaining dynamics turn towards a major breakdown, the Maximin Solution allows negotiating parties to "hedge their bets". It operates according to the "sure-thing principle" (Lendenmann & Rapoport 1980) and expresses extreme cautious and risk adverse thinking. However, signifying individual rationality, the Maximin Solution leads in most cases to collectively sub-optimal results. Consequently, it is a concept that indicates *distrust traps*. And in order to resolve the *distrust trap* the involved actors have to engage in mutual confidence building. Inactivating the Maximin Solution is in that perspective synonymous with resolving the *distrust trap*.¹²⁴

What is important to bear in mind, however, is that the Maximin Solution is not operationalization "trust" but the various degrees of "distrust". It is at best a "negative concept" of trust. "Distrust" and not "trust" is the primary criterion of the Maximin Solution. Rather, what is crucial in order to overcome the Maximin Solution is that the actors are able to reduce their worst-case thinking and give joint cooperation a chance.¹²⁵

decided to study the *distrust trap* in the Libyan NRN exclusively on the *procedural problem dimension* (Figure 7).

¹²⁴ For example, in the metaphor of the PD, the Maximin Solution represents the strategic choice where both players confess the crime and face a five-year long prison sentence. Characteristically for a social trap, the Maximin Solution is an unattractive outcome. But if the prisoners are risk adverse and firmly expecting malevolence, this choice provides the best protection against the worst-case scenario – the situation where one suspect confesses and the other remains silent. Five years in prison is in that view a calculated risk that is a little shocking in light of the prospect of the ten year long sentence the suspects would have to bear under the worst-case scenario (Figure 8).

¹²⁵ The Maximin Solution conceptualized (dis)trust as a "motivation" – a perspective that consequentially recurs strongly to the individual benefits of actors. But it is important to note that (dis)trust could be also operationalized as an "ability". In order to highlight the difference between (dis)trust as "ability" and "motivation", Jon Elster gives the following examples: "In German-occupied countries during World War II, it happened from time to time that resistance members were killed because they were thought to be German agents [i.e. motivation, author's note]. It also happened, although more rarely, that they were killed because they could not be trusted to hold their tongue [i.e. ability, author's note] (...) To take a more mundane example, I might question a car mechanic's skills or I might question his honesty" (Elster 2007: 345-6).

3.1.2.2 Colliding Interest Traps, the Qualified Pareto Optimum (P+) & the Nash Equilibrium (N)

The *colliding interest trap* is presumably the most standard expression of a *social trap*. When we speak and theorize about social dilemmas, we normally refer to the *colliding interest trap* where actors strive selfishly for utility maximization without taking the interest of their counterparts into consideration and thereby render the “collective optimum” impossible.¹²⁶ *Colliding interest traps* signify win-lose constellations. Consequently, resolving *colliding interest traps* is synonymous with applying a win-win approach that is implementing the “collective optimum” in a given situation.

Speaking in more technical terms, the resolution of the *colliding interest trap* is resolved if negotiation parties manage to achieve the Qualified Pareto Optimum (P+) (e.g. Hovi et.al. 2003: 88; Zangl 1994: 290; Zürn 1992: 156-7). The Qualified Pareto Optimum is an extension of conventional pareto-efficient constellations (P). Conventionally, Pareto-efficiency signifies a strategic situation from which the involved parties could not depart without imposing costs to at least one player. It represents a state in which the available goods “could not be reallocated to make anyone better off without making at least some person worse off” (Cudd 1996: 1). However, it is relatively obvious that many of the pareto-efficient constellations we encounter in negotiation dynamics are incompatible with our intuitive understanding of attractive and social desirable outcomes. For example, a situation where one actor is harvesting all available profits while its counterpart gains nothing but remains in the status quo, would signify a pareto-efficient constellation as the winning party has not deteriorated the disadvantaged party’s situation. Tellingly, there is a consensus in the relevant literature that conventional Pareto-efficiency is not a reliable indicator for the “collective optimum” (e.g. Cudd 1996; Nida-Rümelin 2012; Ritsert 2012: 29; Zürn 1992: 155-7).

However, not all pareto-efficient situations are problematic. In some constellations, all involved actors gain net benefits. These constellations signify the just mentioned Qualified Pareto Optimum (P+). Since the Qualified Pareto Optimum represents among the different pareto-efficient situations the constellation that provides most benefits to all players, it is expressing a state of collective rationality. Consequently, in bargaining dynamics, the *colliding interest trap* is resolved if the negotiating parties manage to achieve the Qualified Pareto Optimum.¹²⁷ The *colliding interest trap*, however, continues to prevail in all those situations where the Qualified Pareto is missed.

In essence, the Qualified Pareto Optimum builds on the so called *Nash bargaining solution* – an axiomatic-mathematical bargaining concept introduced by John F. Nash (Nash 1950, Nash 1953). In an ideal bargain situation where actors are rational and have symmetric preferences, negotiation problems are resolved – according to the Nash Solution – when a

¹²⁶ For example, when Garrett Hardin introduced in his seminal paper of the “Tragedy of the Commons” (1968), he described a *colliding interest trap*.

¹²⁷ In the metaphor of the PD, the Qualified Pareto Optimum represents the situation where both suspects remain silent and get away with one year in prison for a minor offence (such as illegal possession of fire arms). Obviously, this strategic choice is individually not the best outcome. But it indicates the “collective optimum” where both prisoners achieve collectively a relatively attractive result (see Figure 8).

state is achieved where the utility gains for all involved actors are maximal (e.g. Berninghaus et.al. 2002: 149-87; Holler & Illing 1991: 189-225; Lambertini 2011: 148-54; Thomson 1994: 149-87).

For analyzing prevailing *colliding interest traps*, we could instead return to the so-called Nash equilibrium (N) (e.g. Rapoport & Guyer 1966). The Nash equilibrium (not to be confused with the just mentioned Nash bargaining solution) is an indicator often applied to identify the bifurcation of individual and collective rationality. The Nash equilibrium occurs if all involved negotiating parties strive selfishly to maximize their individual utilities. Once established, the actors cannot depart from this interaction result unilaterally without rendering themselves worse off.¹²⁸ In that sense the Nash equilibrium describes the very nature of a *colliding interest trap* that has “snapped shut”.¹²⁹

3.1.2.3 Inequality Traps & Egalitarian Optimum (E+)

Equality is a social constellation that is per definition balanced and unbiased. Consequently, the best indicator for inequality is when some actors claim to be “more equal than others” (Orwell 1966). Once rational negotiating parties have stepped into an *inequality trap*, they could collectively not escape from this situation by returning to the self-help strategy. Individual attempts to overcome inequality are instead likely to further deepen this *social trap*. Unilateral efforts of one negotiation party to undo a biased distribution of gains are, in all probability, prone to trigger more inequality for its counterparts. In the logic of zero-sum interaction, the improvements that one actor is achieving, is deteriorating the situation for the other involved parties. The resolution of unjust and unfair constellations is only possible if the negotiating actors abandon the logic of individual rationality and apply cooperative strategies that take the distribution of gains and losses of all involved parties into consideration.

Speaking again in more technical terms, *inequality traps* are resolved if the negotiating parties manage to achieve the so-called Egalitarian Optimum (E+). According to our definition, the Egalitarian Optimum represents a state where the utilities gains of all actors are equally disturbed. If an Egalitarian Optimum is given, all involved actors are better off to the same extent. Thus, the Egalitarian Optimum signifies the collective optimum.¹³⁰ In

¹²⁸ In the metaphor of the Prisoners’ Dilemma, the Nash equilibrium coincides with the outcome where both actors confess to the public prosecutor and face a five year’s long prison sentence. Although joint confession represents a deplorable situation, it would be still irrational for the two suspects to depart from this strategic constellation unilaterally. Such a step would trigger for the departing party an even worse outcome of the 10 year long prison sentence (see Figure 8).

¹²⁹ While the *distrust trap* and the Maximin Solution is assumed to build primarily on the beliefs of actors (i.e. the conviction that counterparts in bargaining dynamics are in principle insincere and dishonest) the *colliding interest trap* and the Nash Equilibrium is assumed to be constituted primarily by the desires of actors (i.e. the attempt to realize one’s egoistic wishes).

¹³⁰ While we have with the Egalitarian Optimum a distinct concept to operationalize *inequality traps* and their resolution, we have in rationalism no genuine explanation for the emergence of *inequality traps*. It is not per se rational to strive for inequality. In rational choice, there is no general desire for wickedness. Deriving pleasure from other people’s displeasure is similarly irrational as unselfish altruism. Such an intention would contradict the logic of individual goal seeking which is at the very heart of rationalism. Consequently, *inequality traps* emerge as by-products of the actors’ egoistic strive for utility maximization (i.e. the *colliding interest trap* and the Nash Equilibrium) or their quest to take unilateral precaution measures against the expected malevolence of their counterparts (i.e. the *distrust trap* and the Maximin

bargaining situations, it is a state that assures sustainable negotiation results which renders all involved actors content with the achieved agreement. The *inequality trap*, however, continues to prevail in all situations where the bargaining parties fail to achieve this outcome.¹³¹

In essence, the Egalitarian Optimum builds on the so-called *Egalitarian Bargaining Solution* (Kalai 1977; Myerson 1977). The *Egalitarian Bargaining Solution* is an axiomatic-mathematical concept and represents a modification of the above mentioned *Nash Bargaining Solution*.¹³² While the *Nash Bargaining Solution* is focused on maximal gains, the *Egalitarian Bargaining Solution* defines the optimal negotiation outcome (the so-called “agreement point”) by a state where the benefits of the involved players are equality distributed (e.g. Lambertini 2011: 154).¹³³

3.1.3 Dilemma Games & Public Bad Approach

The next “ingredients” we add to the *fit taxonomy* are two analytical concepts – *dilemma games* and the *public bad approach* (Figure 7). In terms of *depth*, *coherence*, and *breadth*, both approaches were found in the IBE selection process as the best contribution (ch. 3.3.3).¹³⁴ *Public bads* and *dilemma games* are sub-categories of two rather broad theories – the Theory of Collective Goods (TCG) and game theory – which are both clearly located in the “realm of rational choice”. *Public bads* and *dilemma games* allow for a comprehensive and systematic analysis of the three *social traps* since both approaches have strong explanatory powers in terms of describing the bifurcation of individual and collective rationality. In addition, these two analytical approaches help us to discern the numerous “within-social-trap” variations and thereby provide us with a multifaceted picture of the various degrees of intractability foreign policy makers encounter in real-world bargaining dynamics. However, the most relevant contribution to the *fit taxonomy* is their ability to systematically identify the “optimal problem solution” – the central yardstick when

Solution). In that sense, *inequality traps* “piggyback” on the same mechanisms that give rise to *colliding interest* and *distrust traps*. With regard to their genesis, they are subordinated to these two logics. However, while *inequality traps* emerge as by-products, they have – once they are established – a genuine nature which is independent and distinct – as we have shown above – from the two other types of social traps.

¹³¹ In the metaphor of the PD game, the Egalitarian Optimum (E+) coincides for example with the situation where both prisoners chose to remain silent and spend only one year in prison. In this constellation the two suspects are gaining in the sense that they are collectively better off than they would be in any other situation *and* their gains are equality distributed in the sense that both sides are able to realize in equal terms their second best outcome (see Figure 8).

¹³² Since the *Egalitarian Bargaining Solution* is a derivative of the *Nash Bargaining Solution*, it not surprising that the concept of the *Qualified Pareto Optimum* and the *Egalitarian Solutions* are closely connected. In essence, the *Qualified Pareto Optimum* is the precondition for the *Egalitarian Optimum*. But while there is no *Egalitarian Optimum* without a *Qualified Pareto Optimum*, not all *Qualified Pareto Optima* are identical with an *Egalitarian Optimum* (see e.g. the *Imposed Deadlock Game* in the *Libyan NRN*, ch. 5.3.2.1).

¹³³ For the sake of completeness, we would like to mention that there is – apart of the *Nash* and the *Egalitarian Bargaining Solution* – also the so-called *Kalai-Smorodinsky Solution* which operates not along maximal or equally distributed benefits, but instead builds on the logic of proportional gains (Kalai & Smorodinsky 1975; see also: Lambertini 2011).

¹³⁴ The other candidates we discussed in the IBE selection process were the *GRIT*, the *BATNA*, and the *ripeness approach* (Ch. 3.3.3).

studying the fit performance of *diplomatic design*. The *public bad approach* and the concept of *dilemma games* offer us insights into the question of how to design diplomatic intervention in order to resolve negotiation problems in an effective and efficient way.

Similar to the three social traps, there is in our *fit taxonomy* also a “division of labor” between these two analytical concepts (Figure 7). The approach of *public bads* is first and foremost a structural concept. It studies the undersupply or overuse of services, means, and goods as well as spill-overs that negatively affect outsiders in their efforts to satisfy their desires (i.e. “negative externalities”). Therefore, this approach is in particular suitable for analyzing the *colliding interest* and the *injustice trap* that defines the *substantial dimension* of negotiation problems. *Dilemma games* are instead particularly feasible for the study of bargaining dynamic and processes. Since this approach puts problematic constellation of interdependent decision making at a central stage, we apply it for analysis of *colliding interests* and *distrust traps* situated on the *procedural dimension* of negotiation problems.

3.1.3.1 The Public Bad Approach

While we encounter in IR literature many general references to the Theory of Collective Goods (TCG), there are relatively few systematic and analytical applications of this theory (e.g. Barrett 2007; Holzinger 2008; Kaul et.al. 2003; Kocks 2010; Sandler 2004). This holds true, in particular, in the research of international negotiations where scholars have only occasionally touched upon TCG. The view becomes even dimmer if we turn to the approach of *public bads* – a sub-discipline of TCG which was in the past only rarely applied in IR research (e.g. Arce & Sandler 2005; Bueno de Mesquita & Smith 2009; Göker 2013; Jervis 2009; Moxnes & van der Heijden 2003).

This little appreciation for the *public bad approach* is deplorable. Since this concept allows us to study systematically the varieties of “trans-sovereign problems” (Rittberger, Kruck & Roemund 2010: 346) – a field that is primarily characterized by descriptive analysis and is thin on genuine theoretical concepts. The *public bad approach* is in that sense extending the conventional TCG by an additional analytical layer. In essence, the *public bad approach* represents the “dark side” of TCG. With the help of this approach we make issue areas accessible to detailed and multifaceted analysis for which we would have, beforehand, only reported the absence of collective goods. For our research project, the *public bad approach* is in particular fruitful since it highlights the negative reciprocity between *public bads* and *collective goods* and provides us with a genuine concept to study *social traps* on the *substantial dimension* of negotiation problems.

But what exactly is a *public bad*? A *public bad* is a structural entity that imposes uncompensated costs to third parties that have not or not fully participated in its production or consumption. These uncompensated costs are described in TPG literature as “negative externalities”. “Negative externalities” are in essence “disutilities” that are spilled-over into the public sphere (e.g. Cornes & Sandler 1996: 39; Kaul, Grunberg & Stern 1999; Kölliker 2005: 203; Rittberger, Kruck & Romund 2010: 345-6).

While there are also natural *public bads* (such as tsunamis, earthquakes, or infectious diseases), most of the *public bads* in international affairs are believed to be human-made or have at least a significant anthropogenic proportion. Thus, many of the trans-sovereign problems we encounter in today's world politics – such as cross-border pollution, transnational crime and terrorism, or global financial crises (e.g. Ferdowski 2007) – could be described and analyzed as human-made *public bads*.

Individuals – the so-called *bad sufferers* – who are exposed to “negative externalities” might occasionally perceive *public bads* as a personal stroke of fate. However, *public bads* always have implications beyond the single actors and negatively affect collective entities. Publicness is a constitutive element of *public bads*. *Public bads* are in that sense clearly distinct from *individual bads* (e.g. severe illness or private bankruptcy).

While the effects of human-made *public bads* could be disastrous, they are not “irrational evil”. Rather, *public bads* are logical and purposive. Like *public goods*, *public bads* have both a supply and a demand side. The so-called *bad doers* produce and supply *public bads* because they want to consume their benefits.¹³⁵ Thus, at the very heart of every human-made *public bad* – be it international terrorism or a global financial crisis – resides a “good” from which individual *bad doers* or a group of *bad doers* take advantage of. “Negative externalities” are not only by-products that arise from and supply of *public bads*. “Negative externalities” are also constituted by the exclusive consumption of a public bad's benefits.

Bad doers and *bad sufferers* are inescapably intertwined in their struggle to maximize their utilities. The *bad doers'* intention to supply and consume *public bads* imposes “negative externalities” to the *bad sufferer*. However, to fend off “negative externalities”, most *public bads* are confronted with countermeasures (e.g. transnational crime and terrorism is tackled by cooperation of national police and security authorities; bank regulations are put in place to confront financial crisis; etc.). In that sense, the *bad sufferers'* intention to contain, reduce, or even erase “negative externalities” inflicts costs to the *bad doers* since they reduce the benefits resulting from the consumption of *public bads*. The utility maximization of the *bad doers* is undermined with the consequence that the livelihood of all those who profit from the supply and consumption of the *public bad* are threatened.

The conflict between *bad doers* and *bad sufferers* materializes in the struggle between *public bads* and *collective goods*. *Collective goods* signify the opposite of *public bads*. *Collective goods* are marked by “positive externalities” and in the sense that they provide positive spill-overs to third parties. The consumption of *collective goods* varies in terms of rivalry and excludability. That fact has led scholars to distinguish different sub-categories of *collective goods* such as *pure public goods*, *common pool*, *club*, and *network goods*.¹³⁶

¹³⁵ Note that those actors who supply *public bads* are not necessarily identical with those actors who consume the *public bads'* benefits.

¹³⁶ In the literature we often encounter the following scheme: *Common pool goods* = rivalry in consumption but no excludability (e.g. high sea fishing grounds); *club goods* = no rivalry in consumption but excludability (e.g. cable TV); *network goods* = no rivalry in consumption and growing utility growing numbers of consumers (e.g. technical standards) (see Rittberger, Kruck & Romund 2010: 345-6). Among these different categories of collective good, the *pure public good* (i.e. public parks) is unique since it signifies a structural constellation where consumption is neither rivalrous nor exclusive. No actor is

Apart from *pure public goods*, *collective goods* are often underused, undersupplied, poorly provided, overused and have various access problems (e.g. Kaul et.al. 2003: 26). In many cases, these problems could be traced back to the impact of *public bads*. Supplying and consuming *public bads* is undermining *collective goods* – and vice versa. *Public bads* and *collective goods* are intertwined in a negative reciprocity. That aspect is important for the operationalization of *social traps* as we will show in the following section.

A) The Substantial Colliding Interest Trap

In order to analyse the *colliding interest traps* situated on the *substantial dimension*, we could apply to the just mentioned negative reciprocity between *public bads* and *collective goods*. The *bad doers* and the *bad sufferers* are trapped in a struggle where they reciprocally undermine their efforts to maximize their utilities. Neither the *bad doers* nor the *bad sufferers* could unilaterally escape from this situation without facing prohibitive costs. If the *bad sufferer* would, for example, stop to fend off *public bads*, they would face growing “negative externalities”. Thus, the *bad doers* and the *bad sufferers* are embroiled in an uncooperative situation which signifies a Nash Equilibrium (N) and which is rendering both sides worse off in view of the optimal situation they individually expect to achieve. Both sides are entangled in a *substantial colliding interest trap*.

It is very obvious that the resolution of this *social trap* requires the elimination of the “negative externalities” emitted by a *public bad*. If only the *public bad* is rendered harmless, the *bad sufferers* are able to realize their desires and have the chance to consume peacefully their *collective good(s)*. What is required is a diplomatic intervention that “liberates” the *bad sufferers* from the negative impacts of *public bads*.

Intuitively removing the cause that originally gave rise the *substantial negotiation problem* appears to be at first sight the most appropriate solution to this task. However, due to the negative reciprocity between *bad doers* and *bad sufferers*, undoing *public bads* alone is not leading to sustainable negotiation results. It rather represents a pareto-inefficient outcome which is not dissolving the bifurcation between individual and collective rationality that is at the very heart of social traps. Such an approach would signify a win-lose strategy where the *bad sufferers* “take it all” and the *bad doers* are “left out in the rain” deprived of the benefits which were constituted by the *public bad*. Thus, applying diplomatic interventions that exclusively implement the “liberation” of the *bad sufferer* from “negative externalities” will leave the *substantial colliding interest trap* unresolved.

Of course, in some constellations, the *bad doers* might accept remorsefully their fate and “do penance” for the harm they have caused to the *bad sufferer* in the past. But in most situations, there is a high chance that the *bad doers* will reject pareto-inefficient negotiation outcomes and will try unilaterally either to restart their *public bad* or search for alternative replacements which might likewise cause “negative externalities”.

prevented from consuming the benefits of *pure public goods*. Neither the quality nor the quantity of *pure public goods* is diminished if additional actors take part in its consumption.

A lasting resolution to substantial *colliding interest traps* is therefore only possible if bargaining parties manage to implement a strategy that is not only inspired by *liberation* but also by *substitution*. ***The Qualified Pareto Optimum (P+) where both sides gain collectively is only achievable if the “negative externalities” of the public bad are eliminated and if the bad doers receive an appropriate substitution for the abandoned public bad which will provide them with alternative means to assure their benefits without causing new “negative externalities”.***¹³⁷ A “liberation-substitution strategy” is assumed to lead to negotiation outcomes where both sides are collectively rendered better off and the *colliding interest trap* is sustainably resolved.¹³⁸

The requirement of the “liberation-substitution” strategy provokes two puzzling questions. *First*, how do we identify the appropriate substitution for the *bad doer*? How do negotiating parties assure that they provide – both in quantitative and qualitative terms – the suitable surrogate for the abandoned *public bad*? Delivering too little or too much of the appropriate substitution is problematic. But providing a replacement that is not or only partly suitable in qualitative is problematic too. *Second*, how do we operationalize the “liberation strategy”? How do conflict parties assure that the relevant *public bad* is abandoned completely without eliminating aspects of the bad doer’s strategic portfolio which are unproblematic causing negative side-effects which could – in a feed-back loop – further complicate the negotiation process? The *public bad* approach, as we understand it, provides answers to both questions. It identifies the “optimal problem solution” for the “substitutive” and “liberating interventions” and qualifies thereby as a suitable analytical approach for our *fit taxonomy*.

¹³⁷ The logic of “substitution” is expressing a pragmatic and forward-looking approach towards *public bads*. What is at the focus is to avoid future problems? In that sense, the “substitution strategy” is clearly distinct from the backward-looking paradigms of “punishment” and “repentance” which traditionally dominate in domestic affairs the policy to confront *bad doers* – be it criminals or sinners. Consequently, the “substitution strategy” might be rejected by all those who demand compensation and reparation for damage and harm caused in the past. The fact that *bad doers* are gaining something in return for abandoning their bad behaviors might appear in the backward-looking perspective paradox – if not even disgusting. However, since “punishment” and “repentance” make sense only if we assume that the *bad doers* are members of the same “in-group”, share a common normative order and are expected to return to the “normal society” – a requirement that is in international security policy often not the case – the forward-looking approach of substitution seems to be an appropriate strategy for international bargaining dynamics.

¹³⁸ Apart from the “liberation-substitution interventions”, we could identify with the help of the *public bad* approach an additional and more fundamental resolution to *colliding interest traps*: the supply of *pure public goods*. Since there is no rivalry and no excludability in the consumption of *pure public goods*, all actors – the *bad doers* and the *bad sufferers* – would benefit from such a constellation. Once supplied, the *pure public good* signifies a “collective optimum” that make the rational cause to supply and consume *public bads* disappear. However, the provision of *pure public goods* goes clearly beyond the resolution of issue specific *colliding interest traps*. *Pure public goods* (such as public parks) have far-reaching positive externalities. In theory, all interest third parties (including future generations) could benefit from *pure public goods* even though they were in the first place neither negatively affected by the *public bad* nor have participated in the actual bargaining process. Thus, as a resolution for a particular *substantial negotiation problem*, the provision of *pure public goods* is therefore in many respects oversized. As a practical solution to a given *public bad*, supplying *pure public goods* is too demanding in terms of the required resources.

Table 5: Varieties of Public Bads & their "Optimal Problem Solution"

General Strategy	Analytical Concept	Varieties of Public Bads	Optimal Problem Solution
"Substitution Strategy"	Public Bads & "Fabrication Chains"	(1) The entire "fabrication chain" is composed by <i>public bads</i> (e.g. worldview Chaliphate as pictured by Sunni terrorist groups)	No negotiation & no substitution (if applicable the provision of <i>pure public goods</i>)
		(2) "Fabrication chain" is oriented towards a final good. The <i>public bad</i> signifies an intermediate step in the manufacturing proces (e.g. nuclear proliferation).	Substitute the intermediate good in correspondence with the final good(s) of the original "production chain"
		(3) The "fabrication chain" consists of <i>intermediary goods</i> . Only the "final product" signifies a <i>public bad</i>	Substitute the final good in correspondence with the intermediate good(s) of the original "production chain"
"Liberation Strategy"	The Public Bad's Good Foundation	(4) Private Public Bad: rivalry and excludability in consumption (e.g. water removale by up-stream state)	Elimination
		(5) Club Bads: excludability but no rivalry (e.g. street gangs)	Externalization and/or eliminate
		(6) Common Pool Bads: rivalry but no excludability (e.g. speeding)	Internalization and/or eliminate
	Aggregation Technologies	(7) Summation aggregation (e.g. fare doding)	Undiscriminating but standardized countermeasures
		(8) Threshold aggregation (e.g. public dringing)	Containment
		(9) Best shot bad aggregation (e.g. product piracy)	Focus on the most potent <i>bad doer</i> and its capacity for the "single strike"
		(10) Weakest link aggregation (e.g. loophole in the fire wall)	Intensive preventive measures focused on all potential <i>bad doers</i>
	Scope of Negative Externalities	(11) Cross-territorial and cross-sectoral externalities (e.g. global financial crises)	Inclusive-multipolar representation
		(12) Cross-territorial but no cross-sectoral externalities (e.g. proliferation of chemical weapons)	Exclusive-multipolar representation
		(13) No cross-territorial but cross-sectoral externalities (e.g. bilateral border dispute)	Inclusive-bipolar representation
(14) Neighter cross-territorial nor cross-sectoral negative externalities (e.g. bilateral arms race)		Exclusive-bipolar representation	

(1) **Identifying the Appropriate Substitute:** In order to identify the appropriate substitute for abandoned *public bads*, we return to the concept of the "fabrication chain" which was occasionally used in the past by IR scholars who have analyzed world problems through the prism of TCG (e.g. Kaul et.al. 1999: 13; Kaul & Mendoza 2003; Manning & McMillan 1979; Meade 1955: 41-3; Rittberger et.al. 2010: 348; Zelli 2007). It is assumed that *public bads* (like *collective goods*) emerge only rarely in a single shot. Rather, they are produced – similarly to industrial goods – in a "fabrication chain" which is characterized by several intermediate stages. According to Inge Kaul and Ronald Mendoza, the concept of the "fabrication chain" signifies a "complex, multi-dimensional, multi-layered, multi-factor"

manufacturing process (Kaul & Mendoza 2003: 101). Step by step the “fabrication chain” is producing *public bads*.

Final products signify the ultimate outcome of this multi-stage manufacturing process. They represent the “end product” and denote the preferred social state *bad doers* are aiming to achieve. In light of the concept of rational motivation we have introduced above (ch. 2.5.3.1), *final products* would represent issue specific desires. They represent a preferred structural constellation.¹³⁹ However, realized *final products* are rare. It is relatively safe to assume that most of the structural entities we encounter in international affairs are *intermediate products*. *Intermediate products* signify a preliminary stage of “fabrication chain”. In the manufacturing process, they represent precursors.¹⁴⁰

The length of “production chains” is dependent on the scope and nature of individual *public bads*. While some “production chains” require only a few intermediate steps to achieve the *final products*, others signify complex and multi-dimensional manufacturing pathways. How much “up-stream” production has already been invested and how much “down-stream” production is still required to achieve the *final bad* (or *final goods*) is therefore an empirical question that needs to be answered in each individual case.

However, even more important than the length of “production chains” is their composition. The manufacturing pathway of *public bads* is rarely “pure”. Production chains that are entirely built of *public bads* are infrequent. In most cases, *public bad* “production chains” are built of components that are themselves rather unproblematic. In the multi-stage manufacturing of *public bads*, not only *collective goods* but also private goods often play an important role – both in the “down-stream” and “up-stream production”. Moreover, not every “fabrication chain” endeavors to produce *final bads*. Of the outcome of the fabrication process is rather unproblematic and it is only the intermediary production steps that impose “negative externalities”. This logic of “good ends justifying bad means” applies for example to nuclear proliferation. While illegal nuclear weapons programs clearly signify *public bads* that impose “negative externalities” to the outside-world and cause harm to *bad sufferers*, the “up-stream production” of these programs often builds on “dual use” technologies which signify themselves not as a *public bad* but represent components that are widely used in civil nuclear science and the atomic energy industry. Moreover, nuclear weapons programs are *intermediate public bads* since they are not an end by themselves. The final outcome of the “fabrication chain” that *nuclear bad doers* aim to achieve is in most cases unproblematic and often represents “normal” desires such as national security or national prestige (see no. 2 Table 5).

With the help of the “fabrication chain”, we are able to study – in quantitative and qualitative terms – the appropriate substitute of the abandoned *public bad*. At first, negotiating parties have to identify whether the *public bad* in a given situation is just a sub-

¹³⁹ For example, the utopia of a worldwide caliphate which is mercilessly enforcing a strict interpretation of the Sharia would signify the *final bad* desired by radical Salafism.

¹⁴⁰ For example, IR scholars have often described international regimes as “intermediate goods”. Be it though the provision of cross-border surveillance systems, transnational infrastructure, or aid programs, international regimes could be conceptualized as the means that help to produce “final goods” (Hasencelver et.al. 1997: 95-99; Kaul & LeGoulven 2003: 373-9 Young 1989b: 21, fn. 31).

component of the *bad doer's* "fabrication chain" or whether the entire "fabrication chain" is composed by *public bads*.¹⁴¹ If both the intermediate steps and the final outcome builds on public bads, substitution is impossible and the effort to achieve a sustainable problem resolution by diplomacy is senseless (see no. 1 Table 5). If, however, the *public bad* represents just a sub-component of the larger "fabrication chain" and has an intermediating character – as it is assumed to be the case in most real-world negotiation dynamics (see no. 2 Table 5) – appropriate substitution is given when the negotiating parties manage to fill the gap caused by the removal of the *public bad* in a way that the multi-stage manufacturing process is preserved and retains its functionality. The nature and the scope of the "fabrication chain" is in that sense the yardstick for appropriate substitution. Provided that negotiation parties have a detailed understanding of a particular *public bad's* "fabrication chain", they are able to design well-matching surrogates.

A well-matching substitution of an *intermediate public bad* requires that the provided replacement corresponds with the *final good(s)* of the bad doer's "fabrication chain". "Gap filling" is the central obligation. The former *bad doer* has to have the chance to continue its "fabrication chain" without the intermediate *public bad*.¹⁴² That criterion highlights that not every reward offered to *bad doers* fulfills the standard of the "substitution strategy". Apart from qualitative correspondence with the *final good(s)*, it is also important that the provided surrogate matches in quantitative terms to the broader "fabrication chain". The *bad doer* is only able to restore its "fabrication chain" and to continue its quest for the desired *final good* if the surrogate is sufficiently large to fill the gap in the manufacturing pathway.¹⁴³

(2) Liberation Strategy: The liberation of the *bad sufferers* – the second step to resolve *colliding interest traps* on the *substantial dimension* of negotiation problems – could be achieved through different avenues. For example, a *public bad* could be rendered harmless, if the *bad doers* *internalize* all "negative externalities". In such a case, the negative by-products that emerge from the supply or the consumption of *public bads* are all born by the *bad doers* themselves and are no longer emitted to by-standing third parties. *Externalization* of the *public bad's* benefits is another approach to deactivate *public bads* and undo "negative externalities". In the case of *externalization*, third parties would still face negative consequences but their suffering would be compensated by the entitlement

¹⁴¹ As we just said, "production chains" that are exclusively composed of *public bads* are infrequent. The just mentioned worldwide caliphate pictured by Sunni terrorist groups would, for example, signify a rare example of a "pure public bad fabrication chain". The early production stages such as fundamental Islamic street gangs intimidating their Muslim peers in Western European cities signify a *public bad* that is not in scope but in nature similar to *public bads* situated further down-stream on the production chain (such as terrorist attacks or efforts to establish territorial sovereignty in parts of the Middle East) (See no. 1 Table 5).

¹⁴² Of course, it is also possible that the *public bad* has in the "fabrication chain" not an intermediate character but instead signifies a *final bad* – although we assume that this constellation occurs less often in international affairs (See no. 3 Table 5). Substituting *final bads* is more complicated since it requires a relatively delicate mission to manipulate the desires of *bad doer*. However, in terms of the yardstick for this intervention, the same logic applies: it is essential that the functionality of the "fabrication chain" is preserved. In that sense, when substituting the *final bad*, it is important that the provided surrogate is by and large in harmony with the unproblematic intermediate goods.

¹⁴³ However, oversized substitutions are also problematic given that such a constellation represents an inefficient strategy that is causing exaggerated costs for those actors who provide the replacement.

to take part in the consumption of the *public bad's* benefits. Of course, complete elimination of the entire *public bad* would likewise diminish all “negative externalities” and would signify another possible approach (see no. 4-6 Table 5).¹⁴⁴

As we said above, it is important to apply the “liberation strategy” as a “surgical intervention” that is neither cutting off too much nor too little but only removes the “negative externalities” of a given *public bad*. Consequently, doing away with a *public bad* and its “negative externalities” could not be done *a gusto*. Negotiation parties could not freely choose between an elimination, externalization or internalization strategy. While there are several concepts to differentiate the scope and nature of public bads (see the following section C on the varieties of public bads) the “bad consumption” is with regard to the “liberation strategy” the most important criterion (see no. 4-6 Table 5).

As we explained above, at the very heart of the every *human-made public bad* resides in essence a “good” from which the *bad doers* benefit. In essence it is the envisioned benefits that drive the *bad doers* to produce and supply *public bads*. The “goods” that underlie *public bads* could – similar to collective goods (see footnote 136) – be distinguished according to criteria of “(non) excludability” and “(non)rivalry”. How the “liberation strategy” is applied, is dependent on the “good foundation” of the relevant *public bad*.

A *private public bad* is, for example, a *public bad* that is marked by rivalrous and excludable consumption (no. 4 Table 5). Apart from a single *bad doer*, no other party could take advantage of its benefits. For example, an up-stream state that is imposing “negative externalities” to all down-stream riparian states by excessively removing river waters and discharging sewage would signify a *private public bad* since the benefits of this behavior are reaped by a single actor while all other affected parties have to bear the related costs. Elimination is the only feasible “liberation strategy” when facing a *private public bad*. Due to the rival and exclusive consumption, internalization of negative costs or externalization of consumption is in such a constellation not a doable option.¹⁴⁵

Club bads instead represent constellations where the consumption of a given *public bad* is exclusive but not rival (no. 5 Table 5). All those actors who are inside the “club” take advantage of the *public bad* while the outside third parties have to bear the “negative externalities”. For example, an urban street gang would represent a *club bad*. The “fruits” of their illegal activities (such as wealth, power, or respect) are by and large shared among all gang members. The inhabitants of the neighborhood face instead the “negative externalities” of the street gang’s crime business (e.g. gun violence, dilapidation, downward trend of real estate prices). In terms of the “liberation strategy”, the handling of the *club bads* is marked by a two-fold option: completely *eliminate* the *club bad* or *externalize* its

¹⁴⁴ At first sight it appears that the externalization and internalization strategy would render the need of substitution needless since the *bad doers* would in these situations retain the public bad. However, both strategies are costly for the *bad doers* and would render (although in a less radical way than the elimination strategy) the original “fabrication chain” dysfunctional. Substitution would in these situations still be necessary in order to ensure the functionality of the “fabrication chain”.

¹⁴⁵ For example, unilateral removal of river water would be senseless from a rational perspective if we imagine that the up-stream state is sharing the removed water with all down-stream states (i.e. externalization of benefits).

benefits to new members. Following the logic “if you can’t beat them, join them”, teenagers in a deprived urban area could, for example, try to become members of the *bad doers* himself and take part in the consumption of its benefits. Due to the exclusiveness of street gangs, becoming a member is not an easy solution. Admission is limited and follows strict rules. Often committing crimes is required in order to ascend into this exclusive club. In that sense the new members still suffer negative consequences when applying the “externalization strategy”. But now they are at least entitled to take part in the consumption of the public bad’s benefits.

A *common pool bad* would instead represent a situation where the benefits for the *bad doers* are non-exclusive but rival (no. 6 Table 5). For example, speeding could be described as a *common pool bad*. Speeding does not only impose “negative externalities” to the outside world (e.g. the increased danger of accidents), it is also characterized by non-excludability. Exceeding the speed limit could be done with expensive sports cars. But one could also drive excessively fast with old clumsy rattletraps. However, the benefits of speeding are marked by rivalry. If all road users speed and speeding becomes “the normal thing to do” when boarding a car, it is losing much of its thrill. Elimination or internalization of “negative externalities” (which would represent, in the case of speeding, the imposition of high fines which bore all the negative consequences of speeding) are the two central strategic options when facing *common pool bads* (no. 6 Table 5).¹⁴⁶

B) The Injustice Trap

Although it is not an automatism, we still assume that in many international bargaining situations the *colliding interest trap* goes hand in hand with an *injustice trap*. While there are certainly situations where the resolution of the *colliding interest trap* leads to an outcome where the benefits are equally distributed between the *bad sufferers* and the *bad doers*, there is solid ground to believe that biased and uneven allocations of gains are common in many real-world negotiation situations.¹⁴⁷

Certainly, not all conflict parties might regard inequality as a problem. In some cases, negotiators are already content that they have resolved the *colliding interest* and do not dare to ask for more. However, in many situations, the disadvantaged actor(s) will perceive biased bargaining results as an obstacle for stable and lasting problem resolution – in particular because there is a tendency to see international negotiations through the lens of the “war” or the “sports metaphor” where in the end everything boils down to the essential questions: who has won (e.g. Gadlin, Kupfer-Schneider & Honeyman 2006)? Consequently, unjust and unfair bargaining outcomes are “gnawing” at the disadvantaged actors and produce – over time – frustration and discontent. In these situations, the *injustice trap*

¹⁴⁶ Note that we could further extend the discussion on the variations of the “liberation strategy” if we would take further differentiations of *public bads* into account such as *network bads* or *congestible bads*.

¹⁴⁷ Of course, (in)justice in the sense of (in)equal distribution of gains and losses is in many respects a question of perception. While we take this aspect into account in our single hard case study on the Libyan NRN, “perception” is not a genuine aspect for the *public bad approach* given that this concept is first and foremost about the tangible *structure* of negotiation issue.

becomes a substational negotiation issue which the individual actors could not resolve unilaterally without further deteriorating the problem.

Speaking in more technical terms, *injustice traps* determine the question of whether the Qualified Pareto Optimum (P+), which was established by the resolution of the *colliding interest trap*, coincides with an Egalitarian Optimum (E+) which signifies justice in the sense of egalitarian distribution. As we have already explained above, (ch. 3.1.2), parallelism between the Qualified Pareto Optimum and the Egalitarian Optimum requires not only that both players gain but that they gain to an equal degree.

But how exactly do we identify the Egalitarian Optimum with the help of the *public bad approach*? ***The Egalitarian Optimum is realized when the just introduced “substitution” in favor of the bad doer and the “liberation” in favor of the bad sufferer arrive at an equal distribution of gains and losses.*** The most obvious yardstick indicating that this requirement was met is when both sides are able to realize their desires in a harmonized way after the liberation and substitution intervention. That outcome is achieved when the *bad doer* is provided with a fully functioning “fabrication chain” that is sufficiently replacing the eliminated *public bad*, and where the *bad sufferer* is able to realize without negative inference its desired collective good. In such a case, neither the former *bad sufferer* nor the former *bad doers* are disturbed in the consumption of their *desired final goods*. Thus, the *injustice trap* adds an additional layer of coherence. Successful “substitution strategies” are required to match with the “fabrication chain” of the *bad doers*. The well-matching “liberation strategy” has to correspond to the “good foundation” of *public bads*. The successful resolution of the *injustice trap* is instead required to establish coherence between the outcomes of the “liberation” and the “substation” strategy. The benefits that the former *bad doers* gain by “substitution” shall not exceed the profits the former *bad sufferers* receive from the “liberation intervention” – and vice versa. Otherwise we would arrive at an unequal distribution of gains that is not resolving the *injustice trap*.

C) Varieties of Public Bads

Apart from analysis of the very nature of *injustice* and *colliding interest traps*, the public bad approach allows to systematically describe relatively broad variations in the appearance of substantial negotiation problems. The numerous “within-trap-variations” help to further fine-tune negotiation strategies and thereby improve the analytical power of the *fit approach*.

Two additional concepts of the *public bad approach* in terms of a more detailed problem description are in particular noteworthy: (1) the concept of aggregation technology and (2) the scope of “negative externalities”. Since both concepts will play for the later analysis of the Libyan NRN, an important role, we will explain them in more detail.¹⁴⁸

¹⁴⁸ In TCG literature we encounter additional concepts that would allow further differentiation of a *public bad's* nature and scope – such as group size, heterogeneity of the *bad doers*, or the institutional-juridical environment of bad production (see e.g. Kocks 2010).

(1) Aggregation Technology of the Bad Production: In the literature on collective goods, we often encounter the concept of “aggregation technology” (e.g. Hirshleifer 1983, Hirshleifer 1985; Sandler 2004). Scholars have applied this approach to analysis “the way individual contributions add up to the social available quantity of a good” (Holzinger 2001: 118). With the help of “aggregation technologies”, we could study how *collective goods* are produced and when they become supplied. The *summation*, *threshold*, *best shot*, and *weakest link* are presumably the “aggregation technologies” most often discussed in the literature.¹⁴⁹ Applied in a mirror-inverted way, aggregation technologies are also fruitful for the analysis of *public bads*. In essence, this concept signifies an additional criterion for fine-tuning the “liberation strategy” discussed above (no. 7-10 Table 5).

In the *summation technology*, *public bads* are produced by a step-by-step approach (Sandler 2004; Kocks 2010). Each contribution of each *bad-doer* is of equal value and adds up equally to the production of the relevant *public bad*. According to Todd Sandler, “[t]he primary distinguishing feature of summation is that every contributor’s efforts are perfectly substitutable for those of others” (Sandler 2004: 61). Fare dodging would, for example, signify a *public bad* that is produced by the *summation technology* (no. 7 Table 5). Regardless of who is free riding (a rich uptown kid or a poor teenager from a deprived inner-city neighborhood), every unpaid ride on the tube is increasing the problem of fare dodging to an equal degree.¹⁵⁰

Threshold bads (no. 8 Table 5) are instead only supplied if the *bad doers* manage to transgress a certain level (e.g. Sandler 2004: 64-66; Holzinger 2008: 69-82). If this threshold is not crossed, the *public bad* remains in an unfinished production stage and unfolds none or only limited “negative externalities”. For example, if a certain level of escalation is not crossed, drinking in public is not much of a problem and could be regarded as an important ingredient for a vibrant night live in European cities. But when a certain threshold is crossed, negative spin-offs appear that outweigh the benefits (e.g. violence, noise, disgraceful scenes).¹⁵¹

In the *best-shot* aggregation, *public bads* are supplied by the “single best effort” (Barrett 2007: 199). *Best-shot bads* often signify a technical or scientific breakthrough by a single actor and have the nature of a “single strike” (Kocks 2010: 249-50; Sandler 2004: 66-68; Barrett 2007: 31-32). The contributions of other actors to the *best-shot bad* are mainly unimportant. It is the provision of the single most potent *bad doer* that is in the end decisive as to whether or not the *public bad* is supplied (no. 9 Table 5). For example, we

¹⁴⁹ Other less prominent “aggregation technologies” are, for example, the *lumpy-* or the *weighted-sum-production* (Kocks 2010; Hampton 1987; Taylor 1982; Thompson 1987; Sandler 2004: 68).

¹⁵⁰ On the one, hand *public bads* that are produced according to the logic of the *summation technology* are problematic since every *bad doer*, regardless of its individual capabilities, commitment, and its intent is equally important and has to be taken into consideration by a resolution strategy. A focused resolution strategy which is dedicated only to particular relevant and notorious fare dodgers is therefore insufficient. However, *summation bads* allow – due to their symmetric production – on the other hand, for *indiscriminating* and *standardized counter-measures* (no. 7 Table 5).

¹⁵¹ *Containment* and *prevention* is the crucial strategy with regard to *public bads* that is built according to the logic of *threshold aggregation*. As long as policy makers manage to avoid the crossing of the threshold, the negative implications of this particular type of *public bad* are controllable even with relatively little governance resources (no. 8 Table 5).

could describe product piracy as a *best-shot bad*. The best and most affordable counterfeiting of a certain product – for example the imitation of Italian luxury handbags – has the biggest negative impact. As soon as the most potent imitator enters the market, the *public bad* of product piracy is obtained and is unfolding significant impact for the individual manufacturers of luxury handbags. All efforts of all less sophisticated forgers become more or less irrelevant since only very few people would buy an imitation of the imitation which is visibly a counterfeit.¹⁵²

Public bads that are fabricated by the *weakest-link* aggregation mark the opposite to the *best-shot bads* (no. 10 Table 5). Here a *public bad* is not produced by the most potent actor. In fact, it's the opposite. *Weakest-link bads* emerge already by the most minimal contribution. Even the weakest *bad-producer* could cause high impact in terms of “negative externalities” and is believed to outdo even more potent bad doers (e.g. Barret 2007: 47-73). For example, a loophole in a firewall that allows a software virus to slip through and cause severe damage to a sensitive system or a critical infrastructure, would represent a *weakest-link bad*. In such a case, it is irrelevant whether other hackers later use the same security loophole to place malware or whether the virus they have programmed has in general a higher ability to circumvent firewalls. The first-mover with a less sophisticated virus has already caused considerable damage to which nothing or little could be added to by second-moving *bad-doers*.¹⁵³

(2) Scope of “negative externalities”: Apart from their “aggregation technology”, *public bads* could be further distinguished by the nature and scope of the “negative externalities” they cause to the public sphere. A common approach – which we, again, translate from the conventional TCG literature – is the distinction between *cross-territorial* and *cross-sectoral externalities* (e.g. Kölliker 2005; Rittberger 2008; Rittberger et.al. 2010: 354-357).¹⁵⁴ “Negative externalities” have *cross-territorial* implications if they inflict costs on third parties across state borders. *Cross-sectoral* externalities are instead given, if a *public bad* has negative consequences not only to “identifiable functional subsystem of the society” (such as security or environmental policy) but is also “affecting several societal subsystems or the society as a whole” (Kölliker 2006: 205) (see no 11-14 Table 5).

For the analysis of *substantial negotiation problems*, the scope of “negative externalities” is important to identify the group of *bad sufferers* and address the question of who shall participate in a negotiation process? In order to arrive at a comprehensive and lasting resolution of the *substantive negotiation* problem, those who are affected by the problem

¹⁵² Consequently, a focused approach that concentrates on the most potent *bad doer* and its capacity for the “single strike” is crucial when trying to resolve *public bads* that are produced according to the logic the *best-shot aggregation*. Wasting one’s time on fighting imitators and forgers which impose anyway little “negative externalities” is, however, an important stumbling block for the resolution of *best-shot bads* (no. 9 Table 5).

¹⁵³ *Weakest-link bads* are in particular difficult to handle. Intensive preventive measures including “red teaming efforts” simulating a potential “attack” of *bad doers* is required to approach this type of challenge (no 10 Table 5). The handling of *weakest link bads* is costly since it requires to take even the most unlikely bad doers into account.

¹⁵⁴ Another concept to differentiate the scope of “negative externalities” would be the temporal dimension which would, for example, allow for a study focused on cross-generational implications of a *public bad* (e.g. Kaul et.al. 1999: 10-11).

should “have a say” in the resolution process. If this principle rule of representation in negotiation dynamics is not respected, it is likely that not all aspects of a certain *public bad* are addressed. Re-negotiation or – in the worst case – a violation and non-compliance with the achieved agreement would be the logical consequence. For example, an *exclusive-bipolar negotiation format* which only includes the actual *bad doer* and the immediately affected *bad sufferer* would be sufficient, if the scope of a *public bad* has neither *cross-territorial* nor *cross-sectoral* implications (e.g. a bilateral conflict on diplomatic aggregation). However, the question of participation becomes more challenging when the “negative externalities” have a *cross-territorial* and a *cross-sectoral* nature – such as, a global financial crisis. Financial crises do not only affect economies but often have negative implications across sectors as they could, for example, undermine the social welfare system or negatively interfere with the political system causing the emergence of radical parties. In order to assure that the interests of all affected parties are taken into consideration, a suitable resolution strategy has to have an *inclusive-multipolar structure* representing not only state parties or players from the banking sectors but also the relevant civil society actors (see no. 11-14 Table 5).

3.1.3.2 Dilemma Games

The concept of *dilemma games* is the analytical approach we have chosen in the IBE selection (ch. 3.3.3) in order to study the scope and nature of *procedural negotiation problems* and identify their “optimal solution” – the necessary requirement for evaluating the “fit performance” of *diplomatic design*.¹⁵⁵ While the *public bad approach* represents a rather “exotic” concept in negotiation research, *dilemma games* signifies presumably one of the most essential building blocks in the research on international bargaining dynamics (Jönsson 2002: 218-9). The development of game theory and the research on international negotiation is densely intertwined and evolved for considerable time as a mutually reinforcing symbiosis (e.g. Raiffa 1982; Rapoport 1960; Sebenius 1991; Schelling 1960).

Figure 8: 2x2 Prisoners' Dilemma Game

		Suspect A	
		remain silent [C]	confess [D]
Suspect B	remain silent [C]	3,3 E+,P+	1,4 P
	confess [D]	4,1 P	2,2 E,M,N

Players' hierarchy of preference: DC > CC > DD > CD

C = Cooperation E+ = Egalitarian Optimum P = Pareto Optimum
D = Defection M = MaxiMin Solution P+ = Qualified Pareto Optimum
E = Equal Distribution N = Nash Equilibrium

Although the knowledge of *dilemma games* is widely spread among IR scholars, we still decided to briefly introduce this concept and explain how we use this approach to conceptualize the *colliding interest*, the *distrust trap*, and its different variations.

A) Colliding Interest Traps on the Procedural Dimension

When applying dilemma games to the *colliding interests trap*, the basic concepts we have already introduced in the context of the *public bad approach* remain unchanged. The Nash Equilibrium (N) as well as the Qualified Pareto Optimum (P+) is central for both the *public bad approach* and the concept of *dilemma games*. However, in terms of practical operationalization, these two concepts differ – as we will explain in this section by recurring again to the PD metaphor (Figure 8).

When we translate the PD metaphor with its four different opportunities into a 2x2 game matrix with an ordinal scaled hierarchy of preference (the so-called payoffs), we are able to show precisely what we have verbally already outlined beforehand.¹⁵⁶ If both bargaining parties strive to maximize their individual utilities and opt for confession (D), they become trapped in the situation of mutual defection (DD) which constitutes a bifurcation of individual and collective rationality indicated by the Nash Equilibrium (N). Moreover, the 2x2 game matrix shows clearly that joint cooperation (CC) is the solution to this *colliding*

¹⁵⁵ For a concise and non-technical introduction into game theory, see for example Muthoo 2000; Zürn 1992: 323-335.

¹⁵⁶ Note that we have in the 2x2 PD game indicated the Egalitarian Optimum (E+) which we have discussed in detail in the previous chapter (Ch. 3.1.2) in order to show that this concept does also apply to dilemma games and the procedural negotiation problems although we apply injustice traps in the specific setting of our PhD project only on the substantial dimension of negotiation problems.

interest trap. When both players choose to remain silent (C) they are rewarded with the Qualified Pareto Optimum (P+) which provides *collectively* the best interaction result.

Figure 9: Pure Deadlock Game

		Player A	
		Cooperation [C]	Defection [D]
Player B	Cooperation [C]	2,2 E	1,4 P
	Defection [D]	4,1 P	3,3 E+,M,N,P+

Players' hierarchy of preference: DC > DD > CC > CD

C = Cooperation

E+ = Egalitarian Optimum

P = Pareto Optimum

D = Defection

M = MaxiMin Solution

P+ = Qualified Pareto Optimum

E = Equal Distribution

N = Nash Equilibrium

While the bifurcation of individual and collective rationality is in general the standard definition of *social traps*, this aspect alone is insufficient if we want operationalize *procedural negotiation problems* with the help of *dilemma games*. An additional aspect has to be taken into consideration: the failure to achieve the outcome of joint cooperation (CC). Diplomatic deadlocks and bargaining impasses are the very nature of *procedural negotiation problems*. But a standstill in the negotiation process is not only problematic by itself. As we have explained above (Ch. 3.1.1), overcoming the *procedural problem* in a bargaining process is the precondition for the resolution of the *substantial negotiation process*. As long as the negotiating parties fail to resolve the *procedural negotiation problems* the overarching conflict issue, which originally gave rise to a diplomatic process, remains unresolved. Our definition of *procedural colliding interest traps* has to take this fact into consideration. Thus, a *colliding interest trap* is given **if there is at least one Nash equilibrated interaction result (N) that does not coincide with a Qualified Pareto Optimum (P+) or the outcome of joint cooperation (CC).**¹⁵⁷

Admittedly, our definition is not meeting the standard of parsimony. Other scholars have used more elegant definitions (e.g. Ostrom 1998; Rothstein 2005; Rapoport 1988; Taylor 1979: 19 & Liebrand 1983: 124 cited at Zürn 1992: 154). But the objective of these scholars was to describe *social traps* in general and not the particular type of *colliding interest traps* in the sense of *procedural negotiation problems*.¹⁵⁸

¹⁵⁷ Note that there are numerous dilemma games that are marked by more than just one Nash Equilibrium.

¹⁵⁸ Our definition is relatively broad and applies also to problematic negotiation constellations that would not be regarded as a social trap when applying a more narrow definition. Take for example the pure Deadlock Game (Figure 9). By standard definition, this strategic constellation would not represent a *social trap* since the Nash Equilibrium (N) coincides with the Qualified Pareto Optimum (P+). Although both players are entangled in a deadlock constellation, they regard this outcome as little disturbing since they are *collectively* achieving the best possible outcome. The pure Deadlock Game is in that sense expressing the logic of "splendid confrontation". Mutual defection is regarded as a "normal form of interaction". However, when thought as a *procedural negotiation problem*, the Deadlock Game is indeed problematic since the involved players are unable to work jointly towards a diplomatic solution of the *substantial negotiation problems*. The central issue of the bargaining process remains unresolved – a fact that must (rationality assumed) disturb over time even the deadlock game players.

B) Distrust Traps

Apart from *colliding interest traps*, the bargaining process is also the place where suspicion and distrust of negotiating parties materializes. The negotiation struggles represent the perfect “biotope” to grow worst-case thinking and expectations of malevolence. When distrust becomes excessive, even minor steps of diplomatic progress turn into burdensome and complicated challenges and the bargaining parties become trapped.

In *dilemma games* we operationalize *distrust* by the Maximin Solution (M). As we have already outlined above (ch. 3.1.2) the Maximin Solution signifies the state where actors, who are anticipating the worst-case, choose a strategy that allows them to “hedge their bets”. In that logic, a *distrust trap* is given **if the Maximin Solution (M) differs from joint cooperation (CC) or the Qualified Pareto Optimum (P+)**. In the 2x2 PD Game, the *distrust trap*, indicated by the Maximin Solution, coincides with the outcome of mutual defection (DD) (Figure 8). In terms of individual rationality, this choice provides for the players the best protection against the worst-case scenario (i.e. unreciprocated cooperation (CD)).

C) Varieties of Dilemma Games

Although not all strategic game constellations are *dilemma games*, their number is still relatively high (see e.g. Rapoport & Guyer 1966; Robinson & Goforth 2005). By the approach of *dilemma games*, we therefore have the possibility to grasp a broad variety of different *procedural negotiation problems* and draw relatively rich pictures of real-world bargaining dynamics.

Take for example the group of Aversion Games (also known as brinkmanship dilemmas) (Figure 10). In IR literature, these game constellations were, for example, used to study the nuclear arms race or the harmonization of national conventions (e.g. Snyder 1971; Jervis 1978; Zürn 1992: 185). The most prominent historic event that was explained by applying this particular type of dilemma game was certainly the Cuban Missile Crisis (Brams 1985: 48-62; Langlois 1991).¹⁵⁹

Aversion Games are characterized by the double Nash Equilibrium. Moreover, they have in common that the involved players have a strong distaste (or *aversion*) for the outcome of mutual defection (DD) (Figure 10). Although both negotiation parties have a preference for defection, the outcome of mutual defection (DD), which represents for both players a disaster, functions as a catalyst for joint cooperation (CC). Even though cooperation is not the most attractive outcome, both sides have an inclination for that strategy since it avoids the disaster (see e.g. Goldstein 2010; Schwartzman 1988; Stein 1982).¹⁶⁰

¹⁵⁹ Other international crises that are believed to represent an Aversion Game are, for example, the 1938 Munich negotiation over Czechoslovakia, the 1948 Berlin blockade or the 1958 Lebanon crisis (Snyder & Diesing 1977: 108-22).

¹⁶⁰ In the context of Aversion Games, IR scholars have often referred to the cult movie, “Rebel without a Cause” (1955) – starring James Dean – since one scene is believed to signify an Aversion game metaphor and refers to a “test of courage” U.S. beatniks used to do in 1950s. Back then, teenagers used to drive their cars with high speed straight at each other. The driver who swerved first was dubbed the “chicken” while his/her counterpart had proven his/her courage and therefore was cheered as the winner. If both

Figure 10: Aversion Games

CHICKEN GAME

		Player B	
		cooperate [C]	defection [D]
Player A	cooperate [C]	3,3 E+,M,P+	2,4 N,P
	defection [D]	4,2 N,P	1,1 E

Players' hierarchy of preference: DC > CC > CD > DD
 Game No. 66 in Rapoport & Guyer (1966) 2x2 Games Taxonomy

HERO

		Player B	
		cooperate [C]	defection [D]
Player A	cooperate [C]	2,2 E,M	4,3 N,P+
	defection [D]	3,4 N,P+	1,1 E

Players' hierarchy of preference: CD > DC > CC > DD
 Game No. 69 in Rapoport & Guyer (1966) 2x2 Games Taxonomy

BATTEL OF SEXES

		Player B	
		cooperate [C]	defection [D]
Player A	cooperate [C]	2,2 E,M	3,4 N,P+
	defection [D]	4,3 N,P+	1,1 E

Players' hierarchy of preference: DC > CD > CC > DD
 Game No. 68 in Rapoport & Guyer (1966) 2x2 Games Taxonomy

LEGEND:

- C Cooperation
- D Defection
- E Equal Distribution
- E+ Egalitarian Optimum
- M MaxiMin Solution
- N Nash Equilibrium
- P Pareto Efficiency
- P+ Qualified Pareto Optimum

ASYMMETRIC BATTEL OF SEXES

		Player B	
		cooperate [C]	defection [D]
Player A	cooperate [C]	2,3 M,P	3,4 N,P+
	defection [D]	4,2 N,P	1,1 E

Player A's hierarchy of preference: DC > CD > CC > DD
 Player B's hierarchy of preference: DC > CC > CD > DD
 Game No. 67 in Rapoport & Guyer (1966) 2x2 Games Taxonomy

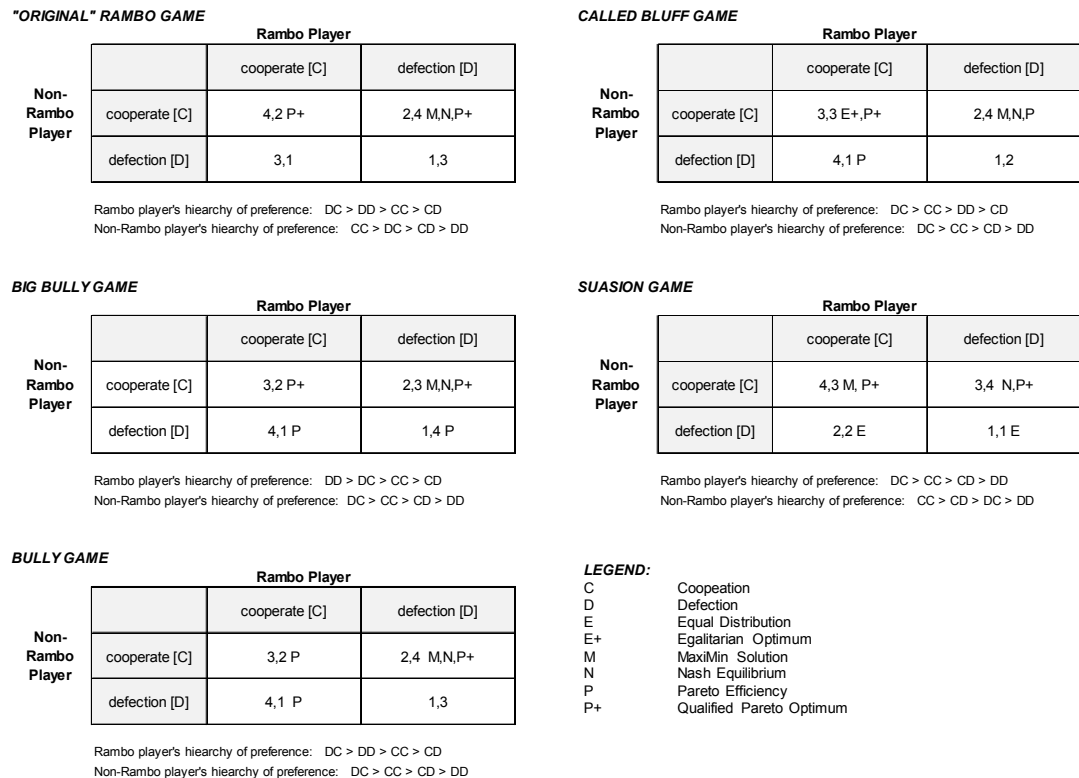
The approach of dilemma games has a high explanatory power since it allows to identify strategic variations even among the relatively similar Aversion Games. What is particularly noteworthy with regard to Aversion Games (apart from other variations) is the difference in the likelihood of achieving lasting resolutions of the *colliding interest traps*. For example, in the Chicken Game, the outcome of joint cooperation (CC) coincides with the Qualified Pareto Optimum (P+). It is therefore – rationality assumed – relatively safe to expect that the players are likely to maintain their cooperative course once they have taken the decision to work jointly towards the resolution of a particular issue. While both sides might “sneak a glance” at unilateral defection (D) and the utility maximization which this move might bring, the looming worst-case scenario of mutual defection (DD) is believed to have a disciplining effect on the players (Figure 10).

The situation is different in the Battle of Sexes and the Hero Game. Here the Qualified Parteo Optimum (P+) is situated on the outcome of unreciprocated defection (CD) and coincides at the same time with the Nash Equilibrium (N). That makes lasting cooperation more difficult. More effort (for example in terms of diplomatic design) is required to keep the players on a cooperative course. And once one of the bargaining actors chooses to defect, the parallelism of the Qualified Pareto Optimum (P+) and the Nash Equilibrium (N) makes it very difficult to reestablish joint cooperation Figure 10). The players would hesitate to depart from this situation since it is collectively attractive (P+) and since they would render themselves worse off by such a step due to the Nash Equilibrium (N).

swerved at the same time, the test of courage ends undecided. However, if neither of two teenagers was swerving, the consequences were dire as both drivers end in a head-on collision which might be fatal (Russell 1959: 30; Goldstein 2010: 136-7) (By the way: in the James Dean movie “Rebel without a Cause” the two beatniks do not drive their cars at each other but towards a cliff. In that sense, it is not an example of an Aversion Game).

Rambo Games represent another distinct group of *dilemma games* (Figure 11).¹⁶¹ Rambo Games were for example used to describe the conflict on inner-German river pollution during the Cold War era (Efinger & Zürn 1989; Zürn 1992: 211-2) or the First Morocco Crisis (Snyder & Diesing 1977: 107-118). The difference to the group of Aversion Games is relatively obvious. Rambo Games are marked by an asymmetric strategic structure indicated by a single Nash Equilibrium (N) that coincides with the outcome of unilateral defection (DC). One side – the Rambo player – is able to realize its maximal utility gains by defection while its counterpart is cooperating in order to avoid the outcome of mutual defection (DD) (Dombrowsky 2007: 149-50; Martin 1993: 103-6; Zürn 1992: 209-220).

Figure 11: Rambo Games



Again, the explanatory power of the *dilemma game* approach becomes obvious by the variations we could pinpoint even within this group of very similar games. For example, in almost all Rambo Games, the *distrust trap*, indicated by the Maximin Solution (M), coincides with the outcome that is favoring the Rambo player (Figure 11). The Suasion Game, however, is different. In that strategic constellation, the Maximin solution lies on the outcome of joint cooperation (CC). Unlike all other sub-categories of Rambo Games, there is no *distrust trap* in the Suasion Game but only a *colliding interest trap*. This particularity has implications for the resolution strategy. Distrust is normally thought to be counterproductive to bargaining dynamics. In the Suasion Game, a certain level of suspicion is instead *conducive* for resolving the *colliding interest trap* since it makes the players more inclined to choose joint cooperation (CC). In essence, in the Suasion Game, one could "outdo" the desire for egoistic utility maximization by the actors' unilateral quest for precaution measures against the worst-case-scenario and thereby create a situation that is encouraging joint cooperation. Obviously, if we would apply this strategy to any other types

¹⁶¹ Note that the concept of Rambo Games was originally introduced by Michael Zürn (1992).

of Rambo game, (for example, if we mistake the Called Bluff Game with the Suasion Game), the outcome would be counterproductive.

3.2 How the Fit Taxonomy Operates

In the light of the different “ingredients” we have introduced, the reader might have gained the false impression that our *fit taxonomy* is relatively complex. In order to show that this is not the case, we will briefly apply our concept to two fictitious negotiation problems: the *substantial problem* of fare dodging (ch. 3.2.1) and the *procedural problem* of the PD game (ch. 3.2.2). With the help of these two examples, we will show how the *fit taxonomy* operates – how it is applied to analyze the nature of a given problem, how it identifies the “optimal problem solution”, and how it allows us to study the “fit performance” of diplomatic design elements and alternative explanations.

3.2.1. Substantial Problem Dimension: The Example of the Fare Dodging Bad

As we already explained above, fare dodging is a *public bad* which is produced by the *summation technology*. Regardless of who is free riding (a rich uptown kid or a poor teenager from a deprived inner-city neighborhood), every unpaid ride on the tube is increasing the problem to an equal degree. Likewise, it is insignificant whether the “negative externalities” are caused by a rather small group of fare-dodgers who free-ride intensively or by a rather large group that only occasionally chooses to jump the turnstile. In addition, fare dodging is a *public bad* that has neither *cross-sectoral* nor *cross-territorial* implications. Fare dodging is imposing “negative externalities” to the public transport company and to all passengers who buy regular tickets. But apart from these negative implications, the harmful externalities of fare dodging are relatively limited. Unlike rowdies and mockers – two other types of *bad doers* in public transportation – fare dodgers are not necessarily unpleasant fellow passengers. Once on the tube, the only thing that distinguishes them from the average commuters is the absence of the ticket.

When assuming the fictitious constellation that the fare-dodgers and the traffic association would negotiate with each other in order to overcome the problem of free riding, we could demonstrate the performance of the *public bad approach*.

Free-riders and the traffic association are interwoven in a negative reciprocity. While fare dodging is causing “negative externalities”, the counter-measures taken by the traffic company are undermining the free-rider’s ability to maximize their utilities. As a consequence, neither the fare-dodgers could realize their final goods (i.e. affordable transportation) nor is the traffic company able to achieve its desires (efficient provision of public transportation).

Against that background, the essential question is: what is “optimal problem solution”? What do the required *diplomatic design* elements have to fulfill in order to arrive at a sustainable resolution of fare dodging?

Of course, to fend off the “negative externalities” emerging from fare-dodging, the traffic company could rely on self-help and apply non-diplomatic interventions. Common strategies in that regard are, for example, an intensified deployment of ticket inspectors or improved technical measures to avoid tree cross jumping at the entrance of metro stations. Both measures intervene directly into the course of the fare-dodgers’ actions since they either caught them in the act (more ticket inspectors) or physically stop them from entering into the system (more sophisticated tree-crosses) (Figure 12). However, these non-diplomatic interventions are expensive and annoy ordinary passengers who have bought regular tickets. Most importantly, however, more ticket inspectors and more sophisticated entrance controls are unlikely to systematically change the fare-dodger’s intention to free-ride. Some fare dodgers might be deterred by these measures. Others are likely to continue their delinquent behavior and will try to circumvent and undermine the non-diplomatic interventions. Thus, these two non-diplomatic interventions would in our fictitious example signify *underfits* (Figure 12). While both self-help approaches are partly effective, their impact is limited because of their inherent inefficiency. Increasing the impact of these two non-diplomatic instruments would require a prohibitive high investment of resources. If the traffic association would have unlimited means, it could, for example, deploy swarms of ticket inspectors and thereby achieve a lasting resolution of the fare dodging problem. But since the funds of public traffic association are normally restricted, the effectiveness of these tools remains limited due to the inefficiency of these tools.¹⁶²

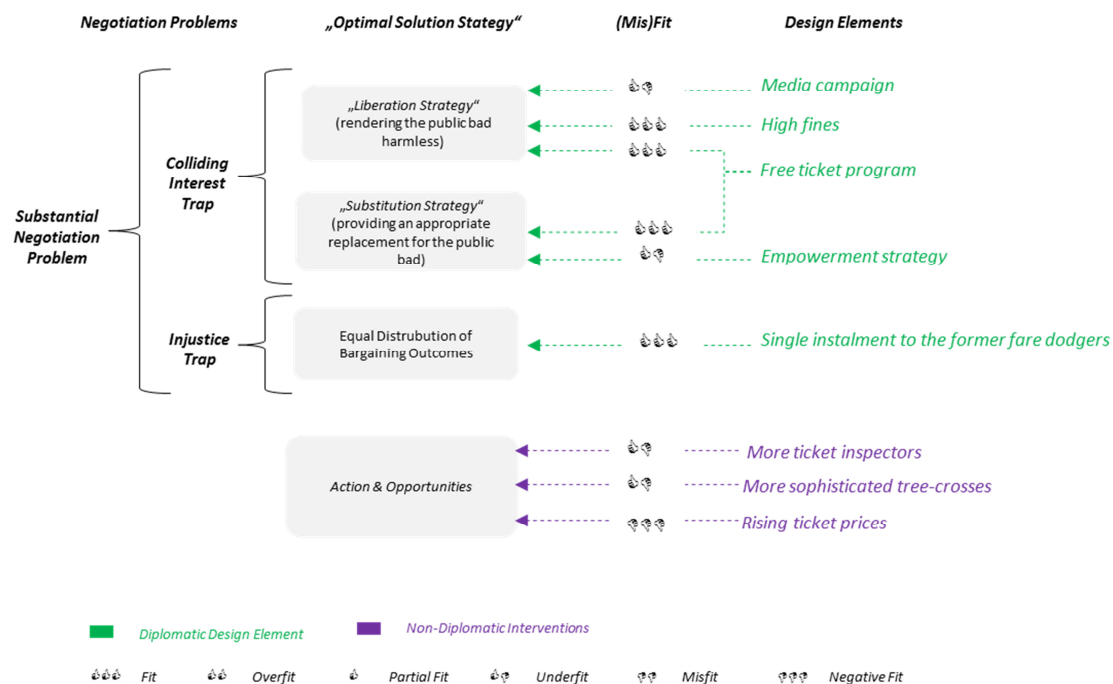
Since individual self-help is not a suitable approach, we assume that in our fictitious examples the fare-dodgers and the traffic company engage in a bargaining process in order to achieve a diplomatic solution. Applying our *fit taxonomy*, we could think about a series of potentially well-fitting design elements that would resolve the negotiation issue that both sides are facing.

To address the *colliding interest trap*, the first central requirement is to render the *public bad* of fare dodging harmless. The *bad sufferers* (i.e. the traffic association and its clients) have to be “liberated” from the costs the free riders inflict on them. In order to make the fare-dodgers abandon their delinquent habit, the traffic association could, for example, apply during the bargaining process a coercive strategy. To implement this strategy, the traffic company could orchestrate a media campaign against fare-dodging highlighting the negative implications of free-riding to regular passengers. But since riding the tube without a ticket represents a *public bad* that is produced by *summation technology*, this strategy has its limits and signifies only a *partial fit*. The group of fare dodgers is simply too large and amorphous. And while such a media campaign might have positive implications on the calculation of a certain proportion of free-riders, others are likely to remain unmoved.

¹⁶² Raising ticket prices is another self-help instrument traffic associations often apply to cushion the revenue losses caused by fare dodging (Figure 12). In that case, the burdens of the “negative externalities” are shared among all passengers. But this non-diplomatic intervention is only temporarily curing the symptoms of fare-dodging. In terms of an effective and efficient problem resolution, raising regular ticket prices even represents a *negative fit*. Higher fares are changing in the opportunity set of the fare dodgers. Free-riding becomes even more attractive compared to buying a regular ticket. Raising ticket prices is not only failing to fight fare dodging, it is over time even increasing the problem.

Moreover, the impact of a temporal media campaign is assumed to fall apart after a certain time and has little effect on the next generation of fare-dodgers (Figure 12). Increasing the fines for fare-dodging would, for example, represent a more promising coercive strategy and would represent in terms of the requirement of the “liberation strategy” a *fit*. It builds on a deterrent effect and is likely to be more stable over time in light of new generations of free-riders.

Figure 12: Varieties of (Mis)Fit in the Diplomatic Effort to Resolve the Fare-Dodging Bad



But, regardless of what diplomatic design element the public traffic company would apply, rendering the *public bad* of fare dodging harmless would always signify only one side of the coin. In addition to the “liberation” strategy, a sustainable resolution of the *colliding interest trap* would always require the provision of an appropriate substitute – a diplomatic intervention that is compensating the *bad doers* in a way that allows a restoration of their “fabrication chain”.

The application of coercive diplomacy tools – be it by raising fines or by media campaign – is likely to change the calculation of the fare-dodgers. But the underlying problem, that the free-riders are searching for affordable transportation, would nevertheless remain unresolved. If the fare-dodgers give up their delinquent behavior and receive no suitable substitute that is in line with that desire, no diplomatic resolution for this *public bad* will be stable or sustainable.

Substitution could, for example, be provided in the form of empowerment (Figure 12). That is when the traffic association is helping the fare-dodger to achieve through alternative means their desire of affordable public transportation system – such as helping to build ride sharing initiatives, providing support for improved cycle paths, or an affordable bicycle purchasing program for former free-riders. However, such a strategy would signify an *underfit*. The relatively high costs for such interventions are likely to undermine their effectiveness. Moreover, empowerment for alternative forms of transportation implies the

danger that the traffic company is funding concepts that could in medium-terms grow into a meaningful competition to its own business model. When this strategy becomes successful and – for example – cycling is regarded as an attractive alternative to tube riding, the traffic company has undermined its one economic success.

In that light a “free ticket program” would signify a more promising alternative. All tax payers of the communities that the traffic company is serving would be committed to buy a monthly tube ticket. This rule would apply to all tax payers regardless of whether they are fare dodgers, regular passengers, or residents that had relied thus far on private transportation. Since costs for functioning public transportation are now spread to a relatively large group of clients, the ticket prices could be reduced considerably. In essence the ride on the tube becomes itself a collective good. Moreover, the negotiation proposal of a “free ticket program” would signify a *multiple fit* (Figure 12). On the one hand, it would render fare dodging senseless, eliminate the public bad, and thereby implement the “liberation strategy”. On the other hand, it would represent an appropriate substitute which is perfectly in line with the final good of the fare dodgers’ “fabrication chain” since it would fulfill their cherished desire for affordable transportation. Consequently, the public transportation agency and the free-riders would arrive at a Qualified Pareto Optimum (P+) signifying the resolution of the *colliding interests trap*.

However, the *colliding interest trap* resolved, the negotiation between the fare-dodgers and the traffic association in our fictitious example would still be plagued by an *injustice trap*. By the “free ticket program”, both sides are gaining. But, there is solid ground to assume that the traffic association is gaining more since it shakes off the problem of fare dodging and gains at the same time a large proportion of new clients (former free-riders and consumers that have used in the past their private vehicle).

The former free-riders, instead, are only marginally improving their position. The free fare ticket would bring only a minimum improvement in comparison to the occasional fines fare-dodgers had to pay when caught by ticket inspectors. It is likely that the fare dodgers regard at the beginning this imbalance as unproblematic and negligible. However, over time, it is likely that this biased distribution of gains might start to disturb them and is causing grievance and frustration. Despite having managed to resolve the *colliding interest trap*, both sides are entangled in in an *injustice trap*.

In order to address this problem, the two sides could, for example, negotiate a single installment the traffic company is paying to the former fare dodgers – for example providing the first monthly ticket without charge. Such a step could resolve the unequal distribution of gains. When done in a way that off-sets the biased distribution of gains, such an initiative would represent a *fit* since it allows for both sides to arrive at the state of the Egalitarian Optimum (E+) (Figure 12).

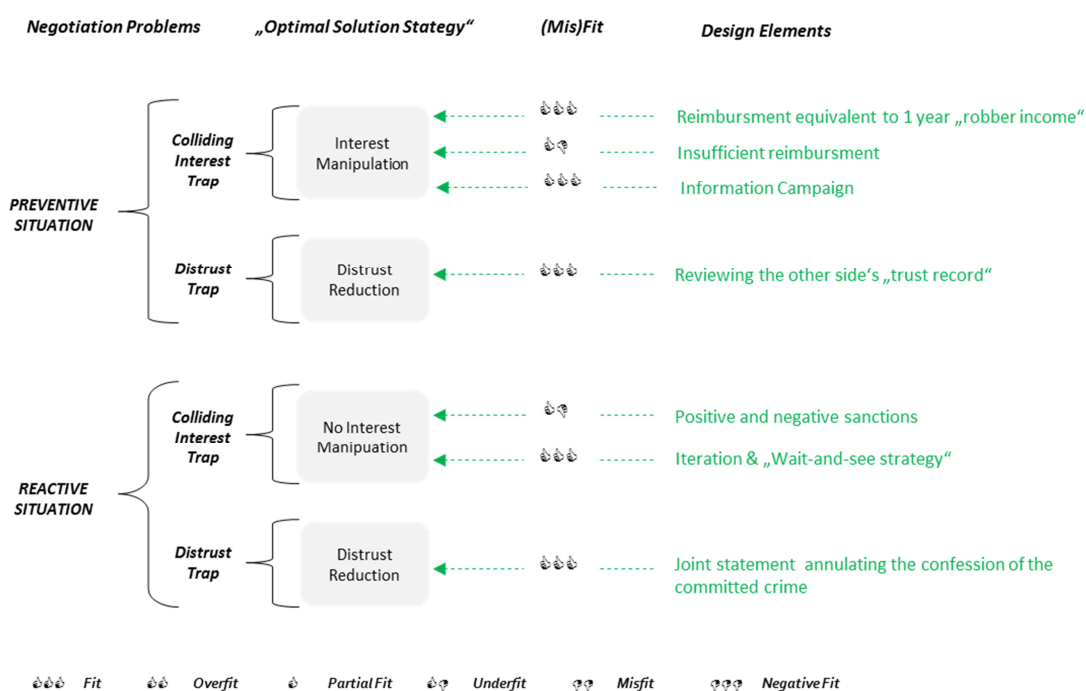
Obviously, what this fictitious example is not covering are the various *procedural problems* that are likely to arise during the bargaining dynamic. In order to show how the *fit taxonomy* is operating with regard to the *procedural problem dimension*, we will discuss in

the following section potential negotiation strategies to resolve the often discussed PD metaphor.

3.2.2 Procedural Problem Dimension: The PD Game Metaphor

Let's assume the Prisoners' Dilemma, which we have already illustrated at various occasions in our doctoral thesis, would represent a negotiation situation.¹⁶³ The two suspects would face two challenges: a *colliding interest* and a *distrust trap*. As we have already outlined above, these two traps coincide with the outcome of mutual defection (DD) and are technically defined by the Nash Equilibrium (N) and the Maximin Solution (M) (Figure 8). The presence of a double trap makes the Prisoners' Dilemma a relatively difficult *procedural negotiation* problem. A well designed diplomatic intervention is needed to make the two suspects overcome the Nash Equilibrium and the Maximin Solution and move than towards joint cooperation (CC) – the state which would resolve the *colliding interest* and *distrust trap*.

Figure 13: Varieties of (Mis)Fit in the Diplomatic Effort to Resolve the Prisoners' Dilemma



It is a typical feature of *procedural negotiation problems* and a clear distinction from the *substantial problem dimension* that the “fit demand” is procedural too. As we will see in particular in our “single hard case study” on Libya’s NRN, *procedural negotiation problems* are normally not overcome in a single shot but are resolved step by step in a bargaining process which is running through different stages – a so called “strategic cascade”.

In order to highlight the multi-stage nature of procedural problems, we differentiate the fictitious negotiation process of the PD metaphor in (1) a preventive situation (i.e. the phase before the suspects have stepped into the *distrust* and the *colliding interest trap*) and

¹⁶³ Obviously, describing the PD Game as a negotiation situation is a deviation from the original metaphor where one of the premises was that the two suspects have no possibility to communicate with each other.

(2) a reactive phase (where the two prisoners have become entangled in the double social trap) (Figure 13).

(1) Preventive Situation: In a preventive situation, the goal is to avoid that the bargaining parties step into the *two social traps* that are inherent to the PD Game. In the preventive situations, the players have not yet experienced the deadlock outcome (DD). Both prisoners are therefore assumed to indulge the hope that they can achieve their individual optimum. To avoid that the *colliding interest trap* “snaps shut” due to both side’s quest for egoist utility maximization, the “optimal problem solution” requires a meaningful “manipulation” of the two suspects’ intentions (Figure 13). In the preventive situation, it is insignificant whether the requirement of “interest manipulation” is implemented by positive or negative sanctions. What, however, is important is that diplomatic interventions are applied with a sufficient magnitude. Assuming rationality, the two prisoners are only expected to bridle their inclination for unilateral defection if the manipulation applied to them is compensating the difference between their best option (unilateral defection/collision of interests) and their second best outcome (joint cooperation/resolution of the colliding interest trap).

Let’s assume the local mafia boss want both suspects to remain silent and not cooperate with the police. She could, for example, offer both suspects a reimbursement of the sum equivalent to the average value of stolen goods they would normally rob within the period of one year. Such an overture would represent a well-matching design element that is likely to manipulate the two suspects’ intention in favor of joint cooperation and would signify a *fit* (Figure 13). This rewarding strategy would compensate for the “income losses” both prisoners face when choosing cooperation instead of individual confession. The one-year-equivalent reward renders joint cooperation (remain silent, one year prison) into an attractive outcome in comparison to the option of unilateral confession (confess, set free).¹⁶⁴ The criminals are making profit while serving a one year sentence for a minor crime (such as illegal possession of hand guns).¹⁶⁵

Besides the *colliding interest trap*, the PD Game is also marked by a *distrust trap*. As soon as both sides start to doubt the sincerity of their counterpart and begin to think in terms of the worst-case scenario, the PD Game will quickly slip into the deadlock situations of mutual defection (DD) since the two prisoners are likely to apply the Maximin solution (M) in order to “hedge their bets”. In such a situation, even a perfectly fitting reimbursement could not prevent the two prisoners from embarking on an uncooperative course. After all a 1-year reward is looking pale if one is weighing the scenario of a 10 year prison sentence – the outcome the individual prisoners could face if the worst case scenario materializes.

¹⁶⁴ However, the situation becomes more complicated if the reimbursement offer is insufficient and not equivalent to the losses of one year “robbery income”. In such a situation, the rewarding strategy would signify an *underfit*. The intervention would fail to achieve a major impact because it would be inappropriate in quantitative terms (Figure 13).

¹⁶⁵ An information campaign highlighting to the two suspects that their high expectations of unilateral self-help are unlikely to materialize but instead lead to five years imprisonment would signify an alternative and less costly design element the local mafia boss could possibly apply to manipulate the interest of the two prisoners (Figure 13).

In order to avoid that both players recur to the Maximin Solution, “distrust reduction” represents another crucial part of the “optimal problem solution”. Systematically reviewing each other’s “trustworthiness” might be a suitable design element in light of this particular requirement. Given that the two prisoners had been criminal comrades before they were caught by the police, they could analyze their past cooperation for indicators of the other side’s (dis)honesty and (un)sincerity. However, such a review would only signify a *fit* suitable to avoid the Maximin strategy, if there is solid evidence of the other’s trustworthiness and if the analysis of the past experience provides sufficient confidence to stand up against the scenario of a 10 year prison sentence (Figure 13).

(2) Reactive Situation: The “optimal problem solution” and the demand of *diplomatic design* elements are changing if we assume that the PD Game is moving from a preventive into a reactive situation. In that state the two prisoners have stepped either into the *colliding interest* or the *distrust trap* and have become entangled in the unpleasant deadlock situation (DD). Both prisoners have made the sour experience that unilateral self-help has not lead to the desired outcome. As soon the traps have snapped shut and the two sides are confronted with the outlook of spending five years in prison, the option of joint cooperation (CC) and serving only a one-year sentence becomes attractive and desirable. Given this new strategic constellation, the demand for well matching design elements is changing too.

In the reactive phase of the PD game, the need for interest manipulation is disappearing. “No interest manipulation” represents instead the “optimal solution strategy” (Figure 13). In such a situation, negative or positive sanctions would, for example, signify a *partial fit*. The attempt to drive the two prisoners towards joint cooperation – either by coercion or rewards – would represent an inefficient effort since both suspects are already inclined to choose joint cooperation. The real problem is instead constituted by the fact that both players hesitate to depart from the deadlock situation fearing that they would be worse off by this step and would face, in the end, a situation where they had to spend even 10 years in prison. Positive or negative sanctions press the two prisoners to take quick decisions and, therefore, are in actual bargaining dynamic of little practical help.

Iteration of the game is in light of the preventive situation a less intrusive but in the end more promising approach. When the prisoners continue to experience the *colliding interest trap*, the desire for joint cooperation is likely to increase for both of them. This “wait and see strategy” is in particular attractive due to its low-cost nature (Figure 13).

But the two suspects of the PD Game are unlikely to depart from the deadlock situation even if there is a well-matching solution for the *colliding interest trap*. What is required in addition is a resolution of the *distrust trap*. Unlike the *colliding interest trap*, the experience of the deadlock situation is, in terms of trust, not increasing the prisoners’ inclination for joint cooperation. Rather, by mutual defection, both suspects have experienced that the worst-case scenario is not just an abstract situation but an outcome that could easily become reality. While the requirement of interest manipulation is reducing when the PD Game is moving from the preventive into the reactive stage, the demand for distrust

reduction is rather increasing. Consequently, more intrusive and sophisticated *diplomatic design* is required to overcome suspicion and the embroilment in the Maximin strategy.

A joint statement in front of the public investigator in which both prisoners annul their confession of the committed crime would, for example, signify a well-fitting design element in terms of distrust reduction (Figure 13). With such a joint statement, both suspects could be relatively certain that the other side is not cheating. Moreover, a joint statement would signify a very credible commitment for joint cooperation.

3.3 The Genesis of the Fit Taxonomy: An IBE Selection Process

The *fit taxonomy* is the outcome of a strict application of an IBE selection process which we have described in general terms in the previous chapter (ch. 2.5.4; see in particular figure 6). The starting point – the so-called “IBE-trigger” (E) – was the demand to develop an analytical scheme that allows to evaluate the “fit performance” of *diplomatic design* based on the assumption that negotiation problems are constituted by *social traps* (Figure 14). The search for the different components representing the “best contributions” to our *fit taxonomy* was divided in three consecutive steps. Each of these steps was bound to a set of premises (P1 - P3) which further specified the IBE-trigger and thereby signified the “starting fact” for each selection process. In each of these three selection steps, we identified a set of potential hypotheses (H1...Hn) from which we then selected the actual hypothesis (Hg) based on the three IBE quality criteria *breadth*, *depth* and *coherence*. In each of these three steps, the actual hypothesis (Hg) signified the “best contribution” to our *fit taxonomy*. In that sense, the *fit taxonomy* was step by step enriched by “ingredients” resulting from the different selection cycles (Figure 14).

When we explained in the Setup chapter, the IBE in general terms, we made it clear that the handling of the background knowledge (W) is important for the proper application of this epistemological concept (Ch. 2.5.4). In order to assure that the IBE approach could fully unfold its analytical and innovative potentials, it is important, we said, to apply two criteria in parallel: *relevance* and *exoticism*. We explained that *relevance* without *exoticism* could give rise to boring repetition of past findings which are already regarded as conventional wisdom. Whereas *exoticism* without *relevance* might lead to conclusions that appear as innovative at first sight but signify in essence odd absurdities.

We implemented the parallelism of *relevance* and *exoticism* in our IBE selection process. Apart from the conventional academic research on negotiation problems, we also took the non-scientific “practitioners’ literature” on bargaining dynamics into consideration – among them bestselling books such as Roger Fisher’s and William Ury’s “Getting to Yes” (2011) or David Lax’s and James Sebenius’s concept of “3-D Negotiation” (2006). By applying the criteria *relevance* and *exoticism* in parallel, we received a relatively broad and, at the same time, unconventional pool of background knowledge (W). The set of potential hypotheses (H1...Hn) we selected is therefore assumed to reflect a very reliable and sound representation of social reality.

But despite these two criteria applied to systematize and streamline the selection process of the background knowledge (W), the development of the *fit taxonomy* was still an exhaustive endeavor. Since negotiations are a very common social practice in international affairs (and beyond), we encounter descriptions of bargaining problems in many disciplines and academic fields (e.g. history, economics, management, mathematics, social psychology, etc.; Jönsson 2002: 217). Tellingly, already in the late 1980s, bibliographies on international

negotiations contained more than 5,000 entries (Lakos 1989). Consequently, the amount of literature that had to be taken into consideration when applying IBE reasoning in negotiation research is extensive and amorphous. The effort to build a *fit taxonomy* in that particular field becomes even more complex given the fact that interdisciplinary discourse is rather infrequent in negotiation research. Despite several attempts to unify the different sub-disciplines,¹⁶⁶ expert discussions and debates often take place in separated forums and circles. According to James Odell, the research on international negotiations is still divided “into vigorous networks that still operate largely independently of one another, like communities on different islands” (Odell 2013: 379).¹⁶⁷

In light of these challenges, we would have preferred “turn-key-ready” analytical templates on negotiation problems. At first sight, the chance to use pre-existing approaches looks good since we saw in recent years a growing interest in studying negotiation problems. While the negotiation problems were neglected by the literature in the past, the picture has changed during the last decade. Numerous scholars have addressed the scope and nature of problems in bargaining dynamics using different labels – such as “deadlocks” (Faure 2005; Narlikar 2010), “failures” (Faure 2012; Kleiboer 1996), “impasses” (Spector 1995), “barriers” (Arrow et.al. 1995), “intractabilities” (Burgess & Burgess 2003; Crocker et.al. 2004; Lewicki, Gray & Elliott 2002), “stalemates” (Ekwuachi-Ford 2009; Zartman 2000) or “escalations” (Kriesberg 2003; Zartman & Faure 2005).

However, most of these approaches are, unfortunately, not relevant for our *fit taxonomy*. In the Setup chapter we said that *fit taxonomies* need to be exhaustive, detailed, and coherent at the same time in order to avoid falling prey to analytical pitfalls – such as false causality, multi-finality or equi-finality (ch. 2.4.3). Most of these past approaches, however, do not meet these requirements. Often they signify a series of individual studies on negotiation problems loosely bound together in collective volumes without a common analytical framework that would allow for higher levels of abstraction (e.g. Arrow et al. 1995; Lewickie et al. 2002; Crocker et.al. 2004). Moreover, the focus of the past research was in most cases either limited to a particular sub-type of international negotiations (for example to environmental negotiation) or a specific class of negotiation problems (for example to deadlocks) (e.g. Narlikar 2010; Faure 2005). Consequently we had “to bite the bullet” and develop our *fit taxonomy* from scratch in three distinct selection cycles, which we will outline in detail in the following section.

¹⁶⁶ See for example the Harvard University based Program on Negotiation Studies (PONS) or the Laxenburg (outside of Vienna) based project on Processes on International Negotiation (PIN).

¹⁶⁷ In addition, research on international negotiations is marked by a relatively strong taste for middle ground theories, case studies, experiments of micro-process (Odel 2013: 380). Larger theoretical debates and broader paradigms that were heavily discussed in IR in general (see “war on ism”) and which could have had a systematizing effects on the research on international negotiations, had only a minor impact on the field (e.g. Gilady & Russett 2002: 394).

3.3.1 A General Template to Negotiation Problems (P1): The Substantive and Procedural Problem Dimension

We begin our IBE selection process by compiling a set of potential hypotheses for the starting fact **P1**. It is our intention to identify a general approach that allows exhaustive, coherent, and detailed coverage of negotiation problems. If we “rummage through” the relevant and exotic background knowledge on trans- and international negotiations (**W**), we encounter four general templates that allow a broad conceptualization of negotiation problems: the *bargaining & problem solution* approach (**H1.1**), the *communicative approach* (**H1.2**), the approach of *value-claiming & value-creating bargaining* (**H1.3**), and the concept of the *substantial & procedural dimensions* of negotiation problems (**H1.4**) (Figure 14). However, if we apply the IBE selection based on our three quality criteria (*breath, depth, and coherence*), we found that only the *substantial & procedural problem dimensions* signify the best contribution to our *fit taxonomy* (**Hg**). It is the approach that is the most relevant among the set of potential hypotheses.

3.3.1.1 Set of Potential Hypotheses (H1.1 - H1.4)

H1.1 Bargaining & Problem Solution: The first approach we take into consideration as a potential typology for a general conceptualization of negotiation problems is the distinction between “bargaining” and “problem solving”. According to Fritz Scharpf, “bargaining” is based on individual self-interest and regulates social behavior by resorting to incentives. “Problem solving” instead represents a regulation that is based on common or solidarity values and on the “collective sanctions” of ostracism and exclusion (Scharpf 1988: 258-9; see also Richardson 1982). Elgström and Jönsson second this view by saying that the difference between bargaining and problem solution signifies in essence the distinction between self-interest versus common interest (Elgström & Jönsson 2000: 685). According to Terrence Hopmann, the theory on international negotiations has developed for centuries around these two distinct paradigms (Hopmann 1995; Hopmann 1996: Ch. 6; see also Wagner 2008).¹⁶⁸

H1.2: The Communicative Approach: Another approach that likewise provides a general conceptualization of negotiation problems is the so called “communicative approach” (e.g. Hampson, Crocker & Pamela 2007: 40-2; Jönsson 1990; Putnam & Jones 1982). Language and communication is one of the most essential elements of negotiation. As Fisher and Ury have put it “without communication there is no negotiation” (Fisher & Ury 2011: 35). And, according to Janice Stein, negotiation is in essence synonymous with communication (Stein 1988: 222). Consequently, the “communicative approach” provides a broad general concept for the analysis of negotiation problems. Some scholars have, for example, studied how diplomatic processes are affected by misunderstandings or how the desire to communicate in bargaining dynamics merely to impress the own constituency constitute negotiation problems (e.g. Fisher & Ury 2011: 35). Others have focused on the problematic

¹⁶⁸ For an exemplary application of this approach in the “practitioners’ knowledge” on international negotiation see Zartman & Berman 1982.

impact of conflict semantic understandings of negotiating parties. For example, in the literature we encounter studies that attribute deadlocks and impasses to contradictory definitions of basic diplomatic concepts such as “concession”, “trust”, or “peace”. These scholars say that successful bargaining solutions require in essence meta-negotiations in which parties jointly develop common understandings about these basic concepts (e.g. Cohen 2000; Weinhard 2013). And again, other scholars have studied how the communicative framing of issues, actors, and strategies affect international negotiating process and outcomes (e.g. Carnevale 2008; Dewulf, et.al. 2009).¹⁶⁹

H1.3 Value-Claiming & Value-Creating Bargaining: Another concept, which is very similar to the approach of *bargaining and problem solving*, is the idea of *value-claiming and value-creating bargaining* (also known as *distributive and integrative bargaining*). Originally introduced by the seminal work of Richard Walt and Robert McKersie on labor-management negotiations (Walton & McKersie 1965), this analytical scheme was intensively used in the literature on international negotiations (e.g. Carnevale & Edward 1986; Da Conceição-Heldt 2006; Kirkey 1995; Lax & Sebenius 1992; Odell 2013: 381). While *value-claiming bargaining* describes a zero-sum negotiation mode where the involved parties try to maximize their share of limited resources, *value-creating bargaining* signifies a win-win-situation where the gains for all negotiating parties are jointly increased (Spangler 2003).

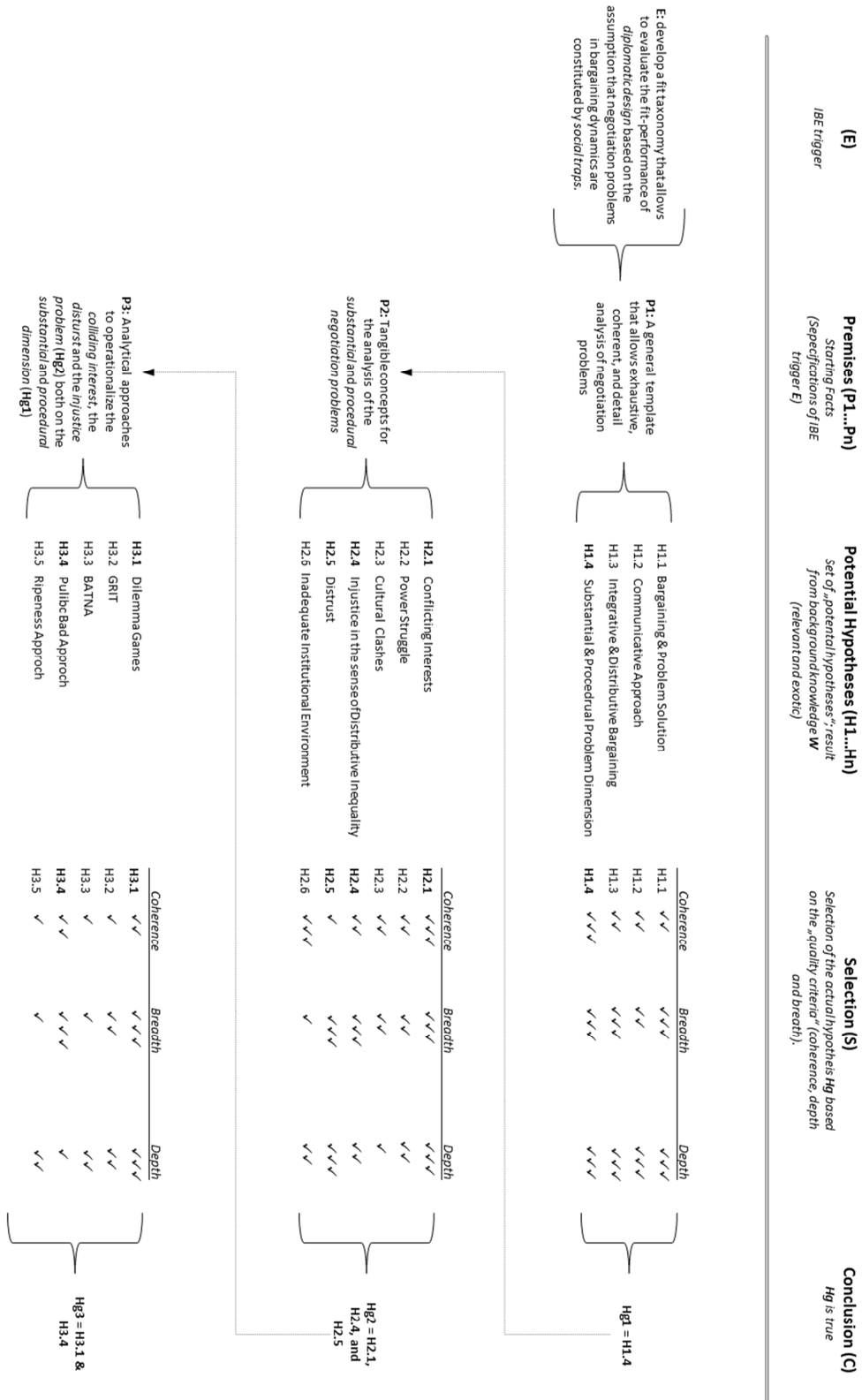
H1.4: Substantial & Procedural Problem Dimension: Another general concept to grasp the fundamental nature of negotiation problems is the distinction between the *substantial* and *procedural problem* dimension, which we have described in detail above (ch. 3.1.1). This concept lies at the very heart of negotiation and is closely intertwined with the general nature of bargaining dynamics. We encounter the distinction between the *substantial* and *procedural problem dimension* at numerous occasions in the background knowledge of trans- and international negotiations – both in the academic and in the practitioners’ sphere.¹⁷⁰ The idea of *substantial* and *procedural negotiation problems* is for example central to Fred Iklé’s seminal book “How Nations Negotiate”. The major objective of his writing was to show how the process of negotiation (i.e. the procedural problems) related to the outcome of the negotiation process (i.e. the resolution of substantial negotiation problem) (Iklé 1964: 2). But the idea of *substantial* and *procedural negotiation problem* is also crucial to the study of Walton and McKersie (1965). Walt and McKersie emphasize that the various obstacles and stakes negotiating parties face in bargaining dynamics are best

¹⁶⁹ The “communicative action” and the logic of persuasion which we have discussed above in detail (Ch. 2.5.1) could be also listed as a part of the broader “communicative approach”.

¹⁷⁰ For a good example that the concept of *substantial* and *procedural problem dimension* played also an important role for the thinking of “negotiating practitioners” see David A. Lax and James K. Sebenius’ concept of 3-D negotiations (2006). But this idea is also central to Roger Fisher’s and William Ury’s classic book “Getting to Yes” (2011). Following the logic of this two-fold structure, Fisher and Ury have suggested that negotiation problems are best resolved when the conflicting parties manage to “disentangle the relationship from the substance” (Fisher & Ury 2011: 23-4).

conceptualized by distinguishing them into a substantive and behavioral dimension (Walton and McKersie 1965: 304).¹⁷¹

Figure 14: the IBE Selection Process



¹⁷¹ In addition, the concept of the substantive and procedural problem dimension is also expressed by the distinction between “first-order” and “second-order” problems, which was used for the analysis of international institutions (e.g. Keohane 1984: 83; Ostrom 1990: 42-4; Zangl 1994: 282-289; Zürn 1992: 203, 207).

3.3.1.2 IBE Selection for H1.1 - H1.4

With the help of our three quality criteria (*coherence*, *breath*, and *death*), we will now evaluate which of the just introduced potential hypotheses (**H1.1** - **H1.4**) represents the “best contribution” (**Hg1**) to our *fit taxonomy* (Figure 14).

(1) Depth: What has come clear already in the description of these approaches is that all concepts are bestowed with a sufficient *depth*. Numerous scholars have – either implicitly or explicitly – applied these concepts in the past to analyze problematic bargaining dynamics. Even the *communicative approach* (**H1.2**), which emerged in the research on international negotiations not before the early 1990s, is assumed to have acquired considerable *depth*. While the analysis of international negotiations had been for a long time “particularly insensitive to language and communication” (Bell 1988: 233), this field has been marked by fast growing literature for more than a decade.

(2) Breadth: Apart from the *communicative approach* (**H1.2**), we come in terms of the *breadth* criterion also to a positive vote. The *bargain & problem solution* approach (H1.1), the concept of *value-claiming & value-creating* (H1.3), and the approach of *substantial & procedural problem dimensions* (**H1.4**) are all simple and at the same time unifying. They are all marked by a high analytical flexibility and allow studying bargaining dynamics from different angles – including their structure, their varying actors’ constellations, their behavioral patterns, and their strategic environments. The *communicative approach*, however, falls short in terms of the *breadth* criterion. While it has ample explanatory power for the various aspects for bargaining process, it is relatively weak in the analysis of actual outcomes of negotiation dynamics which often have a physical, non-communicative nature (e.g. negotiation agreements and the related distribution of losses and gains).

(3) Coherence: While the *communicative approach* is insufficient for a general conceptualization of negotiation problems with regards to *breadth*, the *bargaining & problem solution* approach (H1.1) and the concept of *value-claiming & value-creating* (H1.3) fall short in terms of *coherence*. Both concepts are only partially consistent with the starting fact (P1) which requires a general approach that allows exhaustive, coherent, and detailed coverage of negotiation problems (Figure 14). The *bargaining & problem solution* approach and the concept of *value-claiming & value-creating* are suitable to analyze negotiation problems. But their major focus is not the problems themselves but their solution. Both concepts represent, in the end, resolution strategies that prescribe how to handle intractable situations in trans- and international bargaining dynamics. With that they go clearly beyond the scope of the *fit taxonomy*.

3.3.2 Tangible Concepts of Negotiation Problems: Colliding Interests, Distrust, Injustice

After we have revealed that the *substantial* and *procedural dimension* (**H1.4**; Figure 14) is the best general template for an exhaustive, coherent, and detailed analysis of negotiation problems, we move on to the second cycle of our IBE based selection process. Following

the logic of a step-by-step development of the *fit taxonomy*, what is now required is to identify tangible concepts that allow for an analysis of negotiation problems situated on these two dimensions (**P2**; Figure 14). When we again “rummaged through” the *relevant* and *exotic* background knowledge (W), we encountered six potential approaches: conflicting interests (**H2.1**), power struggles (**H2.2**), cultural clashes (**H2.3**), injustice (**H2.4**), distrust (**H2.5**), and inadequate or dysfunctional institutional negotiation environments (**H2.6**). While all six approaches had the potential to further specify *substantial* and *procedural negotiation problems*, we found that only three approaches (conflicting interests (**H2.1**), injustice (**H2.4**), and distrust (**H2.5**)) yielded sufficient results in light of the three IBE quality criteria we applied. The other approaches were found to be weaker in terms of *breadth*, *coherence*, and *depth* and were therefore not taken into consideration.

3.3.2.1 Set of Potential Hypotheses (H2.1-H2.6)

H2.1 Conflicting Interests: One of the most influential accounts for negotiation problems is certainly interest collision.¹⁷² While often not made explicit, the vast majority of scholars and practitioners who study bargaining dynamics analyze negotiation problems through the lens of interest collision. The idea of interest conflicts is, for example, central to the founding classics of negotiation research – such as Thomas Schelling’s “Strategy of Conflict” (1960), Anatol Rapoport’s “Fights, Games and Debates” (1960), or Fred C. Iklé’s “How Nation Negotiate” (1964). Likewise, many prominent definitions of international negotiations build on to the idea of colliding interests. For example, Andrew Moravcsik has referred to negotiation as “the process of collective choice through which conflicting interests are reconciled” (1993: 497). And according to William Zartman, negotiation is “the process of combining conflicting positions into a joint agreement” (Zartman 2009: 322). But the idea of interest conflicts is also central to the practitioners’ literature on bargaining dynamics (e.g. Malhorta & Bazerman 2007: 221-4). Putting colliding interest at a central stage, David Lax and James Sebenius (2006: 8) have, for example, explained that the practitioners’ literature on negotiation is in essence structured along a two-fold dimension with the novices of win-lose bargaining on the one side (e.g. Camp 2002; Ringer 1974) and the followers of the win-win strategy on the other side (e.g. Fisher & Ury 2011; Ury 1991).

H.2.2 Power Struggles: Power is ubiquitous to the research on international relations (Baldwin 2013). It is therefore little astonishing that this category is also relevant for the analysis of negotiation problems. According to Wanis-St. John and Dupon, *power struggles* are seen by many as “one of the most ‘powerful’ explanatory variables for negotiations” (Wanis-St. John & Chirstophe 2012: 214). Correspondingly, a considerable proportion of the background knowledge (W) revolves around power (see in particular Zartman & Rubin 2000a).¹⁷³

¹⁷² Interests are in general defined as the “pursuit of personal advantage, be it money, fame, power or salvation”(Elster 2007: 78)

¹⁷³ For example, Steinberg (2002) has shown that biased outcomes in negotiations on multilateral trade agreements are attributed to power asymmetry. Rothstein (1979) has analyzed how power struggles materialize South-North negotiation on economic issues. Haskel (1974) and Dür & Mateo (2010) have studied how the power capacities available to negotiating parties affect their bargaining strategies.

H.2.3 Cultural Clash: Culture and cultural clashes is another potential hypothesis to further specify the *procedural* but also the *substantial problem dimension* in challenging bargaining dynamics. International negotiations often bring together parties from different cultural backgrounds. It is therefore little surprising that past scholars have intensively studied the role of culture in diplomatic processes (e.g. Bülow & Kumar 2011; Faure 2003; Faure 2009; Faure & Rubin 1993; Gelfand & Dyer 2000).¹⁷⁴

H.2.4 Injustice in the Sense of Distributive Inequality: Apart from power struggles, cultural clashes, and interest conflicts, injustice represents another candidate for a tangible concept to specify negotiation problems on the *substantial* and *procedural dimension*. While neglected for a long time (Welch 2014), we saw in recent years growing interest in exploring the role of (in)justice in bargaining dynamics (e.g. Albin 2001; Müller & Druckman 2014; Zartman et.al. 1996; Zartman 1997). Although most scholars have focused on the positive contribution of justice to negotiation outcomes, there are also a series of studies that have analyzed the negative implications of injustice (e.g. Albin 2009: 583; Müller 2010; Odell 2000; Zartman 2009: 326).

That we encounter in the literature a confusing variety of overlapping concepts is – in all probability – owing to the fact that (in)justice represents still a very young object in negotiation research. William Zartman and Victor Kremenyuk have, for example, introduced the distinction between “forward-looking” (e.g. shaping a future just order) and “backward-looking justice” (e.g. compensation and restoring past injustice) (Zartman & Kremenyuk 2005). Based on the approach of “securitization”, originally developed by the so-called Copenhagen School (e.g. Buzan, Ole & de Wilde 1998), Harald Müller has recently developed the concept of “justisication” in order to analyze discursive struggles on conflicting notion of justices in international negotiations (Müller 2011). Cecilia Albin and Daniel Druckman have differentiated between “procedural” and “distributive justice” and have introduced additional an sub-category to further specify these two dimensions.¹⁷⁵

However, in light of our specific research objective (the Libyan NRN), not all of these different concepts signify potential hypotheses. Rather, we claim that “distributive

Moreover, power and power struggles is also a crucial aspect in the thinking of “practical negotiators”, (see e.g. Fisher & Ury 2011: Ch. 9; Malhotra & Bazerman 2007: ch. 11).

¹⁷⁴ A classic study in that regard is, for example, the analysis by Sir Harold Nicolson who has distinguished two principal “negotiation ethics” – shopkeepers and warriors (Nicolson 1969; see also: Zartman & Berman 1982: 225). The Cold War gave birth to numerous studies that analyzed the role of cultural differences in the negotiation style and tactics between the United States and the Soviet Union or China (Dennett & Johnson 1951; Lall 1968; Pye 1992; Sloss & Davis 1986; Smith 1989; Whelan 1983; Young 1968). Recently, the focus has shifted to the current opponents of the United States – such as Iran or North Korea (Bar 2004; Limbert 2009; Snyder 1999). But cultural differences as an obstacle to the bargaining process also plays a role in the background knowledge of “negotiation practitioners”. Fisher and Ury elaborate, for example, on that aspect in their chapter on “dirty tricks” (Fisher & Ury 2011: 131-145).

¹⁷⁵ *Procedural justice*: fair representation, fair treatment and play, voluntary agreement, and transparency. *Distributive justice*: equality, proportionality, and need (Albin & Druckman 2014; Druckman & Albin 2011; see als Deutsch 1975).

injustice” in the sense of inequality represents the best potential candidate for the selection process on our *fit taxonomy*.¹⁷⁶

H2.5 Distrust: Distrust is another crucial element of negotiation problems that is often discussed among scholars and foreign policy practitioners. As trust is depicted as “one of the cardinal underlying characteristics of fruitful negotiation” (Zartman & Berman 1982: 27),¹⁷⁷ it is relatively obvious to assume that distrust is a central hurdle to bargaining dynamics. Numerous scholars and practitioners have revealed that there is no negotiation process that is free of suspicion. Doubts in the counterpart’s reliability and honesty are deeply involved with diplomatic crises. Even negotiating parties who share in general friendly relations are at certain points of the bargaining dynamic fearful of cheating. Hence, when distrust becomes excessive, it could cause stalemates, deadlock and breakdowns of negotiation processes (e.g. Koeszegi 2009; Kydd 2005, Kydd 2012; Hoffmann 2002; Hoffmann 2005; Lewicki 2006). In their bestselling book “Negotiation Genius”, the two Harvard scholars Malhotra and Bazerman come, for example, to the conclusion that “trust is essential in relationships; hence, it is a critical ingredient in negotiation [and] distrust is considered to be a major obstacle to negotiation” (Malhotra & Bazerman 2007: 267).¹⁷⁸

H2.6 Incomplete and Dysfunctional Institutional Environment: The institutionalist view on international relations allows another approach to conceptualize negotiation problems. Neglected for a long time, we saw, starting by the 1980s, a growing interest in exploring the linkage between international institutions and bargaining dynamics (e.g. Young 1989a; Young & Osherenko 1993). Negotiations in the context of the European Union were in that

¹⁷⁶ First, when we discuss injustice in NRN, we focus primarily on the allocation of gains and burdens of the involved negotiation parties. “Procedural justice” – the question of participation and recognition – plays an important role in multilateral negotiations where many and different negotiation parties take place (e.g. state actors, international organizations, and NGOs). But since NRN are first and foremost bilateral negotiations, the question of appropriated participation and recognition is, with regard to this particular type of bargaining process, by and large irrelevant. *Second*, among the different concepts of distributive justice (e.g. *need*, *proportionality* and *equality*), summarized by Cecilia Albin and Daniel Druckman, *equality* appears to be the most relevant for international bargaining situations – at least this finding is suggested by numerous psychological and experimental studies conducted in the past in order to explore the social settings that are most appropriated to these three principles of distributive justice (Deutsch 1975: 143-7; Mikula 1980: 152-153; Schwinger 1984; see also: Mayer 2006: 183). While *need* is regarded most relevant for “caring-oriented groups” (Deutsch 1975: 147) where the focus is on fostering welfare, development, and mutual responsibility, *proportionality* was found to be particularly relevant in social settings that are oriented on an economy productivity and that are associated with professional and work life. Obviously these social settings are very distant to the situations we encounter in bargaining dynamics on the illegal nuclear weapons programs. The principle of distributive justice that was, however, found most akin to the nature of NRN was *equality* since psychological and experimental studies have found that this concept is most relevant in constellations that are about the development and maintenance of social relations.

¹⁷⁷ Jon Elster has described trust as the “lubricant of society” (2007: 344) and has defined it as a social practice where actors “lower one’s guard to refrain from taking precautions against an interaction partner even when the other, because of opportunism or incompetence, could act in a way that might seem to justify precautions” (Elster 2007: 334).

¹⁷⁸ For example, social psychologists have revealed that negotiation parties who are entangled in severe conflicts are particularly inclined to distrust and to biased information processing. In that sense, problem solving in negotiations is first and foremost about “freeing the minds” of the involved players and establishing open and trustworthy communication (Chaiken et.al. 2000; Ross & Stillingner 1991). Others have shown that prevailing distrust hampers the application of a problem-solving negotiation approach (Butler 1995, Ross 1996) or encourages the use of coercive tactics (Greenhalgh & Chapman 1998; see also Deutsch 1960).

regard at the center of attention (e.g. Bjurulf & Elgström 2004; Dür, Mateo & Thomas 2010; Jönsson et.al. 1998). Negotiation and international institutions are closely connected. Negotiations are crucial for the formation of international institutions. And many negotiations in international affairs take place within the context of international institutions. Against that background, it appears only logical that an incomplete and dysfunctional institutional setting could lead to diplomatic deadlocks and breakdowns. While most of the relevant literature is focusing on the positive relationship between institutions and negotiations, we find in the background knowledge (W) also reference for a problematic connection (e.g. Boyer 2012; Narlikar 2010).¹⁷⁹

3.3.2.2 IBE Selection for H2.1 - H2.6

We will now assess which of the just introduced potential hypotheses (**H2.1 - H2.6**) represents the best contribution (**Hg2**) to our search for a tangible concept of negotiation problems. In this second cycle of the IBE selection process, *interest conflicts* (**H2.1**), *distributive inequality* (**H2.4**), and *distrust* (**H2.5**), achieved the highest scores when evaluated with the help of the three quality criteria (*coherence, breadth, and depth*) (Figure 14). As we have already explained in chapter 3.1.2, these three “ingredients” have a common nature. All three tangible problem concepts signify *social traps* – a fact that results from the particularity of interdependent decision making in international negotiations.

(1) Coherence: *Interest collision* (H2.1) and the *inadequate institutional environment* of negotiation dynamics (H2.6) were found to be in particular consistent with the starting fact (P2) (Figure 14). These two potential hypotheses have explanatory power and analytical relevance for both *substantive* and *procedural negotiation problems*. For example, in the background knowledge (W) *interest collisions* (H2.1) are usually described in a two-fold way – as an issue that is need to be resolved by the bargaining parties and as a challenge to the negotiation process itself (e.g. Zartman 2009). With these two dimensions the hypothesis of interest collision signifies a high degree of *coherence* with the two-dimensional logic of *substantial* and *procedural negotiation problems*. The same logic applies to potential hypothesis of *inadequate institutional environments* (H2.6). While dysfunctional institutions could hamper negotiation dynamics (e.g. Narlikar & Van Houten 2010; Stanford 1992), scholars appear to the very well aware that international institutions (or their absence) could become themselves a conflict-laden issue that need to be handled in bargaining dynamics (e.g. Young 1989a; Young & Oshrenko 1993). Thus, the potential hypothesis of an incomplete and dysfunctional institutional environment is relevant both to the *procedural* and the *substantial dimension* of negotiation problems.

¹⁷⁹ For example, some scholars have studied the phenomenon of “institutional crowding” – contradicting negotiation dynamics caused by overlapping international regimes (Boyer 2012: 226-228; Zartman 2003: 30). Others have analyzed how the linkage between negotiations on the international level and domestic politics could constrain bargaining dynamics (e.g. Evans et.al 1993; Winham 1977: 116-19; Zartman & Berman 1982: 207). But we encounter in the literature also studies that analyze how dysfunctional features of institutionalized negotiation processes – such as ineffective conference secretariats (Stanford 1992), inadequate or absent institutional control mechanisms (Narlikar & Van Houten 2010), or unable chairpersons and presiding officers (Tallberg 2002; Sjöstedt, Spector & Zartman 1994; Zartman 2003) – could hamper the achievement of joint agreements.

Power struggle (H2.2), *cultural differences* (H2.3), and *distributive inequality* (H2.4) were found to be less *coherent* with the two dimensions of negotiation problems (Figure 14). For example, *power struggle* (H2.2) and *cultural differences* (H2.3) are described in the background knowledge (W) primarily as obstacles to the negotiation process. Although there are also studies that identify these two potential hypotheses as negotiation issues referring thereby to the *substantial dimension*,¹⁸⁰ both are first and foremost conceptualized as hurdles to successful conflict management in bargaining dynamics and therefore signify *procedural negotiation problems* (e.g. Bülow & Kumar 2011; Zartman & Rubin 2000a).¹⁸¹

In a mirror-inverted way, the same assessment applies to *distributive inequality* (H2.4). As we have already explained above, distributive justice is defined by the allocation of gains and losses (Druckman & Albin 2011: 1139). Consequently, this potential hypothesis is primarily of relevance for the *substantial dimension* of negotiation problems where the issues and the bargaining outcome are at the focus of attention.

Finally, *distrust* (H2.5) is the approach that appears to be most biased in terms of two dimensions of negotiation problems. *Distrust* is first and foremost perceived as a feature of *procedural negotiation problems*. In the background knowledge, it is primarily described as an operational hurdle when addressing actual negotiation issues (e.g. Lewicki 2006; Chaiken et.al. 2000).

(2) Depth: In the IBE selection process, we found that *interest collision* (H2.1) and *distrust* (H2.5) are in particular *depth*. Both potential hypotheses appear to be ubiquitous in the background knowledge on negotiation. Either implicitly or explicitly, the majority of scholars and practitioners refer to them when describing stalemates, deadlocks, and breakdowns in bargaining dynamics. The thinking of negotiation problems appears to revolve in many respects around these two essential concepts.

Injustice in the sense of *distributive inequality* (H2.), *power struggles* (H2.2) and *inadequate institutional settings* (H2.6) represent instead potential hypotheses that have in terms of *depth* likewise a relatively good record – although these concepts score lower rates than the concepts *distrust* and the *conflict of interests*. While the role of *(in)justice* (H2.4) in international negotiations was for a long time neglected, we have seen growing attention in recent years (e.g. Albin 2001; Müller & Druckman 2014; Zartman et.al. 1996; Zartman 1997). The research on *power struggles* (H2.2) as a barrier for successful negotiations has produced a solid stock of literature too (e.g. Fisher & Ury 2011: Ch. 9; Malhotra & Bazerman

¹⁸⁰ For example, Andrew Gamble has studied how the rise of emerging powers leads in general to negotiation deadlocks since the decision making process in international bargaining process becomes “crowded” by a larger number of new players who bring along new political views and strategic postures (Gamble 2010).

¹⁸¹ For example, the most comprehensive study about the role of power in negotiation – Zartman’s and Rubin’s “Power and Negotiation” (2000) – is almost exclusively about how power influences the bargaining behavior and diplomatic conduct of the parties. The same applies to the cultural-related problems to negotiation. The background knowledge on that particular hurdle to diplomatic encounter is likewise “operational biased” (e.g. Pye 1992; Sloss & Davis 1986; Smith 1989; Whelan 1983; Young 1968).

2007: ch. 11; Zartman & Rubin 2000a; Wanis-St. John & Chirstophe 2012).¹⁸² The *depth* of *inadequate institutional negotiation environments* (H2.6) is limited too. While the number of scholars who focus on the role of institutions in negotiation problems has grown over the years (e.g. Boyer 2013; Spector & Zartman 2003), the attention on the problematic nature of institutional bargaining settings is still limited. The research is biased in the sense that it studies primarily the positive implications of international institutions in bargaining dynamics. Moreover, the research is strongly focused on negotiation in the context of the European Union which was described as a “multilateral inter-bureaucratic negotiation marathon” (Kohler-Koch 1996: 367) or as a “permanent negotiation institute” (Bal 1995: 1). Other institutional settings have instead gained far less attention.¹⁸³

Cultural conflict (H2.3) represents the potential hypothesis on negotiation problems that scores in terms of *depth* the lowest results (Figure 14). Although the literature on culture and cultural related barriers in negotiation process is “voluminous” (Jönsson 2002: 219), a more careful look reveals that the findings stemming from these studies is often contradictory.¹⁸⁴ Moreover, studies on the role of culture and cultural conflict are often built on shaky empirical foundations. Comparative studies on the role of cultural conflicts in bargaining dynamics are rare (e.g. Binnedijk 1987; Weiss & Stripp 1985). Scholars have made little effort to explore alternative explanations (e.g. Mingst & Warkentin 1996). And many of the studies have more the nature of field reports than of sound scientific analysis (Jönsson 2002: 219). In addition, it was questioned by many whether the culture dimensions – which might be important for example in business relations – plays much of a role in international diplomacy. After all, it is the very nature of the diplomatic elite to have developed over centuries a set of common behavioral patterns and practices which levels national cultural differences (e.g. Lang 1993; Zartman & Berman 1982: 226).

¹⁸² Nevertheless, the study of *power* and *power struggles* in diplomatic processes is also marked by some contradiction which limited the *depth* of this potential hypothesis. Take for example the discussion on the symmetry-asymmetry dichotomy in power-related negotiation research. While some scholars have pointed out that power symmetry between negotiating parties render bargaining processes more complicated (e.g. Faure 2005; Zartman & Rubin 2000b: 273-4), others have challenged this finding. Beriker and Druckman (1996) have, for example, revealed that power symmetry is irrelevant when parties are equally weak. And J.P. Sing (2008) has shown that the scope and nature of power distribution alone could not explain negotiation outcomes but only affects the bargaining dynamics in conjunction with several other explanatory factors.

¹⁸³ Moreover, the research on negotiations in international institutions appears to be very compartmentalized with different schools and disciplines doing isolated research without little interdisciplinary exchange and interaction – a fact that Jon Odell has described by the metaphor of disconnected “island of knowledge” (Odell 2010a).

¹⁸⁴ For example, Ramirez-Martin and Brett come to the conclusion the Latin-America negotiation culture is characterized by low initial demands and a tendency towards integrative deals (Ramirez-Marin & Brett 2011). Ott comes to an opposite conclusion saying that negotiators with a Latin American background rather make inflated initial demands and ask for large concessions (Ott 2011). Others have revealed that Indian negotiators are thorough and make few concessions (Kumar 2004) – only to be challenged by colleagues who come to the opposite conclusion that the Indian negotiation style is marked by flexibility and readiness for large concessions (Requejo & Graham 2008). Similar contradicting findings are found in the background knowledge on the American negotiation style. While some point out that Americans are inclined to seek creative solutions in the negotiation process because they are often less bound by hierarchy than their negotiating parties and have in general a more egalitarian attitude (Tinsley et.al. 2004), others say that US negotiators are focused on fixed-pie solutions because of the inherent search for fair solution (Leung & Tong 2004).

(3) Breadth: Finally, the six potential hypotheses need to be evaluated against the IBE quality criterion of *breadth*. In our assessment we come to the conclusion that *colliding interests* (H2.1), *distrust* (H2.5) and *distributive inequality* (H2.4) yield the highest scores with regard to this particular criterion (Figure 14). All three approaches have strong explanatory power and a high unifying capacity explaining various features of negotiation problems regardless of the issue, the involved actors, or the actual negotiation setting. Due to the high level of abstraction, none of these three potential hypotheses could be absorbed by other approaches without losing much of their genuine explanatory power.

In comparison to these three potential hypotheses, the *breadth of power struggles* (H2.2) and *cultural clashes* (H2.3) appear to be more limited. On the one hand, both concepts are to a considerable degree absorbed by other concepts. For example, while *power struggles* are often absorbed by the concept of *colliding interest* (H2.1),¹⁸⁵ *cultural clashes* in bargaining dynamics are often operationalized by conflicts about different notions of fairness (e.g. Brockner et.al. 2000; Gelfand et.al. 2002) or as an expression of suspicion and misunderstanding (e.g. Elahee, Kirby & Nasif 2002; Gunia et.al. 2011; Rivers & Lytle 2007; Triandis 2001) and therefore become subordinated to the hypotheses of *unequal distribution* (H2.4) and *distrust* (H2.5). Losses of genuine explanatory power are the logical consequence. And apart from being absorbed by other, more unifying concepts, the *breadth* of the *power struggle* and *cultural clash* hypotheses are, on the other hand, limited by their inherent wooliness and imprecision. For example, the fact that IR lacks in general a clear understanding of the scope and nature of *power* (e.g. Baldwin 2013), is also affecting the research on international negotiations. Consequentially, it appears that the different studies of *power* in bargaining dynamics have talked past each other due to different operationalization of power.¹⁸⁶ Imprecise conceptualization is also limiting the *breadth* of the *cultural clashes*. Apart from varying definitions of what exactly signifies culture and cultural conflicts in negotiations, we encounter in the literature numerous imprecise and overlapping concepts.¹⁸⁷

The potential hypothesis of *inadequate institutional environment* (H2.6) was found to have an even more limited *breadth* since this approach is subordinated in many respects to broader and more unifying analytical concepts. Scholars who have studied the nature of institutional settings in international negotiations have returned to either interest or power based explanations (e.g. Young 1989a; Habeeb 1988) or have attributed the (dys)function

¹⁸⁵ For example, the “power of the weak” (the ability of state actors with relatively limited power capacities to dominate bargaining process) is a phenomenon that was often studied in the past by scholars interested in the role of *power* in international negotiations (e.g. Hopmann 1996: 119; Snyder and Diesinger 1977: 1990). The most common explanation for this phenomenon – the higher commitment to “win” in bargaining process – builds, however, on the logic of *colliding interests*.

¹⁸⁶ See, for example, scholars that have explained negotiation outcomes by the distribution of “power capacities” among state actors (e.g. Krasner 1991; Steinberg 2002; Telhami 1990). Others have instead operationalized “power” primarily as a function of strategic moves and the quality of relationships (Habeeb 1988; Odell 2010b).

¹⁸⁷ For example, the dichotomy “collectivism-individualism”, which was often used to describe different cultural negotiation styles, is plagued by unclear definitions and ambiguous conceptualizations. While some scholars identify families and friends as an expression of a “collective”, others refer by this term to companies or even to nations (Brewer & Chen 2007; Bülow & Kumar 2011: 354).

of the institutional setting to (dis)trust or (in)transparency (e.g. Arrow 1995; Bjurulf & Elgström 2004).

3.3.3 Analytical Operationalization: Game Theory & Public Bad Approach

Now that we found that our *fit taxonomy* is – apart from the distinction of the *substantive* and *procedural dimension* – further specified by *colliding interests, distrust, and injustice*, we take the next step of model development and “sound the bell” for another round of IBE based reasoning. The mission is to identify approaches and concepts that provide further specification. What we are searching are *analytical* concepts that allow for a detailed operationalization of the three tangible concepts of negotiation problems we have revealed thus far. It will turn out that we identified five potential explanations from which we eventually chose two: *dilemma games* (H3.1) and the *public bad approach* (H3.4) (Figure 14).

3.3.3.1 Set of Potential Hypothesis (H3.1 - H3.5)

H3.1 Dilemma Games: The research on negotiation and game theory is densely interwoven. On the one hand, systematic research on international negotiation emerged hand in hand with the application of the game theoretical approach. The founding fathers of modern research on international negotiations (e.g. Schelling (1960), Rapoport (1960)) based their analysis primarily on game theory. On the other hand, thinking about negotiation dynamics and the bargaining situation was also important for the evolution and maturing of game theory. It was for example, the reasoning about negotiation strategies and dynamics that helped John Nash develop his mathematical model for general bargaining solutions (Sally & Jones 2006: 87). Consequently, there is ample game theoretical research on international negotiations in general and on negotiation problems in particular. The literature stretches from military crisis bargaining (e.g. Fearon 1995) over mediation efforts (e.g. Rauchhaus 2006; Kydd 2010) and the distribution of (mis)information (e.g. Leventoglu & Tarar 2008; Morrow 1994: Ch. 8; Walter 2009) to negotiations on contested water resources (e.g. Güner 1998).

H3.2 GRIT (Gradual Reciprocation in Tension Reduction): GRIT is another central approach for the analysis of negotiation problems which was likewise relatively often used in the past by IR scholars (e.g. Collins 1997; Goldstein & Freeman 1990; Kelman 1985).¹⁸⁸ Originally introduced by Charles Osgood (1962) as a general de-escalation mechanism during the Cold War, GRIT builds on a tit-for-tat strategy. What is at the very heart of GRIT is a multi-stage process of trust building. Conflict parties are asked to take unilateral steps of tension reduction, provide concessions, and thereby establish over time a “peace spiral” which is assumed to have the potential to resolve deadlock and stalemates in bargaining dynamics. Consequently, among the different cases studied by this approach, the President Anwar Sadat’s unilateral trip to Jerusalem in 1977, which marked the first step in the Egyptian-

¹⁸⁸ For a critical review on GRIT and its explanatory powers, see: Bitzinger 1994; Thränert 1991

Israeli rapprochement, is certainly the most often cited example of the GRIT logic (e.g. Kelman 1985; Kydd 2005: 184-185).

H3.3 BATNA (Best Alternative to Negotiated Agreements): The BATNA approach is another analytical concept to study problematic negotiation problems. The BATNA concept is based on the so called “no-deal option”. On the one hand, negotiations fail or become particularly difficult if at least one of the bargaining parties dispose a better alternative to the negotiated agreement (Raiffa 1982; Fisher & Ury 2011). On the other hand, successful negotiations are possible if the parties operate in a “zone of agreement” (also called “bargaining range”) where the outside option has less value than the expected agreement. The BATNA concept was used in the past by numerous IR scholars to study difficult diplomatic constellations – for example armistice negotiations (Pillar 1983), bargaining dynamics in the EU (Moravcsik 1998) or in the WTO context (Odell 2009).

H3.4 The Public Bad Approach: As we have explained above (ch. 3.1.3.1), the Theory of Collective Goods (TCG) – of which the *public bad* approach is part of – is widely used by IR scholars. Numerous studies have shown that all international and cross-border problems – such as environmental pollution or the provision of international peacekeeping missions – are in essence problems of public good provision and consumption (e.g. Holzinger 2008; Keohane & Ostrom 1995; Ostrom 1990; Rittberger 2008; Sandler 2004: 192-211). In many of these studies, bargaining dynamics and negotiations played a crucial role (e.g. Barrett 2003). However, we have also explained above that the concept of *public bad* was – apart from some generic references – not yet systematically applied in negotiation research.¹⁸⁹

H3.5 The Ripeness Approach: The *ripeness approach* is a process oriented concept. It explores the conditions and circumstance required to conduct successful bargaining dynamics. According to William Zartman – who has developed this concept – “conflict resolution depends, above all, on the identification of the *ripe moment*” (Zartman 1989: 263). The “ripe moment” is given if two conditions are met. First, the conflict parties find themselves entangled in a “mutual hurting stalemate” from which they cannot escape unilaterally and which signifies for all involved actors an unfavorable state. Second, conflict parties have to envision a “way out” representing a negotiated solution to the actual conflict situation (e.g. Zartman 2000; Zartman 2006).¹⁹⁰ Like the other analytical concepts discussed above, the *ripeness approach* was used by numerous IR scholars for analyzing complicated bargaining dynamics – for example the Nagorno-Karabakh conflict (e.g. Mooradian & Druckman 1999), the Israeli-Palestinian peace negotiations (e.g. Lieberfeld 1999), or the Cambodian conflict (e.g. Amer 2007).

3.3.3.2 IBE Selection for H3.1 - H3.5

With the help of our three quality criteria (*coherence*, *breadth*, and *depth*), we will now evaluate which of the just introduced potential hypotheses (H3.1 – H3.5) represents the

¹⁸⁹ For studies in negotiation research that refer generically to *public bads* without providing further specification or a systematic concept of this approach, see e.g.: Drahos 2003; Croson, Marks & Snyder 2008; Money & Allred 2009, Sutter 2002.

¹⁹⁰ For a critical review of the *ripeness approach*, see for example: Ekwuachi-Ford (2009); Kleiboer (1994); Pruitt (2005).

best contribution (**Hg4**) to our effort to build a *fit taxonomy* for the analysis of NRN. We will show that *dilemma games* (**H3.1**) and the *approach of public* (**H3.4**) had yielded the best results (Figure 14).

(1) Depth: In terms of *depth*, the concept of *dilemma games* (H3.1) achieves the highest score. As we have already explained above, game theory and negotiation research is densely interwoven. Consequently, we encounter in the literature numerous studies and research that explored diplomatic bargaining constellations through a game theoretical lens. And even though the game-theoretical heritage is today less obvious as scholars apply numerous other approaches, it remains, according to Christer Jönsson, “a benchmark of sorts, to which most analysts [in negotiation research] relate one way or another”(2008: 218). GRIT (H3.2), BATNA (H3.3), and the *ripeness approach* (H3.5) are in the mid-table. All three approaches have been widely applied in the past. However, compared to the approach of *dilemma games*, the *depth* of all three concepts is nevertheless limited. The approach of *public bads* (H3.4) instead achieves in terms of *depth* the lowest scoring (Figure 14). As we have already explained above, the *public bad approach* represents rather exotic concepts in negotiation research and was – apart from occasional generic references – never systematically applied in the field.

(2) Breadth: *Dilemma games* (H3.1) and the *public bad approach* (H2.4) are assumed to have a relatively wide *breadth* (Figure 14). As we have already discussed above (ch. 3.1.3), both concepts have high explanatory power and allow scholars to study broad varieties of different problem constellations regardless of the issue area or the involved actors. While BATNA (H3.3) and the *ripeness approach* (H3.5) could be likewise applied to a broad variety of negotiation problems, they have nevertheless a relatively narrowed *breadth* since their explanatory power is absorbed by the concepts of *dilemma games*. In essence, the *ripeness approach* and BATNA are particular applications of game theory (Sally & Jones 2006). Tellingly, Zartman once said that when seen through the lens of game theory, the *ripeness approach* operationalizes the transformation from a PD Game into a Chicken Game (Zartman 2006). And the BATNA concept was in many respects developed as a part of Howard Raiffa’s (1982) more general approach to the analysis of negotiation dynamics which was based in many respects on game theoretical reasoning. The GRIT (H3.2) approach is not absorbed by a more unifying concept. However, its *breadth* is limited too since it applies only to a particular constellation of negotiation conflicts: trust-building and de-escalating bargaining processes that are marked by unilateral concession of the involved actors.

(3) Coherence: None of the five approaches are fully coherent with the requirements specified in P3 (Figure 14). None of these concepts is able to study at that same time *injustice*, *distrust*, and *colliding interest traps* both on the *substantive* and *procedural problem dimension*. Rather, all five approaches have, for each part, limits. However, the limits of the GRIT (H3.2), the BATNA (H3.3), and the *ripeness approach* (H3.5) appear in particular strong. All three concepts have a clear bias for the *procedural dimension* and apply in addition to only one of the three basic social traps. While GRIT is in essence about the *distrust trap*, the BATNA and the *ripeness approach* relate exclusively to the *colliding*

interest trap. Against that background the coherence of the *dilemma game* (H3.1) and the *public bad approach* (H3.) appear relatively high. After all, both concepts allow us to study at least two social traps in parallel.

4. METHODS & CASE SELECTION

As we have elaborated above in detail, our research project is inspired by Enlightened Rationalism. The major focus of the following chapter is to show the methodic implications of this meta-theoretical approach. Above we have explained that the assumption of endogenic motivational shifts is at the very heart of Enlightened Rationalism. It is the one of the decisive criteria to demarcate this approach from the conventional Orthodox Rationalism. Consequentially, the way we map endogenic motivations (ch. 4.2) and how those findings are translated into *preferences* by the so-called “re-enactment method” (ch. 4.3) are central to our method chapter. In this section, we will explain in detail how we operationalize this task. Moreover, we will answer how the American-Libyan negotiation dynamics on the Qaddafi regime’s nuclear weapons program was selected as the “hard case” among the 14 historic examples of NRN (ch. 4.4). In addition, at the beginning of the chapter we will briefly elaborate on how we implement the *qualitative research paradigm* – the methodic principle which is guiding the analytical terms in our entire PhD project (ch. 4.1).

4.1 The Qualitative Research Paradigm

In the introduction chapter, we already explained that our PhD project will follow the “qualitative research paradigm”. This choice was taken due to the limited number of NRN cases, the complex causal relations that need to be explored, and the numerous rival explanations that must be taken into account. While large-N quantitative studies have a well-defined structure with a clear distinction between analysis and conclusion, qualitative research is often more “disordered”. In qualitative research, the analysis of data and the findings that scholars draw from this process are often densely intertwined. However, that does not mean that qualitative research is lacking analytical excellence and is inferior to the “quantitative research paradigm”. Qualitative research is likewise bestowed with a set of distinct “quality criteria” – although they are very different from the benchmarks applied to evaluate quantitative research.

The “quality criteria” for qualitative research listed in the relevant literature consist normally of four central aspects: (1) process documentation and rule-governed analysis, (2) triangulation, (3) interpretative validation and, (4) communicative validation (e.g. Cropley 2002; Flick 2007; Flick 2008; Lamnek 2005). In the following section, we will discuss how and to which degree our PhD project fulfills these criteria.

(1) Process Documentation and Rule-Governed Analysis: Process documentation and rule-governed analysis are primarily implemented in our PhD project by the method of “process tracing” which is the central analytical instrument in our study of the Libyan NRN. It is by using “process tracing” that we investigate the “fit performance” of the individual design elements.

“Process tracing” is one of the primary methods in qualitative research to study causal relations (e.g. Bennett 2008; Schimmelfennig 2006). Scholars who apply this approach aim for a detailed and complete description of causal pathways. According to Alexander George and Andrew Bennett, “process-tracing is an operational procedure for attempting to identify and verify the observable within-case implications of causal mechanisms” (George & Bennett 2005: 138). Inspired by the conventional wisdom that correlation is not synonymous with causation, “process tracing” allows us to open the black-box of the causal process with the objective to “bring the mechanism back in” (Checkel 2005: 14). It therefore allows for detailed process documentation and provides a rule-governed analysis of causal relations.

However, “process tracing” has short-comings too. First, it is a method that necessitates an enormous amount of information (see e.g. Gheciu 2005). In order to decipher causal relations, intensive data is required such as interviews, documents, historical memos or press accounts. Second, “process tracing” has an inherent tendency to relapse into mere “storytelling”. In such a situation, scholars do ex-post rationalizations of hypothetical cause-effect-relations which do not necessarily reflect the social reality of the studied situation. Third, “process tracing” is endangered to fall prey to the “infinite regress problem” where the causation for an observed effect is constantly traced back only to arrive at a chain of insufficient explanations which stretch over extended periods of time without providing definitive answers.

Not all of these shortcomings could be resolved by a well-crafted research design. But their negative impact could be mitigated if the “process tracing” is embedded in a theoretical concept which specifies the cause-effect relations, narrows down the critical aspects for the causal process that needs to be studied in detail, and which lists the series of alternative explanations that could falsify the assumed causal relation. Only when the “process tracing” is embedded in a theoretical concept will this method be able to the quality criteria of process documentation and the rule-governed analysis. In our PhD project, the *fit taxonomy*, which we have outlined in the previous chapter, signifies the theoretical concept that is structuring the “process tracing”.

(2) Triangulation: “Triangulation” is another central criterion indicating the quality of qualitative research (e.g. Cropley 2002; Flick 2007). “Triangulation” is a term resulting originally from geodetic measurement. The central idea of “triangulation” is to investigate the very same phenomenon from different perspectives. We apply “triangulation” throughout our doctoral thesis with regard to the studied data, the applied methods, and the theories we use. Consequentially, attentive readers will find evidence of “triangulation” on numerous occasions in our research projects. For example, our analysis on the Libyan

NRN is based on different types of sources – including historic documents, interviews with central participants, press releases, and memoirs of key decision makers. With the “operational code analysis” and the “interest profiling” we triangulate our survey of Tripoli’s and Washington’s motivations. And to build our *fit taxonomy*, we have likewise applied different perspectives. We have not only included academic knowledge but also insights provided by the practitioners of international bargaining dynamics.

(3) Interpretative Validation: Interpretive validation is a quality criterion that is particularly relevant in terms of transparency. The central idea is to give readers of qualitative research projects the chance “to form their own impression” of the studied phenomenon by providing them with a brief description of the key facts. This is necessary since – as mentioned – analysis and conclusion are densely intertwined in qualitative research. Without sufficient knowledge about the field, readers have little chance to evaluate the quality of the research project. Instead they become hijacked by narratives the authors are presenting them.

Interpretative validation will play an important role in our research project. This criterion is for example implemented by the chronological description about the evolution of the American-Libyan negotiation process and the nature of the Qaddafi regime’s nuclear weapons program. Both sections are situated at the beginning of our analysis of the Libyan NRN in order to provide readers with an objective, fact-based overview (ch. 5.1).

(4) Communicative Validation: Communicative validation is achieved by giving the key actors of the studied phenomenon (in our case the major negotiators of the American-Libyan bargaining process whom we interviewed, see Annex 16) the chance to comment, correct, and change the final research results. Unlike all other criteria, we have excluded “communicative validation” from our PhD project because we thought it would provide no value added in terms of analytical quality – given the hostile and antagonistic history of the American-Libyan negotiation process. It is very likely that this “quality criteria” would have simply forced us back to the conventional interpretations about Libya’s *nuclear reversal* which is in many respects influenced by the uneasy history of the U.S.-Libyan relationship. Applying the criterion of communicative validation would have – in all probability – distorted the interpretive power of our research project.

4.2 Mapping Endogenic Motivations: Operational Codes & Interest Profiles

In the Setup chapter, we explained that inferring actors’ motivation from their behavioral pattern is not a sound method because of the so-called “revealed preference problem” (ch. 2.3.5.2). By the same token, the approach applied by Orthodox Rationalists who primarily use theories (e.g. neo-realism or market theories) to deduce the general interest of actors

(such as such as political power or economic well-being), is likewise not a viable option for a research project that endeavors to follow the principles of Enlightened Rationalism. Enlightened Rationalists reject both approaches claiming that motivations of actors are neither fixed nor given. That perspective, however, requires that we run case-specific surveys on actor's *desires* and *beliefs* and show how these findings are translated into *preferences* (i.e. "re-enactment method"). Certainly, this approach bestows us with a broader and richer picture of social reality and allows for control alternative constructivist explanations which primarily build on the logic of ideational shifts. However, the price to pay is a very demanding empirical endeavor. Studying ideational facts such as *desires* and *beliefs* are not the "home turf" of rationalist scholars but rather the field of constructivist, post-positivist, and social-psychologist researchers. As a consequence, doing research on endogenic motivations propels Enlightened Rationalists into a schizophrenic situation. To a considerable extent, scholars have at first to carry out constructivist or social-psychologist research before they can proceed to the actual "rationalist core" of their project – the analysis of the "logic of consequence".

Doing a survey on actors' motivations is not trivial. We said in the Setup chapter that it requires a "mapping-of-the-mapping" (ch. 2.5.3.2). Motivations are invisible and their degree of "unobservability" varies. We can only study them by proxies. In that sense, the question "how do we know a *desire* or belief when we see one?" is very much bound to the question "where do we look for it".

In IR literature, we encounter different approaches that allow us to survey actors' motivations. The most common are: interest profiles, operational codes, cognitive maps, and interest indicators (e.g. Zürn 1997). Following the logic of triangulation, we will survey both *desires* and *beliefs* by applying the "operational code" approach and "interest profiles" in parallel. While "operational codes" were applied to decipher *beliefs*, we use the approach of the "interest profiling" method in order to identify the *desires* the United States and the Qaddafi regime had during the negotiation process. "Cognitive maps" and "interest indicators" were found to be less fruitful for the analysis of the Libyan NRN. Doing the "mapping-of-the-mapping", we will briefly explain why:

(1) Interest Indicators: "Interest indicators" is an approach that allows scholars to assess the benefits and costs of particular strategic outcomes. Unlike other concepts applied to study an actor's endogenic motivation, "interest indicators" represent a relatively "objective" approach. The interpretative freedom of individual scholars is limited since the relevant *preferences* of the involved actors are not revealed by a retrospective analysis but by an *ex-ante* assessment based on general variables. For example, to assess the interest in Arctic oil and gas of the five central players in that region (Russia, the United States, Canada, Norway, and Denmark/Greenland), Kathrin Kreil used three interest indicators: (1) the overall standing of the Arctic in the countries' policies, especially concerning security considerations (2) the market relevance of Arctic oil and gas (3) identity, culture, and historic relevance of the Arctic and its resources. Based on these indicators, Kreil was able to show that Russia has a very high interest in the Arctic region and its oil and gas resources and is, consequentially, the most central player in this region (Kreil 2014).

“Interest indicators” are of particular value in policy fields where general variables to assess preferences are already available or easy to build. In issue areas where social, economic, or trade related data are less relevant and difficult to obtain (such as in the nuclear policy field), “interest indicators” have obvious limits and represent a methodic tool that is difficult to use.

Figure 15: Five Philosophical and Five Instrumental Operational Codes

OPERATIONAL CODES
<p>Philosophical Beliefs</p> <p>P1: What is the essential nature of political life? Is the political universe essentially one of harmony or conflict? What is the fundamental character of one's political opponents?</p> <p>P2: What are the prospects for the eventual realization of one's fundamental political values and aspirations? Can one be optimistic, or must one be pessimistic on this score; and in what respects are they one and/or the other?</p> <p>P3: Is the political future predictable? In what sense and to what extent?</p> <p>P4: How much control or mastery can one have over historical developments? What is one's role in moving and shaping history in the desired direction?</p> <p>P5: What is the role of chance in human affairs and in historical development?</p>
<p>Instrumental Beliefs</p> <p>I1: What is the best approach for selecting goals or objectives for political action?</p> <p>I2: How are the goals of action pursued most effectively?</p> <p>I3: How are the risks of political action calculated, controlled, and accepted?</p> <p>I4: What is the best timing of action to advance one's interest?</p> <p>I5: What is the utility and role of different means for advancing one's interest?</p>

Source: George 1969

(2) Cognitive Maps: The “cognitive map” approach is a concept that was originally introduced into IR research by Robert Axelrod (1976). This approach involves a graphical analysis to visualize the cognitive values of statements given by policy makers from the field. It allows us to study *desires*, their ranking, and their causal relation. While this approach provides a rich picture of social reality, it has limits. First, “cognitive maps” are a very demanding method in technical terms and require considerable data and academic resources to be run properly. Second, “cognitive maps” were relatively seldom used in the past to assess actor’s motivation. This method was outpaced by the “operational code approach” as an alternative socio-psychological concept which has a similar focus as “cognitive maps”.¹⁹¹

4.2.1 Revealing Beliefs: Operational Codes

The “operational code” analysis is an approach to study the *beliefs* of foreign policy makers. First introduced by Nathan Leites in his seminal study on the Bolshevik world views (1951, 1953), this method was made famous among IR scholars by Alexander George (1969) and Ole Holsti (1977) and witnessed growing popularity in recent years in particular in social-

¹⁹¹ Endogenic motivations could also be surveyed by questioning experts who are assumed to be knowledgeable about the *desires* and *beliefs* of the relevant actors in a given issue area (see e.g. Bueno de Mesquita et al. 1985; Hart 1976; Zürn 1997). Although we have not applied standardized questionnaires, this aspect was to a certain degree covered in our PhD project by the interviews we conducted with decision makers and participants in the American-Libyan negotiation process (Annex 16).

psychological studies on international affairs (e.g. Walker & Schafer 2010; Schafer & Walker 2006).

In light of our research project, the most central advantage of “operational code” analysis is that it allows a direct translation of actors’ motivations into strategic constellations. According to Jack Levy, the fact that “operational code” analysis operates at the “intersection of political psychology and game theory” is one of the most interesting aspects of this method and an “important area for future research” (Levy 2003: 272-3). With the help of this method, it is possible to infer from an actor’s belief system directly to the related hierarchy of strategic *preferences* – a benefit numerous game theoretical studies have taken advantage of in recent years (e.g. Bueno de Mesquita & McDermott 2004; Malici & Buckner 2008; Marfleet & Walker 2006).

Figure 16: Four Ideal-Typical Operational Codes



Source: adapted from Walker & Schafer 2007

In its current form, the “operational code” analysis is the outcome of an evolutionary process. The major contribution of Alexander George is that he modified the approach of Nathan Leites by introducing five philosophical and five instrumental *beliefs* and developed a scheme that allowed for systematic and comparative studies of different world views (Figure 15). Based on George’s contribution, Ole Holsti (1977) has further developed the “operational code analysis”. He has identified six ideal-typical operational codes (labeled with the letters A through F).

Eventually Stephen Walker (1983) further systematized the approach and has condensed the six ideal-typical codes introduced by Holsti into four types of world views: A-type (*the idealist*), B-type (*the revolutionary*), C-type (*the reformer*), and DEF-type (*the realist*) (Figure

16). Each of these four ideal-typical world views is associated with a distinct strategic *preference* ordering which allows for a systematic application of the “operational code method” for game theoretical analysis (Figure 16). Walker’s modification builds on the argument that three *beliefs* of the different instrumental and philosophical convictions listed by Alexander George are particularly important and decisive (**P1**: *What is the essential nature of political life?* **P4**: *How much control or mastery can one have over historical developments?* **I1**: *What is the best approach for selecting goals or objectives for political action?*). He thereby recurs on assumptions that were previously stated by Alexander George (1969) and Ole Holsti (1977). Both postulated the hypothesis that there are “master codes” which are more important than other *beliefs*.

In our PhD project, we applied the “operational code analysis” to study the belief system of Muammar al-Qaddafi. We studied the various speech acts and writings authored by the Libyan dictator and codified the arguments and statements he made along the three decisive *beliefs*: P1, P4, and I1. As we will explain later in more detail, we came by this approach to the conclusion that the world view of the Libyan leader was alternating between a (neo)realist (DEF-type) and a revolutionary (B-type) position (ch. 5.2.1.1, see Figure 3 and Figure 4).¹⁹²

4.2.2 Identifying Desires: “Interest Profiling Approach”

“Interest profiles” are essentially nothing more than a systematized study of the available historic data. It is a structured approach to reveal information about what actors wanted in a given strategic situation from the relevant documents, interviews, speeches, biographies, and press releases. The “interest profiling” is based on several analytical steps. The central idea is that scholars who work in a step-by-step manner guided by a systematic scheme are able to focus more clearly on the nature of an actor’s *desire* and are less likely to become overwhelmed by extensive and often ambiguous data and by dominating explanations formulated by previous research studies. In that sense, the main purpose of “interest profiling” is to streamline the interpretative freedom of scholars and avoid false descriptions and misinterpretation. The “interest profiling” we applied in the study on the Libyan NRN is composed of three steps.

First, we have to specify the “scope of desires”. *Desires* do not have a standard shape. On some occasions, they are very specific to the issue area while in other constellations they are primarily shaped by the nature of the relationship of the involved actors.¹⁹³ Second, we have studied the “nature of the *desires*”. That is, what actors actually *want* in a given negotiation dynamic. The central question is: What is at the core of an actor’s motivation and how does it change over time? Third, scholars have to rank the different desires

¹⁹² For a detailed discussion on the question of why we have only applied the “operational code analysis” to Libya and not to the United States, see ch. 5.2.1.

¹⁹³ In the Libyan NRN, we found that the *desires* of the involved players were inseparably intertwined with the broader American-Libyan relationship. What both sides wanted in the negotiation on the Qaddafi regime’s nuclear weapons program could not be separated from other issue areas. WMD was an integral part of the general relationship between the two conflict parties.

according to the priority the actors ascribe to them. In that step, the analytical task is to reveal the strategic hierarchy of the involved actors' intentions.

4.3 The “Re-enactment Method”: Identifying Preferences

Even the most comprehensive profiling of *desires* tells us little about *preferences*. As we have explained in detail in the Setup chapter (ch. 2.5.3.2), *preferences* are the most unobservable aspect of an actor's motivation as they are specific to particular situations and interactions. Their actual appearance varies dependent on the actual set of *opportunities* available in a concrete strategic constellation. Nevertheless, *preferences* are essential for the application of many analytical concepts – including game theory. In the rationalist world view, *preferences* precede actions. Without a clear understanding of an actor's *preferences*, we are unable to operationalize strategic constellations.

In the Setup chapter, we have already introduced two theoretical concepts how *desires* (and *beliefs*) transform into *preferences*: “sequencing by translation” and “sequencing by weighting” (ch.2.5.3.4). We also said that when taken in parallel, both concepts are assumed to allow a detailed and relatively dynamic sequencing of changing strategic constellations. In this section, we introduce the “re-enactment method” which allows operation of both concepts of sequencing.¹⁹⁴

It is important to understand that the “re-enactment method” is not an abstract academic “finger exercise”. Rather, it is a replay of a procedure that real players in international affairs (and in other areas of social life) do all the time. When facing new strategic situations, real actors normally do not know their preferences by heart. They have to infer them in light of the situation's specific set of *opportunities* with a translation and weighting procedure. In that sense, the “re-enactment method” merely makes a real-world practice transparent and helps to systematize its procedures.

When scholars reconstruct strategic constellations and infer *preferences* from an actor's intentions, they have considerable interpretative leeway. Consequentially, the risk of misinterpretation and the danger to jump to tempting, but false conclusions is high. In terms of strategic analysis, the best survey of an actor's motivation is in danger of becoming futile if the transformation of these results into *preferences* is faulty. In essence,

¹⁹⁴ In principle, the “re-enactment method” applies to *beliefs* as much as it is relevant for *desires*. The mechanism of translation and weighting are the same for both motivational components. However, applying the “logic of triangulation”, we will limit the “re-enactment method” in our PhD project exclusively to the strategic *desires* mapped with the help of “interest profiling”. As we have outlined above, the “operational code method” has developed an independent procedure to identify how different world views (A, B, C, and DEF-type) translate into *preferences* (ch. 4.2.1). Thus, once we have mapped an actor's *beliefs* with the “operational code method”, we are automatically bestowed with a hierarchy of preferences and have not necessarily applied the relatively demanding “re-enactment method”.

the problem of transforming survey motivation into strategic constellations was described already by Duncan Snidal in the mid-1980s. In his often-cited introduction to analytical game theory, he said that “[e]stablishing (...) correspondence between an issue area and its game model is the toughest problem confronting successful empirical application of game theory” (Snidal 1986: 40).¹⁹⁵ Identifying *preferences* is therefore an important methodic Achilles’ heel of Enlightened Rationalism.¹⁹⁶

The “re-enactment method” is crucial since it provides guidance and helps to avoid scholars becoming “lost in translation” when they endeavor to infer *preferences* from surveyed actors’ motivations. It helps to mitigate the risk of misinterpretation, since it impels scholars to transform the mapped *desires* (and *beliefs*) carefully and systematically into *preferences*.

When applying the “re-enactment method”, scholars have to “put themselves in the shoes” of the real-world actors they are analyzing. That is certainly a difficult and demanding task – particularly if asked to decipher the strategic thinking of actors (such as *atomic renegade states*) who are known to have deviating views from the mainstream perspective on world politics. However, since the intensive mapping of intentions is the necessary precondition for applying the “re-enactment method”, scholars are assumed to have gained sufficient insights into the mindset of the actors they are studying and are therefore able to put themselves “in their shoes”.

Covering both approaches of sequencing (“sequencing by translation” and “sequencing by weighting”), the “re-enactment method” is essentially a two-step approach. First, scholars have to replay the “translation process” and ask themselves how real-world players would have transformed their intentions into action-guiding *preferences* in a given strategic situations. Changes in the surveyed *desires* (and *beliefs*) are of particular interest since they are often likely to affect the translation process leading to new sets of *preferences*. Second, scholars also have to re-enact the “sequencing by weighting”. Apart from shifting *desires* (and *beliefs*), they also have to be sensitive to changes in the set of *opportunities*. As we have outlined in the Setup chapter in detail (ch. 2.5.3.3), decisive and profound shifts in the set of *opportunities* in given strategic situations are likely to affect the *perception* of *desires* (and *beliefs*) and make them appear “in a different light”.

The translation and weighting of motivations into *preferences* based on the “re-enactment method” allows us to model strategic constellations that are realistic (since they reflect the endogenic nature of actors’ *desires*), dynamic (since they grasp motivational changes and shifts in detail), and immunized against the “revealed preference problem” (since they are

¹⁹⁵ Against that background, it is disturbing that, apart from some exceptions (e.g. Aggarwal 1996), many scholars have paid little attention to this particular methodic problem.

¹⁹⁶ In the Libyan “hard case study”, we will show that the application of the “re-enactment method” preserved us from misinterpretation which we would have drawn on several occasion if we had not translated the mapped *desires* according to a strict guideline. For example, in the survey on U.S. motivation, we found that Washington’s strategic *desires* towards Libya were shifting in the early 1990s with the incoming Clinton administration. At first sight, it appears logical to infer a new strategic constellation from this “desire shift”. However, based on the “re-enactment method”, we come to the conclusion that this was not the case. The shift in Washington’s motivation was not decisive enough and was unlikely to translate into altering the hierarchy of *preferences* (for more details, see ch. 5.2.1.2).

exclusively based on a mapping of motivations and not on a tautology-prone analysis of actors' strategic behaviors). The "single hard case" study on Libya's NRN will show that the "re-enactment method" is keeping its promise. Applying this approach reveals that the Libyan-American negotiation process is, in essence, a five-stage strategic cascade built by four different game constellations (ch. 5.2.1.3).¹⁹⁷

4.4 The Least-Likely Case Selection

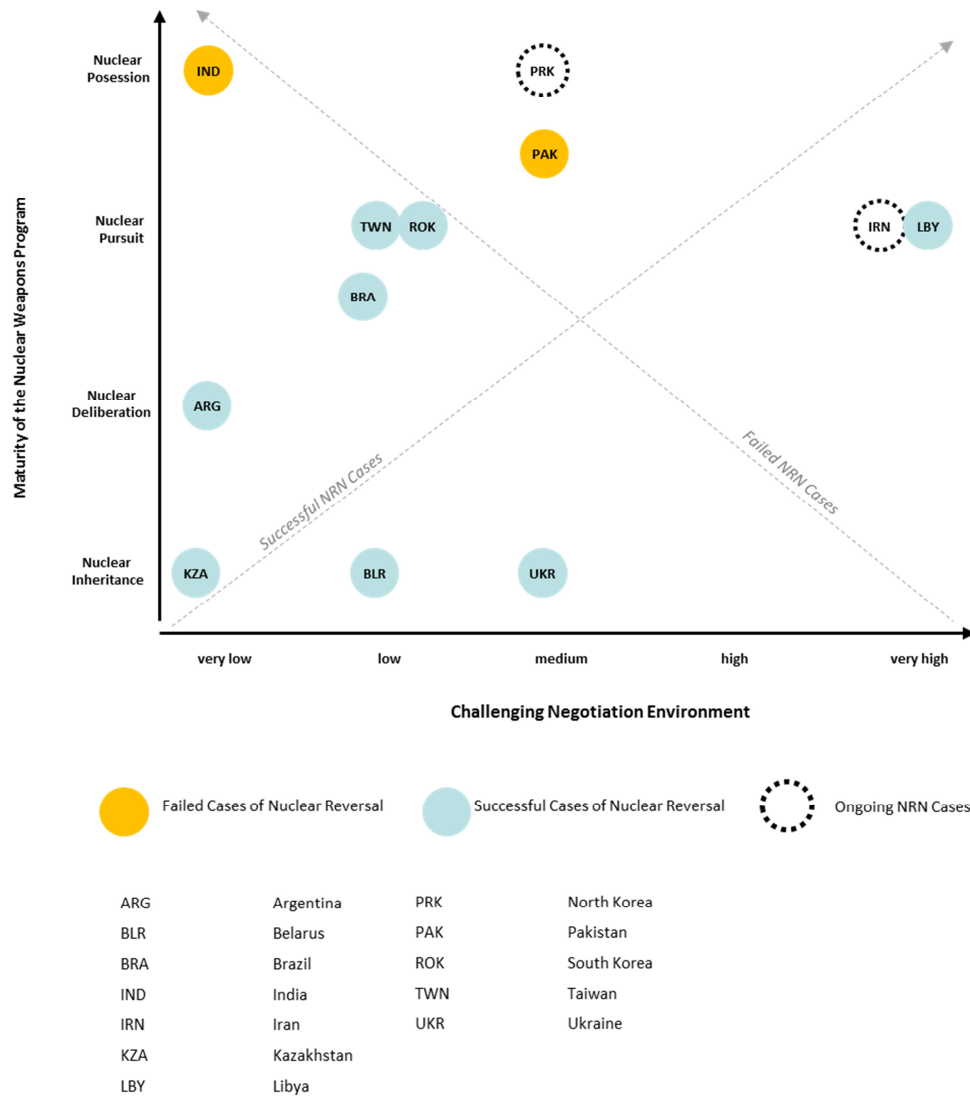
As we have explained in the introduction chapter (ch. 1.1), the Libyan case was selected by a "least-likely approach".¹⁹⁸ Among the 14 examples of NRN, the bargaining process on the Qaddafi regime's nuclear weapons program signifies the "hard case" – as a brief look at figure 17 clearly reveals. Given the relatively challenging and difficult strategic constellations, diplomacy had – *a priori* – relatively little chance to result in successful *nuclear reversal* in the Libyan case. In comparison to all other examples of NRN, the conditions for successful negotiation were particularly challenging and adverse in the U.S.-Libyan bargaining process. If we were unaware of the fact that the Libyan NRN was in the end a "diplomatic success story" and had to assess the likelihood of a positive negotiation outcome, we would have given the American-Libyan engagement the lowest chance.

The least-likely case selection we applied was essentially a three-step approach. First, we decided to take only successful cases into consideration. Second, we used the "maturity" of the nuclear weapons program as the first indicator for the "hard case" selection. Third, we introduce an ordinal index to assess the varying degrees of a "challenging negotiation environment". This index was used as the second indicator for the least-likely selection. The outcome of this three-step selection process is presented in figure 17.

¹⁹⁷ Having completed the "re-enactment method" and having modeled a strategic constellation, scholars will feel a strong desire to cross-check their findings by studying the behavior of the actors in a given situation. It is very understandable to ask "whether or not a modeled strategic constellation is really reflecting the actual interactions between the involved negotiation parties". However, evaluating the "re-enactment method" by studying behavioral patterns in a given strategic constellations is not a sound methodical approach. It leads us back to the "revealed preference problem" (ch. 2.5.3.2). Moreover, by analyzing the strategic behavioral patterns, we would only be able to identify cases of drastic errors. For example, studying the concrete actions of actors in a given strategic constellation would make it possible to tell the difference between a Deadlock Game and the Imposed Deadlock Game since these strategic constellations have a very similar pattern in behavioral terms (see also ch. 5.2.1.2). Since evaluating the performance of the "re-enactment method" by analyzing behavioral patterns is not possible, we have to apply a more subtle approach of cross-checking by a comparison with the "operational code analysis". Since the "operational code analysis" provides us with an independent, non-behavioral procedure to identify *preferences* and strategic constellations (as we have explained above), it could be used as a control instrument to verify the "re-enactment method".

¹⁹⁸ Apart from its "hard case" status, choosing Libya also has another advantage. As Maria Rost Rublee has pointed out, Libya is particularly interesting among the different cases of successful *nuclear reversal* because it is the only example where "the same dictator who gave the decision to set up the program was convinced to disarm it" (Rublee 2009: 151).

Figure 17: Least-Likely Case Selection



(1) Only Successful Cases of Nuclear Reversal: Negotiations aiming for a complete dismantlement of nuclear weapons programs were also conducted with *atomic renegade states* that continued their ambitions and crossed the nuclear threshold (India, North Korea, and Pakistan). Nevertheless, we decided to limit our case selection only to those cases where *nuclear reversal* was eventually successful.¹⁹⁹ Since we want to investigate the performance of *diplomatic design* with a “single case study approach”, it is relatively obvious that successful cases provide us with more insights than failed cases. Studying a failed case would only lead to “negative explanations”. We would primarily reveal findings about situations where *diplomatic design* was *not* successful and failed in terms of promoting *nuclear reversal*. That is, of course, interesting too. However “positive explanations” are generally preferable since they have more analytical value in light of our central research question.

¹⁹⁹ In our selection process, we included Iran and North Korea; two cases where the negotiations were still ongoing at the time of our analysis (2010-2015). Moreover, Spain and Algeria were also identified as examples of NRN. But since both cases are still heavily understudied (see Figure 2), we excluded them from our case selection.

(2) “Maturity” of the Nuclear Weapons Program: In the Setup chapter, we explained that nuclear weapons programs could be distinguished according to their “maturity” (ch. 2.2.1). We introduced three decisive stages of nuclear proliferation: “nuclear deliberation”, “nuclear pursuit”, and “nuclear possession”. Moreover, we said that there is the special case of “inherited nuclear weapons programs” which applied to the three post-Soviet Union states (Ukraine, Belarus, and Kazakhstan). These three states have not actively strived to create an atomic bomb. Instead, the nuclear weapons programs “fell into their laps” as a result of the chaotic demise of the USSR in the early 1990s.²⁰⁰

We presume that with growing maturity, the willingness to abandon nuclear weapons programs is decreasing. The likelihood of *nuclear reversal* is higher when *atomic renegade states* are still in the phase of “nuclear deliberation” than when they have already managed to proceed to the stage of “nuclear pursuit” or “nuclear possession”. This assumption is supported by findings we revealed when elaborating on the general patterns of the nuclear policy field (ch. 2.2.1). In the history of the atomic bomb, there was only one state (South Africa) that abandoned its atomic weapons program after having crossed the “nuclear threshold”. In terms of *nuclear reversal*, achieving the stage of “nuclear possession” represents in most of the cases the “point of no return”.²⁰¹ In addition to historic evidence, the assumption that nuclear “maturity” is a suitable indicator for “hard case” selection is also supported by the literature. We could identify three central arguments in that regard. First, it is irrational to dismantle a nuclear program which has already absorbed considerable resources and has a realistic chance of being realized (*rationalist argument*). Second, over time, nuclear weapons programs generate domestic pressure groups that support ongoing proliferation and oppose *nuclear reversal* (*systemic-bureaucratic argument*). In most cases, these pro-nuke veto players are constituted by an alliance of nuclear scientists, high-ranking military officers, and representatives of the national atomic industry (Cirincione 2005; Sagan 2000). Third, the quest of a nuclear weapons program is often likely to become a crucial element of national identity (*constructivist argument*). The strive for an atomic bomb and, even more, the possession of a nuclear arsenal is likely to become part of an *atomic renegade’s* national identity – a fact that makes *nuclear reversal* more difficult (Hymans 2006; Wisotzki 2002).

(3) Index of a “Challenging Negotiation Environment”: Nuclear “maturity” alone is not sufficient to apply a “hard case” selection on NRN. Apart from the nature of the nuclear weapons program, there are several additional factors that are likely to render NRN into a challenging diplomatic struggle – for example previous conflicts between the negotiation parties. Consequentially, we have surveyed the available literature on international negotiations and have integrated the different factors that are likely to complicate the bargaining process into a single index indicating the “challenging negotiation environment”

²⁰⁰ That is the reason why the three cases of “nuclear inheritance” were ranked in terms of “maturity” as the lowest category (Figure 17).

²⁰¹ In their analysis of past cases of *nuclear reversal*, Harald Müller and Andreas Schmidt made similar observations. They found that the duration of nuclear weapons programs is reducing the probability of *nuclear reversal* (Müller & Schmidt 2010: 149).

(Annex 2). This index was applied together with the “maturity” criterion in order to identify the least-likely case among the different NRN examples (Figure 17).

Screening the negotiation literature on challenging contextual situations, we could list four crucial indicators: (a) experience of previous conflict between the negotiation parties, (b) a low degree of bilateral trade, (c) no or few overlapping memberships in alliances and international institutions (d) and conflicting national identities (see Annex 2). We have a challenging “negotiation environment” when conflict experience and the dissimilarity of “national identities” between the negotiation parties is high and when bilateral trade and overlapping membership is low.

- a) Bargaining dynamics are assumed to be more challenging if negotiation parties were embroiled in conflicts in the past – particularly if these struggles were violent. As a consequence, it is likely that their relationship is marked by grievance and distrust. In order to code past conflict experiences, we have resorted to the COSIMO data set/Conflict Barometer provided by the Heidelberg Institute for International Conflict Research (<http://hiik.de/en/>). This data set has the advantage that it goes beyond fully-fledged warfare and also grasps lower intensities of state conflicts.
- b) Evaluating the intensity of *bilateral trade* between the negotiation parties builds on the assumption of interdependence and assumes that the general socio-economic interactions between two countries is increasing mutual understanding and interest for joint cooperation (e.g. Spindler 2006). In order to evaluate the nature of bilateral trade, we have used the Correlates of War data set (version 3.0) on dyadic trade constellations (Barbieri, Keshk&Pollins 2009; <http://correlatesofwar.org/data-sets/bilateral-trade>).
- c) Overlapping membership in alliance is another aspect that could ease bargaining dynamics. If negotiation parties are part of the same military alliance, they are assumed to share at least some security-related goals and objectives. None or only few overlapping memberships is instead a proxy indicating difficult negotiation constellations. In order to assess the degree of overlapping alliances, we used the data set on formal alliances provided by the Correlates of War Project (version 3.03) (Gibler & Sarkees 2004; <http://www.correlatesofwar.org/data-sets/formal-alliances>).
- d) Diverging “national identities” is also an aspect that is assumed to render diplomatic engagement more complicated (e.g. Faure 2003; Zick 2008). Since “national identity” is a relatively amorphous concept which is difficult to assess without detailed case-specific analysis, we used three different proxy yardsticks (different languages, dissimilar civilizations, and divergent socio-economy systems; for more details see Annex 2).

5. THE SINGLE “HARD CASE”: THE LIBYAN NUCLEAR REVERSAL NEGOTIATIONS

On December 19th 2003, the Socialist People’s Libyan Arab Jamahiriya announced publically its decision to voluntarily reverse its nuclear and chemical weapons programs, limit its missile capacity to the regulations of the MTCR (Missile Technology Control Regime),²⁰² adhere to the Chemical Weapons Convention (CWC) and to IAEA Additional Protocol, and to allow international inspectors to visit its hitherto clandestine WMD sites. This sharp turn in Libya’s foreign policy came as a surprise to most observers. Up to that point, Libya was the prototype of an *atomic renegade state*. The grim autocratic regime run by the eccentric dictator Muammar al-Qaddafi had a track record of supporting terrorist groups around the world, destabilized the North African region and pursued an illegal nuclear weapons program which was launched in the early 1970s.

Likewise surprising was the progress the Qaddafi regime had achieved in its efforts to acquire a military nuclear capability. Libya’s atomic weapons program was in late 2003 still in an embryonic stage. When Tripoli abandoned its WMD ambitions, it was still years away from a military deployable atomic bomb. Libya had neither produced nor acquired any significant amounts of nuclear weapon-capable uranium or plutonium. Nevertheless, Western observers and intelligence analysts were still astonished. While the Qaddafi regime’s chemical weapons program has been the focus of attention for years, the achievement Libya had made in particular since late 1990 in the field of nuclear weapons acquisition went mostly unnoticed. Much of the scope of the Libya’s nuclear weapons program had been detected by U.S. and UK intelligence rather as a by-product of the effort to disclose the A.Q. Khan network – a transnational smuggle network for nuclear weapons-related equipment and know-how which was led by the so-called “father” of Pakistan’s atomic bomb, Abdul Qadeer Khan, and which had acted as Tripoli’s major nuclear outfitter starting by the mid-1990s.

In this chapter will shed light on the question why the Qaddafi-regime chose to “come in from the cold” (Suskind 2006) and reversed its WMD programs. A brief glance at Libya’s nuclear disarmament reveals that bargaining and negotiation played an important role in the Qaddafi regime’s decision. According to our analysis, the diplomatic process started already in late 1987, continued through the 1990s in a rather hostile and antagonistic mode and eventually peaked in 2003 with a series of intensive disarmament talks held in secrecy between Libyan, U.S., and British officials.

With the help of our *fit taxonomy*, we can study the impact of 20 diplomatic design elements applied during the U.S.-Libyan negotiation process. We revealed that Libya was in

²⁰² Maximal range of missiles: 300 km; maximal payload of warheads: 500 kg.

the end “won” by diplomacy. The overall performance of *diplomatic design* is the most important explanation for Tripoli’s decision to abandon its WMD programs. Alternative explanations – non-diplomatic interventions or structural factors – played a certain role at some point in the American-Libyan diplomatic struggle. But, when taken in isolation, none of these rival factors could properly explain Libya’s disarmament.

However, before we start analyzing the “fit performance” of the various design elements and its alternative explanations (ch. 5.3), we will give at first an historical overview of the diplomatic process and the evolution of the Libyan nuclear weapons program (ch. 5.1). Afterwards we will set the parameters for the *fit taxonomy* which requires the mapping of the negotiating parties’ motivation by the “operational code” method (ch. 5.2.1.1) and the “interest profile approach” (ch. 5.2.1.2 and ch. 5.2.1.3), the translation of their intentions with the help of the “reenactment method” (ch. 5.2.1.4), and the elaboration on Libya’s *nuclear bad* based on the *public bad approach* (ch. 5.2.2).

5.1 The Evolution of the Libyan NRN & Tripoli's Nuclear Weapons Program

In the method chapter, we explained that “interpretative validation” is an important quality criterion since it allows transparency and objectivity (ch. 4.1). The central idea is to give the readers of qualitative research projects a chance “to form their own impression” of the studied phenomenon by providing them with an objective, fact-based description of the research objective. This is necessary since analysis, description, and conclusion are densely intertwined in qualitative research.

By providing an overview of the evolution of the U.S.-Libyan bargaining process with its different negotiation phases (ch. 5.1.1) and the genesis of the Libyan nuclear weapons program (ch. 5.1.2), we honor the criterion of “interpretative validation”. The purpose of the two following section is to give the readers a detailed description before we started the actual analytical part of our doctoral thesis.

5.1.1 The Evolution of the Libyan NRN – A Four-Stage Bargaining Sequence

On a late Sunday afternoon in March 2003, few days before the US lead Iraq invasion was launched on March 19, Muammar al-Qaddafi's second-oldest son, Saif al-Islam, made his appearance in a luxury hotel in London's chic Mayfair district. An elegantly dressed young man in his early 30s trained in western top-ranking university, Saif was regarded as his father most likely successor. Reportedly, Saif al-Islam was accompanied by Moussa Koussa, at that time head of the Qaddafi regime's external secret service. Stylish in appearance and as a graduate in Sociology from Michigan State University a fluent English speaker, Koussa was the central figure on the Libyan side throughout the diplomatic process on Tripoli's WMD programs. In the 1980s, Koussa had been one of the central protagonists of the Qaddafi regime's training and sponsorship program for left-wing and nationalists terrorist and guerilla groups around the world – including the IRA, the PLO, and the German RAF. Apart from personal involvement in the planning of the 1986 bombing of the West Berlin discotheque, La Belle, and the downing of the French airplane, flight UTA 772, in 1989 over Niger, he is believed to be one of the key figures behind the bombing of Pan Am 103 on 21st December 1988, which marked before 9/11 the terrorist attack which caused the highest number of casualties among U.S. citizens.

On that Sunday afternoon in March 2003, Saif and Koussa met with three senior British intelligence officers from MI6. Saif surprised his British interlocutors by offering a strategic dialogue with the West which should “clear the air about” WMD programs in Libya (Interview with R. Joseph 2011, Annex 16). It had not been two months ago, in January 2013, that the Libyan Foreign Ministry's spokesperson, Hassouna al-Shawesh, had publically dismissed Western concerns that the Qaddafi regime was striving for nuclear weapons as

mere CIA propaganda. Reportedly, everyone in the room was immediately aware that this was a message that was sent directly from Muammar al-Qaddafi. At the end of the meeting when the MI6 officials prepared to debrief 10 Downing Street about the conversation, Saif and Koussa conveyed to them that Libya would like to see also the White House informed about their offer (e.g. Tobey 2014; Miller 2006; MacLeod 2006; Frantz & Meyer 2005; Joseph 2009; Frantz & Collins 2007: 304).

On March 2003 the Qaddafi regime proposed WMD talks but it was neither offering to disarm its unconventional weapons program nor was it admitting its quest for atomic bombs. Tripoli's *nuclear reversal* was instead the outcome of an intense diplomatic engagement achieved through a series of secret meetings and conversations which took place at various venues throughout the year 2003 and which involved Libya, on the one side, and the US and the UK on the other side. The breakthrough was eventually achieved in late December 2003.

The disarmament agreement had been finalized in a negotiation session held in London on 16th December 2003. The public announcement of the deal had been scheduled for 19th December. The West had put particular emphasis on the fact that Muammar al-Qaddafi himself would give publically his personal consent to the achieved agreement. As the evening growth later on 19th December, the US President George W. Bush in Washington and the British Prime Minister Tony Blair in London were anxiously awaiting with their close entourages whether the Libyan dictator would keep his promise. The UK Ambassador to *Great Socialist People's Libyan Arab Jamahiriya*, Anthony Layden, had to call in constantly and had to report on the current situation in Tripoli. The Libyan State TV was still showing a soccer match. No statement on WMD had been made so far. Eventually, in the late night news the Libyan foreign minister, Abdel Rahman Shalgham, announced the disarmament agreement. Immediately after his statement a brief sequence was slotted in showing the Brother Leader, Muammar al-Qaddafi, who was endorsing the agreement his Foreign Minister had just announced. Qaddafi called the decision to reverse the Libya's nuclear weapons program a "wise and brave step that merits the support of the Libyan people." Reportedly, relief was high at the White House and at 10 Downing Street (e.g. Beaumont, Kamal & Bright 2003; Joseph 2009). At the same evening shortly after 10 p.m. (London time), George W. Bush and Tony Blair both gave statements welcoming Libya's *nuclear reversal*. The U.S. President made clear that Tripoli had now "begun the process of rejoining the community of nations" which would allow the North African state to "regain a secure and respected place among the nations, and over time, achieve far better relations with the United States" (Bush, Dec. 13, 2003). While Bush uttered caution in its statement by emphasizing that the US "will be vigilant in ensuring" that Libya "lives up to all its responsibilities", Tony Blair was more welcoming to the Qaddafi regime's decision. He expressed that "[t]his courageous decision by Colonel Gaddafi is an historic one" (Blair, 19. Dec. 2003).

These two events – the conversation between MI6 officials with Saif al-Islam in London and the public announcement of the disarmament deal – mark the two most important milestones in the diplomatic engagement with the Qaddafi regime on its WMD program. It

is, therefore, little astonishing that these two crucial episodes were described in relative detail in the press and in the relevant literature (e.g. Beaumont, Kamal & Bright 2003; Frantz & Meyer 2005; Joseph 2009; Tobey 2014; MacLeod 2006). However, it shall not blur the fact that the U.S.-Libyan bargaining process on the Qaddafi regime's WMD programs started already in the late 1980s. While, back then, chemical weapons were more at the focus of the American-Libyan diplomatic struggle, it is still crucial to take this early episode into account since it builds the fundamentals for the late direct disarmament talks.

Due to its obvious complexity and lengthiness, it appears pertinent to study the Libyan NRN in a "phased approach". Taking the shifting behavioral pattern and changing actors' constellation into account we suggest dividing the U.S.-Libyan into four distinct episodes:

- (1) In the *pre-negotiation phase* (December 1987 - March 2003) the United States and the Qaddafi regime had almost no direct diplomatic intercourse concerning the WMD issue. Communication took place only indirectly through intermediaries and go-betweens. By and large, this episode was marked by a confrontational behavioral pattern. Nevertheless, the question whether or not exploratory talks on Libya's WMD should be started arose in the *pre-negotiation phase* already at a relatively early stage. Only when both sides finally made up their mind and gave "green light" to explorative talks by spring 2003, the bargaining process transformed into the *pre-agreement phase*.
- (2) In the *pre-agreement phase* (March - December 2003) Washington and Tripoli established a direct back-channel talks which were staged primarily by intelligence officers. At that point, British representatives became involved in the process. The central challenge that characterized this diplomatic phase was the question whether the involved players could reach a common understanding which would allow the start of direct negotiations on a final disarmament agreement. When both sides came to "positive vote", the diplomatic process moved forward from the *pre-agreement phase* into the *agreement phase*.
- (3) The *agreement phase* (December 2003) was marked by direct negotiations on the disarmament agreement. The United States and the Qaddafi regime were confronted with the decision whether or not to go the last step and give consent to such an accord which would initiate Libya's *nuclear reversal*.
- (4) The public announcement of Libya's *nuclear reversal* was the starting point of the *post-agreement phase* (2004 onwards). This diplomatic episode was marked by the implementation of the disarmament agreement. To abide by the negotiation accord or to return to unilateral actions was the central strategic question that Washington and Tripoli had to answer for themselves.

In the following section, we will elaborate on these four phases in detail in order to provide an overview on the evolution of the Libyan NRN.

5.1.1.1 Pre-Negotiation Phase (December 1987 - March 2003)

On Christmas Eve 1987 a group of senior intelligence officials revealed to the New York Times under the veil of anonymity that Libya was searching a WMD capacity (Gordon 1987). The story disclosed the Qaddafi regime's effort to build a plant for the production of chemical warfare agents.²⁰³ It is unlikely that the New York Times article was a smart plot of investigative journalism leaking intelligence information to the public (e.g. Terril 1994: 47-8; Wiegel 1992: 21). Given the number of involved senior officials, the detailed information that were disclosed, and the highly symbolic publishing date, this article was most likely an orchestrated initiative by the Reagan administration. In that sense, the New York Times article represents the first direct action undertaken by the U.S towards Qaddafi regime's ambition for WMD. Christmas Eve 1987 was the starting point of the Libyan NRN.

In the beginning, the Qaddafi regime reacted vigorously against the U.S. charge and rejected all accusations. In the early 1990s Libya, however, adjusted its approach (e.g. Terrill 1994; Wiegler 1992). Tripoli started to launch various back channel initiatives executed by different kinds of intermediaries with the objective to establish a direct channel of communication with the United States. The first initiative in that regard that we know of was undertaken in January 1992 when the Qaddafi regime approached William Rogers, former Undersecretary of State for Economic Affairs under the Ford Administration (e.g. Bowen 2006: 90; Frantz & Collins 2007; Slavin 2004; St. John 2003: 464; Viorst 1999: 73). One month later Tripoli made a similar approach searching the help of the former Senator Gary Hart (Hart 2004). According to Wayne White, who worked during that time at U.S. State Department Bureaus of Intelligence and Research Office, the Bush senior administration were at that time receiving a "stream of people" who all were acting as intermediaries for the Qaddafi regime. All of them were trying to establish a direct contact between Tripoli and Washington (Interview with W. White 2012; Annex 16).²⁰⁴ Martin Indyk, responsible for Middle East policy at the State Department during Clinton's presidency, reported the same observation: "There were plenty of instances where he [Muammar al-Qaddafi] was trying all sorts of backdoor ways to try to get to the White House" (Interview with M. Indyk 2011; Annex 16).

Certainly, not all of these offers had the WMD issue on the agenda. The central intention of the Qaddafi regime was a general improvement of the tense and hostile U.S.-Libyan ties. However, the historical evidence suggests that a fair amount of the Libyan back-channel approaches assigned WMD a special role for a future diplomatic encounter with the United States (e.g. Hart 2004). Regardless of the question how sincere Tripoli's proposals really

²⁰³ Already in summer 1987 the U.S. media reported the alleged use of chemical weapons by Libyan forces against Chadian troops in the war on the Aouzou strip. In the wake of these reports the U.S. military provided Chadian troops with 2.000 gas masks (Sciolino 1987a). In addition, starting in September 1987 alleged shipments of Iranian chemical weapons to Tripoli were also reported in the Western press (Ottaway 1987; Sciolino 1987b). In 2004 the Organization for the Prohibition of Chemical Weapons (OPCW) revealed that Libya indeed produced from 1989 to the late 1990 approx. 25 tons blister warfare agent at a plant which later became known as the Rabta facility located about 95 km south of Tripoli (Tucker 2009).

²⁰⁴ The State Department received so numerous initiatives from the Qaddafi regime that a special file was set up which eventually became "about three or four inches thick" (Interview with W. White 2012; Annex 16). Internally at that State Department this file was dubbed as the "wanna be file" since all the proposed initiatives were eventually rebuffed by the U.S. administration.

were, these initiatives put the option of explorative talks on Libya's WMD programs at the table. The question whether such a diplomatic process should be started remained the central theme of the entire *pre-negotiation phase*.

However, despite Libya's diplomatic reach outs, the United States applied a non-cooperative approach and refused to respond to the Qaddafi regime's offers for explorative WMD talks. It took until May 1999 until Washington took the first step towards a diplomatic process with Libya. Since the rupture of its diplomatic ties with the North African country in the 1980s, the United States engaged for the first time in direct negotiations with representatives of the Qaddafi regime. The content of these talks was not WMD but Libya's involvement in the bombing of flight Pan AM 103 in December 1988 over the Scottish town Lockerbie and the compensation of the victim families. However, at the sidelines of the first meeting which were held in utmost secrecy, Libya renewed its offer to dismantle its unconventional weapons program. Tripoli declared that it was willing to join the recently brokered Chemical Weapons Convention (CWC), and to open its facilities to international inspections. The Libyan repeated their WMD proposal in October 1999 when the "Lockerbie talks" continued. At these two occasions, the United States reacted for the first time to the Libyan offer. Instead of rejecting the proposal as it was done in the past, the US delegation – led by Martin Indyk – made clear to the Libyans that WMD would be on the agenda of future U.S.-Libyan engagements but only after the Lockerbie issue was resolved (Bowen 2006: 59; Frantz & Meyer 2005; Indyk 2004; Interview with M. Indyk Nov. 2011, Annex 16).

In the end, it took both sides until March 2003 to give diplomacy on WMD a chance. When Saif al-Islam renewed again the Libyan offers for talks, the United States eventually gave "green light". Reportedly, the British Prime Minister Tony Blair himself lobbied for that step when he met Georg W. Bush in late March 2003 at Camp David. At the sidelines of this meeting, which was primarily focused on Second Iraq War, the two leaders together with their foreign policy advisor – Sir David Manning and Condoleezza Rice – discussed the Libyan proposal (e.g. Tobey 2014; Suskind 2006). However the actual decision to get involved with Libya on WMD was presumably taken in mid-April 2003 in an Oval Office meeting which were attended beside the US President George W. Bush and the Vice President Dick Cheney by George Tenet (CIA Director) and Stephen Kappes (Deputy Director of Operations at CIA) (e.g. Suskind 2007: 222-3; Frantz & Collins 2007: 306; Tenet 2007: 288-9; Tobey 2014; Tucker 2009: 364).

5.1.1.2. Pre-Agreement Phase (March – December 2003)

With the positive veto of George W. Bush given in April 2003, the *pre-negotiation* phase came to an end, and the diplomatic process entered into the *pre-agreement*. In the following months Libya and the United States – supported by officials from the U.K. – hold a series of secret meetings at various venues across Europe. On the U.S. side, Stephen Kappes was chosen to handle the initial rounds of talks with the Libyans. His British counterpart in these conspiratorial meetings was Sir Mark Allen, chief of the counterterrorism unit at MI6. On the Libyan side, Moussa Koussa was the key player. He was accompanied by Mohammed Azwai, the Libyan ambassador to the United Kingdom, and Abdellati Obaid, the

Qaddafi regime's ambassador to Italy (e.g. Interview with T. Dowse Jan. 2012; Interview with R. Joseph 2011; Annex 16).

Starting from the very first meeting, which took place already in April 2003 in Geneva, the central theme of these secret tripartite meetings was to sound out ways and means for direct negotiations on a disarmament agreement. Both sides – the members of Qaddafi regime and the UK-US team – pondered each for their part the question whether or not to start negotiations for a disarmament agreement. Thus, preparing for final negotiations was the major focus of this period.

Throughout spring and early summer 2003, the talks revolved about the possible content and structure of such a future negotiation process (e.g. Tenet 2007: 289-90; Tobey 2014; Suskind 2006). However, by summer 2003 the *pre-agreement phase* turned into an impasse. Little progress was made. Important aspects that were necessary to prepare for a final negotiation process were still unsettled (e.g. Evans 2004; Suskind 2007: 266). According to Ambassador Robert Joseph, Director for Counter-Proliferation at the National Security Council, the diplomatic process with Libya was at that time still “very amorphous” (Interview with R. Joseph 2011, Annex 16).²⁰⁵ Moussa Koussa continued to reiterate the offer that had already been made in March 2003 – “to clear the air about WMD Libya.” No efforts were made to specify this proposal (Interview with R. Joseph 2011; Interview with T. Dowse 2012, Annex 16). Even when Kappes and Allen had the chance to talk directly to Muammar al-Qaddafi in August 2003 the *pre-agreement phase* was – apart from atmospheric improvements – not gaining momentum (e.g. Joseph 2009: 6-7; Frantz & Meyer 2005; Tenet 2007: 292). At the second meeting held in September 2003, the Libyan dictator agreed at least “in principle” to the U.S. request for technical visits to the Libya's clandestine WMD sites – Washington's precondition for direct NRN with Tripoli. But the conditions and details of such a fact-finding missions to Libya including a concrete date remained unsettled (e.g. Joseph 2009: 7). Reportedly, Tripoli's continuing maneuvering led to increasing concerns in Washington and London. Doubts were rising whether the Libyans were sincerely willing to engage in a diplomatic process (e.g. Tennen 2007: 292).

The *pre-agreement phase*, however, gained new momentum when cargo vessel owned by a German logistic company, the BBC China, was intercepted on its way from Dubai to Tripoli on a joint U.S.-UK intelligence operation and was ordered into the Southern Italian harbor, Taranto. Having been tipped off by an informant who had acquired an important position within the A.Q. Khan network, the U.S. and UK intelligence officers knew what they searched for when they inspected the ship on October 4. In five standard 40-foot shipping containers the BBC China had loaded a delivery for the Qaddafi regime: components of centrifuges determined for the enrichment of weapons-grade uranium, worth of tens of millions of US dollars, manufactured by the A.Q. Khan network at a secret plant in Malaysia (Frantz & Collins 2007: 309; Evans 2004; Bowen 2006: 66; Wright 2004).

²⁰⁵ In similar veins, a US senior official who had been interviewed by the Los Angeles Times in preservation of anonymity made clear that “the Libyans were” by summer 2003 “not admitting they had a nuclear program (...) they were being coy” (Frantz & Meyer 2005).

The BBC China incident changed the character of the *pre-agreement phase*. At their next meeting with Muammar al-Qaddafi, which was already arranged at October 7, four days after the interception of BBC China, Steven Kappes and Sir Mark Allen received permission by the Libyan leader to conduct a fact-finding mission to the clandestine sites of the Libyan WMD program. That Muammar al-Qaddafi had personally given “green light” to technical visits increase confidence in London and Washington – although skepticism was still very present (e.g. Joseph 2009: 7; Suskind 2006).

In October (19 - 29 October 2003) a joint team of CIA and MI6 WMD experts visit several places in Libya. At the second visit, which took place in early December (1 - 12 December 2003), Libya were even more open. The 15 members of the British-American team were granted with wide access and were permitted to obtain detail information about Libya’s WMD programs (e.g. Interview with Tim Dowse 2012, Annex 16). Towards the end of the second visit, Libya clearly signaled its willingness to disarm its WMD programs and agreed in principle to allow OPCW and IAEA inspections. This crucial decision paved the way for direct negotiations on a final disarmament agreement and brought the *pre-agreement phase* to an end. A negotiation session was scheduled for the 16th December 2003.

5.1.1.3 Agreement Phase (December 2003)

Although Tripoli and Washington had already weathered several challenges in the previous episodes of the negotiation process, the *agreement phase* was still demanding. The United States and the Qaddafi regime were confronted with the decision whether or not to go the last step and give consent to a final disarmament agreement which would not only initiate Libya’s *nuclear reversal* but would also lift the cloak of secrecy and present the outcome of the U.S.-Libyan diplomatic engagement to the global public. It took substantial effort to eventually arrive at a joint consensus.

Since the stakes were rising in the *agreement phase*, the diplomatic process was elevated on the Western side to the political level. While the intelligence officers, who had run the *pre-agreement phase*, were still involved, the White House was now in the driver seat. The Bush administration designated Robert Joseph, senior director for nonproliferation at the National Security Council, as head of the U.S. delegation and similar happened in the UK. London was now represented by Sir William Ehrman, a senior career diplomat with thirty years’ experience in foreign affairs.

The decisive meeting was held on December 16 in London. The intense negotiations, which went on the entire day, focused on the text of the public statement that would announce Libya’s *nuclear reversal*. After hours of back and forth, both sides eventually arrived at a consensus. It was agreed that Libya would publically announce the destruction of its nuclear and chemical weapons program, put the dismantlement effort under the supervision of the IAEA and the OPCW, eliminate its ballistic missiles with a range beyond 300 km range and a payload of 500 kg, sign the IAEA Additional Protocol, accede to the CWC and the MTCR, and allow immediate inspections to verify these actions. Moreover, all three sides agreed that the most sensitive parts of the Libyan WMD programs shall be removed from Libya for destruction – namely all uranium enrichment centrifuges and

associated equipment, all weapons-capable materials, and all documents and records related to the production of atomic bombs and their delivery systems. That the United States and also the UK agreed to welcome Libya's decision publically was the essential takeaway point for Moussa Koussa and his team. Likewise important for the representatives of the Qaddafi regime was the promise that Libya's disarmament would depict Libya's *nuclear reversal* as a voluntary decision taken by free will (e.g. Joseph 2009: 127).

When the meeting ended in the late evening hours, the Western representatives were uncertain if Moussa Koussa and his team would be able to convince Muammar al-Qaddafi of the just negotiated deal. It was obvious that the Libyans could hardly "go back to normal" and continue their nuclear program after they had allowed Western experts visit its clandestine WMD facilities. However, Washington and London had concerns that Tripoli could nevertheless back off the achieved agreement. However, the Libyans were concerned too. In light of the Second Iraq War, Tripoli still had not got over the fear that Washington would, in the end, turn its back on the diplomatic engagement and use Libya's public acknowledgment of WMD as a justification for military actions.

In the following days until 19th December 2003 – the date that had been scheduled for the public announcement – intensive haggling over the wording of the actual statements took place. After some back and forth, which also involved a direct phone call between Prime Minister Tony Blair and Muammar al-Qaddafi, the script for the public announcement was eventually agreed. The Libyan foreign minister, Abdel Rahman Shalgham, would read the disarmament statement on the Libyan State TV followed by Muammar al-Qaddafi's public endorsement of the decision. Afterward, Tony Blair and George W. Bush would give statements in their capitals welcoming Libya's *nuclear reversal*.

5.1.4. Post-Agreement Phase (2004 - 2011)

With Libya's announcement to reverse its WMD programs the diplomatic process entered into the *post-agreement phase*. The central task was to implement the disarmament agreement. The diplomatic engagement continued – although it was limited to occasional meetings set up to address remaining diplomatic problems.

The *post-agreement phase* was marked by the dismantling and the removal of the most sensitive parts of Libya's WMD program – a process which started already on 18th January 2004. On that day, a joint team of 15 British and US experts was dispatched to Tripoli with the mission to assemble the most dangerous components of the Qaddafi regime's WMD program and remove them from Libya by plane (Frantz & Meyer 2005; Mahley 2004). Apart from enriched uranium, L-2 centrifuges, and guidance kits for Scud-C missiles, the most sensitive that the US-UK team amassed in January 2004 was a plastic bag filled with 60 to 70 sheets of nuclear weapons design – an item Libya had received from their supplier in Pakistan, the A.Q. Khan network. On 28th January 2004 a US Air Force cargo plane whose markings had been painted over landed at a military airport outside of Tripoli and loaded all the items the expert team had assembled on board and shipped them in a direct flight to the National Laboratory at Oak Ridge (Tennessee).

This airlift was the first part of the removal efforts and the second act began in early spring 2004. This time, the residual elements of the Qaddafi regime's nuclear and chemical program as well as its longer range ballistic missiles material were shipped to the US. In March 2004, the *Industrial Challenger*, a cargo vessel was cast off the harbor of Tripoli with more than 1.000 tons of equipment from the Libyan WMD program including five long-range Scud missiles the Qaddafi regime had once bought from North Korea (Frantz & Meyer 2005). With these two shipments, most of the Libyan WMD program was eliminated. The remaining elements of the Qaddafi regime's nuclear and chemical weapons program had minor priority and were later destroyed on Libyan soil under the supervision of the OPCW and the IAEA.²⁰⁶

A fact that made the *post-agreement phase* distinct apart from the central focus on the implementation of the negotiated disarmament accord was the changing constellation of actors. The process was handed over from the high ranking political and diplomatic sphere to practical operators and experts.²⁰⁷ Moreover, the spectrum of players was extended by spring 2004 when the IAEA and the OPCW became actively involved in this process (Bowen 2006: 75ff; Boureston & Feldman 2004).²⁰⁸

It is difficult to name the exact ending of the *post-agreement phase*. The year 2008 marked certainly an important historic threshold. The American-Libyan relations had by that time achieved a state one would describe as "normal" – although it would be an exaggeration to call them "amicable." The rapprochement Washington and Tripoli had achieved was underpinned by a visit Condoleezza Rice (at that time Secretary of State) paid in September 2008 to Libya – an "historic moment" as it was the first stopover of a high-ranking U.S. politician since John Foster Dulles, Secretary of State under at the Eisenhower administration, had traveled to Libya in 1953. However, since the WMD issue was even after 2008 lingering on (in particular if we take the unfinished destruction of Libya's chemical weapons arsenal into account and occasional setbacks in the removal of nuclear weapons-related materials) it makes more sense to take summer 2011 as the end of the *post-agreement phase* when rebel forces toppled the Qaddafi regime.

²⁰⁶ After the fall of the Qaddafi regime in 2011 it was disclosed that a certain amount of chemical weapons – mainly artillery shells filled with the blister warfare agent Sulfur Mustard – had remained at a store in a remote area in the Libyan Desert. Tripoli had never indicated neither to the US and the UK nor to the OPCW the existence of this arsenal.

²⁰⁷ In the United States the Libya's nuclear disarmament was by that time run by an interagency unit, the so-called "Proliferation Strategic Policy Coordination Committee" (Wing & Simpson 2013).

²⁰⁸ Moreover, the *post-agreement phase* was also the time where the Qaddafi regime undertook several steps to re-integrate into the institutional architecture of the *global nuclear order*. Already in January Libya had ratified the Comprehensive Nuclear Test Ban Treaty and thereby underscored its willingness to remain from now on a nuclear weapons free state. In March 2004 Libya signed the IAEA Additional Protocol and thereby formally gave the Vienna based nuclear watchdog organization extended rights to oversight its nuclear related activities. One year later, in March 2005, Libya also jointed the African Nuclear Weapons Free Zone by ratifying the Treaty of Pelindaba (Cirincione, Wolfsthal & Rajkumar 2005). Already in February 2004 Libya became an official party to the CWC.

5.1.2 Libya's Nuclear Weapons Program

When Muammar al-Qaddafi seized power in September 1969 the decision to “go nuclear” was quickly taken. The new leadership in Tripoli had apparently little concern to act against the international norm of nuclear restraint prescribed by the NPT – a treaty King Idriss had signed in 1968. Above in the Setup Chapter, we have explained that the period of “nuclear deliberation” was in many historic cases of nuclear proliferation relatively long (Figure 2). The Qaddafi regime, however, passed through this stage swiftly. Already in the 1970s the new leadership in Tripoli entered into the phase of “nuclear pursuit” and took concrete action to build up a nuclear weapons program.

Despite a clear intention to acquire atomic bombs and sufficient oil money to put this desire into practice, the history of Libya's nuclear weapons program is – by and large – a history of failures and setbacks. Hampered primarily by the lack of the necessary domestic technological and scientific capabilities as well as the necessary management competence, Libya's nuclear efforts made little progress in the 1970s and 1980s (e.g. Braut-Hegghammer 2006: 60; Bowen 2006: 25; Jasper 2014: 125).²⁰⁹ The picture started only to change by 1990 when Libya intensified its cooperation with the A.Q. Khan network (Corera 2006; Frantz & Collins 2007; Fitzpatrick 2007). Libya was still years away from a deployable atomic bomb when the final decision for *nuclear reversal* was taken in December 2003. When Mohammed el-Baradei – at that time General Director of the IAEA – visited Libya's nuclear sites in late December 2003 he estimated that it would have taken three to seven additional years until Libya had gained an operational nuclear weapon (Cirincione et.al. 2005: 320; Tyler 2003). Tripoli had neither enriched any weapon-grade uranium nor had it designed a nuclear explosive device (IAEA 2004b: 2; Mahley 2004: 2). Furthermore, Libya had no aircraft capable of delivering nuclear weapons and possessed only very few Scud-C missiles which could reach parts of Southern Europe.²¹⁰

However, although standstill and setbacks were the major characteristics of the Libyan nuclear program, we could nevertheless distinguish three distinct phases of the Qaddafi regime's atomic ambition: (1) the Qaddafi regime arduous search for external nuclear suppliers in the 1970s (2) the period of stagnation from the 1980s to the mid-1990s (3) the revival of Tripoli's nuclear weapons program due to the cooperation with the A.Q. Khan network starting by the late 1990s.

5.1.2.1 The Qaddafi Regime's Arduous Search for External Nuclear Suppliers

The Qaddafi regime's first reported attempt to acquire a nuclear weapon was already in 1970 when Muammar al-Qaddafi's confidant, Major Abdul Salam Jalloud, traveled to China in order to convince Beijing to sell Libya a turn-key read atomic bomb (e.g. Richelson 2006:

²⁰⁹ According to Dany Shoham Libya was “technologically, in terms of genuine domestic capabilities (...) the most backward state in the Middle East” (Shoham 2004).

²¹⁰ The linear distance between Tripoli and Palermo/Sicily is for example around 450 kilometer. This range was only doable by the few Scud-C missiles (600 kilometers range, 700-kilogram payload). The other missiles Libya had in its arsenals had a far lower range (several Soviet Scud-B missiles (300-kilometer range, 700-kilogram payload) dating from the 1970s and the indigenously developed Al-Fatah missile (200 kilometer range).

325; Spector & Smith 1990: 367). China turned down the naïve Libyan request and the Chinese Prime Minister Zhou Enlai reportedly said to the Major Jalloud: “Sorry (...) but China obtained the bomb through its own efforts. We believe in self-help” (cited at Cooley 1982: 230).

Jalloud’s visit to China marked the prelude of an arduous decade-long search for external nuclear suppliers. While only limited efforts were undertaken to develop a domestic nuclear infrastructure, Libya’s focus was clearly on buying critical technology and know-how from abroad. But despite all its oil money, the North African country was not able to establish an enduring and reliable relationship with potential nuclear outfitters. Tripoli’s nuclear shopping tours to Argentina, China, France, India, Yugoslavia, and the United States all remained futile (Bowen 2006: 27-8 and 33; Hymans 2012: 241).²¹¹ Concerning Egypt, Pakistan, and the Soviet Union, the Qaddafi regime had more luck. But these cooperations too remained limited either because changes in the political landscape of the supplier states and deteriorating ties with Libya (i.e. the case of Pakistan and Egypt) or because the suppliers remained cautious and were not ready to relent to Tripoli’s demand (i.e. the case of the Soviet Union).

In the early 1970s, Libya was able to recruit a fair number of Egyptian nuclear experts and scientists – among them Ezzat Abdel Aziz and Salah Hedyat, who had acted previously as a nuclear advisor for the Egyptian President Nasser (Bhatia 1988: 66-7). Direct transfer of sensitive technology from Egypt to Libya was less important than the input of know-how and manpower. Generous salaries, free housings, and convenient working conditions were a crucial factor in Libya’s recruitment efforts (Cooley 1982: 231; Wing & Simpson 2013: 103). The Egyptian connection, however, lost relevance when Anwar as-Sadat took over the power in Cairo after Gamal Abdel Nasser’s died in September 1970. In the light of growing rivalry between the neighboring countries, the nuclear cooperation became more and more hampered. Although individual Egyptian scientists and engineers played an important role throughout the history of the Libyan nuclear weapons program, the Egyptian connection was terminated in 1974 when it was revealed that Libya had backed an assassination plot against Sadat (Bhatia 1988: 66).

The Libyan-Pakistani nuclear cooperation took a similar development. Bolstered by the good personal relationship between Muammar al-Qaddafi and the Pakistani Prime Minister Zulfikar Ali Bhutto, Tripoli and Islamabad reportedly signed in February 1974 a secret nuclear agreement (e.g. Cooley 1982: 232; Jones 1981: 48-9). It is assumed that Libya

²¹¹ For example, in 1973 Tripoli tried to purchase enrichment technology from a French company, only to be down turned by the French Government (Bhatia 1988: 67; Wing & Simpson 2013: 103). The Libyan request to acquire a complete nuclear reactor system and highly enriched fuel rods from the U.S. Company “Gulf and General Atomics Corporation” was blocked by the State Department and the Congressional Joint Committee on Atomic Energy (Cooley 1982: 230-1; Spector 1984: 151). The attempt to win Argentina as supplier for nuclear equipment and training in 1974 remained fruitless as well as another request to China for critical technology (Litwak 2007: 189; Bowen 2006: 27-8 and 33). A preliminary agreement with France achieved in 1976 on the provision of a 600-megawatt power reactor was eventually called off due to increased proliferation concerns (Wing & Simpson 2013: 104). And the “Agreement on the Peaceful Use of Nuclear Energy” signed between Libya and India in July 1978 came to an abrupt end when Tripoli insisted on direct support for the development of a nuclear bomb (Bhatia 1988: 68; Cordesman 1991: 152; Office of Technology Assessment 1984: 397; Spector & Smith 1990: 1975-88; Cooley 1982: 232-3).

invested as much as US \$500 Million into Pakistan's efforts to build a nuclear weapon in exchange for gaining later full access to the achievements of the program (e.g. Koppe & Koch 1990: 45; Spector & Smith 1999: 176; Weissman & Krosney 1981: 60). Furthermore, it was reported that around 450 tons of yellowcake – powdered uranium ore and the precursory product for enriched uranium – coming from Niger had been shipped to Pakistan via Libya (Sidhu 1996: 279).²¹² However, the relatively high amount that Libya invested into the Pakistani nuclear program was not paying off in the end.²¹³ The Pakistani-Libyan friendship cooled quickly when President Bhutto was overthrown by a military putsch in 1977 and later executed. The relationship between the new Pakistani President General Zia-ul-Haq and al-Qaddafi was tense from the start. Correspondingly, the nuclear cooperation between Pakistan and Libya quickly came to an end. All attempts to revive the Libyan-Pakistani nuclear relationship failed (e.g. Jones 1981: 48-49; Wright 1981: 41).²¹⁴

As all other potential nuclear suppliers eventually refused to cooperate, the Qaddafi-regime finally turned to the Soviet Union. Although Muammar al-Qaddafi disdained Moscow because of its “imperialistic attitude” and its anti-religious stance (Ronen 2008: ch. 4; St. John 2003: 472), the Soviet Union became the most important external actor in Libya's nuclear policy in the following years until the A.Q. Khan network took over this position by the mid-1990s (Wing & Simpson 2013: 105).²¹⁵ Moscow shipped a 10-megawatt-research-reactor (IRT-1) which was installed at the nuclear research center in *Tajoura* near Tripoli and put into operation in August 1981 (Office of Technology Assessment 1984: 395). However, as with other atomic outfitters, Moscow was cautious due to Libya's nuclear ambitious. The Soviet Union provided exclusively civil nuclear technology, set up additional security measures at the *Tajoura* research site, and insisted on a safeguard agreement with the IAEA, which ensured close monitoring of the IRT-1 reactor by the Vienna-based watchdog organization (e.g. Bowen 2006: 28-9).²¹⁶ As a result of Moscow's caution, the research reactor in *Tajoura* played only a minor role in Libyan nuclear ambitions. It was only used several times for experiments on plutonium production (e.g. Litwak 2007: 189).

5.1.2.2 Period of Stagnation

While some efforts to gain external support were more promising than others, it nevertheless dawned on Tripoli starting by the late 1970s that the entire strategy to assemble nuclear weapons-related technology and know-how from foreign outfitters was

²¹² The steady increase of Pakistani scientists that visited Libya since the mid-1970s is another indicator of the flourishing Libyan-Pakistani connection (Bhatia 1988: 67).

²¹³ Harald Müller has pointed out that the only positive impact of the “Pakistani connection” was that it laid the foundation for the later cooperation with the A.Q.-Khan network (Müller 2006: 7)

²¹⁴ Muammar al-Qaddafi demanded that Pakistan should quit the pro-Western “Central Treaty Organization” (CENTO) and join instead the “Non-Aligned Movement” (NAM). Furthermore, the Qaddafi regime wanted more effort from Pakistan in the support of the anti-Shah protests in Iran. When Zia refused to fulfil the Libyan demands, Qaddafi started to attach conditions to the financial investments that Libya provided (Cooley 1982: 232).

²¹⁵ The Soviet Union was also Libya's major supplier in terms of conventional military equipment. In the light of the “ideological antipathy”, (St. John 2003: 472) the main impetus the Libyan-Soviet cooperation was Tripoli's need for modern armament (Bowen 2006: 15).

²¹⁶ Moreover, the proliferation risk of the *Tajoura* research site was minimized by its size. The light-water-reactor was too small to produce a sufficient quantity of plutonium for an atomic bomb (Pajak 1976: 86). The 11.5 Kg enriched uranium needed to fuel the reactor was produced in the Soviet Union and then shipped to Libya (e.g. Müller 2006: 8; Wright 1981/2: 38-41).

not a viable approach to an atomic bomb. By the early 1980s, the Libyan nuclear weapons program was still in an embryonic stage. Moreover, in the 1980s, it became more difficult to win support by external suppliers since potential cooperation partners became more and more reluctant to assist Libya due to Tripoli's increasingly aggressive foreign policy (e.g. Albright 2010: 116-7).²¹⁷

Haven been thrown back on its underdeveloped indigenous scientific and technology capabilities due to unwilling suppliers, the Qaddafi regime's nuclear build-up entered into a period of stagnation by the early 1980s. Libya's nuclear efforts came at that time almost to a standstill. In the 1980s, Libya conducted several hapless experiments at the *Tajoura* site in order to explore ways to separate and produce weapon-grade plutonium (e.g. IAEA 2004b; Bowen 2006: 32). During the same time, Tripoli tried unsuccessfully to produce domestically gas centrifuges for uranium enrichment (IAEA 2004a: Annex 1, p. 5; Wing & Simpson 2013: 109). Also, the most spectacular project of the Libyan nuclear weapons program – the attempt to enrich uranium between 1982 and 1992 in *Tajoura* with the help of a foreign expert (allegedly a German flight engineer) – finally failed (Douglas & Meyer 2004; IAEA 2004a: Annex 1, p. 5). Although the Qaddafi continued during the 1980s attempts to gain assistance from abroad, these efforts were as little destined to succeed as in the previous decade.²¹⁸ The indigenous efforts dogged by insufficient technological and scientific capabilities as well as the lack of coherent planning, became even more problem-ridden by the 1990s when Libya faced intrusive UN sanctions which thwarted any cooperation with potential external suppliers.²¹⁹

5.1.2.3 The A.Q. Khan Network and the Revival of Tripoli's Nuclear Weapons Program

Libya's nuclear efforts, however, regained impetus when the A.Q. Khan-network became involved in the Qaddafi regime's nuclear ambitions by 1995.²²⁰ Analyzing the Libyan nuclear weapons program after its destruction in 2004, the IAEA came to the conclusion that Tripoli took by the mid-1990s "a strategic decision to reinvigorate its nuclear activities" (IAEA 2004a: 5).

²¹⁷ Although Libya's nuclear shopping trip's might appear naïve and illusory when viewed in retrospect, one have to bear in mind that extensive support by external outfitter was the "standard procedure" in Libya's military policy. As many oil-producing countries, the Qaddafi regime, imported military equipment and know-how in large scale, made little effort to build indigenous capabilities, and therefore became relatively dependent from external suppliers (e.g. Senn 2009: 111-2; Director of National Intelligence 1983). We observe this particular pattern not only in nuclear and conventional armament policy, but also with regard to Libya's chemical weapons program (Terrill 1994: 47; Tucker 2009: 365-66).

²¹⁸ For example, efforts to establish in the early 1980s a cooperation with the Belgian companies *Belgatom* and *Belgonucléaire* remained fruitless (e.g. Wing & Simpson 2013: 107; Solingen 2007: 213).

²¹⁹ There is considerable ground to believe that the stagnation of Libya's nuclear efforts eventually made Tripoli launch its chemical weapons program – a category of WMD that is easier to develop and produce than nuclear weapons. The quest for chemical weapons which started around the year 1984 was in that sense a makeshift solution for the little progress in the nuclear field (Tucker 2009).

²²⁰ Apart from Libya the A.Q. Khan-network provided also Iran and North Korea with nuclear weapons related equipment and know-how. It is also believed that Syria belonged to its clients. Although it was a relatively loosely organized, most analysts agree that the Pakistani government must have had some influence on the network (Heupel 2008: 12; Corera 2006; Harnisch 2006; Kampani 2004).

Tripoli reached out to A.Q. Khan already in January 1984 and later in 1989 and 1991 (Wing & Simpson 2013: 111). However, the cooperation became non-active before June 1995 (Corera 2006: 107-8). At first, Tripoli bought twenty P-1 gas centrifuges²²¹ and components for 2.000 further enrichment processors from the network. In the early 2000s, the Qaddafi regime acquired a small amount of enriched uranium and two more sophisticated P-2-type centrifuges. Tripoli then placed an order for 10.000 additional P-2-type centrifuges which were successively shipped to Libya through clandestine channels (Müller 2006: 8; IAEA February 2004: 5). Furthermore, the Libyans bought from the Khan network a blueprint for a nuclear warhead for the price of \$20 to \$50 million. This 10-kilo-tonne implosive device was based on a model China had used in the 1960s. Based on the delivery of the A.Q. Khan network, Libya had installed three uranium enrichment cascades with 9, 19, and 65 P1 type centrifuges starting by October 2000. The advanced P2 type centrifuges, which Libya had ordered at the A.Q. Khan network had never been assembled and was mainly in their original packing when Libya reversed its nuclear weapons program (IAEA 2004b: 5; Bowen 2006: 43; Cirincione et.al. 2005: 323; Kerr 2004).

Unlike all other external outfitters the Qaddafi regime had worked with, the smuggling ring was willing to sell sensitive nuclear technology and know-how and was not scared neither by ideological antipathy nor by Libya's pariah status. In that sense the A.Q. Khan network was the nuclear supplier Tripoli had always waited for. Although the equipment sold by A.Q. Khan network was limited in quality, overpriced, and occasionally incomplete (e.g. Wing & Simpson 2013: 114; Hyman 2012: 242-3), the late 1990s and early 2000s were the most productive years in the entire lifespan of Libyan nuclear weapons program (e.g. Corea 2006; Bowen 2006: 26, 36). With the help of the A.Q. Khan network Libya had never been closer to the bomb than in late 2003. At no time, the future looked brighter in nuclear terms for Libya than in the early 2000s. Tellingly, Ambassador Donald Mahley – a key figure on the U.S. side in the destruction of the Libyan WMD programs – has pointed out that the Libyan nuclear weapons program would have been hindered “if not thwarted altogether” without the support of this transnational smuggling ring (Mahley 2004: 5).

5.2 Fit Taxonomy on the Libyan Nuclear Reversal Negotiations

In this section, we build the *fit taxonomy* for the Libyan NRN. The major focus is to gather all the relevant data to describe comprehensively the *procedural* and *substantive negotiation problems* Washington and Libya faced during the bargaining process.

To identify the *procedural negotiations problems*, we will at first survey the motivations of the two players with the help of the “interest profile” and the “operational code method”

²²¹ “P” stands for “Pakistan” and indicates a particular design of uranium enrichment centrifuges developed for the Pakistani nuclear weapons program. P-2 is the more sophisticated off-shoot of the P-1 model.

(ch. 5.2.1.1 and ch. 5.2.1.2). Based on these results we will apply the “reenactment method” we introduced above in order to infer the payoff structure Libya and the United States had followed during the bargaining process (ch. 5.2.1.3). Our central finding is the disclosure of a “five-stage strategic cascade” of dilemma games which operationalize the different shades of the *colliding interest*, and the *distrust trap* Washington and Tripoli were entangled during the diplomatic struggle on Libya’s *nuclear reversal*: Deadlock Game (1987-1989), Imposed Deadlock Game (1990 - March 2003), Alibi Game (March - December 2003), again an Alibi Game (December 2003), Biased Stag Hunt Game (2004 - 2011). This “strategic cascade” signifies in our *fit taxonomy* the most comprehensive “diagnosis” of the *procedural problem dimension* in the Libyan NRN. It is a crucial analytical tool to study the “fit performance” of the applied diplomatic design elements (see ch. 5.3).

In order to grasp the *substantial problem dimension*, we analyze the nature and scope of Libya’s nuclear weapons program through the lens of the *public bad approach* (ch. 5.2.2). Apart from specifying the “negative externalities” of the Libyan *nuclear bad* (ch. 5.2.2.1), we will elaborate as well on its “supply” and its “demand side” in order to provide a detailed description of the “negotiation issue” which underlay the U.S.-Libyan bargaining process (ch. 5.2.2.2 and ch. 5.2.2.3). We will reveal that the Libyan nuclear weapons program was, in essence, a “threshold bad” aggregated by the “best-shot logic” and embedded in a larger “fabrication chain” which was oriented towards the realization of two “final goods”: security and prestige. Together with the “five-stage strategic cascade” this very structure of the Libyan *nuclear bad* is likewise essential for the later analysis of the “fit performance” of the *diplomatic design*.

5.2.1 The Procedural Problem Dimension: A Five-Stage Cascade of Social Traps

The “reenactment method” is essential to identify the “strategic cascade” of *social traps* operationalized in our *fit taxonomy* by five consecutive dilemma games. Particularly, in the *pre-agreement phase*, it prevented us from misinterpretation and false inference regarding Washington’s and Tripoli’s preferences. For example, if we had not applied the “reenactment method” but instead had tried to deduce the Libya’s and the United States’ payoff structure directly from their surveyed desires, we would have – in all probability – not disclosed that both players were entangled during spring and summer 2003 in a so-called Alibi Game – a strategic constellation widely neglected in IR research.

However, the “reenactment method” is heavily dependent on the survey of the involved actors’ motivations. The mapping of their intentions is the essential precondition for applying the “reenactment method”. In the case of the United States, we were fortunate to encounter solid data which allowed the disclosure a relatively comprehensive and complete picture about the desires Washington held during the Libyan NRN. In press releases, interviews, Congressional Hearings, and memoirs of former decision makers, we found ample evidence of the United States intentions. Applying the method of “interest profiling” provided us therefore with comprehensive insights and allowed a straightforward application of the “reenactment method.”

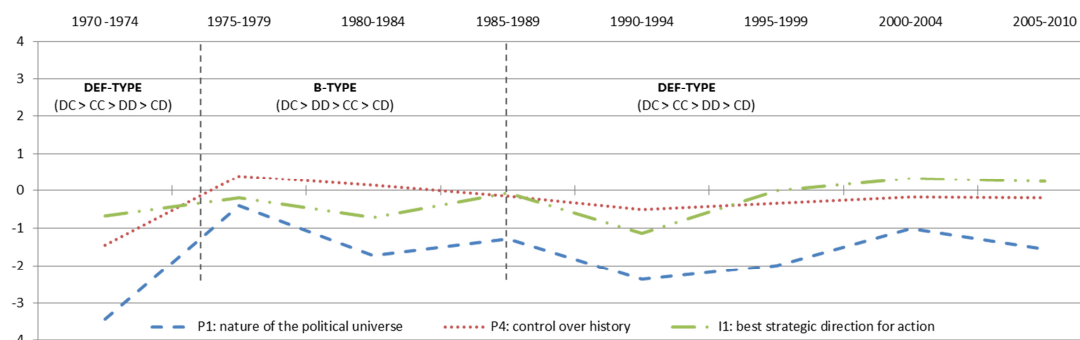
However, with regard to Libya, the situation was different. Here the data was thin, and the quality of the available documents and sources was more limited. Consequentially, we were uncertain whether the “interest profiling” would lead to a coherent and reliable description of the Qaddafi regime’s desires. A distorted picture of the Libya’s motivation would have also led to misinterpretation and false conclusion in the “reenactment method”. To reduce this risk, we crosschecked – following the logic of triangulation (ch. 4.1) – the findings stemming from the “interest profile” with the help of the “operational code analysis.” Unlike the mapping of Washington’s motivation, the specific data situation of the Libyan case requires that we established a “second bottom line” and applied these two survey methods in parallel. Since the “interest profiling” and the “operational code analysis” follows distinct logics and build on different types of data, the triangulation between these two approaches is relatively unproblematic.

5.2.1.1 Operational Code Analysis: A Survey on Muammar al-Qaddafi’s Beliefs

In the methodic chapter we have already introduced the three decisive categories that are crucial for the “operational code analysis” in order to determine the worldviews of foreign policy leaders: (a) “the nature of the political universe”(P1), (b) “control over history” (P4), (c) and “best strategic direction for action” (I1). Based on these criteria, scholars have developed four principle types of foreign policy belief systems and each characterized by particular strategic posture: the type A, B, C and DEF worldview (Figure 16). In our survey of Muammar al-Qaddafi’s operational codes, we will follow the same structure. As we will show in detail in the following section, Muammar al-Qaddafi’s operational code was alternating between a B- and a DEF-type belief system. During the first years of his rule, the

Libyan dictator had a relatively positive and benign worldview. By the mid-1970s, his belief system, however, shifted into a more confrontational mode only to return by the late 1980s to the original DEF-type foreign policy (see Figure).²²²

Figure 18: Chronology of Muammar al-Qaddafi's Worldviews



However, there is one important precondition to the “operational code” analysis. It is crucial that the decision maker who is studied by this method has the capability to shape foreign policy. Obviously, the belief system of actors who have little concrete influence regarding decision making is of little relevance for the analysis of practical politics.

In the Libyan case, this particular requirement was undoubtedly met given that Muammar al-Qaddafi was the uncontested and most central player in Libya’s foreign policy. Libya’s external affairs were shaped to a considerable extent by Muammar al-Qaddafi’s personality and his individual world view (see e.g. Brill 1988: 11; Niblock 2002: 219; Ronen 2008: 201; Solomon & Swart 2005: 470; Zartman & Kluge 1991: 245). Libya was in essence run like a “private fiefdom” (Mark 2002: 14). Muammar al-Qaddafi did determine not only the goals of Tripoli’s foreign policy by his personal mindset and ideological framework but also influenced the operational style of Libya’s external relations. While the Qaddafi regime’s external relations were also influenced by bureaucratic players – such as the “Liaison Committee of the Revolutionary Committees” (i.e. the central authority of the revolutionary committees) and the “Secretariat for Foreign Liaison” (i.e. the Libyan foreign ministry) – the clout of these actors depended to a large extent on their personal loyalty to Muammar al-Qaddafi. Only those who belonged to Qaddafi’s handpicked private *entourage* (known in Libya as the *rijal al-khaimah*) – mainly recruited from the “Free Officers’ Movement” and the “Revolutionary Youth” – had a say in Tripoli’s foreign policy (Niblock 2002: 220-1).²²³

²²² It is important to note that our findings about Muammar al-Qaddafi’s belief system were recently supported by the analysis conducted by Kelly O’Reilly. Although O’Reilly used the quantitative VBIS-approach to study the Libyan leader’s worldview, he revealed by and large the same results we achieved in our qualitative analysis (O’Reilly 2015).

²²³ Moreover, the large majority of the scholars is united in their rejection of the picture that describes Muammar al-Qaddafi as a crazy and erratic personality as he was often depicted by politicians and journalists from around the world (see e.g. Niblock 2002: 231; St. John 1987: 143; Solomon & Swart 2005: 470). Qaddafi was for example dubbed a „rogue criminal” (Henry Kissinger), “the mad dog of the Middle East” (Ronald Reagan), “reckless adventurer” (Fidel Castro) and as “a split personality – both evil” (the Sudanese President Nimeiry) (Lemarchand 1988b: 1-15). While Muammar al-Qaddafi was certainly an eccentric personality and often showed tactical flexibility when confronted with foreign policy problems,

To analyze the worldview of Muammar al-Qaddafi, we selected 83 documents out of a collection of a total of 273 documents.²²⁴ The selection was driven by the criterion whether the documents contained speech acts by Muammar al-Qaddafi in which he described his general view on the nature of politics, strategy, and the international system. These documents were analyzed and coded with the help of MaxQda (see Annex 3). The sample period (1970-2010) goes beyond the period of the Libya NRN. However, we decided to code also the 1970s and 1980s in order to gain a full picture of the historical trajectory of Muammar al-Qaddafi's belief system. The expression made by the Libyan leader in the three decisive categories ("nature of the political universe" (P1), "control over history" (P4) and "best strategic direction for action" (I1)) were evaluated along a continuum containing four positive and for negative categories. We thereby follow the four-field typology of "operational codes" originally introduced by Stephen Walker (see ch. 4.2.2). As shown in Figure, most of the expression Muammar al-Qaddafi made regarding his beliefs had a clearly negative connotation.

In the following section, we will give a brief overview of the three decisive categories (P1, P4, and I1) we applied in the mapping of Muammar al-Qaddafi's operational codes.

A) The Nature of Politics is Hostile and Confrontational (P1)

Throughout the four decades of his autocratic reign, Muammar al-Qaddafi indulged the belief that the political sphere is inherently hostile and inevitable prone to conflict and confrontation. Speaking in terms of IR theories one could say that Muammar al-Qaddafi was with every fiber of his being a realist. His political thinking was strongly influenced by the concepts of sovereignty and national self-determination. In his youth, he was socialized with the ideas of the anti-colonialist liberation movements and in particular with the thoughts of his political idol the Egyptian President Gamal Abdel Nasser (Brill 1988: 25-9; Ronen 2008: 82; Vandewalle 2006: 131). Consequentially, the nature of politics was in Qaddafi's eyes the ongoing struggle between suppressed nations and (neo-colonialist forces) – which were in his view primarily personalized by the United States and Israel. In the "Green Book" – a pamphlet containing the major political thoughts of the Libyan leaders – he explains, for example, that:

[The] existence of a national identity is the basis for the survival of nations (...) [N]ational struggle (...) is the primary driving force in the movement of history; it is the essential factor, the fundamental factor, and therefore the strongest of all other factors. [It] (...) will not cease to occur until every group is liberated from the domination or another" (Qaddafi [1972] 2005: 54).

The fight between (neo-) colonialist and anti-colonialist forces was in Muammar al-Qaddafi's view, not a modern phenomenon but signified a centuries-long struggle. In an

basically all scholars knowledgeable of Libya's politics have nevertheless described his harsh rule over Libya as coherent and rational since it was stringently shaped by his ideological tenet mainly composed of Pan-Arabism, Islamic renewal, and anti-imperialism.

²²⁴ This mentioned collection of documents contained (1) sources stemming from the CIA run Foreign Broad Cast Information System (FBIS), (2) interviews the Libyan leader had given to various newspapers, (3) writings Muammar al-Qaddafi had published (such as his famous "Green Book"), and (4) collections of his speeches and essays (Annex 3).

interview given in the early 1990s, he said for example that “[w]estern tyranny against the Arab world is nothing new (...) The West has always belittled Arab civilization and ravished the Arab lands” (Interview with Budapest Reform, FBIS-NES-92-084, April 1992, Annex 3). And at another occasion he explained that the “Arab nation is in a state of confrontation against colonialism (...) we passed through many stages of colonialism, beginning with the Crusaders” (Interview, Dubayy Space Channel TV, FBIS-NES-96-061, March 1996, Annex 3).

But not only Qaddafi’s reading of the past, but also his prospect of the future was gloomy and pessimistic. When the Cold War came to an end, the Libyan leader was not expecting the “end of history” (Fukuyama 1992). He was not envisioning a new peaceful era of international affairs. In consistent with what he believed to be the very nature of the political universe, al-Qaddafi rather expected that “the North will throw itself into a new colonization campaign, which will result in sharp competition among the countries of the Northern hemisphere (...) just like in World War I, and subsequently in World War II”. South-North cooperation was in his view “nothing but fairy tales. The North wants to colonize and exploit the South and not offer effective assistance” (Interview with Vienna Domestic Service, August 1990, see Annex 3).²²⁵

It is in particular noteworthy that Muammar al-Qaddafi was upholding his belief of the inherent hostile and confrontation-prone nature of politics even in the late 2000s when most of the conflicts with the West had been removed, and the Libyan-American rapprochement had been initiated. For example, in a speech al-Qaddafi delivered to students at Oxford University in May 2007, he made, for example, clear that in his view “colonialism” remained the major source of conflict: “There is a colonialism that imposes itself by force and another that uses gentler methods. There is a soft and a harsh colonialism. But in the final analysis, colonialism is one and the same” (Qaddafi: Oxford University, May 2007, Annex 3).

B) Control over History: From Pessimism to Optimism and Back (P-4)

While the Libyan dictator’s belief in the hostility of the political universe remained by and large stable throughout the entire sampling period (1970-2010), his view on the ability to influence historical trends and events was subjected to change and alternations. In essence, it is owing to the shift within this particular operational code (P4) that we saw the back-and-forth swinging between the DEF-type and the B-type belief system (Figure).

²²⁵ In hindsight it appears that the ethnic-political conflicts that raged in the 1990s on the Balkans, Africa and the former USSR have even further strengthen al-Qaddafi’s belief in roots and causes of inevitable struggle for national liberation and self-determination. Already in his Green Book, al-Qaddafi explained that political structures which are “comprised by more than one nation” will be “(...) ripped apart as each nation obtains its separate national independence” (Qaddafi [1972] 2005: 62). Consequentially, he expected that the United States which he depicted first and foremost as a multi-ethnic entity would slip one day into an ethnic-political warfare. For example, in an interview given in Vienna al-Qaddafi said that all “regimes that are based on ideology, religion, or the military will fall apart – under the pressure of nationalist conflicts (...) What is currently taking place in the USSR will be repeated in the United States. There the Blacks, the Indians, the Whites, and the American Jews will struggle for their independence. This is why it is possible that a civil war will break out in the United States, because of the nationalist tendencies” (Qaddafi interviewed in Vienna, FBIS-NES-90-157, August 1990; see Annex 3).

The young Qaddafi had a relatively pessimistic view of the ability to alter the general historic trend. In all probability, this view had deeply rooted ideological causes. First, he strongly believed that in light of general trends and processes – such as the inevitable struggle for national liberation – active and purposeful actions with the aim to shape history were futile. Second, Muammar al-Qaddafi ascribed at that time to Libya only a minor role in world politics. In the view of the young Libyan dictator, the North African country was not a meaningful player. Instead, he perceived Egypt – ruled at that time Qaddafi’s political idol Gamal Abdel Nasser – as the uncontested Arab lead nation. In essence, Qaddafi was an ardent Nasserist.²²⁶ He saw the Egyptian president as the rightful Arab leader (Burgat 1988: 21-22; El-Kikhia 1997: 112-124; Ronen 2008: 105-106; Zartman & Kluge 1991: 238). According to Qaddafi’s perspective, it was not Libya but Egypt that was regarded as the “essential nucleus of an Arab union” (St. John 1987: 50). Tellingly, the first verbal note Qaddafi conveyed to President Nasser immediately after the successful coup in September 1969 via Nasser’s close confidant, Mohammed Heikal, is illustratively expressing Libya’s self-chosen submission to Egypt:

“We [the Libyans] have hundreds of miles of Mediterranean coastline; we have the airfields; we have money; we have everything! Tell President Nasser we made this revolution for him. He can take everything of ours and add it to the rest of the Arab world’s resources to be used for the battle” (Heikal 1975: 70).²²⁷

By the mid-1970s, it appears that the Libyan leader, however, started more and more to abandon his pessimistic view on his ability to control history. Instead, Muammar al-Qaddafi adopted a more confident and optimistic perspective. For nearly one decade until the late 1980s, al-Qaddafi was indulging the conviction that he indeed could change the course of history and that it was Libya’s destiny to act as the vanguard for the liberation of the suppressed masses of the Third World in general and the Arab countries in particular. The Libyan leader had the ambition to play in the same league as the big powers and portrayed himself as the “defender of the Arab homeland” (St. John 1987: 26). An important explanation for that shift in al-Qaddafi’s operational code which in effect led to a more aggressive and adventurous B-type foreign policy was the death of the Egyptian President Nasser and evolving friction with Anwar as-Sadat – the new leader in Cairo. Cultivating a deeply rooted dislike for Sadat, the Libyan dictator came to the conclusion that he was the true successor of Nasser’s and that it was upon him to fulfill the heritage of his political idol (El-Kikhia 1997: 112; Zartman & Kluge 1991: 238; Wright 1981: 156-159; St. John 1987: 26).

²²⁶ Qaddafi was already during his schooldays inspired by the writings and speeches of Nasser and his idea of Pan-Arabism. It is assumed that the 1969 coup against the King Idris was to a certain extent motivated by the frustration that the Libyan monarch was not strictly following Nasser’s example. Tellingly, after having seized control over Libya, Qaddafi used to literally repeat Nasser’s speeches – a habit that caused amusement among other Arab leaders (St. John 1987: 153).

²²⁷ In the following years we encounter numerous similar references by the young Libyan dictator. In 1974 he expressed, for example the admiration for his neighboring country in the following words: “Egypt always offers numerous sacrifices without getting exhausted, and its people still offer thousands in the struggle for the sake of the Arab nation. I have already said that Egypt was the first citadel of confrontation” (“The Ramadan War” in Qaddafi 1976). And in the same year he said in an interview given a Yugoslavian Newspaper: “In the opinion of all Arab youth, Abdul Nasser is the only man in modern Arab history that was able to embody the hopes and aspirations of the Arab nation for a better, stronger and unified life” (Interview with Daran Janikovic, Zagreb, Qaddafi 1976).

At that time, we encounter in Qaddafi's speech acts numerous reference expressing the belief of Libya's decisive role in world politics. In an interview given with the Arab newspaper *Al-Watan* he said, for example: "For the sake of achieving Arab unity, Libya is shouldering its responsibilities in this direction and will play a practical role in this regard" (*Al-Watan*, FBIS-MEA-82-221, Nov. 1982, Annex 3). At that time, Muammar al-Qaddafi constantly called on Libya's neighboring Arab countries to unite with Libya for a more active role in world politics. On the occasion of the Libyan national holiday, he said for example in September 1982: "Brothers, we are capable of changing the norms. We are capable of turning the tables on them. We are capable of creating grave changes in this region" (Speech, Anniversary Jamahiriyan, FBIS-MEA-82-043, Annex 3).

Tellingly, the Qaddafi regime pursued at that time a very active foreign policy and became aggressively involved in many conflict scenarios – both on the regional but also on the global level. Bruce St. John said for example: "No state in the Arab world since Egypt under Nasser has attempted such a multifarious regional and global policy" (St. John 1987: 143). Tim Niblock second this assessment by stressing that "Libya has pursued one of the most engaged and outgoing foreign policies of the Arab World (...) and has sought actively to reshape the dimensions of international politics that affected the countries of the Arab and Islamic worlds and of Africa" (2002: 213). Boosted by oil wealth Tripoli started several military intervention in Chad (1978 to 1987) and Uganda (1972 and again 1977-8),²²⁸ began to confront the United States at every possible occasion,²²⁹ and became the world most active sponsor of guerilla and terrorist groups – among them the PLO, the Japanese Red Army, the German RAF, or the IRA.²³⁰ However, the most prominent expression for shaping the geopolitical map of the Middle East was certainly al-Qaddafi's continued efforts for pan-Arabic unification – an initiative that the Libyan leaders regarded as the legacy of President Nasser. Altogether the North African country undertook six unsuccessful attempts to unify with other Arab states in order to achieve the ideal of Pan-Arabism (El-Kikhia 1997: 118; Brill 1988; St. John 2011: 115).²³¹

However, in the late 1980s Muammar al-Qaddafi's returned to the pessimistic view he had indulged in the early 1970s. He retrieved the assumption held at the beginning of this rule that it was, in the end, broader trends and major political events that shaped history (Figure). At that time, we encounter more and more references in the Libyan leader's speech acts indicating that he had little hope to shape or even control historic dynamics. In an interview with given in 1989, Muammar al-Qaddafi said, for example: "We are not the

²²⁸ For a detailed description of the Libya's support for the Ugandan dictator Idi Amin see: Foltz 1988; Ronen 2006: 145-56.

²²⁹ Since Tripoli claimed sovereign rights far beyond the national waters, it came to numerous skirmish between Libyan forces and U.S. navy in the Gulf of Sirte in 1982, 1985, and 1986 (Ronen 2008: 157).

²³⁰ What initially started as a support for anti-colonial and liberation movements, turned quickly into a confusing financing and training machinery for hundreds of violent guerilla and terrorist groups (Collins 2004; Vandewalle 2006: 132; Prunckun & Mohr 1997). According to Brain Davis, Libya trained in the 1980s 7.000 to 8.000 terrorists and guerillas per year in special camps at the Libyan Sahara (Davis 1990: 10-11). Between 1979 and 1993 around 30 states were affected by terrorist acts which directly or indirectly were linked to Libya (Martinez 2007: 56).

²³¹ (1) "Tripoli Charter" 1969 (with Egypt and Sudan) (2) "Benghazi Treaty" 1971 (with Egypt and Syria) (3) "Hassi Messoud Accords" 1973 (with Egypt and Syria) (4) "Djebar Treaty" 1974 (with Tunisia) (5) "Tripoli Communique" 1981 (with Chad) (6) "Oujda Treaty" 1984 (with Morocco)

ones who have made the world the way it is. The dialectics of the conflict will produce the result” (Interview with Al-Hawadith, FBIS-NES-89-124, Annex 3). Libya was not anymore portrayed as the Arab lead nation. Instead, Muammar al-Qaddafi became more self-critical regarding his previous claims. In a speech delivered in 2004, he said for example: “Libya must be a model. However, it seems that we Libyans find it difficult to be a model (...) I do not know exactly why but if we analyze the question the reasons maybe because the (Libyan) people were educated only recently and were illiterate not so long ago or maybe because we are Bedouin people (...)” (Tripoli TV, FBIS-Nes-2004-0901).

Qaddafi’s retrieved humility is also indicated by the fact that the Libyan dictator attached at that time growing importance to not be regarded as a leader or a political figure. He rather preferred to portray himself as an “intellectual” or a “spin doctor” of the future Libyan society. In 1992 he said for example: “I am not a head of state. I am reading a lot. I am a member of the Academy of Social Sciences” (Interview with Budapest REFORM, FBIS-NES-92-084, April 1992, Annex 3). And in 2007 he clarified that he saw himself neither as “a politician nor a diplomat [but as] (...) the leader of a revolution and a social reformer” (Qaddafi, May 2007, Annex 3). Qaddafi’s self-restraint could be seen as another discursive indication that the Libyan leader had abandoned the hubris of Libya as an emerging Arab power he had indulged in the 1970s and early 1980s.

C) A Fraying Priority for Confrontation (I-1)

The general “direction of strategic actions” (I-1) is the third central component that is regularly used to determine the belief system of foreign policy leaders. If we analyze the speeches, interviews, and writings of the Libyan dictator along this line, we find that Muammar al-Qaddafi showed almost the entire sampling period a priority for conflict. Only towards the end of the 1990s his preference for confrontation started to fray. However, this improvement was too little to initiate any major shift regarding the Libyan leader’s world view (Figure).

For long stretches of his reign over the North African country, al-Qaddafi saw confrontation and not cooperation as the best strategy to handle political problems. Perceiving himself first and foremost as a revolutionary, it was little astonishing that he regarded military force as a crucial tool of foreign policy (Solomon & Swarte 2005: 472). Moreover, since al-Qaddafi and most of his entourage had a military background, it is little astonishing that the “political and the military realms were intimately intertwined” (Foltz 1988: 52). Since conflict and violence were central elements in al-Qaddafi’s belief, we find numerous references to this view in his speech acts. In an interview with the Arabic newspaper al Hayah, the Libyan leaders said, for example, “Frankly, as a revolutionary, I am against sick stability (...) Instability is better than having an Arab state that is subservient to the West and Israel” (Interviewed al-Hayah, FBIS-NES-94-102, 26th May 1994). By the same token, it appears that al-Qaddafi firmly believed that much of the recent foreign policy failures of the Arab nations were rooted in the fact that violence had been applied too cautiously. In the late 1970s, he said that the general:

“[P]roblem of the Arabs is that they want again and again to enter into a quarter of a battle, half a battle, and two-thirds of a battle. Of course, this is unacceptable in the concept of war aimed at a complete victory (...) Real meaning of war [is that there is] no reconciliation, no peace, no mercy, no understanding and no civility (“The Ramadan War, Qaddafi (1976), Annex 3).²³²

It seems that in al-Qaddafi’s mindset the unrestricted recur to violence was legitimized as a means of self-defense for those acting from a position of weakness. In the early 1980s, the Libyan dictator made in that regards a revealing statement depicting violent resistance as a means without alternative: “What more can happen to us if we fought America, and what other sort of disaster can hit us if we antagonize America or the devil? We are defeated, torn apart, expelled, our land is occupied, our honor is tread upon, or dignity is injured” (Speech before Opposition movement, FBIS-MEA-83-024, 3rd Feb. 1983, Annex 3).²³³

It is little astonishing that Muammar al-Qaddafi’s esteem for violence found reflection in Libya’s aggressive foreign policy. Not only in the intensifying struggle with the United States but almost in all other geopolitical theater, Tripoli showed little restraint and recurred swiftly to military means.²³⁴ Libya made numerous efforts to destabilize several countries in Sub-Sahara Africa,²³⁵ intensified by the early 1980s its intervention in Chad, augmented significantly its military spending,²³⁶ became more blatant in claiming territorial rights in the Southern Mediterranean,²³⁷ and entered into a four-day border war with Egypt in July 1977

²³² It is little astonishing that the Middle East conflict signified a central theme for al-Qaddafi’s I-1 related speech acts. We encounter throughout the 1970s and 1980s numerous calls for a violent Palestinian insurge against Israel. In the late 1976 the Libyan dictator was reported to have said the following quote: “cease-fire, peace, negotiations, withdrawals, the Security Council, America, Russia – all that, I believe, are not means to an end; they are temporary solution and sedatives; the clash [between Israelis and Palestinians] remains inevitable (“The Ramadan War, Qaddafi (1976), Annex 3). A decade later he had obviously not changed his view since he said: “There is no solution. The only solution would be to have all Jews who were not born in Palestine return to where they came from.” (Interview with Der Kurier, FBIS-MEA-86-016, Jan. 1986, Annex 3).

²³³ Against that background it is little astonishing that al-Qaddafi used the same argumentation to legitimize the use to terrorism: it was the weapon of the weak that had no other mean to defend themselves. In the mid-1980s he said for example during an interview with ABC “we [the Libyans] denounce terrorism as an act of aggression against the innocent, but we differentiate between terrorism and legitimate struggle for freedom” (Interviewed by ABC, FBIS-MEA-84-230, 28th Nov. 1984).

²³⁴ At that point we have to mention that Tim Niblock and Mary-Jane Deep have come to the opposite conclusion that the aggression in Libya’s foreign policy was not augmenting but *decreasing* by the late 1970s (Niblock 2002: 225; Deeb 1991:117-120). We admit that Libya indeed lowered its confrontational profile in the inter-Arab relation by the late 1970s. However, the conclusion that Libya reduced its violent stance in general and vis-à-vis the United States in particular is simply not supported by the historic facts.

²³⁵ By the late 1970s and early 1980s Libya extended its military training and support for opposition groups in numerous African states: Burkina Faso (1982-3), Gambia (1981), Niger (1976), Mali (1982), Tunisia (1980-4), Somalia (1978-85), Sudan (1975-85), Western Sahara (1976-84), and Zaire (1976-86) (see Lemarchand 1988; Solomon & Swart 2005: 472). Libya was involved in at least two attempted *coups d’états* against Sudanese President Nimeiry (in fall 1975 and summer 1976). Moreover, the Qaddafi regime tried at that time to interfere – mainly through development aid attached to political conditions (such as the Jihad Fund) – into the internal affairs of numerous political weak and impoverished sub-Saharan states, primarily those with Muslim proportion in their national population (Ronen 2006: 145-56; El-Kikhia 1997; St. John 1988; Lemarchand 1988a).

²³⁶ Libya raised its military expenditure from \$709 Million in 1982 to \$1,149 Million in 1984 – i.e. from 16.7% to 23.6% of the Libyan state budget (Vandewalle 2006: 131).

²³⁷ In blatant contradiction with international treaties and conventions, the Qaddafi regime declared a 100 mile air radius around Tripoli as restricted area and claimed that Libyan territorial waters in the Gulf of Sirte would stretch until the 32°30’ latitude (Brill 1988: 59-64; Davis 1990: 14; Ronen 2008: 12). In similar vein, Libya picked a quarrel with Malta by 1973 upon the demarcation of the two countries continental

(Davis 1990: 10-11; El-Kikhia 1997: 121; Lemarchand 1988b; Pienaar 2008; Ronen 2008: 166-170; Vandewalle 2006: 131).

Growing hostility in the external affairs was also mirrored by increasing revolutionary zeal in domestic politics starting by the late 1970s. Particularly in the year 1977s, the Qaddafi regime undertook substantial efforts to achieve the ideological aim of the Jamahiriya (i.e. a state of the masses) which would – in the view of Muammar al-Qaddafi and the power elite in Tripoli – substitute the antiquated system of conventional government. By the Declaration of People’s Authority in January 1977 the transfer of all power to People’s Committees was decided. A system of Revolutionary Committees was established in the same year (Niblock 2002: 225). By the late 1970s and 1980s, Tripoli intensified the pressure on Libyan opposition groups formed among exile Libyans living abroad. In the so-called “stray dog” campaign the critics of the Qaddafi regime – many of them in Western countries – were threatened with execution (St. John 2011: 126, St. John 1987: 81).

By the mid-1990s, we, however, saw that al-Qaddafi’s preference for confrontation was slowly losing importance. Around that time, the Libyan dictator appeared to have developed more esteem for non-violent instruments of problem solution such as negotiation, diplomacy, and mediation (Figure).

This shift, which was however not strong enough to cause a substantial change in the Libyan dictator’s belief system, also found resonance in his speech acts. In a statement aired on Tripoli TV, Muammar al-Qaddafi said for example: “We must try to maintain our relations with others, and not turn back the page again. Nations must understand the other side. There is a lack of mutual trust for historical reasons, but this must be overcome” (Speech delivered on Tripoli TV, FBIS-Nes-2004-0901, August 2004). Talking about the Israeli-Palestinian conflict, Qaddafi started by the late 1990s to plea for a peaceful solution of a joint nation state which he called “Isratine” – a proposal that stood in stark contrast to harsh anti-Israel rhetoric he had used in the decades before. In that regard, he said in 2007: “The solution is an establishment of a single state for both groups. We must rid ourselves of the culture of religious, linguistic, and ethnic racism. This is the culture of the old guard. But the youth in Israel and Palestine want peace, want a single state, want to travel and trade and have a normal life” (Qaddafi, 16th May 2007, Annex 3).

Muammar al-Qaddafi’s more benign worldview appears to have had also resonance in Libya’s foreign policy. In the 1990s, Tripoli “tried its hand” at several negotiation and mediation initiatives. Particularly, concerning the Lockerbie conflict and the UN sanctions imposed on Libya, Tripoli learned that cooperation and diplomacy could shift international community’s opinion in favor of the Qaddafi regime. Libya’s rehabilitation in the late 1990s was in many respects the result of a successful “charm offensive” Tripoli. Shortly after the UN sanctions were imposed on Libya, the Qaddafi regime reached out globally to sway opinions and was eventually able to forge a broad coalition of supporter that requested to undo the multilateral pressure (e.g. Matar & Khalil 2004: 128, 160; St. John 2003: 264-5;

terrace. The quarrel which was fueled by Malta’s plans for offshore oil drilling was not settled before 1985 when the International Court of Justice in Den Haag decided a solution (Brill 1988: 64-69).

Niblock 2001: 43-49; Reynolds & Wan 2012). But Tripoli's new preference for cooperation, mediation, and diplomacy also materialized in other fields. Starting by the mid-1990s, the Qaddafi regime undertook numerous mediation and conflict resolution efforts – primarily on the African continent. For instance, in 1998 Libya made an attempt to solve the conflict between Uganda and the Democratic Republic of Congo and in the same year it mediated between Ethiopia and Eritrea. In 1999 Libya hosted a five-nation peace conference to find the solution to the war in the Democratic Republic of Congo and made mediation efforts in the civil war in Sierra Leone. Moreover, in 2000 Tripoli played an active role in the hostage negotiation with the Philippine fundamentalist terror organization, Abu Sayyaf, which had kidnaped several Western tourists (Ronen 2008: 187-188; St. John 2002: 177).

5.2.1.2 Interest Profiling

Now that we have completed the “operational code analysis” we turn to the “interest profiling” to reveal the strategic desires both players – the United States and Libya – held during the bargaining process.

A) Washington's Strategic Desire towards the Qaddafi Regime

The strategic desires Washington's pursued in its policy towards the Qaddafi regime were not specific to the WMD issue. Rather, they signified an integral part of the general American-Libyan relationship which was throughout the time of the diplomatic engagement on Libya's WMD programs primarily marked by hostility, confrontation, and antagonism. With the method of “interest profiling,” we revealed not only the substance of what Washington had wanted to achieve in the diplomatic struggle with Tripoli but also how its strategic desires changed over time. It is noteworthy that the “rhythm” of strategic shifts were not following the frequency of newly incoming presidencies. Desires that span across two or more presidency were more common than strategic shifts triggered by new incoming administrations (see Figure 19).

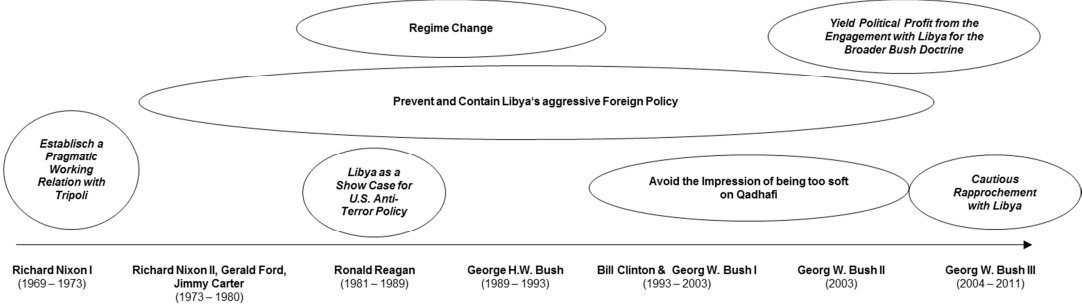
(i) From the September Revolution 1969 to Ronald Reagan

When Muammar al-Qaddafi and his comrades dethroned King Idriss of Libya in the bloodless putsch in September 1969, Washington was at first inclined to show goodwill and trust to the new Libyan leadership despite its revolutionary zeal. The U.S. pursued at that time a Middle East policy that was focused on containing the spread of communism. The aim was to curb the Soviet influence without entering into direct confrontation with Moscow (e.g. Reich 1979: 6-8; Tillman 1982: 123-274). Since the Nixon administration correctly interpreted the new power circle in Tripoli as a band of young anti-communist nationalists that were primarily inspired by the ideas of Gamal Abdel Nasser, Washington reacted rather calm and unexcited upon the events in the North African petro-state (e.g. Cooley 1982: 13-14; Miller 1996: 215; Haley 1984: 24; Arnold 1996: 89; El-Warfally 1988: 76-77).²³⁸ In light of that general geopolitical climate, Washington initially established with

²³⁸ Muammar al-Qaddafi had indeed an anti-communist inclination. Since he rejected all interference into regional and domestic politics by all superpowers, he was not only critical to the U.S. but also with the Soviet Union. In addition, his strong Islamic background brought him into opposition to the atheistic and anti-clerical communist ideology (e.g. Ronen 2008:81-104). The alignment with the USSR started not

the Qaddafi regime a pragmatic working relation and was willing to benevolent overlook the growing radicalization of Tripoli’s foreign policy.²³⁹ For the first years, the Qaddafi regime’s anti-communism functioned as a pillar of stability in the American-Libyan relationship.

Figure 19: U.S. Strategic Desires towards the Qaddafi Regime



While the Nixon administration’s “detached objectivity” (St. John 2002: 104) towards the Qaddafi regime became more and more porous,²⁴⁰ the crucial turning point in Washington’s Libya policy was not reach before mid-1973 when Tripoli had eventually exhausted its credit of trust and goodwill initially granted by the United States (St. John 2002: 5, 106). At that point, Washington started to admit that the Qaddafi regime poses a security threat. The objective to establish a pragmatic working relation with Tripoli was abandoned, and a new strategic desire emerged on the U.S. agenda which remained present until early 2004: Preventing and contain Libya’s aggression (Figure 19).

Correspondingly, the U.S. pressure on Libya was constantly ratcheted up by mid-1973 to curb the Qaddafi regime's influence in the region and to induce a more moderate foreign policy behavior in Tripoli.²⁴¹ In mid-1976 the Ford administration for the first time publically accused Libya of its support and financing of international terrorism. In early 1977 the Pentagon listed Libya together with other states such as Cuba and North Korea as a potential enemy of the United States (Cooley 1982: 37-8; Wright 1981: 215). Reflecting the constantly deteriorating American-Libyan relationship, President Carter eventually said at a

before the 1980s and had a purely pragmatic nature. When the relation with the West became tense, Libya was on the search for a reliable arms supplier. However, the Qaddafi regime was at no time a “Soviet puppet regime” as it was later claimed by the Ronald Reagan administration. Correspondingly, Moscow never intervened in support for the Qaddafi regime when direct confrontation between Washington and Tripoli loomed ahead.

²³⁹ The push for a more confrontational stance towards Libya by the National Security Henry Kissinger was rejected by the majority of the Nixon administration with the argument that such a strategy would drive the Tripoli into the arms of the Soviets (Kissinger 1982: 859-60).

²⁴⁰ Exemplary for this shift towards a more realistic view on Tripoli was, for example, the statement issued by Assistant Secretary David D. Newsom in July 1972 in a hearing before the House Subcommittees on African and Near East Relations, saying: [A]lthough strongly anti-Communist, the regime is at the same time cool to the United States” (U.S. Congress 1972).

²⁴¹ The down-grading of U.S. diplomatic representation to Libya from the ambassador level to the rank of a *chargé d'affair* in early 1973 was the first direct signal of disapproval sent by Washington. In the same year the delivery of eight C-130 aircrafts to Libya were blocked although Tripoli had already paid for these plans. And in January 1975 Washington stopped the sale of an air defense system to Libya and refused the entry of Libyan trainees into the US aircraft maintenance training (St. John 2002: 108).

press conference in August 1980 that “[t]here are few governments in the world with which we have more sharp and frequent policy differences” (U.S. National Archives 1982: 1477).

It is important to note, however, that the U.S.-Libyan confrontation was clearly focused on security related issues – such as the struggle about geopolitical spheres of influence or the support of international terrorism and liberation movements. The U.S.-Libyan economic and social relations remained for a relatively long time unaffected. Before the Washington imposed unilateral sanctions in the late 1980s, U.S. oil companies enjoyed relatively normal business ties with Libya. Tripoli was buying to large amounts of know-how and technological products at the U.S. market and a comparable high number of Libyan students were enrolled in U.S. universities (Niblock 2002: 226; Vandewille 2006: 131).

(ii) From Ronald Reagan to Bush Senior

When Ronald Reagan became U.S. President in January 1981, the U.S.-Libyan relation took a dramatic shift (Haley 1984: 247; St. John 2011: 127). In the eyes of Ronald Reagan and his conservative *entourage*, the out-going Carter-Administration had pursued an overcautious foreign policy that had been too soft on the enemies of the United States. Ronald Reagan’s stated goal to restore U.S. resolve in the world in general and in the Middle East particularly affected immediately the ties with the Qaddafi regime (Davis 1990: 38-41; El-Warfally 1988: 154-5) immediately. Starting by the early 1980s, the coercive policy applied towards Tripoli was considerably intensified and was extended by a military dimension.

The U.S. increased the economic and military support for Libya’s opponents in the region (namely Egypt, Morocco, Sudan and Tunisia), terminated official diplomatic relations with Tripoli, engaged more directly in the Chad conflict, and set up in the early 1980s an embargo on Libyan oil and on US exports to the North African country (St. John 2011: 127; Ronen 2008: 23-25). Moreover, in August 1981 the United States and Libya became for the first time embroiled in a brief military confrontation. At the margin of a U.S. Navy exercise held in the southern Mediterranean, a skirmish evolved between Libyan and U.S. forces which lead to the downing of two Libyan combat aircraft (Litwak 2007: 175; Stanik 2003: 51-6). This incidence marked the prelude to a series of military clashes between Libya and the US in the following years which reach its peak with the “El Dorado Canyon” operation in April 1986. In a reaction to the death of two GI who died in the bombing of the Berlin night club “La Belle”, prepared and organized by Libyan secret service men, U.S. Navy combat aircraft and F-111 bomber launched air raids against several facilities in Tripoli and Benghazi (Stanik 2003: 176-205). Apart from a few parked Libyan aircraft, the “El Dorado Canyon” operation caused limited military damage to the Qaddafi regime. However, it is assumed that in the course of the air raids around one hundred Libyans were wounded or killed (St. John 2002: 137, 151; Vandewalle 2006: 142).

Like the three U.S. administration before, Roland Reagan’s policy towards Libya was primarily inspired by the desire to prevent and contain Libya’s aggressive foreign policy. The goal to curb the Qaddafi regime’s involvement in terrorism and its subversive foreign policy in the North African region remained unchanged – although the measures to achieve this objective intensified (Litwak 2007: 174; St. John 2002: 122).

However, the Ronald Reagan administration pursued additional desires (Figure 19). First, Washington tried to orchestrate a regime in Tripoli. It was reported that already at the first days of his presidency Ronald Reagan and his advisors weighed different options to dethrone Muammar al-Qaddafi, who Reagan described as the “mad dog of the Middle East” (Davis 1990: 39; Niblock 2002: 227).²⁴² In the early 1980s, the CIA was authorized for covered operations that aimed to destabilize the Libyan regime (El-Warfally 1988: 175-8; Tyler 1987; Woodward 1985). These clandestine actions included the spread of disinformation and propaganda, sabotage commandos, and support for various dissident groups. In 1984, an internal CIA report, which was leaked to the press, drew the conclusion that “no course of action short of stimulating Qaddafi’s fall will bring any significant and enduring change in Libyan policies” (Woodward 1985).²⁴³ When the United States launched in April 1986 the operation “El Dorado Canyon”, the U.S. attacks were also delivered with the objective to yield a “decapitation strike” against Muammar al-Qaddafi (Litwak 2007: 176; Vandewalle 2006: 142). While the air raids in April 1986 were in general planned as a punitive military operation to deter future terrorist acts, killing Muammar al-Qaddafi *en passant* was also part of this logic. Apart from numerous military facilities, the U.S. combat aircraft were also bombing the Bab al-Aziya compound at Tripoli where the Libyan leader and his *entourage* used to reside. While the Brother Leader narrowly escaped the attack, his two years old adoptive daughter died.²⁴⁴

Second, the Reagan administration was driven – in all probability – by a third desire: using Libya as a showcase for U.S. anti-terror policy (Figure 19). The 40th U.S. President and his advisors were very well aware of the fact that apart from Libya also Iran and Syria were involved in the support of terrorist groups. Like Libya, both countries actively searched to undermine the U.S. stance in the region. However, small in demographic size, relatively isolated in the Arab world, bestowed with little political support by Moscow, and situated in a vulnerable strategic location with a long stretched shore at the Mediterranean, Libya represented in comparison to Iran and Syria a relatively “easy catch”. Against that background, the Reagan administration chose Libya as the ideal candidate to demonstrate the renewed American resolve and to apply the so-called Reagan Doctrine, which emphasizes the need to roll back the influence of regimes that were hostile to the U.S. (e.g. Davis 1990: 39; Ronen 2008: 29; George 1991: 53).

When George H.W. Bush became U.S. President in 1989, he continued the coercive diplomacy towards the Qaddafi regime he inherited by his predecessor (Figure 19). While a mounting number of analysts and experts voiced at their time that doubts that continued pressure on Libya could induce Muammar al-Qaddafi to change his course but instead

²⁴² Correspondingly, there are numerous statements from members of the Reagan administration which also speak the “regime change” language. For example, it was reported that Secretary of State, Alexander Haig, regarded the Qaddafi regime as “a cancer that had to be removed”. And already in early 1980s a White House spokesperson publicly said that “overthrowing Col. Qaddafi would be the world’s most popular crusade” (El-Warfally 1988: 166).

²⁴³ In addition, numerous reports surfaced during the 1980s that the Reagan administration were even pondering upon plans to assassinate Muammar al-Qaddafi (e.g. Wright 1981: 16; Woodward 1985; Zoubir 2006: 49).

²⁴⁴ Apart from target killing of Muammar al-Qaddafi the strategic planners in Washington also envisioned that the “El Dorado Canyon” operation would spark an uprising by the Libyan people which might likewise lead to the dethroning of the Brothers Leader (Byman & Waxman 2002: 94; Litwak 2007: 173).

entailed the risk to destabilize the entire region (e.g. Hunter 1992: 19; Miller 1996: 232-33; Murphy 1992), the Bush senior administration was eager to justify its unrevised sanction politics by pointing out that the Qaddafi regime still represented an unchanged threat to the United States and its allies.²⁴⁵ Consequentially, orchestrating a regime change in Tripoli remained on the agenda of the Bush administration. For example, in the last months of his term in office Ronald Reagan had launched a clandestine military training program in Chad supporting several hundreds of exiled Libyans with the objection to destabilizing the Qaddafi regime. The Bush administration continued this covered operations until a pro-Libyan rebel group took over power in Chad and the Libyan volunteers were forced to leave the country without having ever been involved in combat with the Libyan army (St. John 2002: 154, 164-5). However, towards the end of Bush senior's presidency, the desire to topple Muammar al-Qaddafi was slowly phasing out and the covered military projects were one after another suspended. It was reported that the Bush administration finally reached the conclusion that it "cannot remove the man [Muammar al-Qaddafi] from the outside by military means" (e.g. Gideon 1998: 134; Litwak 2007: 177).²⁴⁶

Apart from slowly abandoning the intention of regime change, the Bush presidency differed also from the Reagan administration in the sense that Libya was no longer regarded as the ideal showcase for new anti-terrorist policy (see Figure 19). There is no convincing evidence available that would suggest that George H.W. Bush picked on the Qaddafi regime to test foreign policy strategies and show the world Washington's reawakened assertiveness.

(iii) Clinton & Bush Junior I: No Regime Change anymore & the Fear to Be too Soft on Qaddafi

While the desire for regime change has lost importance towards the end of the Bush senior administration, it was only with the incoming Clinton administration that this strategic desire was completely abandoned (Figure 19). In the following years, it was made clear by several members of the new administration that Washington had no intention to orchestrate Muammar al-Qaddafi's downfall (e.g. Neumann 2000; St. John 2002: 182).

But while Bill Clinton had once and for all abandoned the plan of a forced regime change, the new presidential administration continued to pursue the goal to curb Libya's aggressive policy – an element of continuity in the U.S. policy towards the Qaddafi regime. Libya was still regarded as a serious security risk that needed to be addressed by coercive diplomacy (Interview with Indyk, Nov. 2011, Annex 16). As Bruce St. John – one of the most knowledgeable experts on Washington's policy towards Libya – concluded: "[I]n a virtually seamless transition, the Clinton administration from the beginning articulated a policy toward Libya

²⁴⁵ This perspective was, for example, clearly expressed when a spokesman of the State Department in December 1990 who underscored that "Libya's support for terrorism is nothing new. Libya has been on the U.S. Government's list of state-sponsors of terrorism since 70s. Libya continues to offer extensive support to notorious international terrorist groups (...) Just to reiterate our policy, we continue to hold terrorists and their state sponsors responsible for acts of terrorism" (U.S. Department of State. 1990).

²⁴⁶ As Robert Litwak has pointed out, among other things, Washington was compelled to de-emphasize its regime change objective in order to win wide support for the multilateral sanctions against Libya established by the UN in the wake of the Lockerbie bombing. Because the U.S. attempt to actively destabilize the Qaddafi regime was inconsistent with the policy of almost all UN member states, the Bush administration had to lower its profile in that respect (Litwak 2007: 178-9).

that was difficult to distinguish in tone or content from that of its predecessor” (St. John 2002b).

However, the Clinton administration could not shut its eyes from the fact that the Qaddafi regime was slowly changing course during the 1990s.²⁴⁷ Libya was at that time abandoning much of the aggressive foreign policy it had pursued beforehand and was sending signals to Washington that in favor for a rapprochement with the United States. These changes troubled the U.S. policy towards Libya. On the one hand, the Clinton administration had to acknowledge the positive steps that Libya was making and had to encourage Tripoli to pursue this track further. Despite the prevailing coercive diplomacy towards Libya, the Clinton administration was therefore towards the late 1990s cautiously test-driving more conciliatory noises towards the Qaddafi regime. In parallel to its harsh pressure on the North African country, the Clinton administration was, for example, not voting against Libya’s first participation at an UN mission (to the Democratic Republic of Congo), dispatched for the first time a mission of consular officials to Libya in order to evaluate the travel security for U.S. citizens, and allowed in the February 2000 for the first time four U.S. oil companies (i.e. Conoco, Occidental, Marathon and Amerada Hess) to send a fact-finding mission to Libya in order to inspect the oil fields in the North African country they had still under concession (e.g. St. John 2002: 183; Zoubir 2006: 53). On the other hand, the Clinton administration was not ready for a rapprochement with Libya. Distrust and the view that Libya was still a state of concern clearly dominated the Washington’s policy towards the North African country (e.g. Ronen 2008: 56; St. John 2002: 181; Neumann 2000: 142-5; Zoubir 2006: 54).²⁴⁸ While many European countries were preparing to normalize their relations with Tripoli after the UN sanctions had been lifted in 1999, the United States continued its course towards the North African state. Thus, lowering the harsh stance towards the Qaddafi regime was not an objective in itself but was rather regarded by the Clinton administration as an additional instrument beside the conventional sanction politics (Interview with Martin Indyk, Nov. 2011, Annex 16).²⁴⁹

But despite the fact that the United States continued an antagonistic course towards the Qaddafi regime, the fear that the domestic audience could gain the impression that the Clinton administration would be too gentle on Qaddafi started to haunt policy makers in Washington. In particular in light of the cautious diplomatic engagement with Tripoli which was started in the late 1990s regarding the remaining issue of the Lockerbie bombing, the White House was significantly concerned to be “caught in bed with Qaddafi” (Interview with Paul Pillar 7th Dec. 2011; Zoubir 2006: 54).

²⁴⁷ In spring 2000, Ambassador Sheehan, the coordinator for counter-terrorism under the Clinton administration, said for example that the picture in Libya was still mixed and that the Qaddafi regime had neither cooperated sufficiently with regard to the Lockerbie trail nor has it compensated the families of the Lockerbie victims. However, Sheehan made clear that the “links to terrorism have dramatically declined since the 1980s” (U.S. Department of State. 2000).

²⁴⁸ For example, one argument for the launch of the National Missile Defense system, the United States began at that time, was that Libya and other “rogue states” would soon acquire intercontinental missiles that could at some point threaten U.S. security (Zoubir 2006: 54).

²⁴⁹ In light of the emerging new conciliatory steps towards Libya some scholars had made the argument that the United States had changed its Libyan policy already during the 1990s in gradual steps (e.g. Hoagland 2000). In hindsight this argument appears however exaggerated.

Since the Lockerbie bombing, the Qaddafi regime was perceived by the American public as an incarnation of cruelty and viciousness. Media coverage on Libya and its aggressive policy were relatively high at that time. In particular, the families of the Lockerbie victims had formed an influential pressure group which was well connected with important Congress members and was successfully lobbying for a harsh pressure on Tripoli.²⁵⁰

Against that background, we observe in the mid-1990s the emerging of a new strategic desire in the U.S. policy towards Libya: the attempt to avoid the impression of being too soft on Qaddafi (Figure 19).

When George W. Bush became the 43rd U.S. President in January 2001, he and his neo-conservative advisors were eager to clearly demarcate his policy from the preceding Clinton administration. But with regard to Washington's Libya policy, the new chief at the Oval Office continued without significant changes the course of his predecessor (Figure 19).²⁵¹ Improving the U.S. security in light of a still threatening Qaddafi regime was the central objectives.²⁵² The Bush junior administration continued the cautious diplomacy which the Clinton administration has started in the late 1990s (Interview with Robert Joseph 3rd November 2011; see also: Leverett 2004). The cautious cooperation in the field of anti-terror policy established under Clinton's presidency went on and began to accelerate after the 9/11 attacks (Zoubir 2006: 59). And similar to his predecessor, George W. Bush, and his *entourage* were also driven by the fear to appear as too patient and soft towards the Qaddafi regime (Interview with Robert Joseph 3rd November 2011; see also: Litwak 2007; 185; Slavin 2004).

(iv) Bush Junior II: Linking the Diplomatic Engagement with Tripoli to the Iraq War

While continuity marked the Bush Junior administration's Libya policy, we see in spring 2003 a new and quickly emerging desire in Washington's posture towards the Qaddafi regime (Figure 19). While the other objectives remained unchanged, there is solid ground to believe that George W. Bush and his advisors undertook in light of the U.S. lead intervention to Iraq a strategic readjustment. It appears that Bush junior administration was eager to yield the political profit from a future engagement with Libya on WMD for the broader Bush Doctrine. The nascent bargaining process with Tripoli became in that sense subordinated to the Washington "grand strategy" for the Middle East and was linked to the outcomes of the Second Iraq War.

²⁵⁰ Supplied with high media coverage and support by the U.S. Congress, the victim families influenced at several occasions the American-Libyan relations. Namely the intensification of the sanction package against Libya – the Iran-Libya-Sanction Act (ILSA) – imposed in 1996 and the delay of the ease of the travel restriction were to a considerable extent the outcome of successful lobbying by the victim families and their supporters at Capitol Hill (e.g. Litwak 2007: 179, St. John 2002: 183).

²⁵¹ Although the strategy of regime change played a prominent role within George W. Bush's first presidential term – namely expressed by the Iraq intervention in spring 2003 – this element was missing in Washington's Libya policy. While the Bush Junior often referred to Ronald Reagan as a political idol, Reagan's policy towards Libya was not regarded as a script for future action.

²⁵² For example, even when on the 31st January 2001 – after 12 years of investigation and 84 days of hearing – the three Scottish judges in the Netherlands (at Camp Zeist) found Abdel Basset Ali al-Megrahi guilty for committing the Pan Am 103 bombing and the majority of Europe states welcomed this outcome, George W. Bush made clear in a joint statement with Tony Blair that the UN sanctions would not be lifted before Libya was completely fulfilling all demands of the UN Security Council resolution – mainly the compensation for the families of the Lockerbie victims (Bush & Blair 23rd Feb. 2001).

The decisive meeting in which the Washington's policy towards Libya was turned into a vehicle severing the broader Bush Doctrine took place in April 2003. President George W. Bush was discussing with CIA Director George Tenet, Vice President Cheney, and the Deputy Director for CIA Operations, Steven Kappes, the pros and cons of a diplomatic engagement with the Qaddafi regime on WMD (Suskind 2006, Suskind 2007: 222-3; Franz & Collins 2007: 306). President Bush eventually took the decision to give the Libyan offer for explorative WMD talks a try. But by referring to the ongoing Iraq War and the broader plans to establish a "Pax Americana" in the Middle East, he issued the instruction that the bargaining process with Tripoli should be pursued in a way that its outcome would "send a signal to the world." According to Ron Suskind, an investigative journalist, the U.S. President admonished the attendees of this secret White House meeting: "make sure we get some deliverable from this process" (Suskind 2006; see also: Frantz & Collins 2007).

In the light of the presidential decision, it is not astonishing that the key U.S. players who were involved in the bargaining process with Libya often uttered the idea that the diplomatic engagement with Tripoli was a "showcase", an "alternative model", or a "vehicle" that was, in the end, serving higher U.S. objectives. Reflecting on the negotiation process with the representatives of the Qaddafi regime in late 2003 Ambassador Robert Joseph (at that time Director for WMD issues at the National Security Council) said: "it was very conscious on our part to try to establish a model different from Iraq (...) We wanted to have a different model (...) So you [future *atomic renegade states*] could choose. You could choose Iraq, or you could choose an alternative model" (Interview with R. Joseph, Nov. 2011; see also: interview with D. Jody, Dec. 2011, Annex 16). Paula DeSutter, Assistant Secretary of State for Verification and Compliance, expressed the very same idea that Libya represented "a model for other proliferators to mend their ways and help restore themselves to international legitimacy" (U.S. Congress, 26th February 2004). By the same token, in 2005 Ambassador Burns, Under Secretary for Political Affairs at the State Department, said that "Libya is portably the best model for how a country can renounce the pursuit of weapons of mass destruction (WMD) and take important steps to rejoin the international community (U.S. Congress, 16th March 2005: 16).²⁵³

(v) Bush Junior III after December 2004: Priority on Cautious Rapprochement

After the Qaddafi regime publically announced its decision to dismantle all its WMD programs, "cautious rapprochement" with Tripoli became the main objective of the Bush Junior's policy towards Libya (Figure 19). Although skeptics and distrust were still high in Washington, the Bush administration realized that the Qaddafi regime represented no direct security threat to the United States anymore. In the light that many European countries had already re-established its commercial ties with oil-rich Libya, the will to "reap the fruits" the diplomatic and political effort was mounting in Washington. Particularly, the U.S. oil companies were actively lobbying for a fast normalization with Tripoli (e.g. Zoubir 2006).

²⁵³ Interestingly, the objective to link Libya to broader strategic setting was also shared by the United Kingdom. Tim Dowse, a British diplomat who was involved in the U.S.-Libyan negotiation process said for example: "We were very keen to demonstrate internationally that (...) there was more than one way to deal with WMD disarmament (Interview with Tim Dowse, Feb. 2012, Annex 16).

That the United States was ready in late 2003 to pursue the desire of a “cautious rapprochement” is already evident in the statement U.S. President George W. Bush delivered in the evening hours on 19th December 2003. Besides welcoming Libya’s *nuclear reversal*, the President said that: “Libya can regain a secure and respected place among the nations, and over time, achieve far better relations with the United States” (Bush, 19th December 2003). In the similar vein, Ambassador Burns said in March 2005 at a hearing before Congress Committee on International Relations that “Libya’s actions to abandon weapons of mass destruction and meet its Pan Am 203 obligations have significantly advanced American as well as Libyan interests” (U.S. Congress, 16th March 2005: 3). Although there were several members of the Bush Junior administration who were demanding for a tougher stance towards the Qaddafi regime given its negative track record in human rights abuse and its non-democratic political system, the Bush junior administration resisted to these calls (St. John 2008: 136; interview with R. Joseph, November 2011, Annex 16).

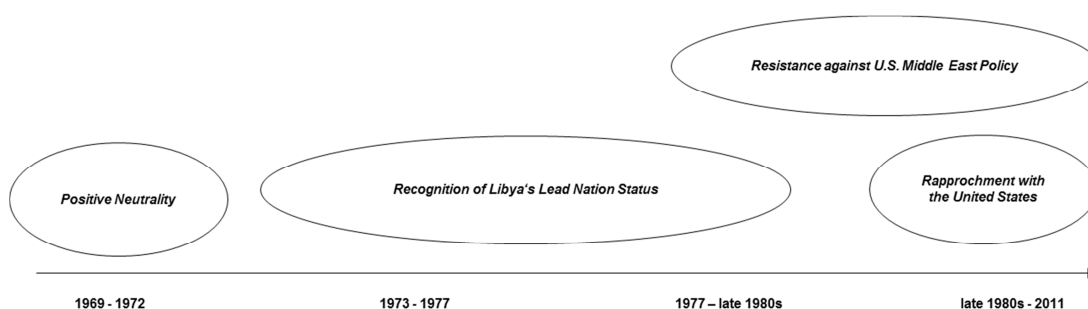
B) Interest Profile: Tripoli’s Desire towards the United States

The Libyan desires vis-à-vis the United States, we revealed with the help of the “interest profiling” method, were less complex than those we disclosed for the successive U.S. presidency. However, we observe here too several shift and a trend from confrontation to more benign posture (Figure 20).

(i) From Positive Neutrality over Arab Lead Nation Respect to Confrontation

The ties between Washington and the Qaddafi regime had never been good. However, while the Libyan-American relationship became starting by the late 1970s constantly more hostile and antagonistic, the early and mid-1970s were marked by relative calamity and by a conciliatory undertone. Tripoli’s foreign policy towards Washington was determined in the 1970s by two desires: the implementation of the “Positive Neutrality” doctrine and the attempt to be recognized by the United States as an Arab lead nation (Figure 20).

Figure 20: The Qaddafi Regime’s Strategic Desires towards the U.S.



“Positive Neutrality” was a doctrine Tripoli had adapted from the thoughts of the Egyptian President Gamal Abdel Nasser. In the words of the charismatic Egyptian President, “Positive Neutrality” represented a particular non-alignment posture during the Cold War. In order to balance the influence from the Eastern and the Western bloc, enlarge its own room for political maneuvering, and to reap the greatest benefit from both Cold War camps,

“Positive Neutrality” searched to apply non-alignment not by isolation but through peaceful coexistence and the parallel search for assistance Washington *and* Moscow (e.g. Binder 1964: 240-8; Dekmejian 1971: 109-118).

In the first years after the bloodless putsch against King Idris, “Positive Neutrality” was the central reference point in Tripoli’s policy towards the United States (St. John 1987: 71-2; St. John 1983: 478-80).²⁵⁴ From 1969 until early the 1970s we encounter numerous statements where the Qaddafi regime made clear that “Positive Neutrality”, which prescribed a cautious and pragmatic relation with Washington, was a central guiding principle of its foreign policy towards the super powers. For example, when Muammar al-Qaddafi gave during an interview with the Egyptian newspaper al-Ahram in October 1969 a summary of the core elements of Libya’s future foreign policy, he, tellingly, mentioned “Positive Neutrality, non-alignment, and support for all liberation causes and freedom in the whole world” as central components (Middle East Institute 1970: 212). One month later, the Libyan leader clarified in an interview with a Polish Radio station that the application of this foreign policy doctrine meant that Libya would “not differentiate between East and West, except on the basis of the unconditional help each state offers and of mutual respect and relations of equality” (Middle East Institute 1970: 212).²⁵⁵

In line with “Positive Neutrality”, there is ample evidence that during this period, pragmatism and avoidance of confrontation were central to Libya’s policy towards the United States. For example, when Muammar al-Qaddafi and his comrades seized power, they were eager to communicate towards Washington as quickly as possible that they had no intention to nationalize the oil industry and that U.S. companies could continue their business without alternation (St. John 2002: 104). Moreover, when the Qaddafi regime announced that it was not extending the leasing contract for the Wheelus Airbase – a large military component a few kilometers east of Tripoli which U.S. Air Force had rented from 1954 to 1971 – Tripoli attached great importance to frame the evacuation as a stringent deduction of its taste for neutrality and was keen to dispel any concerns of an anti-U.S. course (Gera 1980: 199).

Starting around the year 1973 the Qaddafi regime appeared to have changed more and more its foreign policy – a fact that also affected its relation with the United States (Figure 20). Recognition for the self-chosen role as an Arab lead nation became now the dominant

²⁵⁴ Neutrality and peaceful coexistence in external relations were also in line with the Qaddafi regime’s effort to consolidate its power in internal affairs after the putsch. A more confrontational conduct towards the United States might have undermined the revolutionary rearrangement of Libya’s social and political system (Ronen 2008: 11). In that sense, the application of the “Positive Neutrality” in the American-Libyan relationship could be interpreted as an expression of a general trend in post-revolutionary Libya. According to Dirk Vandewalle the years between 1969 and 1973 marked an interlude, a period of political transformation from the conservative monarchy “to an increasingly activist military regime” (Vandewalle 2006: 94).

²⁵⁵ The distant but not hostile position towards the United States, which was buttressed by a dense web of economic and commercial ties – in particular in the energy sector (Vandewalle 2006: 131; St. John 1987: 72-3, 79-80) – was defended by Qaddafi even against actors who were more critical against the United States. In a debate held in spring 1972 with Egyptian intellectuals the young Libyan dictator rejected harsh critique towards Washington by clarifying that the United States had never pursued a neo-colonial politics towards Libya but rather has provided aid and financial assistance to the North African country (Davis 1990: 34; First 1974: 242).

theme. Bolstered by a steep increase in oil revenues, the early 1970s marked an important turning point in Libya's foreign policy.²⁵⁶ Libya tried to ascend itself to the level of a regional powers and shifted towards a more active foreign policy (Niblock 2002: 223-225; Vandewalle 2006 Deeb 1991).²⁵⁷ For example, the Qaddafi regime started to formulate around the year 1973 the vision of Libya as the defender of the suppressed masses that were perceived to be exposed to imperialist and neo-colonial forces (Arnold 1996: 79; St. John 2001: 116-7).²⁵⁸

The attempt to emerge as a new Arab lead nation was – similar to the Positive Neutrality doctrine – a foreign policy approach that was not exclusively tailored to the United States but marked the general thrust of Libya's foreign policy. However, the Libyan-American relationship was clearly affected by the reorientation of Qaddafi regime's foreign policy. To be recognized by the United States as emerging power was an essential ingredient in the Qaddafi regime's policy towards Washington. Although Tripoli was – like many other nationalist and anti-colonial governments of the southern hemisphere at that time – in general, critical of the United States and its role as a superpower, Washington's acknowledgment was regarded as a crucial proof of its own significance. Correspondingly, it was reported that Tripoli was yearning to be treated by the United States as a respected Arab leader and demanded to be regarded by Washington as a player situated on the same eye level with other big powers in world politics (Vandewall 2006: 131; Arnold 1996: 79). Consequentially, the Qaddafi regime tried at that time to avoid a direct confrontation with the United States – although it embraced more and more an anti-American rhetoric and maneuvered itself more and more into a confrontational situation with Washington due to the fact that Libya's active and growingly aggressive foreign policy started to undermining Washington's interests in the Middle East and North Africa at numerous occasions (Vandewalle 2006: 131; Gera 1980).²⁵⁹

(ii) Zigzagging between Resistance and Recognition

Libya's active foreign policy steered Tripoli more and more towards a maelstrom of confrontation with the United States – neither planned nor wanted from both side (Ronen

²⁵⁶ For a more detailed description how the oil market affects Libya's foreign policy see e.g. Lemarchand 1988: 10; Vandewalle 2006: 94-6.

²⁵⁷ Significantly, this reorientation in external relations coincides with a period of drastic changes in Libya's domestic politics. Starting by 1973 the North African country entered into a revolutionary phase – the so called "Popular Revolution" – which altered Libya's state structure by removing numerous of the conventional and administration and legal institutions dated from the monarchy era (Vandewalle 2006: 84; Lemarchand 1988b: 7).

²⁵⁸ In general one can say that the Qaddafi regime's effort to comply with the vision of an Arab lead nation was a task that remained always a size too large for Libya – despite of all its oil wealth. In a way Tripoli was constantly trying to catch up with the self-imposed standards and aspirations (Lemarchand 1988b: 10-13; Ronen 2008: 153). Many curiosities of Libya's politics and Muammar al-Qaddafi particular habits could be ascribed to attempt to put in practices the self-chosen but overcharging vision to convert a desert North African country with around three million inhabitants which before the oil boom have been one of the poorest places on earth into an active player in world politics.

²⁵⁹ Tripoli's cautious pragmatism towards the United States was for example expressed by the fact that Libya violated the joint Arab oil embargo in the early 1970s and clandestinely delivered oil to the West. By the same token members of Black September – a Palestinian terror group which was in general regarded by the Qaddafi regime as comrades and were granted with financial and logistic support – were imprisoned when it occurred to Tripoli that they were planning to attack American-owned oil depots in Libya (Davis 1990: 35).

2008: 11-12; St. John 1987: 80-1). Around the year 1977, Tripoli appeared to adapt its foreign policy to this undeniable reality. Until that point, Tripoli had had no precise U.S. policy but had subjected its affairs with the Western superpower along general principles such as neutrality, non-alignment, and recognition. Around the year 1977, however, the United States became more and more the central focus of the Qaddafi regime's foreign policy. Pragmatism and restraint, which had beforehand marked the American-Libyan relationship, were falling apart and were giving room to a more confrontational course.²⁶⁰ Still inspired by the self-chosen role as Arab lead nation the Qaddafi regime entered into a decade that was marked by a zigzag between two objectives: resistance against U.S. policy and the continued effort to be recognized on the same eye level as an emerging power (Figure 20).

There is ample evidence that Tripoli became starting by the late 1970s more and more fixated to offer resistance against what was perceived as U.S. patronage and unjustified inference into Libya's "regional backyard". As Yehudit Ronen has pointed out Libya was in essence "endangered all of Washington's objectives in the region: combating terrorism across the Middle East, minimizing Moscow's influence while maximizing its own, consolidating stability against radical forces to safeguard pro-US Arab regimes, advancing the Arab-Israeli peace process, and ensuring the supply of oil at reasonable prices" (Ronen 2008: 29). It became more visible that Libya's effort to mingle into the big power business and maintain at the same time neutral ties with Washington was untenable and inherently contradictory. While the power elite in Tripoli were apparently taking the growing hostility with Washington as proof that countermeasures against U.S. dominance were needed and legitimated, they turned a blind eye to the fact that the quickly deteriorating ties with Washington was triggered in this first place by Libya's ambitious and aggressive foreign policy. The starting point of the intensified confrontation was certainly the Qaddafi regime's attempt to assassinate the U.S. ambassador to Egypt, Herman Frederick Eilts, in fall 1977 – a U.S. diplomat that was perceived by Tripoli as one of the driving forces behind the disliked Egyptian-Israeli rapprochement (Blundy & Lycett 1987: 152-3; St. John 2001: 110). The attempted murder which was discovered and thwarted marked a watershed in the American-Libyan relationship.

However, resistance against the United States was not the only desire the Qaddafi regime pursued at that time. In parallel, we also observe at that time evidence that Tripoli was eager to be respected by Washington as a key Arab power. Confrontation with Washington and yearning for recognition were in Tripoli's view not mutually exclusive. There are numerous incidences where Libya interrupted its confrontation course and undertook conciliatory steps towards the United States in the hope to be rewarded in exchange for recognition for its self-chosen role as an Arab lead nation. For instance, the Qaddafi regime called President Carter to improve diplomatic relations, launched a charm offensive aiming to win over famous and influential U.S. citizens (such as Muhammad Ali and Senator William Fulbright), and initiated a People-to-People Dialogue Conference where US and

²⁶⁰ At that point it is important to note that this shift in Libya's desires appear to coincide with Muammar al-Qaddafi's changing belief system which grew around that time from a DEF-type operational code into a B-type world view (see ch. 5.2.1.1).

Libyan citizens were supposed to meet with the aim spark a transnational dialogue and overcome misunderstanding (Ronen 2008: 19; Lennon 1978: 4; St. John 2002: 109-110, Wright 1981/2). The most important initiative in that regard was, however, when the Qaddafi regime successfully invited Billy Carter, the President's brother, twice to Libya in the late 1970s and convinced him to give several Libyan friendly statements (St. John 2002: 111).²⁶¹ Even when Ronald Reagan – who had already during the election campaign made anti-Libyan remarks – became the new chief at the Oval Office, the Qaddafi regime presented a proposal for the normalization of the American-Libyan relationship (Ronen 2008: 35).²⁶²

(iii) Rapprochement and Non-Military Resistance

In the late 1980s, we encounter another shift in Libya's interest profile. Resistance against U.S. policy remained important although the means applied were less violent. At that time, we saw a certain "demilitarization" of the Tripoli's policy towards the Washington. Starting by the 1990s, the Qaddafi regime dissociated itself more and more from asymmetric warfare and the "instruments" of terrorism. Resistance was instead implemented by diplomatic and political tools. That becomes, in particular, visible in the struggle with the United States and the United Kingdom on the resolution of the Lockerbie case – a diplomatic tug-of-war which became the dominant theme during the 1990s in the American-Libyan relationship (see also ch. 5.3.2.2). Yehudit Ronen has described this shift as a "diplomatic turn" in Libya's foreign policy (Ronen 2008: 6).

What was in that period, however, particularly outstanding was the transformation of the desire for "recognition" into the strategic objective of "rapprochement" (Figure 20).²⁶³ Starting by the early 1990s, we encountered significant evidence that Libya was sincerely interested in overcoming the confrontation and normalize its relationship with the United States. The first step Libya undertook in that direction was returning the remains of a U.S. combat pilot to the United States who had been downed during "Operational El Dorado Canyon" by Libyan air defense. The hand-over, which was implemented via contacts at the Vatican, were accompanied by an appeal to the new incoming Bush senior administration to normalize the American-Libyan relations (Niblock 2002: 228; St. John 2002: 154). Starting from the early 1990s, we saw a constant stream of these initiatives – including numerous proposals for bilateral dialogue proposed through intermediaries and diplomatic backdoor channels.

When the Clinton administration entered into office, Tripoli appeared to have considerably intensified its activities in that regard – falsely believing the new president would mark a

²⁶¹ This particular episode – duped "Billygate" by the press and later led to an investigation by the U.S. Congress – made certainly an important contribution to the fact that Libya's charm offensive rather lowered than increased the Qaddafi regime's standing in the general U.S. public.

²⁶² For example, in September 1981 Muammar al-Qaddafi said in an interview with the German weekly "Der Spiegel" that he would prefer Reagan to Carter who he described as naïve and ignorant. Reagan, on the other hand, would be "more serious" and the republican program would be more appropriate to Libya's policy, Qaddafi said (Interviewed by Der Spiegel, FBIS-MEA-81-183, Sept. 1981, Annex 3).

²⁶³ This shift we detected with the help of the "interest profile method" coincided again with the alternation in Muammar al-Qaddafi's worldview (i.e. the transformation from the B- to the DEF-type belief system in the late 1980s) we have identified in "operational code analysis".

window of opportunities (St. John 2002: 168, 193). Muammar al-Qaddafi was for example reported to have said that “Clinton’s election (...) is like a star shining in the dark” (Alterman 2006: 173). According to Ambassador Martin Indyk, responsible for Middle East policy at the State Department during Clinton’s presidency “Qaddafi had wanted to normalize his relationship with the West but with the United States in particular for a very long time” (Interview with M. Indyk, Nov. 2011, Annex 16). Interviewed by in the late 1990s the Libyan Undersecretary for European Affairs, Abdulati Alobidi said: “What we want is to get the Lockerbie problem behind us. It is the wish of the Leader and the people of Libya to normalize relations with the United States” (Viorst 1999: 74).

The desires of “resistance” and “rapprochement” made the Libya’s policy towards the United States starting by the early 1990s in many respects ambiguous and difficult to decipher from the outside. From Tripoli’s perspective however this posture were inherently logic and consistent. It reflected in essence the love-hate relationship that characterized Tripoli’s policy towards the United States until the Qaddafi regime was swept aside by the Arab Spring in 2011 (Figure 20).

5.2.1.3 The Re-enactment Method: Building the Five-Stage Cascade of Social Traps

After having surveyed the motivation of the Qaddafi regime and the United States, building a cascade of *social traps* is the final step of our effort to develop the *fit taxonomy* for the dimension of *procedural negotiation problems*. Applying the “reenactment method” introduced in the method chapter (ch. 4.3), we come to the conclusion that the American-Libyan negotiation process is best understood as a five-stage cascade of strategic traps built by four different types of 2x2 dilemma games:

- (1) Deadlock Game (first part of the *pre-negotiation phase*, 1987 - 1990)
- (2) Imposed Deadlock Game (second part of the *pre-negotiation phase*, 1990 - 2003)
- (3) Alibi Game (*pre-agreement phase*, March - December 2003)
- (4) again an Alibi Game (*agreement phase*, December 2003)
- (5) Biased Stag Hunt Game (*post-agreement phase*, 2004 - 2011)

As we have explained above, the survey of Tripoli’s and Washington’s motivation was biased. Only Muammar al-Qaddafi’s worldviews were mapped but not those of the successive U.S. presidencies – a fact owed to the varying availabilities of relevant data. Therefore, the “reenactment method” builds exclusively on a survey of the actors’ strategic desires.

But that does not mean that the investigation of the Libyan leader’s belief and worldviews was inutile. While the revealed results from the “operational code analysis” are not directly used to build the cascade of strategic cascade, it plays – in an expression of the triangulation logic (ch. 4.1) – a crucial function in verifying the “reenactment method”. As we have outlined in the method chapter, the method of “operational codes” has developed an independent procedure to translate different world views into preferences (ch. 4.2.1). Consequentially, we could use the findings stemming from the “operational code” analyze to cross-check the outcomes of the “re-enactment method”.²⁶⁴ The central question is: do both methods arrive at the same conclusion about the strategic constellations in the Libyan NRN? As we will show in this section: they do most of the time. The congruence in the findings is convincing evidence of the significant and reliability of these two approaches.

A) Pre-Negotiation Phase: From a Pure Deadlock to Imposed Deadlock Game

Applying the “reenactment method” it becomes clear that the *pre-negotiation phase* – the longest episode in the American-Libyan negotiation process which span from the late 1980s to March 2003 – was split in two distinct strategic sequences. The first part of this diplomatic episode – from December 1987 to the late 1980s – was structured by a Deadlock

²⁶⁴ Since the “interest profiling” of the U.S. desires was based on sound and expressive data, the cross-checking between the two methods is in particular relevant for the Libyan case. As we explained at the beginning of this section, the relevant data on the Qaddafi regime’s desires are murky, little in number, and often difficult to decipher. Therefore, it is reasonable that we do only a biased verification of the two methods.

Game.²⁶⁵ During the second part – from the early 1990s to March 2003 – the diplomatic struggle on Libya’s WMD programs was instead shaped by an Imposed Deadlock Game.

(i) Deadlock Game (December 1987 – late 1980s)

In the first year, from late 1987 to early 1990s, the diplomatic process on Libya’s WMD programs was marked by a confrontational and antagonistic pattern. If we apply the “reenactment method”, we come to the conclusion that Libya and the United States were entangled in a Deadlock Game (Figure). Both players had a payoff structure that is typical for Deadlock Games where unilateral defection is preferred over mutual defection, mutual defection over joint cooperation, and joint cooperation over unilateral cooperation (DC > DD > CC > CD).²⁶⁶

Figure 9: The Deadlock Game (Dec. 1987 - late 1980s)

		USA	
		start explorative talks [C]	no explorative talks [D]
Libya	start explorative talks [C]	2,2	1,4
	no explorative talks [D]	4,1	3,3 M,N,P+

The players' preference hierarchy: DC > DD > CC > CD

C = Cooperation D = Defection M = MaxiMin Solution N = Nash Equilibrium P+ = Qualified

If we replay the strategic situation based on the desires we have surveyed and the bargaining phases with its specific tasks we have identified in the historic analysis of the Libyan NRN (ch. 5.1.1), we come to the conclusion that unilateral defection (DC) must have been for Libya as well as for the United States the most attractive outcome in the first part of the *pre-negotiation phase* (see also Annex 4 and Annex 5). For example, remaining idle to a U.S. diplomatic offer to start explorative talks on WMD would have fulfilled the two desires Libya held at that time. First, such a step would have shown Libya’s resolve to resist against U.S. power politics. Tripoli would have been able to foil a US initiative. The Qaddafi regime could have portrayed itself in its favorite role: as the ringleader against the alleged U.S. neo-colonialist policy aiming to subject underdeveloped countries in general and the

²⁶⁵ Unfortunately, our survey of strategic desires (the interest profiling) is not detailed enough to determine the exact date when the Deadlock Game was transformed into an Imposed Deadlock Game. Our closest assessment is that it must be at the end of the 1980s – presumably in early 1989. It is also at that time when Muammar al-Qaddafi’s world view shifted from a B-type to a DEF-type operational code (cf. Figure 18).

²⁶⁶ Deadlock Games (game no. 9 according to the game theoretical taxonomy of Anatol Rapoport and Melvin Guyer (1966)) were often neglected by game theoretical analysts with the argument that this particular constellation is rather seldom and occurs in real-world politics only in extreme cases (e.g. Zürn 1992: 153). The Libyan case is in that sense a good example for those who argue that the Deadlock Games (and its sub-categories, such as the Imposed Deadlock Game) are more common in international affairs and that this particular strategic constellation is likely to occur also in not so extreme and more ordinary situations. In an historic analysis of strategic constellations between rivalrous actors (i.e. Egypt-Israel, Israel-Syria, Chile-Argentina, France-Prussia, Greece-Turkey, India-China), Maoz and Mor found, for example, that the Deadlock Game was the most common constellation occurring in 41 % of the interactions (Maoz & Mor 1996: 154). Moreover, if we give past case studies on negotiation dynamics between two or more players a more careful look we found that Deadlock Games were relatively common in diplomatic history (e.g. Aggarwal 1996: 142-157 and 287-307; Beck 1997; Conybeare 1985; Downs, Rocke & Siverson 1985: 122; Snyder & Diesing 1977: 124-9; Downs & Rocke 1987: 302; Oye 1986b).

Arab nations in particular. Second, if the United States had reached out for a diplomatic process in the late 1980s, that would have meant – in the perspective of the Qaddafi regime – that Washington was recognizing Libya as a crucial regional player and was ready to meet with North African country “on the same eye level” – another strategic desire Tripoli was pursuing at that time (Figure 20). Libya could have indulged the feeling of superiority if it had turned down a US plea for dialogue.²⁶⁷

Further applying the “reenactment method”, we also reveal that in all likelihood mutual defection (DD) – the so-called deadlock situation – was ranked by the two sides as the second best outcome. While both sides would have preferred unilateral defection (DC), mutual defection (DD) was still a relatively attractive situation from which both sides – the United States and Libya – would not have departed unilaterally. For example, the situation where neither of the two sides was talking to each other was conducive to the strategic goals Washington was pursuing at that time in its policy towards the North African country (see Annex 5 for further discussion). Avoiding any diplomatic exchange with Libya would have been in line with the Reagan’s administration objective to orchestrate a regime change in Tripoli. The same applies to Washington’s desire to render Libya into a showcase for successful U.S. anti-terror policy. And while mutual defection (DD) would have had no tangible impact in terms of improving the United States’ security vis-à-vis the Qaddafi regime’s hostile foreign policy (the third of Regan administration’s strategic objectives), stoic refusal of any bargaining process with Tripoli could have been interpreted as a sign of Washington’s resolve towards the North African dictator. Mutual defection (DD) had not meaningfully improved U.S. national security. However, it would not have imposed any harm to this strategic goal either (Annex 5).

With the help of the “reenactment method,” it becomes clear that both players – the United States and Libya – must have ranked joint cooperation (CC) in a relatively low position in their hierarchy of preferences. For the Qaddafi regime, holding unanimously explorative WMD talks would have contradicted the objective to “resist against U.S. power politics”. For the United States, the same would have applied to the regime change objective as well as to the goal of rendering Libya into a testing ground for anti-terrorism policy (Annex 4 and 5).

The result we have revealed for the first part of the *pre-negotiation phase* with the “reenactment method” is corresponding with the findings of the “operational code analysis” on Muammar al-Qaddafi’s belief system. As we have outlined above, the Libyan leader was until the late 1980s indulging a worldview which had been labeled by the literature as a B-type belief system. Foreign policy leaders, who are found to follow this world view, are assumed to have a preference order which is identical with the strategic hierarchy of the Deadlock Game (DC > DD > CC > CD) (Figure 16 and Figure 9). Thus, “operational code method” is supporting the accuracy of the “reenactment method”.

²⁶⁷ For more details see the complete discussion of the “reenactment method” for the pre-negotiation phase in Annex 4 and 5.

(ii) Imposed Deadlock Game (late 1980s – March 2003)

The Deadlock Game prevailed only for a short time. With the help of the “reenactment method,” we were able to show that the *pre-negotiation phase* was shifted in the early 1990s into a slightly more benign strategic constellation: the so-called Imposed Deadlock Game.²⁶⁸

Figure 21: Imposed Deadlock Game

		USA	
		start explorative talks [C]	no explorative talks [D]
Libya	start explorative talks [C]	3,2 P+	1,4
	no explorative talks [D]	4,1	2,3 M,N,P+

US preference hierarchy: DC > DD > CC > CD

Libya's preference hierarchy: DC > CC > DD > CD

C = Cooperation D = Defection M= MaxiMin Solution N = Nash Equilibrium P+ = Qualified

In the survey of the Qaddafi regime’s desires we have identified in the early 1990s the rise of a new objective: the search for a rapprochement with Washington (ch. 5.2.1.1). If we put ourselves “into the shoes” of the power elite in Tripoli, we come to the conclusion that this change Libya’s “interest profile” must have translated – in all likelihood – into a new strategic disposition. Tripoli took on the preference order which is normally held by the players of the PD game (DC > CC > DD > CD).

We assume that mutual cooperation (CC) gained importance for Libya at that time. After all, the Qaddafi regime’s new intention to conciliate with Washington would have been substantially promoted if both sides had started exploratory talks on the WMD issues. In a similar vein, the option of mutual defection (DD) is assumed to have lost relevance for Libya in light of the desired rapprochement with the United States. Applying the “reenactment method” we come to the conclusion that mutual defection (DD) was ranked by Libya only on the third place at that time. Although Tripoli would have been ready to choose that option if the United States had moved likewise into that direction, mutual defection lost much of its attraction as it clearly contradicted Libya’s newly emerged desire for rapprochement with Washington (Annex 6).

The findings provided by the “reenactment method” are again supported by our “operational code analysis”. Mapping Muammar al-Qaddafi’s worldview, we detected a

²⁶⁸ The Imposed Deadlock Game is a less malign sub-type of the pure Deadlock Game. It is synonymous with situation no. 11 in Anatol Rapoport’s and Melvin T. Guyer’s taxonomy on 2x2 games (Rapoport & Guyer 1966). The expression “Imposed Deadlock Game” was coined by Marc A. Levy in his study on the U.S. effort to mediate the Namibia conflict during the Carter and Reagan administration (Levy 1985). It is the major characteristic of this game constellation that one of the players continues to “dwell” in a pure Deadlock Game and is *imposing* this confrontational strategic logic to its counterpart who is in general more in favor for cooperation expressed by a hierarchy of preferences we normally encounter in PD games. Imposed Deadlock Games were rarely studied in IR research. Using a different label, Langlois & Langlois (1996) come, for example, to the conclusion that the U.S.-China relation is in many respect structure by an Imposed Deadlock Game. And by referring to the historian Fritz Fischer (1964) – a scholar who’s research was in recent years heavily contested by Christopher Clark (2013) – Snyder and Diesinger came, for example, to the conclusion that the July Crisis in 1914 signified also an Imposed Deadlock Game (Snyder & Diesinger 1977: 94; see also: Levy 1985).

shift in the late 1980s (presumably starting by in late 1988 or early 1989; Figure). Abandoning the previous B-type foreign policy mode, the Libyan leader was adopting a more cooperative DEF-type worldview. According to the operational code literature the DEF-type belief system is associated with the same payoff structure we revealed for Libya by applying the “reenactment method” (cf. also Figure 18). Again, the relevance of the “interest profiling” and the “reenactment method” is supported by the findings stemming from the “operational code analysis”.

As we have explained above (ch. 5.2.1.1) Washington’s strategic desires towards Libya were changing too during the second part of the *pre-negotiation phase* (1990 - March 2003). While regime change was no longer an objective, a new strategic goal emerged at that time which was primarily inspired by domestic politics. The Clinton administration and later the Bush junior administration were eager to avoid the impression of being “too soft” on the Qaddafi regime (Annex 7). But despite these ideational shifts, Washington was – in all probability – not changing its strategic position towards the North African country. With the help of the “reenactment method” we are able to show that the shifting desires were *not* translating into a new hierarchy of preferences. Until March 2003 the United States maintained the confrontational deadlock disposition (DC > DD > CC > CD). In all likelihood, when confronted with the question to start a diplomatic engagement with Libya, the United States would still have given relatively high value to the option of mutual defection (DD) and continued to assign a relatively low preference to the choice of joint cooperation (CC). The security related concerns the Regan and Bush senior administration would have had vis-à-vis a diplomatic engagement with Libya remained also relevant for the Clinton and Bush junior administration. Moreover, explorative WMD talks would have been also inconsistent with Washington’s objective to avoid the impression of being “too soft” on the Qaddafi regime (Annex 7). Thus, one would be trapped into a false interpretation of the American-Libyan negotiation process if one had simply equated the shift in the U.S. desires with a strategic change in Washington’s stance towards the Qaddafi regime. If we had not applied the “reenactment method” we would have – in all probability – misinterpreted the strategic preferences the United States was pursued towards Libya in the 1990s.

B) Pre-Agreement Phase: The Alibi Game

By March 2003 the diplomatic process between the United States and the Qaddafi regime entered into the *pre-agreement phase* (ch. 5.1.2). With the help of the “reenactment method” we are able to reveal that both sides were entangled during this period in a so-called Alibi Game (Figure 22).

Alibi Games are a type of strategic constellation that has been widely neglected by IR scholars although they are assumed to occur in real world situation way more often than the frequently cited PD Game.²⁶⁹ Alibi Games, which are characterized by a biased

²⁶⁹ The term “Alibi Game” was coined by Robinson and Gofort in order to describe a set “degenerated” PD Games (Robinson & Gofort 2005: 83-91; Robinson & Gofort 2004). Alibi Games are in essence asymmetric PD Games. But while the classical PD was intensively studied by IR scholars, Alibi Games received almost no attention (for a rare exception see: DeCanio & Fremstad 2013; Maoz & Felsenthal 1987) – although these authors have studied the Alibi Game under a different label (see also 6.1.1.4).

structure, signify relatively challenging strategic constellations. Nevertheless, this type of *social traps* is more benign in terms of joint cooperation (CC) than the two previous 2x2 dilemma games – the Deadlock Game and the Imposed Deadlock Game.²⁷⁰

Figure 22: Alibi Game

		USA	
		nuclear reversal negotiation [C]	no negotiation [D]
Libya	nuclear reversal negotiation [C]	4,3 P+	1,4
	no negotiation [D]	2,1	3,2 M,N

US preference hierarchy: DC > CC > DD > CD
 Libya's preference hierarchy: CC > DD > DC > CD

C = Cooperation D = Defection M = MaxiMin Solution N = Nash Equilibrium P+ = Qualified

The shift from the Imposed Deadlock Game to the Alibi Game is in methodic terms of particular interest. The two principles mode of endogenic change we have discussed in our introduction on Enlightened Rationalism – “sequencing by translation” and “sequencing by weighting” (ch. 2.5.3.4) – were at play at the outset of the *pre-agreement phase*. Applying the “reenactment method,” we disclose that this shift was – unlike the two previous strategic transformations of the *pre-negotiation phase* (i.e. the Deadlock and the Imposed Deadlock Game) – not only caused by a *translation* of the players’ altering desires. Rather, we see that motivational *weighting*, initiated by a changing set of opportunities, also played an important role.

By spring 2003 the United States was eventually abandoning the deadlock payoff structure it had maintained throughout the entire 16 years of the *pre-negotiation phase*. In its policy towards the Qaddafi regime, Washington was now shifting to more cooperative and less confrontational stance. Like Tripoli did already in the early 1990s, the United States took on a strategic posture we normally associate with the PD Game (DC > CC > DD > CD). While the choice for unilateral utility maximization (DC) was still ranked at the first place, joint cooperation (CC) was – in comparison to the hitherto deadlock payoff structure – moved forward to the second position in the U.S. hierarchy of preferences.

Washington’s new strategic orientation was caused a new emerging desire. In the survey on the U.S. “interest profile,” we have detected that the Bush junior administration introduced by spring 2003 a new strategic goal (ch. 5.2.1.1). Washington aimed to establish a linkage between the nascent efforts to reverse Libya’s WMD programs and the Second Iraq War – back then the central power project of George W. Bush’s foreign policy (ch. 5.3.2.2). The portfolio of Washington’s strategic goals towards the Qaddafi regime was altered several times during the 16 years of the *pre-negotiation phase* without a decisive impact on the U.S. payoff structure. This time, however, the “desire shift” was translated into a new strategic constellation.

²⁷⁰ The Alibi Game we faced during the nuclear reversal negotiations with Libya would signify in the taxonomy of 2x2 strategic games developed by Rapoport and Guyer the game no. 47 (Rapoport & Guyer 1966).

Based on the “reenacting method”, it is reasonable to assume that the objective to draw a linkage to the Iraq War led the Bush junior administration to accredit higher value to the strategic choice of joint cooperation (CC) and lowered at the same time Washington’s confrontational stance pursued beforehand towards the Qaddafi regime (Annex 9). Starting explorative talks on Libya’s WMD programs appeared now in a more favorable light. Seen from the perspective of the Bush junior administration, successful disarmament negotiations with Tripoli would have been crucial evidence that the U.S. led intervention to topple Saddam Hussein had positive implications for the entire Middle East region and also affected the course of Libya’s foreign policy. By the same token, the choice of mutual defection (DD) presumably lost attractiveness to the Bush administration during *pre-agreement phase* since this outcome had no use for the objective to establish a positive political connection between the Second Iraq War and the effort to disarm Muammar al-Qaddafi with diplomatic instruments (for more detail discussion see Annex 9).

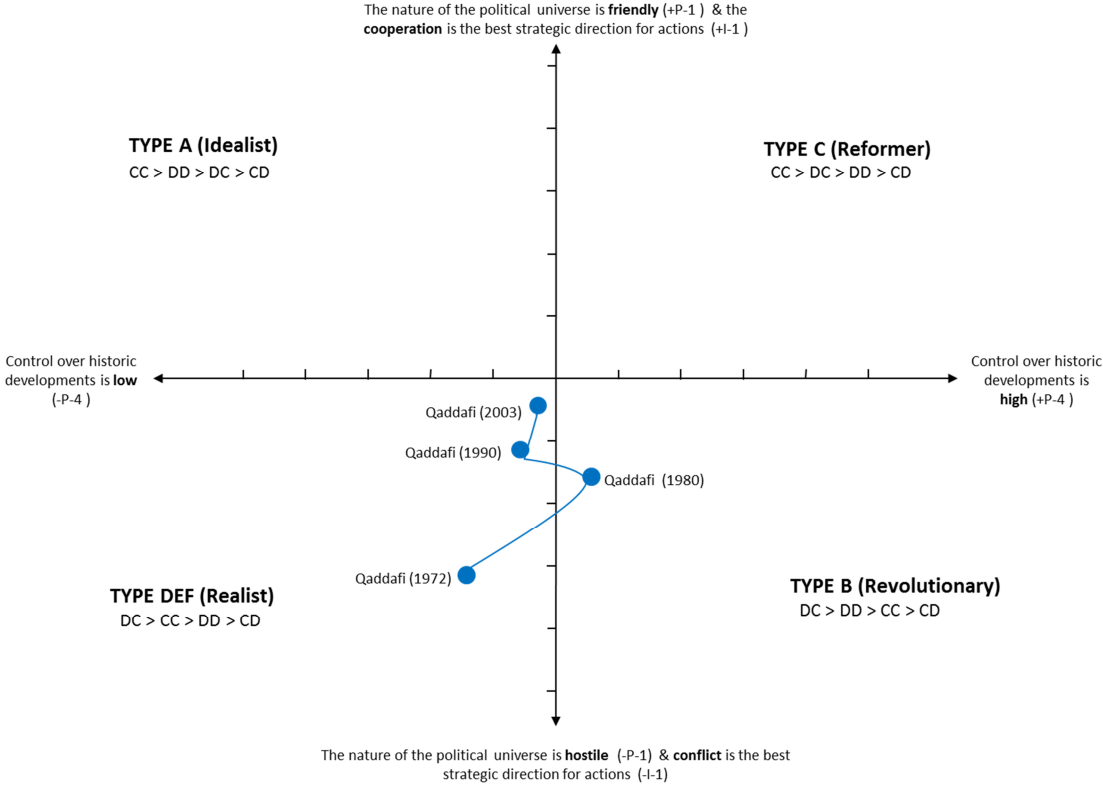
However, not only the United States was changing its strategic disposition. Libya’s stance was shifting too. As the diplomatic process entered into the *pre-agreement phase*, the Qaddafi regime pursued a payoff structure that is normally associated with the Stag Hunt Game (CC > DD > DC > CD). Most noteworthy in comparison to the previous Imposed Deadlock constellations was Tripoli’s rising esteem for joint cooperation (CC). Starting by spring 2003 this outcome was ranked at first place in Libya’s payoff structure.

Also noteworthy is the fact that the shift in Libya’s strategic stance was, according to our “reenactment method”, not the result of the conventional “sequencing by translation” but – in all probability – the outcome of the more rare “sequencing by weighting”. When the diplomatic process on the reversal of Libya’s WMD programs entered into the *pre-agreement phase*, the strategic options available for the two sides were changing (see ch. 5.1.1). It was not anymore the question whether or not to hold exploratory talks. Rather, the choice given to the two players was whether or not they were willing to start direct negotiations on a final disarmament agreement. Applying the “reenactment method” we come to the conclusion that this changing set of opportunities let appear Libya’s desires in “different light” to an extent that Tripoli’s preference structure was affected causing a new strategic constellation (Annex 8).²⁷¹

²⁷¹ For example, according to our survey on Tripoli’s “interest profile”, the desire to resist against U.S. power politics was of high relevance for the Qaddafi regime throughout the 1990s and early 2000s. During the preceding *pre-negotiation phase*, this desire was – in all probability – an important reason for the Qaddafi regime’s relatively high inclination for defection. Refraining from any diplomatic engagement with the United States was until spring 2003 the primary vehicle to implement the resistance against Washington’s Middle East policy. However, when the diplomatic process moved into the *pre-agreement phase* Libya starting by spring 2003 and the United States established a diplomatic channel and held series of secret talks, the objective of “resistance” appeared in a “different light”. While this desire remained unabated, executing this objective by uncooperative behavior become more and more inappropriate in light of the set of opportunities that was now available to Tripoli. It is rather unlikely that Washington’s active involvement in the nascent NRN was perceived by the members of the Qaddafi regime as an expression of U.S. power politics. Assuming a minimum of rationality, resisting against this diplomatic process by defection must have appeared misplaced and inappropriate in the Libyan perspective. Thus, the strategic goal to oppose the United States remained important. However, due to the changing set of opportunities triggered by the advance of the diplomatic process, the translation of this particular desire into action-guiding preferences was “weighted” into a more cooperation oriented payoff structure (see also Annex 10).

In the *pre-agreement phase*, the findings of the “reenactment method” and the “operational code” approach are inconsistent. As it was revealed by the survey of Muammar al-Qaddafi’s belief system, the Libyan leader continued in the early 2000s to see the world through the lens of a DEF-type perspective (Figure). This belief system is associated with a payoff structure we normally encounter in PD Game constellations (i.e. $DC > CC > DD > CD$). However, if we give the actual “position” of Muammar al-Qaddafi’s worldview a more careful look (Figure 23), we find that he was very close to an A-type belief system – an operational code that characterized by the Stag Hunt payoff structure (Figure 23). When we position the worldview the Libyan dictator held in the year 2003 on the four-field matrix of operational codes, we find that Qaddafi was at that time almost on the verge of transforming from a “realist” (DEF-type worldview) into an “idealist” (A-type belief system). Thus, there was an inconsistency between the “reenactment method” and the “operational code method” in the *pre-agreement phase* (and also in the following *agreement phase* which was likewise marked by an Alibi Game) – but the actual deviation were relatively little in absolute terms (see Figure 23).

Figure 23: Shifts in Muammar al-Qaddafi's Worldview



C) Agreement Phase: The Alibi Game Continues

When the negotiation process entered into the *agreement phase*, the Alibi Game continued – despite a changing set of opportunities. Applying the “reenactment method,” we found that the Washington’s hierarchy of strategic preferences remained stable throughout this diplomatic episode (Annex 11). The altered bargaining environment was not changing the U.S. strategic stance towards Libya.

The very same applies to Libya. While we encountered with the help of the “reenactment method” some changes in how the Qaddafi regime must have translated its desires during the *agreement phase*, these modifications were, however, too minor to provoke a new strategic constellation.²⁷² Like in the previous *pre-agreement phase*, the Qaddafi regime continued to act as an alibi player (Annex 10).

D) Post-Agreement Phase: Biased Stag Hunt Game

In the *post-agreement phase*, which started in early 2004, Libya and the United States were entangled in a so-called Biased Stag Hunt Game – a relatively benign 2x2 game constellation (figure 24).

Figure 24: Biased Stag Hunt Game

		USA	
		Implement the Agreement [C]	Defect from Implementation [D]
Libya	Implement the Agreement [C]	4,4 N,P+	1,3
	Defect from Implementation [D]	2,1	3,2 M,N

US preference hierarchy: CC > DC > DD > CD

Libya's preference hierarchy: CC > DD > DC > CD

C = Cooperation D = Defection M = MaxiMin Solution N = Nash Equilibrium P+ = Qualified Pareto Optimum

This time it was not a shift in Libya’s motivation that initiated this new strategic constellation. In the *post-agreement phase* Tripoli’s desires as well as Muammar al-Qaddafi’s belief system remained relatively stable (Annex 12). What was however different was that the United States abandoned in early 2004 its confrontational stance towards the Qaddafi regime and started to pursue a relatively cooperation posture (CC > DC > DD > CD). Again this strategic shift is the result of newly emerging desire. In the survey on Washington’s strategic goals we revealed that by January 2004 – as an immediate result of the disarmament breakthrough – the Bush junior administration adopted the strategic desire to implement a “cautious rapprochement” with Tripoli (Figure 19). According to our “reenactment method” the rise of this objective made the United States more open and more inclined for cooperation with the Qaddafi regime. By the same token, it is only logical that Washington’s aversion of unilateral defection (DC) or of a deadlock scenario (DD) was growing at that time (Annex 13).

²⁷² For example, the progress made in the negotiation process with the United States continued – in all likelihood – to affect the implementation of Tripoli’s strategic goal to resist against U.S. power politics – an objective that became more and more misplaced when the a rapprochement with the United States came into close reach during the *agreement phase*.

5.2.2 The Substantial Problem Dimension: A Nuclear Bad in the Making

In this section we will analyze Libya's nuclear weapons program through the prism of the *public bad* approach. We will apply all the relevant categories we have outlined above (ch. 3.1.3) in order to grasp the *substantive negotiation problem* the United States and Libya was facing during the bargaining process on Tripoli's nuclear weapons program.

Libya's nuclear weapons program was a *public bad* "in the making". When Tripoli eventually decided in favor for *nuclear reversal*, it had only a relatively small and badly managed nuclear weapons program. Since it was still under production, it is only logical that we focus primarily on the "supply side" of the Libyan *nuclear bad*. The Libyan nuclear weapons program is – in our opinion – best understood as a "threshold bad" which was aggregated by the "best-shot technology" (ch. 5.2.2.2). In the following section we will show that this "aggregation technology" helps to understand the distinct particularities of Tripoli's nuclear weapons program. In addition, we will show that the "supply side" of the Libyan *nuclear bad* was determined by two "final goods" – national prestige and national security – which shifted in terms of significance over time.

But while the Libyan *nuclear bad* were still in the making, it already imposed "negative externalities" to the outside world. Despite its crudity, Tripoli's nuclear weapons program had already several typical features of a full-blown *public bad*. As we will explain in the following section, the two state actors that suffered the most negative consequences were the United States and its close ally the UK (ch. 5.2.2.1).

Moreover, we will also analyze the "demand side" of the Libyan *nuclear bad* (ch. 5.2.2.3). We will disclose that Tripoli's nuclear efforts had in essence a "private nature". In terms of the "good foundation", the Libyan nuclear weapons program was in essence a "private good". Libya's *nuclear bad* was inseparably linked to Muammar al-Qaddafi and his close *entourage*. The historic evidence suggests that the benefits the Qaddafi regime envisioned to "consume" after the completion of its nuclear weapons program were rivalrous and excludable.

5.2.2.1 Negative Externalities in the Sense of Threat Perceptions

That the Qaddafi regime was in search for nuclear weapons was widely known since the 1970s. Tripoli's shopping tours for a turnkey-ready atomic bomb and its efforts to woo external supplies had not gone unnoticed. Already from the 1980s onward CIA reports were expressing rising concern of Libya's nuclear ambitions (e.g. Commission on Intelligence Capabilities of the United States 2005: 253).²⁷³

²⁷³ For example in an unclassified response to the U.S. Congress Committee on Banking, the U.S. intelligence community answered the chairman's question whether there is any evidence indicating that "Arab countries have a clandestine nuclear weapons program?" as follows: "We believe that (...) Libya are pursuing nuclear weapons development although Libya claims that its nuclear program is only for peaceful purposes" (U.S. Congress 1992: 170).

Correspondingly, worries vis-à-vis the Qaddafi regime as a potential nuclear aspirant states were widely spread (e.g. Bhatia 1988; Cooley 1980; Spector 1988; Waller 1996). But since the assessment that Tripoli's strive for atomic bombs was primarily marked by standstill was widely shared among proliferation experts, the scenario that Libya could cross the "nuclear threshold" and obtain a deployable nuclear device was regarded as a rather remote threat. In that sense, Libya was certainly different from other *atomic renegade states* – such as Iran, India, Pakistan, or North Korea – where the detected nuclear ambitions sent shock waves through to neighboring countries (and still does) and always implied the danger of regional arms races (e.g. Fitzpatrick 2016; Hobbs & Moran 2013). Although the Qaddafi regime's unflinching nuclear ambitions was clearly visible, the Qaddafi regime's effort has – in all probability – cast no "nuclear shadow" (Fitzpatrick 2008) on the region or provoked its neighboring countries to take any tangible contingency measures.²⁷⁴

Thus, when applying the *public bad* approach, one can say that Libya's nuclear weapons program was imposing only modest "negative externalities" to the international community. The negative consequences of Tripoli's uncompleted atomic efforts had cross-territorial but no cross-sectorial impact. Apart from the security sector there is no evidence that the Qaddafi regimes strive for atomic bombs were affecting the economic, environmental, or social sphere of its neighboring countries.

The *bad-sufferers* that were most affected by the "negative externalities" of Libya's nuclear weapons program were certainly the United States and – to a lesser extent – also the United Kingdom.²⁷⁵ Certainly, if the Qaddafi regime had ever managed to cross the "nuclear threshold" both states would be far out of the range of Libya's atomic arms given the North African countries limited capacity in terms of strategic delivery systems (i.e. ballistic missiles and long-range-bomber). While the danger of a physical nuclear threat was a relatively

²⁷⁴ One could, of course, claim that Algeria's attempt to secretly build a nuclear reactor in the 1980s was – at least to some extent – a reaction to the nuclear efforts in neighboring Libya (Albright & Hinderstein 2001). However, our knowledge about the Algerian case is still very limited. It is, for example, unclear whether Algeria was really trying to reach out for an atomic bomb. Moreover, there is no evidence that this secret plan were in anyway related to Libya's nuclear ambitions.

²⁷⁵ By the late 1990s London and Tripoli could look back on a troublesome history that was almost as hostile and antagonistic as the American-Libyan past. The friction between North African country and Great Britain started already in the 1970s – almost a decade before the bombing of the Pan Am flight 103 which made British nationals the second largest group of victims after US citizens. London was in particular disturbed by the Qaddafi regime's support for the IRA and Tripoli's violent campaigns against expatriate Libyan opponents living in the UK (Ronen 2006: 271-4). In April 1984 the Libyan-British relationship reached its nadir when the policewoman Yvonne Fletcher was shot on duty at the margin of an anti-Qaddafi demonstration in the front of the Libyan embassy in London. Since the rounds were fired from inside of the Libyan embassy, allegedly by Tripoli's secret service agents, London expelled Qaddafi regime's diplomats and severed its diplomatic relations with Tripoli (Ronen 2006). But the dislike was mutual. Tripoli perceived the UK as an opponent and London experienced in every respect the same treatment the Qaddafi regime normally showered on the United States. Throughout the 1980s and early 1990s the U.K. was subjected to a torrent of harsh rhetoric which was occasionally interrupted by Tripoli's attempt to mitigate London's position through demonstrative charm offensive (e.g. JANA, 3 December 1993; Ronen 2006: 279). However, despite its troublesome nature; the ties between Tripoli and London were never as hostile and antagonistic as the Libyan-American relationship. The UK had taken not part in the US air raids in April 1986 and only provided logistic and political support to this operation. The unilateral sanctions that London imposed on Libya in the late 1980s were – in particular in comparison to the U.S. coercion – far from intrusive (In the wake of the US operation "El Dorado Canyon" the UK expelled around 300 Libyan pilots and aviation engineers who were receiving training in UK at that time (Ronen 2006: 276)).

remote scenario, both Washington and London were – due to their tense relationship with the North African country – nevertheless very sensitive to all security-related developments in Libya.²⁷⁶ Consequentially, the Qaddafi regimes unbridled strive for unconventional weapons caused concerns in Washington and also in London.²⁷⁷

For instance, a scenario which was at that time haunting U.S. and British security experts was that Libya would one day be in the position to hold Southern Europe as a “nuclear hostage” and thereby would exert pressure far beyond the regional theater. Libyan Scud missiles mounted with atomic warheads capable of hitting parts of Southern Italy or Southern France would have certainly changed the entire strategic landscape of Europe and the Middle East (Black 2000; Litwak 2007: 190; Waller 1996).²⁷⁸ In combination with the strategic missile arsenal that Libya was working to build in parallel to its nuclear efforts, even a relatively small nuclear capacity would have had a considerable strategic impact (Albright 2010: 122). This particular concern was for example reflected in a 2004 report to the British House of Commons. Reviewing the role of the UK’s secret service in past efforts to disclose WMD, the report said, for example, that Libya’s nuclear weapons program was “disturbing enough in itself, but was even more so when combined with the knowledge of Libya’s long-range ballistic missile aspirations” (U.K. House of Commons 2004).²⁷⁹

²⁷⁶ One can assume that Israel were probably also well informed of the Libyan nuclear weapons program. After all, Israel had concerns regarding the Qaddafi regime’s nuclear ambitions since the 1970s (Abadi 2000:91; Bowen 2006: 20). The power circle in Tripoli had always legitimized Libya’s quest for the atomic bomb by Israel’s nuclear capacities. In September 1973 the Knesset Member Ariel Sharon warned Muammar al-Qaddafi publically that Israel as able to hit “any target in the Arab world including Libya” (Ha’aretz 20 September 1973). In the early 1980s Muammar al-Qaddafi directly called for the destruction of Israel’s nuclear research reactor Dimona (cf. FBIS-MEA-83-061 on 1983-03-29; see Annex 3). In addition, there were even reports that the Libyan secret service conducted in the early 1990s a covered operation and tried to shell Dimona with a rocket smuggled in to the Negev desert via Jordan (Bhatia 1988: 64). Moreover, according to Ostrovsky and Hoy, Israel’s foreign intelligence service had even pondered in the 1980s to destroy a Pakistani nuclear research reactor which was regarded as a source in terms of know-how and technology for the Qaddafi regime’s nuclear efforts (Ostrovsky & Hoy 1991: 127). However, for the late 1990s and 2000s we have no evidence that Israel continued to see the Qaddafi as a threat at all. Thus, it is simply uncertain whether the Libyan *nuclear bad* still imposed any “negative externalities” on Israel at that time. Moreover, the Israeli-Libyan confrontation took place primarily on the field of rhetoric and symbolic and had in general an “intangible” nature – as we will discuss in detail in footnote 280).

²⁷⁷ France would have been another likely candidate and a potential *bad sufferer* of the Libyan nuclear weapons program. After all, *la grande nation* played a very vital role in supporting anti-Qaddafi rebels during the Chad War. Moreover, the Qaddafi regime’s aggressive policy towards many North African and Sub-Saharan states was a direct interference of what France perceived as its zone of influence. In addition, Libya was involved in the bombing of the UTA flight 772 on 19th September 1989 above a remote desert area in Niger. That attack caused the death of all 170 passengers including 54 French citizens. However, it appears that Paris went different paths in its Libyan policy. It supported the U.S. and U.K. efforts for harsh UN sanctions against Tripoli in the early 1990s. But shortly thereafter, France started to pursue an independent policy towards Libya. The UTA incidence was handled directly with Libya and was kept separate from the UK-US efforts on the Lockerbie bombing. In general France appeared to have not “suffered” from the “negative externalities” emitted from the Libyan *nuclear bad*.

²⁷⁸ This scenario ventilated by Western security experts was not just plucked out of the air but had some historic reference. As an immediate retaliation against the US air raids in April 1986, Libya had fired two Scud-B missiles at a US military base situated on Italian island Lampedusa. Although the missiles missed their target and fell into the Mediterranean, the memory of this attempted attack remained vivid in the Western security community (Black 2000; Litwak 2007: 190; Waller 1996).

²⁷⁹ Another threat scenario that was reportedly weighted by security analysts in London and Washington during the 1990s was the possibility of an unconventional arms race in the Middle East if Tripoli would come one day into the reach of a nuclear capability (Waller 1996). In addition to that, in the 1980s there

But despite all these concerns and risk scenarios, Libya's nuclear weapons program was nevertheless a "*public bad* in the making". The "negative externalities" the United States and the UK were suffering remained in the realm of perceptions. Tripoli's *nuclear bad* was not inflicting actual costs to Washington and London. Apart from intensified intelligence surveillance and contingency planning, neither Washington nor London had not taken costly measures to defend against or to deter a future Libyan nuclear capacity. It was primarily the *prospect* of a future security threat and related proliferation risk that constituted the "negative externalities" of Libya's unfinished nuclear weapons program.

5.2.2.2 Supply Side: The "Fabrication Chain" of Libya's Nuclear Bad

Above in the chapter on the "fit taxonomy" we explained that the concept of the "fabrication chain" is crucial for operationalizing the *colliding interest* and the *distrust trap* on the *substantial dimension* (ch. 3.1.3). Consequentially, having a detailed and comprehensive understanding of "fabrication chain" that stood behind the Libyan *nuclear bad* is essential. Otherwise we would not be able to evaluate and explore the (*mis*)fit of the *diplomatic design* applied to resolve the *substantial negotiation problem*. In this chapter we will, at first, explore the "up-stream side" of the "fabrication chain" focusing on the "aggregation technology" applied to build the Libyan *nuclear bad* (section A). Afterwards, we will study the "down-stream" production and survey what "*final goods*" the Qaddafi regime's nuclear ambition was oriented at (section B).

A) Up Stream: A Threshold Bad Aggregated by the Best-Shot Technology

When we apply the concept of "aggregation technology" to the "up-stream side" of the Libyan *nuclear bad*, we arrive relatively quickly at the conclusion that Tripoli's nuclear weapons program were following the "threshold logic." As we explained above (see ch. 3.1.3.1) *threshold bads* are only supplied if the *bad doers* manage to transgress a certain level. If this threshold is not cross, the *public bad* remains in an unfinished production stage and unfolds no or only limited "negative externalities".

That the "threshold logic" applies to the Libyan nuclear weapons program is little astonishing since there is ample ground to believe that nuclear proliferation is always following this particular "aggregation technology." Tellingly, the notion "threshold" itself is widely used in the literature on nuclear proliferation. IR scholars on nuclear proliferation have in the past invested considerable effort to estimate what exactly it takes for an *atomic renegade state* to take this decisive step (e.g. Rublee 2010). In military, strategic, and political terms it makes a huge difference whether an *atomic renegade state* is close to the "nuclear threshold" or whether it had taken the final step and has acquired an atomic bomb.

However, while Libya's *nuclear bad* was produced – like all other nuclear weapons programs – according to the *threshold aggregation technology*, the historic evidence

was also the concern that Libya would hand over nuclear and chemical weapons to the various terrorists groups that enjoyed closed ties with Tripoli. However, that risk assessment was slowly losing relevance when the Qaddafi regime withdrew from the terror business during the 1990s (Waller 1996).

suggest that the mode Tripoli applied to reached the desired threshold signified a *best-shot approach*. It is widely known in the literature that *threshold bads* (and *goods*) could be further distinguished regarding the actual mode of aggregation. According to Todd Sandler, the threshold technology “involves an ‘aggregator’ – for example, summation or weakest-link” (Sandler 2004: 64). Presumably in most of the historical cases of nuclear proliferation – except the examples of “nuclear inheritance” (see ch. 2.2.1) – *nuclear bads* were built according to the *summation logic*. Different steps, each for its own part necessary and indispensable, were taken in order to move closer to a deployable nuclear capacity. Tellingly, the *summation logic* with its characteristic step-by-step pathway lies at the very heart of almost all research projects that have tried to discern the different building blocks – such acquisition of sensitive scientific and technological know-how, uranium enrichment, warhead development, etc. – necessary to cross eventually the “nuclear threshold” (e.g. Meyer 1984; Stroll 1996; Wohlstetter 1977).

However, the historic evidence suggests that the Qaddafi regime’s nuclear weapons acquisition was not following a step-by-step scheme where sensitive capacity is gradually amassed and where one technical stage is mastered after the other. When Libya abandoned its nuclear weapons program in late 2003, the North African state had obtained little sensitive know-how and technology – despite 33 years of nuclear proliferation effort. The acquired material and technology was in many respect disconnected and partially even mismatching (e.g. Albright 2010; Crawford 2004).²⁸⁰ Unlike, for example, the Iraq nuclear weapons program in the 1980s, Libya had not built a domestic nuclear infrastructure. Little to no efforts was made to require the necessary scientific foundation for a self-reliable quest for nuclear weapons (Bowen 2006: 44; Hymans 2012: 242). Consequentially, the manpower that was employed in the Libya’s nuclear effort was strikingly little. Although around 800 employees worked at the Qaddafi regime’s nuclear weapons program, only 140 of them appeared to have advanced training and university degrees (Interview with M. Mininni December 2011; see also Stone 2005: 186; Wing & Simpson 2013: 118). According to an IAEA investigation, it was less than 30 people who were actually crucial for the nuclear weapons program (Crawford 2004).²⁸¹ Compared to the Iraqi nuclear weapons program pursued under Saddam Hussein, which employed around 7.000 scientists, engineers, and technician, the Libyan nuclear effort was in every respect understaffed (Hymans 2012: 23).²⁸²

²⁸⁰ For example, the Director General of IAEA, Mohammed El-Baradei, who pay a visit to Tripoli’s WMD sites in late December 2003, was reported to have said that the Libyan nuclear weapons program was “quite dismantled in fact. It’s all in boxes” (CNN “What is Being Found in Libya?” Dec. 29, 2003).

²⁸¹ This assessment was confirmed by the U.S. Department of Energy. After Libya’s disarmament the ministry conducted an assessment of the employees in the former Libyan WMD programs in order to start a “redirection initiative” of the relevant scientists to avoid further proliferation risk. According to Margot Mininni, who was involved in this effort, only 40 persons were of real proliferation concern (Interview with M. Mininni, Dec. 2011).

²⁸² Donald Mahely, U.S. State Department, who lead by early 2004 the effort to dismantle Libya’s WMD programs, reported that he was in essence dealing most of the time with the same people who were only a handful and who were responsible for all main aspects of the Libyan WMD programs (Mahely 2004). This assessment was later seconded by Harry L. Heintzelman, a senior scientific advisor for the U.S. State Department. Heintzelman said that “the same six people – most of them American-educated – did almost everything” (Tobey 2014).

But while the logic of *summation* appears not to apply, the historic evidence suggests instead that Libya tried to acquire nuclear weapons by the *best-shot logic*.

As we explained above (ch. 3.1.3.1, see also no. 9 Table 5), in the *best-shot* aggregation *public bads* are supplied by the “single best effort” (Barrett 2007: 199). *Best-shot bads*, which often signify a technical or scientific breakthrough, are provided by the single most potent *bad doer*. It is the provision of the single most potent *bad doer* that is, in the end, decisive whether or not the *public bad* is supplied.

Tripoli’s preferred to acquire – if possible – a ready to use nuclear weapons program or even a nuclear bomb and its flagrant neglected to build a domestic capability appears to follow the logic of a *best-shot aggregation*. Muammar al-Qaddafi and his close *entourage* were always inspired by the idea to buy a ready to use atomic bomb or a turnkey-ready nuclear weapons program “off the shelf”. As we have outlined above, Tripoli was in fact constantly on nuclear shopping tour (ch. 5.1.1). Fueled by its oil money, the Qaddafi regime was reaching out to all actors they deemed promising to buy nuclear weapons program.²⁸³ Tripoli was clearly in favor of having its desired *nuclear bad* supplied in a “single act of creation.” And searching support from capable foreign outfitters was the logical consequence of this acquisition strategy.²⁸⁴

The *best-shot* logic becomes clear particularly in Tripoli’s cooperation with the A.Q. Khan network. The smuggle ring was the nuclear supporter Libya always had longed for. Until the 1990s the Qaddafi regime’s *best shot* approach always failed because the North African country never received the external supply it desired. This time, it was different. Reportedly, when the initial contacts between the Qaddafi regime and the nuclear smuggle ring was established, Abdul Kadir Khan and his team envisioned to handle business with Libya the same way he had cooperated with his previous clients – Iran and North Korea. Teheran and Pyongyang had mainly demanded supply of certain sensitive technology and selective support with know-how which Mr. Khan and his employees could relatively easily set aside from the Pakistani nuclear program without causing too much noise. Libya’s demand, however, propelled the A.Q. Khan network into another sphere. Tripoli was ready to buy a full nuclear weapons program with all the different component and intermediary steps it takes. The A.Q. Khan network had to change its business model completely to meet Libya’s demands. It went from consultancy into the production business. According David Albright – an outspoken scientific expert on nuclear weapons proliferation – “[n]ot since the mid-1960s, when the Soviet Union offered to help its communist ally China to build

²⁸³ It is difficult to assess the overall investment the Qaddafi regime made during the thirty years long trial to acquire a nuclear weapons capacity. However, we know that Tripoli spend around US \$200 million for the support provided by the A.Q. Khan network (Albright 2010: 122). Although it is believed that the A.Q. Khan clearly overpriced the equipment it delivered, this investment was still well spent given the considerable amount of technology and know-how provided. It was, for example, reported that in the late 1980s the Qaddafi regime paid out approx. US \$500 million to the Pakistani nuclear weapons program without receiving any useful return from Islamabad (Albright 2010: 112; Hymans 2012: 241).

²⁸⁴ In all probability, we could identify Libya’s preference for *best-shot aggregation* also in the field of conventional military armament. Here as well, Libya was not acquiring domestic capabilities but was importing arms and military supply in enormous amounts (Martinez 2007: 55).

nuclear weapons, had a country received a proposition for such a massive infusion of nuclear weapon technology and know-how“ (Albright 2010: 122).²⁸⁵

Since the Qaddafi regime was by the cooperation with the A.Q., Khan network for the first time able to implement its preferred *best shot logic*, the Libyan nuclear weapons program was considerably accelerated in the early 2000s. By late 2003 it was for example assumed that Tripoli could have crossed the “nuclear threshold” within three to six years, if the cooperation with the A.Q. Khan network had developed linearly (e.g. El Baradei 2011: ch. 6). If the Qaddafi regime would have eventually succeeded – with intensified help of the network – to assemble the 10.000 P2 centrifuges it had order together with 20 tons of uranium hexafluoride, it would be able to produce four nuclear weapons per year – according to David Albright “a small but formidable nuclear arsenal” (Albright 2010: 124; Frantz & Collins 2007: 301).²⁸⁶

Consequentially, Tripoli saw at that time a fairly good chance that it eventually could jumpstart its nuclear ambition and that the nuclear proliferation strategy it had followed since almost 30 years (i.e. the best shot aggregation) would finally bear fruits. For example after Libya’s *nuclear reversal* the former head of the nuclear program, Maqtoub Mohammed Maqtub, was, reportedly, very convinced that Libya “definitely would have done it” and could have produced a sufficient amount of nuclear weapons graded material. Interviewed in the in the mid-2000s he said that the Qaddafi regime’s “original goal was” to cross the nuclear threshold “between 2006 and 2008” (Miller 2006).

B) Down Stream: The Final Goods of Security & Prestige

The Libyan *nuclear bad* was not an end in itself. Rather it signified an *intermediary bad* that was oriented towards the realization of two “final goods” – regime security and prestige. Together with other instruments of the Qaddafi regime’s foreign policy, the *nuclear bad* was planned and envisioned to contribute – once the nuclear threshold was crossed – to the realization of these two general objectives. These “final goods” – unlike the intermediate *nuclear bad* – were largely unproblematic. The quest for prestige and security

²⁸⁵ The network had built, for example, a production site in Malaysia – the so-called Scomi Precision Engineering (SCOPE) – where the components for the centrifuges were fabricated that Libya had ordered. Additional production sites were built up in Turkey and South Africa. And by the early 2000, the network organized workshops in Spain, Dubai and other places to train Libyan engineers, technicians, and scientist (Bowen 2006: 37, 39; Corera 2006:109; Frantz & Collins 2007: 272-3, 301; Royal Malaysia Police 2004). Tellingly, that Western intelligence were able to track down the network in the end was owed to a considerable degree to the fact that the high-flying Libyan demand led to an “overstretch” of the A.Q. Khan network. It was the network’s increased activities that – in all probability – spark suspicion at MI6 and CIA (Corera 2006:136).

²⁸⁶ Of course not all deliveries that the Qaddafi regime received from the A.Q. Khan network were perfect and state of the art (Braut-Hegghammer 2008: 69; Crawford 2004). There were cases where Libya received old or inappropriate materials. For example, the plan the A.Q. Khan network provided for the development of miniaturized nuclear warheads were not fitting with the Libya’s missiles (Crawford 2004). To some extent important elements Libya had order at the A.Q. Khan network – namely rotation parts for the enrichment centrifuges – were missing (Albright & Hinderstein 2004; Bowen 2006: 41). And the deliveries of the A.Q. Khan were in general overpriced. According to Douglas Franz and Catherine Collins the smuggle ring “charged double” for what it delivered to Tripoli (Frantz & Collins 2007: 302). However, such problems are typical feature of black market deals. And it appears that the Libyans were not disturbed by these difficulties.

was not immediately imposing “negative externalities” to the outside world. In that sense, the *nuclear bad* was a problematic element in a rather normal and largely unproblematic “fabrication chain”.

While the two “final goods” were both of relevance throughout the entire period of Libya’s nuclear ambition, we nevertheless observe different constellations within the historic process. In the following sections, we will elaborate on the shifts within the “final goods” in detail.²⁸⁷

(i) Priority for Prestige (the early 1970s – mid-1980s)

Numerous knowledgeable scholars have emphasized that “prestige” – understood as the “desire for public recognition of eminence as an end in itself” (Markey 1999: 126; see also: Sagan 1997/8: 73-85) – played in general a crucial role in the Qaddafi regime’s foreign policy (e.g. Bhatia 1988: 64; Litwak 2007: 189). We have already outlined when elaborating on the Qaddafi regime’s desires in the interaction with the United States that Muammar al-Qaddafi was yearning throughout his entire reign to be respected as an outstanding leader. Being “on the same eye level “with great powers was an important element we encounter at different angles of the Libyan foreign affairs. While the geographic focus of the regions where Libya tried to establish a leadership role varied over time – the Arab world, the Muslim countries, the Third World, and African continent – the motive for “prestige” remained unchanged. In that sense, it is not astonishing that the “prestige motive” appears to have played also an important role in the Libya’s nuclear efforts (e.g. Bowen 2006: 22; Solingen 2007: 215). However, we come to the conclusion that this “final good” “was of particular importance from the early 1970s to the mid-1980s.

First, Libya was during this period simply not confronted by any meaningful security threat (e.g. Braut-Hegghammer 2008: 72; Jasper 2014: 128).²⁸⁸ Given that national security – the

²⁸⁷ The operationalization of “final goods” is complicated and challenging. Within this dissertation project we primarily relied on the method of *qualitative content analysis* to explore the “final goods”. With the help of MAXQDA we have coded and analyzed speeches, memoirs, and interviews of the Qaddafi regime’s inner circle for the time period from September 1969 to December 2003. However, comparable to other abstract concepts – such as norms, power, or interest – “prestige” and “security” are rarely observable directly. Although policy makers sometimes refer explicitly to “prestige” or “security” as guiding principles, such clear evidence cannot taken for granted within the analytical process. To overcome this obstacle it is inevitable to explore concepts within the speech acts of the relevant actors that can serve as proxies for the relevant “final goods”. With the help of these auxiliary constructions it is possible to analyze the underlying “final goods”. Within the Libyan case the “prestige motive” for nuclear weapons can, for example, be grasped by the role of the “Arab homeland’s defender” that the Qaddafi regime has chosen as a guiding principle for its foreign policy.

²⁸⁸ Even Israel – the other nuclear power in the region – is assumed to have not signified a security threat for the Qaddafi regime at that time (Abadi 2000; Tremlett 1993: 200; Niblock 2002: 220). While Tripoli tried to drive back Jerusalem’s diplomatic influence in Sub-Sahara Africa and supported radical Palestinian terrorist groups, the Qaddafi regime never – unlike many other Arab states – waged war against Israel and apart from harsh rhetoric outbursts (see below), the actual relation between the two countries were in practice less hostile. Behind the scene Libya took even a pragmatic stance towards Israel such as selling oil to the Jewish State and maintaining other forms of commercial relations (Tremlett 1993: 16). Moreover, Etel Solingen has put forward a causal argument underlying that Israel’s nuclear weapons capacity played presumably no substantial role for the Qaddafi regime’s nuclear ambition. Solingen has highlighted that Libya was reinvigorating its nuclear weapons program in the mid-1990s at a time when the Middle East conflict appeared to shift towards a peace solution. Moreover, the Qaddafi regime was reversing its WMD programs in the early 2000s at the heydays of the second Intifada. Thus, “the links between the vagaries of the Palestinian-Israeli conflict and Libya’s nuclear decisions seemed spurious” (Solinigen 2007: 215).

most classical explanation for nuclear proliferation – was at that time irrelevant for Libya, Etel Solingen has pointed out that “of all Middle East nuclear aspirants, Libya arguably provides the least support” for a neo-realist explanation. Instead, she concludes that Muammar al-Qaddafi was rather on a “symbolic quest for nuclear weapons” which he regarded as a “currency to enhance his regime at home and abroad” (Solingen 2007: 215).²⁸⁹

Second, we encounter “prestige elements” during that period also in the conventional, non-nuclear armament policy of the Qaddafi regime. For example, while Libya was investing during the 1970s and 1980s enormous sums in conventional weapons, Malfrid Braut-Hegghammer comes to the conclusion that “much of this equipment appears to have been acquired to increase the country’s prestige as opposed to being used for (or tailored to) the arms forces” (Braut-Hegghammer 2008: 61).

Third, we encounter in the speech acts given by Muammar al-Qaddafi and other high-ranking figures of the Qaddafi regime numerous references suggesting that “prestige” had priority in Libya’s nuclear efforts from the early 1970s to the mid-1980s. In particular there are three nuclear weapons-related “discursive themes” that clearly speak the “language” of “prestige”: (a) the nuclear bomb as a joint Arab project under Libyan leadership (b) nuclear proliferation as a symbolic-ideological confrontation with Israel, and (c) nuclear weapons as a symbol of technology mastery.

(a) The Qaddafi regime styled itself as the “Arab homeland defender” (Chubin 1994: 54). Achieving Arab unity was an important element in Libya’s foreign policy at that time. Against that background, it is little astonishing that Libya’s Pan-Arabism also had a “nuclear dimension”. At numerous occasion, al-Qaddafi and other high-ranking members of his regime had depicted the acquisition of nuclear weapons as a “joint venture” of all Arab nations implying the chance to achieve more Arab unity. Perceiving itself as the Arab lead nation, Tripoli is assumed to have inferred from that view the responsibility to go ahead and provide the nuclear infrastructure to require an “Arab atomic bomb” (St. John 2002: 148).²⁹⁰

(b) The symbolic-ideological confrontation with Israel and constant rhetoric clashes with the Jewish State were another arena from which Libya aimed to receive prestige and

²⁸⁹ Tellingly, Soling’s assessment is seconded by a statement Muammar al-Qaddafi himself gave during an interview in early 2004. The Libyan leader said that “in early the 1970s we did not reflect on where or against whom we could use the nuclear bomb. Such issues were not considered. All that was important was to build the bomb” (Al-Qaddafi addresses General People’s Congress Tripoli, Great Jamahiri TV, March 2, 2004; see Annex 3). Another noteworthy statement by Muammar al-Qaddafi which likewise underscores the “prestige motivation” dates from the mid-1980s where the Libyan leader said during a statement delivered to University students in Tripoli: “We should be like the Chinese – poor and riding donkey, but respected and possessing an atomic bomb” (Qaddafi: Address to University Students, July 1987; see Annex 3).

²⁹⁰ This thinking found expression in numerous speech acts given at that time. For example, in 1985 Muammar al-Qaddafi said in an Interview broadcasted at the Japan TV station “a small country, cannot manufacture this nuclear weapon. But I spoke about and speak about all the Arab countries to do together to face this situation” (Qaddafi interviewed by NHK Television, NeFBIS-MEA-85-109, June 1985, Annex 3; see also: Qaddafi: Press Conference, Arab Summit in Amman, November 1987, FBIS-NES-90-102, Annex 3).

respect (Abadi 2000; Tremlett 1993; see also: Blundy & Lycett 1987: 69-83; Cooley 1982: 159-186; Kleiman 1996: 26). Since Israel had crossed the “nuclear threshold” in the late 1960s, Libya’s rhetoric hostility also had a nuclear side. For example, the Libyan foreign minister Muhammad al-Muntasir said in the mid-1987 that “Arab states are entitled to possess all weapons which are available in the world” given that Israel is in possession of an atomic bomb (cited at Jasper 2013: 162).²⁹¹

- (c) Another framing that would likewise fall into the “prestige category” is the reference to the “mastery of nuclear technology”. Since the nuclear technology was regarded in the 1970s as cutting-edge technology, its mastery would have elevated Libya’s position and would have allowed meeting with the Western States “on the same eye level.” Correspondingly Braut-Hegghammer, as well as Jasper, have pointed out that this aspect played a certain role for the Qaddafi regime’s proliferation ambitions and found expression in numerous speech acts (Braut-Hegghammer 2008: 61; Jasper 2014; see also Bowen 2006: 12).

(ii) The Shift Towards Security (the mid-1980s to early 1990s)

While the “prestige motivation” never lost relevance for Tripoli’s nuclear ambition, it appears that starting by the mid-1980s, the “final good” of “regime security”, which was beforehand a rather peripheral rationale, emerge as the primary driving force behind the Qaddafi regime’s nuclear effort (Bowen 2006: 11; Braut-Hegghammer 2008: 64; Solingen 2007: 214-5). Mainly as a consequence of its aggressive foreign policy, Libya was facing more and more external threats including military pressure by the United States. Reflecting on the history of the Libyan nuclear weapons program and the role of external threats Azwai Mohamed, Libya’s Ambassador to London said for example: “We came to the conclusion that – in the end – a military confrontation will be imposed on us. So from then, we started looking to obtain weaponry that could protect us from that attack. When Lockerbie came, it had us convinced that this decision was right” (cited at Corera 2006: 178).

Although Libya was in the late 1980s still far away from a militarily deployable atomic bomb, it appears that at that time, the power elite in Tripoli started to think nuclear weapons strategically. The members of the Qaddafi regime began to frame nuclear weapons in more concrete security terms. Senior figures of the regime made more and more reference to conventional strategic concepts such as deterrence, the zone of influence, and nuclear retaliation. According to Braut-Hegghammer, Tripoli was at that time “securitizing” its nuclear weapons program (Braut-Hegghammer 2008: 65). Moreover, we found evidence in various speech acts that Muammar al-Qaddafi and his *entourage* indicating that Tripoli started by the late 1980s to think about a future nuclear doctrine. Although its atomic weapons program was at that time still very rudimentary, it appears that Libya envisioned to apply – once it had a nuclear weapons capability – a “defensive

²⁹¹ Moreover, Muammar al-Qaddafi was reported to have said: “Now that the Israelis possess the atomic weapon, the Arabs have nothing before them except to work day and night to possess the atomic weapon in order to defend their existence” (Reuters: Gaddafi Urges Arabs to Develop Nuclear Weapons, September, 1987, see Annex 3; see also: Qaddafi interviewed by NHK Television NeFBIS-MEA-85-109; Qaddafi interviewed by Neue Kronen-Zeitung, FBIS-NES-88-040, Annex 3).

nuclear posture.” In a case of a massive conventional attack against Libyan territory, Tripoli would reserve the right to use nuclear weapons. For example, in 1987 Muammar al-Qaddafi explained in a speech delivered to students of the Tripoli University: “We undertake not to drop the atomic bomb on anyone around us, but we must possess it (...) however if someone is going to threaten our existence and independence even without the use of atomic weapons, then we should drop it on them. This is an essentially defensive weapon” (Qaddafi: Address to University Students, July 1987; see Annex 3).²⁹²

Moreover, the shift from the “prestige” to the “security motivation” is also indicated by the way how Tripoli ran its nuclear weapons program starting by the mid-1980s. In the 1970s, Libya had pursued its nuclear ambition comparably openly and took little precaution to hide its intention (Bowen 2006: 22).²⁹³ That is little astonishing given that a nuclear weapons program could only unfold a positive impact in terms of “prestige” if the addressed audience is aware of the nuclear efforts and if the progress made in that field are made public. By the mid-1980s Libya’s nuclear pursuit, however, became more opaque. Potential suppliers were chosen more carefully and were addressed more discreetly. And for the sake of concealment, Libya was now even willing to accept delays and slowdown in its nuclear program. For example, by 1986 the Qaddafi regime started to store the different modules of a uranium conversion facilities, it had purchased from an external supplier, at various locations around Tripoli – presumably in order to secure them against intelligence detection and a potential US-air strike (IAEA, May 2004, Annex I, p. 4-5). And in early 2000 Libya removed its entire pilot uranium enrichment plant it had built at al-Hashan – located on the outskirts of Tripoli – to the more hidden and concealed al-Fallah site (Bowen 2006: 40).

(iii) A More Pragmatic View on Nukes

Beginning with the mid-1990s the Qaddafi regime appeared to have occupied a more pragmatic view on its nuclear weapons programs. The nuclear enthusiasm the members of the Qaddafi regime had indulged in the past vanished during the 1990s and the early 2000s. While “security” as a “*final good*” remained of importance for Tripoli’s WMD efforts until late 2003, it has lost the relevance it had during the 1980s.

At that time, senior members of the Qaddafi regime express the sober view that nuclear weapons are not necessarily a remedy for all power and security problems Libya was facing.²⁹⁴ This little counter-intuitive strategic finding appears to have disappointed the

²⁹² In August 1990 the Libyan dictator further elaborated this thought: “[I]n my opinion one only has the right to use such weapons in the case of threat against one’s own territory, and only when an enemy enters one’s country” (Qaddafi: Interviewed in Vienna, FBIS-NES-90-157; see Annex 3).

²⁹³ For example in 1978 Libya made a shopping tour for nuclear weapons related technology to the United States – for atomic renegade state certainly a venture into the lion’s den. Even more astonishing: this initiative was barely concealed. In effect Ahmed El Shahati – the head of the Libyan Foreign Liaison Office in Washington – bluntly told the Director of the Federation of American Scientists, Dr. Jeremy Stone, that his government was interested in nuclear weapons (Bhatia 1988: 69).

²⁹⁴ It was, for example, reported that the Qaddafi regime had carefully analyzed the Falkland War (1982) and Israel’s intervention in Lebanon (1982-1985) – two military conflicts where a nuclear powers fought against non-nuclear actors. The major finding was that in many conflict situations nuclear weapons alone are not a useful tool. The Qaddafi regime came to the obvious conclusion that to succeed in a military standoff, substantial conventional capacities are necessary as well (Braut-Hegghammer 2008: 66).

members of Tripoli's power elite who apparently had more high-flying hopes regarding nuclear weapons. Interviewed in 2004 the Libyan Prime Minister Shokri Ghanem expressed this sober view as follows: "Then you find out you can't use these weapons. Even the US used them only once (...) It gives you a false sense of power" (Fidler, Huband & Khalaf 2004).

However, the more pragmatic stance on nuclear weapons meant in no way that Libya was relaxing its nuclear efforts. Rather, the 1990s and early 2000s were the time where Libya's nuclear weapons program was quickly accelerating due to the cooperation with the A.Q. Khan network. "Security" – although less prominent as in the past – remained the "*final good*" that guided Tripoli's nuclear efforts. Correspondingly, a senior member of the Qaddafi regime, who had been interviewed under the veil of anonymity, describes that the Libyan nuclear ambition was since the 1990s a sort of "insurance policy" which were embedded in a two-track approach. If the desired rapprochement with the United States had failed, the nuclear weapons program would have been a fallback option as Muammar al-Qaddafi was at that time still distrustful that the West might one day apply military force to topple his regime (Braut-Hegghammer 2008: 67). Pragmatism was in that sense the overarching theme in Libya's nuclear effort starting by the mid-1990s.²⁹⁵

5.2.2.3 Demand Side: A Bad for Private Use

Apart from the "supply side", the Libyan *nuclear bad* had also a "demand side". Like all human-made *public bads* the Libyan nuclear weapons program also bestowed benefits to a certain group of profiteer. If we analyze the positive utilizes of the Libyan nuclear weapons program by applying the categories of "rivalry" and "excludability", we come to the conclusion that it was a "private bad". The historic evidence suggests that the Qaddafi regime envisioned consuming the benefits of nuclear weapons program after its completion in a rivalrous and excludable way. Libya's *nuclear bad* was inseparably linked to Muammar al-Qaddafi and his close *entourage*. It was not meant to serve the Libyan people at large but was exclusively oriented to the strategic benefits of the regime. At its core the Libyan *nuclear bad* had a profound private nature and as such were first and foremost the toy of the Brother Leader's and the Libyan power elite.

In other historic cases the build-up of a nuclear weapons capacity is often a multiplayer endeavor. Different bureaucratic actors – such as professional military, scientists, and the nuclear energy sector – play a vital role (e.g. Evangelista 1988; Sagan 1996/7: 63-73; Flank 1993/1994). The situation in Libya was different. Here nuclear proliferation was not a collective and multi-player process. Rather, it appears that the program was run and oversaw exclusively by the inner circle of the Qaddafi regime. Other bureaucratic actors –

²⁹⁵ Certainly, after Libya abandoned its nuclear weapons program, senior members of the Qaddafi regime tried to float the narrative that Libya had wanted to revert its nuclear weapons program already in the 1990s and had just waited for the right opportunity. A senior official of the Libyan Foreign Office said for example that Libya had wanted to abandon its nuclear weapons for a long time and was searching for the "exit strategy" and a "suitable time for the announcement of [this] decision" (Braut-Hegghammer 2008: 67; Dejevsky 2004; Miller 2006). But this argument is inconsistent with the quickly developing Libyan program in the 1990s and with the relatively difficult and demanding negotiation process in the year 2003. Rather, these statements appear as an attempt to interpret history in its own favor.

such as the Libyan military – played no meaningful role in the Libyan effort. The daily work at Libya’s WMD programs was starting by the mid-1990s managed by the Libyan National Board of Scientific Research (LNBSR) (Albright 2010: ch. 5; Bowen 2006: 154; IAEA 28th May 2004: 7). The LNBSR was led by Matuq Mohammad Matuq – a senior figure of the Libyan regime who reportedly “tapped” his position as the day-to-day decision maker in Libya’s nuclear effort from his close personal relation to Muammar al-Qaddafi and other key figures of Tripoli’s coterie.²⁹⁶ Consequentially, the nuclear decision making was directly under the control of the Libyan leader (Braut-Hegghammer 2008: 58; U.S. Embassy Tripoli 20 Jan. 2010). This pattern prevailed even during the dismantlement of the Libyan nuclear program starting in early 2004. Reportedly, all important decisions had to be taken by the Libyan leader himself and the operational responsibility for this process was only partly delegated to bureaucratic underlings (Interview with Ken Ward 2012, Interview with Jody Daniel 2011).

But the Libyan nuclear weapons program was not only exclusively under the control of the senior members of Tripoli’s power elite, but it was also in terms of strategic benefits exclusive tailored to the inner core of the Qaddafi regime. As we have discussed above the “final goods”, the Libyan nuclear effort was first and foremost oriented at the purpose of the regime. It was not the security and prestige of Libya at large but the security and prestige of the Qaddafi regime the nuclear program aimed at. The nuclear effort was closely bonded to Muammar al-Qaddafi’s ideological and political mindset. In all probability, the Libyan people played in the Qaddafi regime’s nuclear ambitions no meaningful role. Consequentially, the delegation of the program to more subordinated players in the Qaddafi regime – such as the Libyan military and its different branches for the sake of national defense – would have undermined these overarching objectives of regime survival and regime prestige.

²⁹⁶ Tellingly, when in April 2012 the UN Security Council imposed travel bans and asset freeze on 16 key figures of the Qaddafi regime as a reaction to the bloody revolution, Matuq’s name was on the list (see UN Security Council Resolution No. 1970 (2011)).

5.3 Analysing the (Mis)Fit of Diplomatic Design in the Libyan Nuclear Reversal Negotiations

In the following section, we will study the “*fit performance*” of *diplomatic design* applied during the Libyan NRN. Our analysis is organized along the four decisive negotiation phases we identified above (*pre-negotiation*, *pre-agreement*, *agreement*, and *post-agreement phase*). With the help of our *fit taxonomy*, we will identify the *substantial* and *procedural negotiation problems* the United States and Libya faced in each of these phases. Whether and to which degree the diplomatic design elements (and their alternative explanations) contribute to the resolution of these negotiations is the crucial benchmark for the evaluation of their performance.

5.3.1 First Part of the Pre-Negotiation Phase (December 1987 - late 1980s)

The U.S. engagement on the Qaddafi regime's WMD programs started in late December 1987 when senior U.S. intelligence officers revealed to New York Times that Libya was pursuing a secret chemical weapons program. As we have shown above (ch. 5.1.1.1), this event marked the beginning of the so-called *pre-negotiation phase*. The *pre-negotiation phase* clearly differs from other phases of the US-Libyan bargain process. It was by far the most lasting episode in the entire process. Altogether it took 16 years until the two sides started for the first time direct talks on the Qaddafi regime's nuclear weapon program in spring 2003. Moreover, unlike other phases of the NRN process, the *pre-negotiation phase* is sub-divided into two parts. The first part, which ran until the late 1980s, was dominated by fierce confrontation. The diplomatic struggle on the WMD issue fell into a relatively tense and hostile episode of the U.S.-Libyan relation. Although the second part of the *pre-negotiation phase* which started in the early 1990s was more benign than the first years, it was still relatively challenging and came to an end, not before March 2003. What links these two parts together was the overarching strategic question the two conflict parties pondered upon throughout the pre-negotiation stage: Whether or not direct diplomacy shall be given a chance and explorative talks on the WMD shall be held?

5.3.1.1 Procedural & Substantial Negotiation Problems

Based on our survey of Libya's and the United States' motivation, we have in the previous chapter applied the "reenactment method" and thereby revealed that both players were at the very beginning of the diplomatic process entangled in a Deadlock Game. The *procedural negotiation problem* Tripoli and Washington faced until the early 1990s was dominated by a confrontational and antagonistic game constellation. That this challenging situation was overcome in relatively short time allowing the bargaining process to move on to less hostile realms, is primarily owed to structural changes in Libya's foreign policy. *Diplomatic design* was for the resolution of the Deadlock Game almost irrelevant. Rather, it was already a "success" if the applied design elements were not further complicating the *procedural negotiation problem* in the sense of *negative fits* (Figure 25).

The *substantial negotiation problem* – Libya's *nuclear bad* – played during the *pre-negotiation phase* at best a minor role. Given the tense U.S.-Libyan relationship, a reasonable diplomatic solution of the Qaddafi regime's WMD programs was at that time simply not feasible. The nascent bargaining process had not yet developed the necessary maturity that would have allowed a diplomatic engagement on the *substantial dimension*. What had priority instead was to move the Libya-American relationship into a state that would make cooperation on "negotiation issue" possible.

Nevertheless, we will not exclude Libya's *nuclear bad* from our analysis of the *pre-negotiation phase*. After all at least some of the design elements applied during this bargaining episode had at least some implications for the *substantial negotiation problem* (for example the U.S. military threat) (Figure 25).

A) Deadlock Game: “Splendid Confrontation”

Deadlock Games are characterized by strong disincentive to negotiation. It is a particular malign game constellation in terms of joint problem resolution. Defection represents for both sides the dominant strategy. The deadlock situation – mutual defection (DD) – is the most likely outcome of this constellation. Therefore, the Deadlock Game is distinct from all other *procedural negotiation problems* we will discuss within the Libyan-American diplomatic engagement. In the perception of the players, mutual defection is not problematic at all. Rather, it is the outstanding characteristic of this strategic situation that actors who are entangled in a Deadlock Game clearly prefer the antagonistic and confrontational interaction over a possible cooperative outcome (CC). In that sense, it is “splendid confrontation” that makes Deadlock Game distinct from other *procedural negotiation problems*. Of course, since unreciprocated defection (DC) signifies for both players the individual optimum, they both rather prefer unconditional surrender of their opponent. But once the interaction result of mutual defection is achieved (DD), they both quickly arrange themselves with this outcome which coincides with the Nash Equilibrium (N) from which the players cannot depart unilaterally without rendering themselves worse off (Figure 9).

Figure 9: The Deadlock Game (Dec. 1987 - late 1980s)

		USA	
		start explorative talks [C]	no explorative talks [D]
Libya	start explorative talks [C]	2,2	1,4
	no explorative talks [D]	4,1	3,3 M,N,P+

The players' preference hierarchy: DC > DD > CC > CD

C = Cooperation D = Defection M = MaxiMin Solution N = Nash Equilibrium P+ = Qualified

But the deadlock situation (DD) is not only a relatively attractive outcome, it is also a relatively safe option. In Deadlock Games, mutual defection coincides with the Maximin solution (M) – the strategic choice which provides in a situation of distrust and suspicion of the players the best precaution against the worst case scenario of unreciprocated cooperation (CD). Even if joint cooperation would emerge unexpectedly as a very attractive choice – for example due to an external intervention which is providing an appreciable incentive for this option – the deadlock players would still stick to the mutual defection (DD) and would only depart from that situation when mutual distrust is resolved (Figure 9). Thus, Deadlock Games are marked by a double trap: a *colliding interest* and a *distrust trap*.²⁹⁷

²⁹⁷ Nevertheless, when we define social traps narrowly and look from that perspective upon the Deadlock Game in isolation this particular strategic constellation would not meet the decisive criteria. Deadlock Games have not the characteristic bifurcation between collective and individual rationality. Rather, mutual defection (DD) is the logical outcome if both players act according to the prism of individual rationality. But it is also the outcome that is *collectively* the best option and therefore coincides with the Qualified Pareto Optimum (P+). Seen from that perspective, the Deadlock Game is comparable to full harmony (i.e. Pure Coordination Game) where both players have an upmost interest in cooperation. In


While the Deadlock Game is a relatively demanding situation, we are still convinced that it is not necessarily a “losing game” for diplomacy. With the help of our *fit taxonomy*, we could identify ways and means on how to overcome this challenging constellation. Although the investment of governance resources required is relatively high in Deadlock Games, we are nevertheless able to identify an “optimal problem solution” for a diplomatic intervention. Two aspects are in that regard of importance: (a) massive and lasting preference manipulation and (b) fast and unbiased confidence building (Figure 9).

First, in order to overcome the “splendid confrontation” (DD) and move the two players into joint cooperation (CC), a “massive and lasting preference manipulation” is required. Since cooperation is under the condition of the Deadlock Game an unfavorable situation, considerable governance resources must be invested to influence the players’ motivation in favor of joint problem resolution. That requires that either the attractiveness of joint cooperation (CC) is sharply increasing, or the outcome of mutual defection (DD) is rendered into an unpleasant choice.

Beyond individual cases, it is difficult to quantify the investment required to achieve a successful manipulation of the actors’ strategic calculation. However, in general, one can say that the “preference manipulation” must be equivalent to two ranks of the deadlock players’ payoff structure.

In order to make the players *depart* from the deadlock constellation, the diplomatic intervention must make up for the difference of one payoff point in the players’ hierarchy of preferences. In the players’ rating of the available opportunities, the scenario of mutual defection (DD) has to swap its position with the choice of joint cooperation (CC).²⁹⁸ Without this intervention the players are unlikely to abandon the behavioral pattern of “splendid confrontation”. Yet, departing towards joint cooperation (CC) is only one side of the coin. In terms of a successful “preference manipulation”, it is also required that the players stick to cooperative course and do not relapse into unilateral defection (DC) – a practice that is under the circumstance of the Deadlock Game very likely to occur since mutual defection (DD) has no “catalyzing effect” in favor of joint cooperation (unlike in many other dilemma

both situations – in the case of full harmony (e.g. the Pure Coordination Game) and in the case of a full-fledged confrontation (e.g. the Deadlock Game) – there is no *social trap* (as long as we apply a narrow definition of this concept). Consequentially, in both situations there is no room for negotiation – either because it is not necessary (full harmony) or because it is not possible (full confrontation). However, in the chapter on our *fit taxonomy* (ch. 3.1.3.2) we explained that our concept of *social traps* takes into account the two principal dimensions of negotiation problems (the *procedural* and *substantial dimension*) and therefore goes beyond the conventional definitions of social dilemmas which build primarily on the disjunction of the Nash Equilibrium (N) and the Qualified Pareto Optimum (P+). When thought as a *procedural negotiation problem*, the Deadlock Game is problematic since the involved players are unable to work jointly towards a diplomatic solution of the *substantial negotiation problems*. The central “negotiation issue”, operationalized in our case as a *nuclear bad*, which is itself a *social trap* remains unresolved and continues to linger on as long as the conflict parties remain under the conditions of the Deadlock Game in the state of mutual defection. As long as *procedural negotiation problem* is dominated by a Deadlock Game, there will be no diplomatic solution for the *nuclear bad*. In that sense, the Deadlock Game and its resolution is the indispensable prelude for longer, two-dimensional bargaining process. Since the Deadlock Game is an integral part of the larger substantial social trap, it would be odd not to describe it as a dilemma constellation.

²⁹⁸ Swap between DD and CC: $DC > DD > CC > CD$


games (such as the PD or the Chicken game)).²⁹⁹ To make the players maintain cooperation, it requires an intervention on an even higher magnitude than to make them embark this course. A preference manipulation equivalent to two ranks in the deadlock players' payoff structure is needed in which the third best scenario (CC) has to be swapped with the most preferred outcome (DC).³⁰⁰

However, in addition to the relatively high investment of governance resources, successful "preference manipulation" under the condition of Deadlock Games has to be lasting. Unlike many other game constellations, cooperation (CC) is within Deadlock Games under no circumstances self-sufficient. As long as a diplomatic intervention is showing signs of wear, the centrifugal forces inherent in this strategic constellation will make the players return to unilateral defection with the result that they end up again in the situation of mutual defection (DD). It is therefore, essential that the preference manipulation continues even if the players have chosen joint problem resolution.

The second essential "fit demand" required to assure cooperation in Deadlock Games is the resolution of the *distrust trap* signified by the coincidence between the Maximin solution (M) and the state of mutual defection (DD). If the "massive and lasting preference manipulation" is not seconded by efforts of confidence building, the chance is high that the entire initiative will fall apart despite all the governance resources that have been invested. "Confidence building" is absolutely imperative in order to arrive at a cooperative resolution of Deadlock Games. However, this "fit demand" is relatively challenging too. Since defection and confrontation are the "natural pattern" of this strategic situation, distrust is assumed to be high among the involved actors.

To yield meaningful results under the condition of Deadlock Games, "confidence building" interventions have to fulfill two conditions: First, it is crucial that the players move simultaneously into cooperation. Diplomatic interventions to reduce distrust must, therefore, have an unbiased nature. In a case where the actors take this step separately, the "first mover" will quickly grow doubts about the cooperative attitude of its counterpart. The fear to be deceived will rise quickly and reemerging suspicion could easily wreck the entire diplomatic initiative, causing a relapse into mutual defection. Second, it is important that the confidence building is established quickly. There is the danger that mutual defection becomes rooted in the players' general behavior pattern with the consequences that they make themselves comfortable with confrontation and regard it as the "normal form of living". The antagonistic and confrontational pattern of the deadlock situation becomes more deeply engrained, the longer the players remain in this situation. Unlike, for example, in the PD game, iteration under the condition of a Deadlock Game is not paying off in terms of joint cooperation.

²⁹⁹ The experience of mutual defection (DD) is in Deadlock Games not increasing the player's inclination for joint cooperation (CC).

³⁰⁰ Swap between DC and CC: $DC > DD > CC > CD$

B) Libya's Nuclear Bad

Under the condition of a Deadlock Game, even simple and ordinary problems could turn into insurmountable obstacles. Consequentially, the diplomatic efforts to resolve the *substantial negotiation problem* – Libya's *nuclear bad* – was unthinkable during the first part of the *pre-negotiation phase*. Cooperation in that field was highly unlikely in the light of the hostile U.S.-Libyan relations in the late 1980s. The *substantial negotiation problem* moved into the center of attention of the negotiation parties not before spring 2003 – the starting point of the *pre-agreement phase* (ch. 5.3.3. Moreover, in the 1980s the United States was simply not aware of the later development the Libya *nuclear bad* would take. While it was known for a long time that Tripoli desired to acquire nuclear weapons, the focus of Washington's WMD policy was in the late 1980s primarily oriented at the Qaddafi regime's chemical weapons program – which was started in the early 1980s and which was discovered by the U.S. intelligence around the year 1984 (e.g. Terril 1994: 48; Tucker 2009: 372).

Nevertheless, we still deem it important to include the *substantial negotiation problem* in our analysis of the first part of the *pre-negotiation phase*. Since a resolution of the *nuclear bad* is under the condition of the Deadlock Game not possible, it is still of interest to reveal whether and how diplomatic design elements have affected the *substantial negotiation problem*. Since the concrete scope and nature of Libya's nuclear weapons program was in terms of a diplomatic resolution strategy a "non-issue" in the pre-negotiation phase, the *fit demand* that is in light of this particular constellation most relevant are precaution and preparatory measures capable of paving the way for a future diplomatic resolution. Against that background, we could infer from our *fit taxonomy* two requirements (Figure 25):

First, as we have explained above, the Qaddafi's regime nuclear effort was during the 1980s clearly oriented towards the "final good" of "regime security" (ch. 5.2.2.2). Seen through the prism of the *public bad* approach, the nascent nuclear weapons program functioned as an "intermediary step" in larger "fabrication chain" which was tailored to this particular "final good". In order to avoid a further exacerbation of the *substantial negotiation problem*, which would later render diplomatic resolution efforts more demanding, the crucial "fit demand" we infer from our *fit taxonomy* is the avoidance of all actions that would increase Libya's "nuclear appetite". Regardless of whether it is a structural factor, a non-diplomatic intervention, or a design element – all aspects that had the potential to undermine and belittle the Qaddafi regime's "final good" of "regime security" increase the relevance of Libya's nuclear weapons program in its function as an "intermediate bad" (Figure 25). It is a principal logic we infer from the *public bad approach* that when the realization of "final goods" becomes more distant, *bad doers* are likely to become more eager and determined to increase the impact and the performance of the intermediate fabrication steps (i.e. in our case Libya's nuclear weapons program) in order to realize the desired "final goods".

Second, Libya's nuclear efforts had entered in the 1980s into a phase of stagnation (see ch. 5.1.2.2 and ch. 5.2.2.2). At that time Tripoli's nuclear weapons program was characterized setbacks and standstill. The desired "best shot aggregation" Libya tried to apply was not

yielding results given that the North African country had little to no success in winning external suppliers. Presumably as a makeshift solution, Libya turned to chemical weapons instead. Consequentially, as long as Libya was not able to gain support from nuclear outfitters from abroad, Tripoli was not moving closer to the “nuclear threshold” – given its low management skills and its backward domestic scientific-technological capabilities. Unlike nuclear weapons programs that are built by the “summation technology” where every technological step and atomic renegade state takes on its way towards a nuclear capability is adding up to the *nuclear bad*, the “best shot logic” of nuclear proliferation follows an “all-or-nothing-principle”. If a *nuclear bad* is not provided by the single most potent manufacturer which crosses the nuclear threshold by a “single act of creation”, proliferation efforts that follow the “best shot logic” are unlikely to succeed.

The “optimal problem solution” we could deduce from this constellation, is the requirement to prevent any external influx to Libya’s WMD programs provided by nuclear outfitters. As long as the Qaddafi’s regime was unable to operate the “best shot aggregation”, the Libyan nuclear weapons program remained in a stage that was close to inexistence (Figure 25).

5.3.1.2 Analyzing the Varieties of (Mis)Fit in the First Part of the Pre-Negotiation Phase

While the Deadlock Game is a rather unlikely situation for diplomacy, we nevertheless encounter five diplomatic design elements during the first years of the pre-negotiation phase: Military threats, economic sanctions, a naming-and-blaming campaign, Arab mediation efforts, and a Libyan charm offensive. Alternative explanations were, on the other hand, instead little in number (Figure 25).

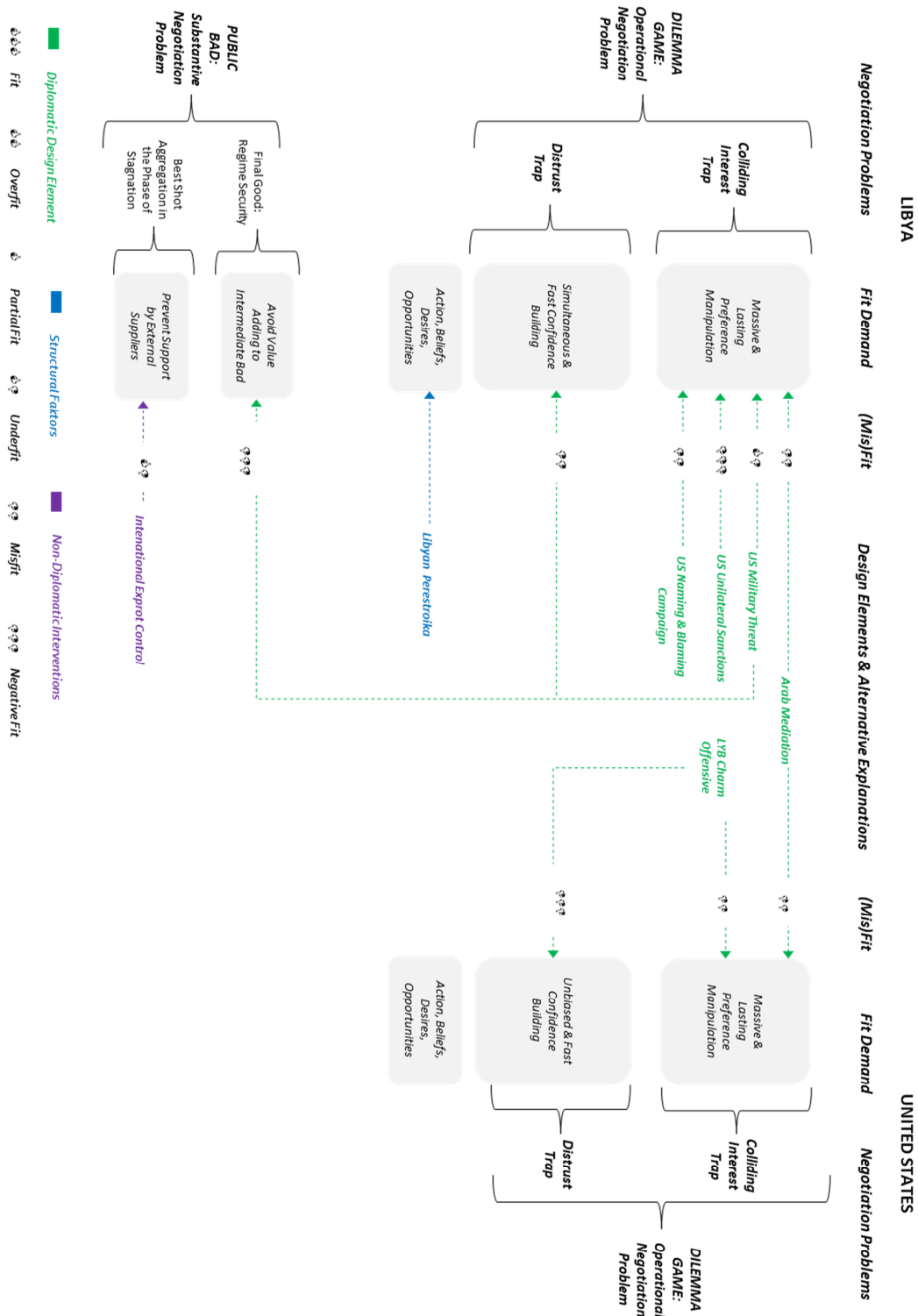
Among the different strategic constellations the United States and Libya encountered during the entire NRN process, the first part of the *pre-negotiation phase* was the most difficult. Therefore, it is little astonishing that all diplomatic design elements failed to achieve a meaningful impact. Diplomacy was not a game changer. There was not a single design element that *fit* with the *procedural* or the *substantial negotiation problem*. Rather *misfits*, *underfits*, and occasionally even *negative fits* dominated the Libyan-American interaction on WMD in the late 1980s (Figure 25). The gap between the actual performance of *diplomatic design* and the “fit demand”, we identified with the help of our *fit taxonomy*, was striking during the first years of the Libyan NRN.

We are likewise not astonished that “coercion” was the dominant nature of the hapless design elements applied during the first part of the *pre-negotiation phase*. Efforts to actively overcome the distrust among the conflict parties were instead inexistence.³⁰¹ However, this particular structure of diplomatic design is only logical. For a deadlock player, it would be simply irrational to choose rewarding or trust building strategies in order to affect the behavioral pattern of its opponent. A leopard can’t change its spots. Libya and the United States were simply too much entangled in the logic of “splendid confrontation”

³⁰¹ When diplomatic design elements affected the *distrust trap*, they only deteriorated the situation (i.e. Libya’s charm offensive or U.S. military threats).

and were unable to escape from this particular pattern. When nevertheless cooperative strategies were applied – as Libya did with its “charm offensive” – it was for the sake of setting up a diplomatic smokescreen. Even more important, however, is the fact that any conciliatory step or rewarding strategy applied by one deadlock player to its counterpart would be anyway unlikely to achieve the desired results. Under the circumstance of the Deadlock Game, the receiver of such an approach would simply reap in the positive incentive without reciprocating this step.

Figure 25: Varieties of (Mis)Fit in the First Part of the Pre-Negotiation Phase



The Deadlock Game was in the end resolved by structural change. In the late 1980s, the Qaddafi regime was confronted with numerous setbacks and failures both in its foreign and its domestic politics and underwent a strategic readjustment. This general shift in the Qaddafi regime's policy is known as the "Libyan perestroika". If there had been no "Libyan perestroika", the Deadlock Game would have prevailed. In all probability, the Qaddafi regime's *nuclear reversal*, achieved in December 2003, would not have not been possible in such a scenario.

In the following section, we will analyze the performance of the diplomatic design elements and its alternative explanations.

A) U.S. Military Threats

While the U.S. air raids on Tripoli and Benghazi in April 1986 took place before the first part of the *pre-negotiation phase* started, military threat played an important role during the prelude of the Libyan NRN. Although the option to use force against the Qaddafi regime's WMD programs was never executed, military threats was always present.

The scenario of U.S. raids against the North African country was, in particular, tangible in late 1988 and early 1989. At that time, military actions as a tool of U.S. counter-proliferation was widely discussed in Washington. For example, in late December 1988, President Ronald Reagan said publicly in a TV interview that a military strike against the Rabta plant – the major site of Libya's clandestine chemical weapons program – was in the realm of possibility (Cannon & Ottaway 1988: A1; Terrill 1994: 50). This view was in late 1988 also endorsed by the elected presidential candidate, George H.W. Bush. Other key figures of the U.S. foreign policy establishment, such as William F. Burns, director US Arms Control and Disarmament Agency, likewise proposed military strikes against the Rabta plant as a possible option. Moreover, the U.S. sabre rattling was further intensified in January 1989 when U.S. Navy aircrafts downed two Libyan MIG 23 bombers in a skirmish over the Gulf of Sirte (Cannon & Ottaway 1988: A1; Terrill 1994: 50; Wiegele 1992: 46 & 115).³⁰²

Reportedly, Tripoli noted with growing concerns the public discussion in Washington about military force. In light of the "Operation El Dorado Canyon" (April 1986), the members of the Qaddafi's regime took this threat serious (e.g. Apple 1986; O'Sullivan 2003: 176; Ronen 2008: 35; St. John 2002: 148-9). Consequentially, immediately after Ronald Reagan's statement during the TV interview, the Qaddafi regime took hectic measures to prepare for

³⁰² The US-Libyan military confrontation in the Gulf of Sirte started already in the early 1981. At the side-lines of an U.S. manoeuvre in the southern Mediterranean in August 1981, Libyan combat aircrafts and forces of the U.S. Sixth Fleet skirmished in the Gulf of Sirte (Vandewalle 2006: 133). Further clashes between Libyan air force and the U.S. Sixth Fleet occurred again in February 1983. During the year 1983 Washington stationed nuclear headed cruise missiles on a U.S. air base in Sicily – an act that was perceived by Tripoli as a concrete threat (Cremasco 1987: 274; Ronen 2008: 24, 32-34). In early 1986 U.S. military coercion against Libya eventually climaxed. In late March 1986 the U.S. Sixth Fleet conducted a naval maneuver in the contested waters of the Gulf of Sirte and thereby triggered a brief but hefty exchange of military blows which sank a Libyan patrol boat, downed several Libyan combat airplanes, and caused damage at a long-range SA-5 missile battery at the Ghardabiyya air base which had been recently delivered by the USSR to Libya (Shipler 1986; St. John 2002: 136). The peak of military violence, however, was reach a few weeks later when the Reagan administration launched Operation El Dorado Canyon on April 15, 1986 (see ch. 5.2.1.2).

a possible U.S. air attack. The military reserve was mobilized, additional anti-aircraft guns were deployed to protect government facilities, and larger numbers of civilians were ordered to camp at the vicinity of the Libyan chemical weapons production site in Rabta in order to drive up collateral damage in the case of a U.S. bombardment with the intention to inflict negative publicity on the Reagan administration (Terrill 1994: 52; Wiegele 1992: 34; Ross 1989).

Nevertheless, we come to the conclusion that the design element of military threat was neither moving the Qaddafi regime towards cooperation nor made Tripoli change its WMD efforts. Libya remained in the deadlock situation (DD) and was continuing its confrontational stance towards the United States. The overall evaluation of this design element is therefore negative. In all probability, military threats represented in terms of the required “massive preference manipulation” an *underfit*, signified a *misfit* with regard to the “confidence building”, and had for the *substantial negotiation problem* even negative consequences in the sense of *negative fit* since the scenario of U.S. air raids made nuclear weapons as a mean of national security even more valuable for the Qaddafi regime (Figure 25).

Since Washington’s military threat towards Libya was maintained throughout the Reagan’s and Bush senior’s presidency, this diplomatic design element was certainly meeting the criterion of a lasting intervention – a factor we have identified above as crucial for successful “preference manipulation”.³⁰³ Moreover, among the other coercive instruments that Washington applied during the first part of the *pre-negotiation phase*, military threat was the only design element that was “clearly heard” by Tripoli. The military threats were perceived as something different than the “daily rudeness” that shaped the U.S.-Libyan relation at that time. It was not for nothing that the Qaddafi regime undertook contingency measures against an expected U.S. air strike. Neither was it a mere coincidence that Tripoli launched by early 1989 a “charm offensive” towards to pacifying the United States (see section B). Although this outreach initiative was first and foremost a “diplomatic smokescreen” and not a sincere offer for American-Libyan reconciliation, it nevertheless showed that this coercive diplomatic tool had – unlike all other diplomatic tools – caused immediate reaction by the Qaddafi regime.

However, all that cannot make up for the lacking massiveness of the military threats. In all probability, the magnitude in which this coercive design element was delivered was simply too small to yielding meaningful impact under the condition of the Deadlock Game. Rather, the “best explanation” we could draw from the historic evidence is that the U.S. military threats signified an *underfit* in terms of the “preference manipulation”.

³⁰³ For example, in the late 1980s the United States was increasing its support for the Chadian government in the war against Libya and delivered modern military equipment such as shoulder fired anti-aircraft missiles. The military training Washington provided for Libyan exile opposition groups was intensified at the same time. In the 1980s media reports surfaced about commando operations executed by U.S. special forces on Libyan territory including nightly raids to destroy telecommunication infrastructure (e.g. Davis 1990: 161; O’Sullivan 2003: 176; Ronen 2008: 34; St. John 2002: 135). And when Libya build a second secrete chemical weapons plant at Tarhunah, 65 km southeast of Tripoli in the early 1990s, Washington put military strikes again on the agenda (Prados 2005; Tucker 2009; 373; Shenon 1996; Waller 1996).

Despite all the precaution measures Libya undertook in late 1988 and early 1989, the Qaddafi regime must have been aware that Washington's sabre rattling was first and foremost a threatening gesture. We found no indication that the United States would have significantly increased its military presence in the Gulf of Sirte at that time. No additional military hardware was deployed in the region. In late 1988 and early 1989, there were no signs of tangible preparation for military actions from the U.S. side. In addition, the threat of military strikes against Tripoli and its WMD programs was relative vague. Washington had not drawn red lines that would – once crossed – trigger military actions. For example, when Ronald Reagan was asked by the TV interviewer whether he could elaborate in more detail what he meant by the threat he just sent to Tripoli, the U.S. President became cautious and said “that a decision has not been made yet, we’re in communication with our allies and with NATO forces and all, and we’re watching very closely that situation” (Wiegele 1992: 31). Several days after Ronald Reagan's TV interview, U.S. senior officials were quoted by the press saying that “no active consideration” had been taken so far and that military actions were only one option of several possible tools discussed by the administration (Cannon & Ottawa 1988).

Moreover, Libya must have noticed that U.S. allies in West European were critical to the use of force. Critique regarding this particular design element was voiced already in April 1986 during the unilateral air raid on Tripoli and Benghazi.³⁰⁴ In late 1988 Washington's allies were apparently even more opposed to military actions. According to Bruce St. John, there was a widespread feeling in European capitals that “the Reagan administration (...) continued to overestimate the Libyan threat” (St. John 2002: 143).

However, the most important indicator for the lacking massiveness of military coercion is the fact that this very tool had already failed to achieve an impact on Tripoli when Washington applied it during the “Operation El Dorado Canyon”. Even though the U.S. air raids in April 1986 were not just threats but concrete military actions, they did not force Libya into a more conciliatory and less hostile course. While it is undisputable that the bombing of Tripoli and Benghazi in April 1986 shocked Muammar al-Qaddafi and the power elite in Tripoli (e.g. Ronen 2008: 32, St. John 2002: 15), the historic evidence suggest that Libya was not decreasing but instead intensifying its confrontation with the United States in response to coercive diplomacy (e.g. George 1991: 57; Bowen 2006: 11; Braut-Hegghammer 2008: 64; Newnham 2009: 78). The Qaddafi regime stepped up its terrorist activities and initiated an asymmetric retaliation campaign which climaxed in the bombing of Pan Am flight 103 in December 1988 (e.g. Apple 1986; Collins 2004: 1; Exenberger 2002: 70; Pienaar 2008; Jakobsen 2011).³⁰⁵ Since far more intrusive military coercion failed in April

³⁰⁴ In particular Italy, Spain, and Greece had expressed in April 1986 concerns that the unilateral U.S. attacks on Libya would further deteriorate the security situation in the Mediterranean. During “Operation El-Dorado Canyon” U.S. bombers were not allowed to cross French airspace. Even the UK – the special ally to the United States and by that time governed by Premier Minister Margaret Thatcher who fostered a close friendship with Ronald Reagan – had not taken part in this operation and provided only minor support in the sense that U.S. F-111 aircrafts were allowed to use air bases in the UK to fly their mission in Libya (e.g. Davis 1990: 145, 151-7; Ronen 2008: 31; Phillips 1986; St. John 2002: 132-3).

³⁰⁵ While the Reagan administration has claimed that Operation El-Dorado Canyon was a major success and a big blow to terrorism, an internal report of U.S. Department of Defense issued in October 1997 and declassified in 2000 evaluates the events in retrospective and comes to the conclusion that the Qaddafi

1986, it is likely to assume that it did even more so in December 1988 and January 1989. Tellingly, in early 1989 the Los Angeles Times interviewed a European diplomat stationed in Tripoli who reported that the U.S. military threats had certainly provoked an “underlying tension” in Libya “but it’s nothing like it was in ‘86 [the year of Operation El Dorado Canyon]” (Ross 1989).

While military threat was in terms of “preference manipulation” insufficient, this design element had with regard to the *substantial negotiation problem* even negative implications. In all probability, it signified a *negative fit*. From our *fit taxonomy*, we have inferred the requirement to avoid actions that render nuclear weapons even more relevant for the Qaddafi regime in terms of national security. With Washington bringing air strikes up on the agenda, it is only logical that Tripoli’s demand for a nuclear weapons program, functioning as an intermediate good to achieve the desired “final good” of national security, was fostered and was given an additional boost (e.g. Braut-Hegghammer 2008). Coercive diplomacy was therefore even increasing the *substantial negotiation problem*. After all, military deployable atomic weapons would have been a reliable protection against external aggression (Figure 25).

B) Libya’s Charm Offensive

As an immediate reaction to the military threat, the Qaddafi regime launched a “charm offensive” towards the United States. According to our evaluation this design element signified a *misfit* with regard to “preference manipulation” and even a *negative fit* in terms of confidence building (Figure 25).

In order to soften the Reagan administration stance, Libya sent conciliatory signals to Washington in late 1988 via the Italian foreign minister Giulio Andreotti. Tripoli voiced its willingness to allow international inspectors to visit its chemical weapons production site at Rabta (Wiegele 1992: 31). A similar initiative was made by Muammar al-Qaddafi in January 1989 at a press conference in Tripoli arranged to welcome the incoming 41st U.S. President, Georg H.W. Bush. At that occasion, the Libyan leader aired his readiness to engage in “disarmament negotiations” with the United States as long as both sides would treat each other with respect and would “meet at eye level” (St. John 2002: 154). In the same month, Tripoli invited a group of international journalists to Libya for a “visit” to the Rabta site (Parmelee 1989).

regime started to retaliate by a series of terror attacks which were launched already three days after the U.S. air raids and which were either conducted directly by Libya’s secret service or by various terrorist groups Tripoli financed and supported at that time (Office of the Under Secretary of Defense 1997). Immediate reprisals included the killing of three kidnapped British and U.S. citizens in Beirut as well as ambushing of two U.S. embassy communication officers in Khartoum (St. John 2002: 143; Davis 1990: 157-8). More sophisticated attacks needed planning and were therefore launched in the following year. In April 1988 U.S. Information Agency building was attack in Latin America and a USO club (United Service Organization) was bombed in Italy. In May 1988 a Citibank office in New Delhi were ragged by an explosion (Office of the Under Secretary of Defense 1997: 15-6; St. John 2002: 148). One of the most spectacular retaliation effort Libya made was the failed attempt to hire “a Chicago street gang to attack US airliners with shoulder-fired weapons” (Office of the Under Secretary of Defense 1997: 16).

Tripoli's diplomatic outreach to Washington should not be confused with the surge of Libyan backchannel approaches started by Spring 1992.³⁰⁶ Instead, in late 1988 and early 1989 Libya intended – in all probability – not to sound out ways for a diplomatic rapprochement with the United States – a step that would be irrational in the logic of the Deadlock Game. Rather, it is most likely that the objective of this initiative was to pacify Washington, win international support from the international community, and gain – if the United States would really launch a strike – more time for contingency measures.

It is little astonishing that the “charm offensive” was insufficient to manipulate the preference of the United States in terms of joint cooperation. Alone the fact that the Qaddafi regime framed its offer for direct talks on its WMD program in the logic of arms control negotiation – a type of bargaining which is in practice reserved to the bilateral agreements achieved between the United States and the Soviet Union during the Cold War – unmasked Libya's charm offensive as a “diplomatic smoke screen” (e.g. New York Times, 6th July 1989: p. 1.). Libya's call for a WMD dialogue “on the same eye level” did not only imply that the United States should tread a small North African country the same way as it handled its relation with the Soviet superpower, the logic of “arms control talks” implied also the scenario that not only Libya but also the United States would disarm parts of its WMD programs.

Moreover, it is relatively easy to decipher Libya's offer for transparency on its chemical weapons program as a dummy maneuver. Tripoli's invitation of international journalists to visit the Rabta site is in that regard in particular illustrative. The journalists – among several reporters from U.S. journals – were only admitted to watch Rabta in the gathering dark through the windows of a coacher driving by the site in a distance of several hundred meters. A stop-over at the facility – let alone a walk-through over its interior – was not allowed. It is, therefore, little astonishing that this failed Libyan PR coup caused negative echoes in almost all leading Western newspapers (e.g. Parmelee 1989; St. John 2002: 146-7; Wiegele 1992: 49-50).³⁰⁷

Although Libya's charm offensive was not further increasing the *colliding interest trap*, this design element nevertheless failed to manipulate Washington's preference. We, therefore, evaluate it as a *misfit*. However, with regard to the require confidence building, Tripoli's approach signified – in all probability – a *negative fit*. Washington correctly read Tripoli's initiative as a deceptive measurement. The offer for talks and dialogue was in that sense another proof that Libya was – as the Reagan administration was anyway expecting – playing with marked cards (Figure 25).

³⁰⁶ Consequentially, the „charm offensive“ differs clearly from Libya's latter diplomatic backchannel initiatives which were held in utmost secrecy and were designed to avoid any media coverage.

³⁰⁷ A similar effort to disguise the Rabta facility were taken by the Qaddafi regime in March 1990 when Tripoli was feigning a fire at the plant by burning tires in the front and painting the buildings with faked burn marks. The aim of the hoax fire was to suggest that the plant was severely damaged. Moreover, the Libyans used this incidence to accuse the United State, Israel, and Germany for having launched a secrete operation to destroy Rabta. Meanwhile the work at the facility continued. Libya produced in Rabta a considerable quantity of mustard gas before it was closed down in the late 1990s (e.g. Tucker 2009: 372).

C) Unilateral U.S. Sanctions

Economic sanctions were another coercive tool the United States applied against the Qaddafi regime. Unlike the multilateral UN sanctions which were imposed in April 1992, this diplomatic design element had a unilateral character. None of Washington's allies co-sponsored the U.S. economic coercion.

While Washington started to apply coercive economic measurements against Libya already in the early 1970s,³⁰⁸ the economic coercion was substantially intensified under the Reagan administration. In March 1982, the United States banned all imports of Libyan crude oil. All US exports to Libya – except food, medical, and agricultural products – were submitted to a special licensing procedure. And trade with strategic goods such as military or oil drilling products was outlawed. In January 1986 Washington further ratcheted up its economic pressure on Libya. Almost the entire US-Libyan trade including financial transactions was banned, U.S. citizens were no longer allowed to work in Libyan, and all Libyan assets in U.S. banks were frozen (e.g. Niblock 2001: 29-30; O'Sullivan 2003: 187-88, 205; Vandewalle 2006: 153 - 155).³⁰⁹

Certainly, the unilateral U.S. sanctions signified a lasting instrument. In the late 1980s, Tripoli could not expect that Washington would lift its coercive economic measures in foreseeable future. Moreover, the U.S. sanctions were – in all probability – not provoking any meaningful collateral damage. Unlike the Reagan administration's military threats, it neither inflamed Libya's desire for nuclear weapons nor made the Qaddafi regime significantly more distrustful of the United States. But while this diplomatic design element was not counterproductive in the sense of a *negative fit*, it nevertheless did not contribute to "massive preference manipulation" either. According to our evaluation the unilateral U.S. sanctions signified a *misfit* – at least this is "best explanation" we can derive from the available historical data (Figure 25).

First, the U.S. sanctions were not massive enough. They were unlikely to yield a meaningful impact on Tripoli's decision making under the condition of the Deadlock Game. The literature is relatively united in its conclusion that the unilateral economic sanctions the Reagan Administration imposed on the Qaddafi regime during the 1980s were relatively small and had rather a symbolic nature (e.g. St. John 2002: 130; O'Sullivan 2003: 187-88,

³⁰⁸ In 1973 Washington blocked the sale of certain military goods to Libya including eight Lockheed C-130 Hercules airplanes for which Tripoli had already paid for. In 1975 the U.S. government canceled the sale of an air-defense system to Libya, worth around \$200 million. And in 1981 all U.S. passports were invalidated for travels to Libya – a measure which curtailed the business of U.S. oil companies that were operating in the North African country at that time (Niblock 2001: 27).

³⁰⁹ The U.S. sanctions did not focus specifically on the WMD issue but rather expressed Washington's dislike with the Qaddafi regime's foreign policy in general. Certainly, it is believed that the members of the Qaddafi regime understood at a very early point that they would never escape from Washington's economic pressure if they would continue to strive for unconventional weapons. And the Reagan administration left in the late 1980s no doubts that the applied sanctions had – apart from anti-terrorism and the effort to tame Libya's aggressive foreign policy in the North African region – also a non-proliferation dimension (e.g. U.S. 1989: 21-22). Nevertheless, none of the sanctions Libya was facing by the late 1980s put the WMD issue at the center. And none of the U.S. economic pressure tools had been applied as a consequences of Washington's effort to reverse Tripoli's WMD program which started by late December 1987.

205; Vandewalle 2006: 153, 155).³¹⁰ The actual effects of the U.S. sanctions on Libya's socio-economic system remained limited. For example, the freeze of Libyan assets had only a small impact on Libya's economic wellbeing as it affected only 2 % of entire Libyan financial properties held abroad (Economist Intelligence Unit 1984: 13). And until the U.S. sanctions were imposed in April 1992, Libya met the oil export benchmark set by the OPEC (Organization of the Petroleum Exporting Countries) (Vandewalle 2008: 155).³¹¹

Of course, there is little doubt that the U.S. coercion against Libya had tremendous impact on the American-Libyan business ties. It interrupted almost the entire economic and commercial relationship between the two countries. However, since even close U.S. allies – such as the United Kingdom – were not ready to second Washington's sanction policy, Libya had ample room to circumvent the applied coercive economic measures. Consequentially, we witness a sharp diversification of Libya's commercial relations during the 1980s.³¹² In Asia and Europe, the Qaddafi regime found new trading partners (O'Sullivan 2003: 188-9, 191).

Second, since the U.S. sanctions were slowly ratcheted up starting by 1970s, it is likely that Tripoli regarded this diplomatic design element first and foremost as a normal feature of the hostile American-Libyan relationship. In all probability, the U.S. sanctions were perceived by Libya as "coercive background noise" and therefore remained below the relatively high set benchmark need to force a deadlock player onto a cooperative course.

D) Naming-and-Shaming Campaign

The US-Libyan diplomatic encounter on WMD was kicked-off by the disclosure of the Qaddafi regime's attempts to build up a clandestine chemical weapons factory in Rabta. The New York Times article published at Christmas Eve in 1987 remained not a single event. Rather, we saw in a following two years an active "naming-and-blaming campaign" by the Reagan administration accompanied with repeated disclosures of U.S. intelligence on Libya's WMD efforts.

For example, in September 1988 further information originating from the U.S. intelligence community were revealed in the press saying that Libya was about to step across the threshold of "full scale production" of chemical warfare agents at its facility in Rabta (New York Time, 15th and 18th September 1988; see also: Wiegele 1992: 26). In October 1988, William Webster, at that time CIA director, made clear to journalists that the Libyan CW production plant at Rabta was the largest site "the CIA has yet detected anywhere" and would, therefore, represent "one of the most serious threats to world peace" (Ottaway

³¹⁰ The only scholar who seems to ascribe a positive impact to the unilateral U.S. sanction is Randall Newnham. In his view the economic crisis Libya faced in the 1980s was "sharply increased" by the U.S. sanctions which were by that time "gradually beginning to bite" (Newnham 2009: 84).

³¹¹ The only fields where the U.S. sanctions had a certain significance was on the oil drilling infrastructure, which were heavily depended on U.S. suppliers (O'Sullivan 2003: 188, 193; St. John 2002: 141-2; Senn 2009: 113; Vandewalle 2006: 153-5).

³¹² For example, in the first 13 months after the Reagan administration imposed its economic sanctions against Libya, the United Kingdom increased its imports from Libya by 350 % (O'Sullivan 2003: 189; Vandewalle 2006: 153-4; Economist Intelligence Unit 1984: 15).

1988: A2; St. John 2002: 146). Moreover, the Reagan administration accused the Qaddafi regime of not only having started the production of chemical weapons but also having used mustard agents against Chadian troops in the Aouzou strip in Northern Chad – a clear break against the 1925 Geneva Protocol which Libya had acceded in 1971 and which internationally outlawed the use of chemical agent during war. Washington bolstered this accusation by sending Chad 2,000 chemical protection mask as a precaution measure against further Libyan attacks (e.g. Sciolino 1987a; Terrill 1994: 55).

The Qaddafi regime reacted vigorously at the U.S campaign. For example, by claiming that Rabta was a plant to produce pharmaceutical goods and accusing the Reagan administration of banning the trade of medical supply to Libya, a spokesperson of the Qaddafi regime declared on 27th January 1988 that the US charge against Tripoli was “both uncivilized and inhumane, a part showing prejudice and racism (...) This ban represents a declaration of hostile war waged by a state like the U.S. against small nations that reject its hegemony” (cited at Wiegele 1992: 24).

However, despite rhetoric skirmishes, there is no evidence that the U.S. “naming-and-shaming campaign” had any major impact on Libya. Given that military threats and unilateral economic sanctions – two way more intrusive coercive tools – had remained below the level needed to achieve “preference manipulation” under the condition of the Deadlock Game, it is unlikely that the relatively weak naming-and-shaming strategy had been more successful in that regard. This coercive diplomatic tool, therefore, signifies a *misfit* (Figure 25).

E) Arab Mediation Attempts

Apart from the United States and Libya – the two major conflict parties of the Deadlock Game – there was during the first part of the *pre-negotiation phase* almost no involvement of other actors. A mediation effort undertaken in the late 1980s by four Arab states – namely Algeria, Saudi Arabia, and Tunisia – was the only exception of bilateral interaction that shaped the first diplomatic episode of the Libyan NRN.

In the light of growing tension between Libya and the United States, these four Arab states made individual efforts to mediate between Washington and Tripoli in order to avoid another military confrontation (Wiegele 1992: 47). For example, the message Prince Bandar, the Saudi ambassador to the United States, sent in early 1989 to Washington was: “Don’t shoot. Talk. See if you can work it out diplomatically, not militarily” (Sciolino 1989).

However, this mediation effort signified a *misfit* (Figure 25). It was a diplomatic design element that was insufficient to yield under the condition of the Deadlock Game a meaningful result. The intervention of the four Arab countries was primarily a diplomatic emergency measure tailored to prevent new escalation and not designed to resolve the deeply rooted confrontation between Libya and the United States. Manipulation of Washington’s and Tripoli’s preferences in favor of joint cooperation (CC) was not on the agenda of these mediation interventions. In the light of the high investments necessary to

make deadlock players depart from the outcome of mutual defection (DD), well-spoken words alone are unlikely to have any meaningful impact.³¹³

Consequentially, all Arab mediation efforts were rejected by the Reagan administration. For example, reflecting the antagonistic and hostile mode that is characteristic of Deadlock Games, the U.S. State Department, reportedly, responded to the Saudi initiative with the words: “there is nothing for anyone to mediate. What we need is a change in Libyan behavior” (Sciolino 1989; Wiegele 1992: 47).³¹⁴

F) Export Controls

As we have outlined above, resolution attempts for the *substantive negotiation problem* are rather unlikely under the condition of the Deadlock Game. Consequentially, we are little astonished that all diplomatic design elements we encounter within the first part of the *pre-negotiation phase* – exception of the negative side effect caused by the U.S. military threats – were exclusively oriented at the *procedural negotiation problem* (Figure 25). However, the picture would be incomplete if we would not discuss the non-diplomatic intervention of international export controls.³¹⁵

There is ground to assume that the international export control helped to slow the Qaddafi regime’s nuclear buildup. In particular since the export control regimes – namely the Nuclear Suppliers Group (NSG) – began by the 1980s to exert growing impact in the nuclear policy field. In the “phase of stagnation”, in which the Libyan nuclear weapons program witnessed standstill and setbacks (ch. 5.1.2.2), export control was likely to have contributed in preventing the Qaddafi regime from applying the desired “best shot aggregation technology”. However, according to our evaluation this non-diplomatic intervention represented only an *underfit*. Although export control was a non-diplomatic instrument that was appropriate to adress Libya’s *nuclear bad*, its impact was too little to cause meaningful consequences (Figure 25).

First, in the late 1980s international export control was still in the making. While there was already some regulation in place, the decisive boost for cross-border control on the transfer of sensitive, nuclear weapons-related technology, know-how, and materials came not before the early 1990s. It was, in particular, the Iraq War and the disclosure of Saddam Hussein’s WMD programs that lead to accelerated international efforts in that field (Krause 1998: 154; Cirincione, Wolfstahl & Rajkumar 2005: 34).

³¹³ Moreover, this diplomatic design element not only lacked the required massiveness, it also fell short in terms of the lasting requirement. The initiatives of the four Arab countries signified not enduring efforts but a limited event.

³¹⁴ It was reported that these Arab states had also approach Tripoli with similar arguments (Gelb 1986; Ottaway 1986: A1; St. John 2002: 136).

³¹⁵ Export controls signify a non-diplomatic tool. Their aim is to physically avoid the buildup of nuclear weapons programs or at least to drive up the costs for such an effort. The primary purpose of export controls is not an instrument to change the calculation of *atomic renegade states*. The primary export control regime in the nuclear field is the Nuclear Suppliers Group (NSG). The NSG was established in January 1976. Within the framework of the NSG the major supplier countries of nuclear weapons capable technologies, material, and know-how coordinate and harmonize their coordinate their export policy (e.g. Cirincione, Wolfstahl & Rajkumar 2005: 34).

Second, the implementation of export control regulations was in the late 1980s still underdeveloped. Many Western countries had rather lax national legislation and little will to interfere with their export industry. The insufficient implementation became in particular obvious with regard to the Qaddafi regime's chemical weapons program. Companies from several European countries – first and foremost from Germany – had played a crucial part in the Qaddafi regime's WMD efforts (e.g. Terrill 1994: 47-8; Tucker 2009: 372; Wiegel 1992). In that sense, the just discussed U.S. “naming and shaming campaign” was also tailored to send signals to Washington's allies.

Third, it is true that Libya's *nuclear bad* was entangled during the first part of the *pre-negotiation phase* in a “period of stagnation”. Tripoli had in the 1980s considerable problems to win support from external suppliers. But the Qaddafi regime's difficulties in establishing sustainable relations with external outfitters were only partly the consequence of international export control. Rather, Libya's difficulties were primarily owed to the high caution that Libya's trading partners had when Tripoli was demanding for nuclear weapons-capable technology and know-how (Bowen 2006: 29-33; Micallef 1981: 14; Kapur 1993: 148; Solingen 2007: 217).

G) Strategic Adjustment: The “Libyan Perestroika”

Since none of the diplomatic design elements applied in the first part of the *pre-negotiation phase* provided a meaningful contribution to the resolution of the Deadlock Game, there must be another factor that could explain why this particular demanding *procedural negotiation problem* was already by the late 1980s transformed into a more benign and cooperative Imposed Deadlock Game. In survey of the actors' preferences (ch. 5.2.1), we have revealed that Muammar al-Qaddafi's world view (i.e. the transformation from the B-type to the DEF-type belief system) but also Libya's “interest profile” (i.e. the rise of the desire for a rapprochement with the United States) changed by the late 1980s. Libya's strategic shift, its growing inclination for cooperation, was endogenic and structural. The Deadlock Game was not resolved by diplomatic design but by the “Libyan perestroika” (Figure 25).

Several knowledgeable experts on Libyan history had pointed out that the Qaddafi regime underwent a profound policy reorientation by the late 1980s and early 1990s (e.g. Deeb 1990: 149; Deeb 1991; St. John 2002: 138; St. John 2003; Vandewalle 1991; Viorst 1999). The revolutionary zeal and political adventurism Tripoli had pursued beforehand was put into question in the late 1980s. In terms of foreign policy – but as well as in domestic politics – Libya was implementing a course correction. It appears that the power circle in Tripoli was at that time ready to allow more freedom and cooperation across numerous policy fields.

For example, starting by the late 1980s Libya has tamed the aggressive and subversive foreign policy it had pursued in the past towards its neighboring countries in the North African region. That new posture is in particular reflected by the Chadian-Libyan rapprochement which led in August 1989 to a peace agreement between the two countries

– after nearly two decades of hostile confrontation and warfare (e.g. Foltz 1988: 61-8; Joffé 2004: 221). In addition, after having pursued for more than two decades a Pan-Arab orientation in its foreign policy, the Qaddafi regime started by the early 1990s to shift its focus towards the African continent (e.g. Niblock 2001: 46; St. John 2003: 464-5; Solomon & Swart 2005).³¹⁶ One important byproduct of this “geopolitical swing” was that its fundamental opposition towards Israel – an element that had been densely intertwined with the Qaddafi regime’s strive to act as the Arab lead nation – lost importance (e.g. O’Sullivan 2003: 211; Takeyh 2001). Moreover, the orientation towards Sub-Sahara Africa appears to have de-radicalized the Qaddafi regime’s policy in general. Underpinning Libya’s growing “appetite” for cooperation, the new geopolitical orientation had an important “institutional dimension” since Tripoli’s effort to become more engaged in Sub-Sahara Africa led to relatively strong commitments for the OAU (Organization of African Unity) and later for the AU (African Union) (e.g. Werenfels 2008).³¹⁷

The historic evidence suggests that the “Libyan perestroika” was the outcome of an “evolutionary learning process”. In light of a series set-backs and failures – namely an economic downturn, growing domestic pressure including the rise of militant Islamic groups, and a flagrant failure of its military intervention into neighboring Chad – the Qaddafi regime realized that its adventurous foreign policy had not yielded the desired objectives but had caught Tripoli in a series of quagmires.³¹⁸

One of the most important setbacks Libya faced was the economic crisis which became by the late 1980s in particular painful for the Qaddafi regime. The plunge in the global oil price during the first half of the 1980s set an economic downtrend into motion from which Libya had considerable problems to recover. As the North African country was highly depended on the oil business – a sector that was responsible for 95 % of its entire foreign exchange – one can hardly overestimate the economic shock waves triggered when Libya’s oil production dropped around 70 % in the early 1980s (e.g. St. John 2002: 128; O’Sullivan 2003: 187).³¹⁹ This sharp downward trend of prices, which all oil producing countries faced at that time, further inflamed the problems stemming from Libya’s internal

³¹⁶ As we have explained above (ch. 5.2.1.1), Libya had undertaken numerous attempts to unite with neighboring Arab states. But all these efforts failed in the end. The late 1980s and the early 1990s were therefore the time of Libya’s „Pan Arab heartbreak“ (Ronen 2008: 181-183).

³¹⁷ But the “Libyan perestroika” found also resonance in domestic affairs. In the late 1980s Tripoli was relaxing its revolutionary radicalism to a certain extent and launched a series of reforms in order to allow greater openness. In March 1988 the Qaddafi regime set free approximately 400 political prisoners in a symbolic act. The power of the Revolutionary Courts, which had played an important role in suppressing the political opposition in Libya, was curtailed in May 1988. In June 1988 Muammar al-Qaddafi announced the “Great Green Charter” which promised more freedom and rights to the Libyan people. Around the same time exile opposition groups were invited to return to Libyan and to receive their confiscated property (Deeb 1991: 173; Vandewalle 2006: 143-4; Zoubir 2006: 50). Moreover, Tripoli made at that time also an effort to liberalize its economic. In late 1980s so called economic *infithah* was launched – a bundle of economic reforms to encourage private initiatives, allow for more market-mechanism in particular with regard to small and medium size companies, and even initiate privatization of some state owned corporations (Deeb 1991: 173; Solingen 2007: 222; O’Sullivan 2003: 187; Vandewalle 2006: 164-9).

³¹⁸ It is important to bear in mind that none of these failures and set-back was triggered by one of the design elements we have discussed thus far. The coercive tools applied by the United States (i.e. the military threat, the unilateral sanctions, and the naming-and-shaming campaign) were minuscule in comparison to the “homemade” problems Libya faced in the late 1980s.

³¹⁹ As a consequence, the Libyan revenues shrunk from \$21 billion in 1980 to \$6,5 billion in 1986 (Palkki & Smith 2012: 269).

mismanagement.³²⁰ Consequentially, the decline in the living standard of the Libyan population which started already in the mid-1970s was sharply accelerated. Inflation was high, corruption was rampant, and unemployment – a phenomenon that was unknown previously to the Libyan population – was emerging in particular among younger people (e.g. Solingen 2007: 222; Vandewalle 2006: 164). In addition, towards the late 1980s, the Qaddafi regime became more and more under pressure by domestic opposition groups. The most important threat in the perception of the power circle in Tripoli was certainly the rise of fundamentalist Islamists – groups such as the al-Takfir wal Hijra, al-Dawa wa al-Jihad, and Tabligh (Deep 1990: 149; Mattes 1995: 31).

The Chad War debacle was another large scale failure of Libyan power politics that, reportedly, caused the Qaddafi regime to rethink its foreign policy course. Tripoli's military engagement in Chad started in 1973 when Libyan troops occupied the Aouzou strip. This swathe of desert land south of the Libyan border was regarded by the Qaddafi regime as a historic and inherently part of Libya and was therefore unilaterally annexed in 1975 (e.g. Brill 1988: 53). Starting at first as low-intensity warfare, the military confrontation with N'Djamena eventually climaxed in 1987. The approx. 15,000 Libyan troops stationed in Chad were heavily defeated in a quick series of dessert battles. Reportedly, 3,600 Libyan soldiers died during this military confrontation and 1,165 were taken war prisoners (Lemarchand 1988: 106; Ronen 2008: 169).³²¹ In a chaotic withdraw, Libyan troops left the Aouzou strip leaving behind a large amount of military equipment. As Chad had been a focal point in Libya's regional politics, this devastating defeat sent heavy shock waves to Tripoli. What followed was a more conciliatory approach towards Chad. Libya switched to diplomacy and started peace negotiation with N'Djamena (Foltz 1988: 61-8; Joffé 2004: 221).

³²⁰ In the 1970s and 1980s the Qaddafi regime had tried to establish with revolutionary zeal an Arab-Islamic brand of socialism – an experiment which eventually lead to weak bureaucracy, excessive dirigisme, an overwhelmingly large public sector which employed approx. 75 % of the working Libyan population, and an opaque jumble of political responsibilities which stretches from various revolutionary committees and central state institutions to pre-modern entities likes clans and tribes (e.g. Vandewalle 2006: 162-4).

³²¹ The United States as well as France was actively supporting Chad. Together both western countries delivered by the end of 1986 military equipment worth \$15 million (Ronen 2008: 168). However, it would be exaggerated to attribute the Qaddafi regime's defeat to the U.S. involvement. The hard work was done by the Chadians themselves who, on the one hand, achieved to overcome internal political differences and united against the external aggressor (e.g. the agreement between Habre and Goukouni) and who, on the other side, adopted modern military equipment to traditional warfare tactics and thereby launched a "brilliant desert blitzkrieg" (Lemarchand 1988: 121) against a superior enemy (also known as the "Toyota War"). Consequentially, it would be misleading to describe the Chad War as a proxy war between Libya on the one and France and the United States on the other side.

5.3.2 Second Part of the Pre-Negotiation Phase (late 1980s – March 2003)

With the Qaddafi regime having undergone a strategic shift and having adopted a more cooperative stance towards the United States, the nascent diplomatic process on Libya's WMD programs entered by the early 1990s into the second part of the *pre-negotiation phase*. While Libya had changed, the United States had not. Washington continued until March 2003 the same strategic orientation towards the Qaddafi regime it had adopted when the NRN were kicked off in December 1987. Intuitively one would have assumed that Tripoli – the textbook *atomic renegade state* – had spoiled the chance for cooperation during the *pre-negotiation phase*. Contrary to conventional wisdom, the major stumbling block for *nuclear reversal* was for a long time not Libya's obstruction but Washington's reluctance to engage in cooperation with Tripoli.

5.3.2.1 Procedural & Substantial Negotiation Problems

If we look at the second part of the *pre-negotiation phase* through the prism of the *dilemma game approach*, it turns out that the United States and Libya were entangled in a so-called Imposed Deadlock Game. The Imposed Deadlock Game is a slightly more benign variation of the *pure* Deadlock Game we got to know in the previous chapter. But although it is less hostile and antagonistic than the previous Deadlock Game, it is still relatively challenging. It was not without a reason that it took Tripoli and Washington altogether 13 years to eventually depart from this constellation and start exploratory talks on Libya's WMD programs.

With regard Tripoli's *nuclear bad*, which signified according to our *fit taxonomy* the *substantial negotiation problem*, the situation remained in comparison to the first part of the *pre-negotiation phase* by and large the same. Like in the first part of the *pre-negotiation phase*, the bargaining process had still not developed the necessary maturity that would have allowed a diplomatic engagement on the *substantial problem dimension*. Since the *procedural problem* both conflict parties faced was still massive, there was still no room to address the actual "negotiation issue". Consequentially, the optimal *fit demand* we have identified in the first part of the *pre-negotiation phase* with regard to the *substantial negotiation problem* remained relevant in the second part of this diplomatic episode. Not resolution of Libya's *nuclear bad* but prevention of a further aggravation was the primary benchmark we evaluated the design elements against.

A) Imposed Deadlock Game

While in classical Deadlock Games both sides share a strong disincentive to cooperate, this symmetry in the players' payoffs is missing in Imposed Deadlock Games. Rather, a dissimilar preference structure is the outstanding characteristic of this dilemma game. The Imposed Deadlock Game occurs when a player with a confrontational preference order (i.e. the deadlock player; in our case the United States) encounters an actor that has a strategic orientation which is normally associated with PD games (i.e. the non-deadlock player; in our case the Libya). While this non-deadlock player is already in favor for unreciprocated

cooperation (DC), its inclination for joint cooperation (CC) is relatively high and is rated as the second best outcome (Figure 21).

Although mutual defection (DD) is in the Imposed Deadlock Game an attractive (P+), safe (M), and stable (N) situation, the logic of “splendid confrontation”, which has characterized the previous Deadlock Game, is no longer unconditionally applicable. Since the non-deadlock player is inclined to overcome the outcome of mutual defection (DD), the “seed” for a diplomatic resolution is implanted in the structure of the Imposed Deadlock Game. Thus, when a Deadlock Game transforms into an Imposed Deadlock Game, the chance of cooperation is increasing. Once achieved, joint cooperation (CC) provides benefits for both sides. Although the non-deadlock player is individually rendered better off, the players are nevertheless gaining *collectively* if they chose joint cooperation. Consequentially, joint cooperation (CC) signifies the second Qualified Pareto Optimum (P+) within the Imposed Deadlock Game (Figure 21).

Figure 21: Imposed Deadlock Game

		USA	
		start explorative talks [C]	no explorative talks [D]
Libya	start explorative talks [C]	3,2 P+	1,4
	no explorative talks [D]	4,1	2,3 M,N,P+

US preference hierarchy: DC > DD > CC > CD
 Libya's preference hierarchy: DC > CC > DD > CD

C = Cooperation D = Defection M = MaxiMin Solution N = Nash Equilibrium P+ = Qualified

However, the legacy of the classic Deadlock Game lingers on. The Imposed Deadlock Game is marked by a double trap – a *colliding interest trap* and a *distrust trap*. If both players strive to realize their individual interests they end up in a situation of mutual defection (DD). The deadlock constellation (DD) is, *ceteris paribus*, the most likely outcome. And since it is expressing individual rationality, mutual defection coincides with the Nash Equilibrium (N).

But mutual defection is not only the likely result if the actors strive to realize their egoist desires. The very same scenario occurs when the players operate under the assumption that their counterpart is not trustworthy. The Imposed Deadlock Game is marked by a *distrust trap* since the Maximin Solution (M), which best protects against the worst case scenario of unreciprocated cooperation (CD) coincides with the deadlock scenario (DD). To make things worse, mutual defection (DD) is under the Imposed Deadlock Game – similar to the situation in the Deadlock Game – a situation that is in general very comfortable for both players. While the non-deadlock player does not gain as much as its counterpart, mutual defection is still an outcome where the players profit collectively. It, therefore, represents the second Qualified Pareto Optimum (P+) of this game constellation.

Due to this double trap, Imposed Deadlock Games signify a veritable *procedural negotiation problem*. Although they are – in principle – less antagonistic and confrontational than

classic Deadlock Game, they lead in most of the case – in effect – to the very behavioral pattern: entrapment into a diplomatic impasse.

What is required to resolve the Imposed Deadlock Game? What is the “optimal problem solution” diplomatic design elements are required to meet in order to resolve this *procedural negotiation problem*? It is obvious that the biased nature of this game constellation must have implications for the performance of *diplomatic design*. Moreover, in Imposed Deadlock Games the demand for well-fitting diplomatic interventions is not as intensive in quantitative terms as in classic Deadlock Games. But it is certainly more multi-faceted.

In the Imposed Deadlock Games, the resolution of the *colliding interest trap* requires a manipulation of the deadlock player’s preference (i.e. the United States). Without increasing the attractiveness of joint cooperation (CC) and/or decreasing the value of mutual defection (DD), this player, who acts in essence as a spoiler for joint problem resolution, will not abandon its uncooperative pattern. But unlike the situation in the previous pure Deadlock Game, “preference manipulation” is less demanding in terms of invested governance resource – although it is also required that diplomatic interventions are lasting. A “preference manipulation” equivalent to one payoff point in the deadlock player’s payoff structure is already sufficient to make this actor depart from mutual defection. A diplomatic intervention *fits* to the resolution of the *colliding interest trap* if it manages to swap the deadlock player’s second best option (DD) with its third best option (CC) (Figure 21). As long as the intervention continues, the cooperative outcome is stable. None of the players has an immediate interest to depart from this situation since such a step would cause a relapse into mutual defection (DD).

While crucial for the deadlock player, “preference manipulation” is not required for the non-deadlock player (i.e. Libya). Joint cooperation has for this actor sufficient attractiveness. No additional intervention is needed. Providing rewards or coercion to the non-deadlock player is superfluous and signifies an inefficient investment of governance resources (Figure 26).

But the Imposed Deadlock Game is not only biased in terms of “preference manipulation”. A well-fitting diplomatic intervention capable of resolving this game constellation has to be also biased in terms of timing. Rationality assumed, the non-deadlock player (i.e. Libya) has a “first mover inclination”. As soon as the chance for joint cooperation becomes at sight, this actor is likely to embark a cooperative pathway. That however, increases the risk that the deadlock player might exploit the non-deadlock player’s step towards cooperation and unilaterally reaps in all benefits. The unfavorable situation of unreciprocated cooperation (DC) would be the likely outcome. Thus, one of the various challenges that need to be weathered in the resolution of Imposed Deadlock Games is to make the deadlock player, who is little interested in cooperation, move first in that direction. At the same time, it is necessary to bridle the non-deadlock player’s first mover inclination.

In that sense, the conventional wisdom which suggests to start resolving problems addressing first the “low hanging fruits” and to work from there towards the more

challenging parts is put upside down in Imposed Deadlock Games. For this particular *procedural negotiation problem*, it is crucial to begin the problem resolution with the most demanding aspect – the deadlock player.

However, even if the *colliding interest trap* is resolved by a “first moving inducing preference manipulation” applied to the deadlock player (Figure 26), cooperation is still unlikely. It is impossible to overcome Imposed Deadlock Games without resolving in parallel the *distrust trap*. What is required in addition is a meaningful diplomatic intervention that is capable of reducing the players’ worst case thinking. Without resolving the *distrust trap*, both actors are unlikely to depart from the deadlock situation since they stick to the Maximin solution (M).

The asymmetric nature of the Imposed Deadlock Game is also affecting the *distrust trap* and its diplomatic resolution.³²² The inclination to choose the Maximin Strategy (M) and accept the relapse into the outcome of mutual defection (DD) varies between the two players. After all, it signifies its second best choice. For the deadlock player (i.e. the United States), the Maximin Solution (M) is relatively attractive. For the non-deadlock player (i.e. Libya) it is instead more regrettable if emerging distrust requires to stay or to return to the Maximin Solution (M) which coincides with the deadlock situation (DD) (Figure 21). Facing more disfavored consequences than the deadlock player, the non-deadlock player is therefore assumed to have a higher tolerance regarding distrust and is prepared to give cooperation a chance even when the worst-case scenario is within the realm of possibility.

The varying tolerance in terms of worst-case scenario has consequences for the “fit demand”. Under the condition of Imposed Deadlock Games, the optimal diplomatic resolution of *distrust traps* requires that the effort to build confidence is more intensive and focused on the deadlock player than on the non-deadlock player. Again the biased nature of the Imposed Deadlock Game is affecting the resolution strategy. And again it is the deadlock player who is acting as a spoiler for joint cooperation (Figure 26).

B) The Revitalization of the Nuclear Bad

Like in the first years of the nascent diplomatic struggle between the United States and the Qaddafi regime, the Libyan *nuclear bad* played a subordinated role. Similar to the first part of the *pre-negotiation phase*, the diplomatic process was in the 1990s and early 2000s likewise still far away from a situation that would have allowed a cooperative resolution of the Libyan *nuclear bad*. At that time, the maximum that could be achieved by *diplomatic design* was the prevention of a further deterioration of the situation. However, in comparison to the first part of the *pre-negotiation phase*, the *substantial negotiation*

³²² Note that the actors’ symmetric dislike for unreciprocated cooperation (CD) and their favor for unilateral defection (DC) is the only unbiased aspect of Imposed Deadlock Game (Figure 21). Unlike other game constellation (see for example the Alibi Games in the *pre-agreement* and the *agreement phase*) the Imposed Deadlock Game requires therefore no extra precaution against “cooperation exploitation”. Once cooperation is achieved and one of the players nevertheless decides to free-ride, its counterpart has always the chance to retaliate by taking the same step without rendering itself worse-off than the player who embarked the non-cooperative pathway first.

problem was evolving in the 1990s and the early 2000s with the consequence that the optimal *fit demand* was changing too during this period.

Starting from the 1990s we see that the Qaddafi regime developed a more sober and pragmatic view on its nuclear weapons program (ch. 5.2.2.2). While “regime security” was still the decisive “final good” for Tripoli’s nuclear ambitions, the high-flying hopes and the nuclear enthusiasm that dominated the 1980s were cooling down. During the first part of the *pre-negotiation phase*, there was a considerable danger that non-diplomatic intervention, structural factors, or unintended side-effects of diplomatic tools would further inflame Libya’s “appetite for nukes” (as the U.S. military threats in the end did, ch. 5.3.1.2). However, beginning with the 1990s this danger was decreasing. Due to the more sober view, we assume that Tripoli was less sensitive in its nuclear effort to external factors. Given that Libya’s nuclear weapons program was – most likely – an “intermediate bad” serving higher objectives, it was in the 1990s and early 2000s still important to avoid actions that would indirectly increase Libya’s esteem for atomic bombs.

But while the handling of *nuclear bad’s* “demand side” became less challenging, the “supply side” took an opposite development starting from the mid-1990s. As we have outlined above, the Qaddafi regime made at that time considerable progress in terms of its “best-shot aggregation approach” because of the cooperation with the A.Q. Khan network. The build-up of Libya’s *nuclear bad* was revitalized and underwent an unprecedented dynamic after having been embroiled in a period of stagnation during the 1980s. With the A.Q. Khan network Libya had found its “best shot provider”.

In the late 1980s, it was sufficient to prevent external influx to Libya’s WMD programs provided by “conventional” nuclear outfitters. In the second part of the *pre-negotiation phase*, more investments were required to address the “supply side” of Libya’s *nuclear bad*. What was now necessary in order to avoid an accelerated nuclear build-up was to cut off the business relation between the Qaddafi regime and the A.Q. Khan network. This “fit demand” was crucial to avoid that Libya would come in the position to cross the “nuclear threshold” by applying the “best-shot aggregation technology” (Figure 26).

Since the *pre-negotiation* phase is also the time where the preparation for the actual negotiation process takes place, addressing the question of the optimal participation marked another “fit demand”. As we have outlined above (ch. 5.2.2.1, see also Table 5), the scope of a *public bad’s* “negative externalities” are crucial to identifying the group of “bad sufferer”. Those actors who do suffer from a *public bad’s* “negative externalities” shall be included in a negotiation process. We said that “no participation without affection” is the crucial criterion for the optimal representation of actors in bargaining dynamics.

The UK was, apart from the United States, the second player that was most exposed to the negative consequences of Libya’s *nuclear bad*. The requirement to bring the UK into the emerging diplomatic struggle over the Libyan WMD programs is, therefore, the logical “fit demand” we infer from this situation (Figure 26).

5.3.2.2 Analyzing the Varieties of (Mis)Fit in the 2nd Part of the Pre-Negotiation Phase

Similar to the preceding Deadlock Game, diplomacy alone would not have resolved the Imposed Deadlock Game. Non-diplomatic intervention and structural factors played again an important part in overcoming this particular dilemma game constellation. Similar to previous Deadlock Game, the important impetus for the resolution of the *procedural negotiation problem* was again provided by a strategic readjustment. The Second Iraq War – the mega project during the Bush Junior’s first presidency – led to the emergence of a new desire in the United States’ Libya policy and thereby propelled Washington onto a cooperative course. However unlike the first part of the *pre-negotiation phase*, the contribution of diplomatic design elements to the *procedural negotiation problem* was in the 1990s and early 2000s far more meaningful and intrusive than they had been during the late 1980s. This holds, in particular, true with regard to *distrust trap*. Here *diplomacy design* – most noteworthy the UK’s “biased mediation” efforts – had a high performance and helped both players to reduce their suspicion and their worst case thinking (Figure 26).

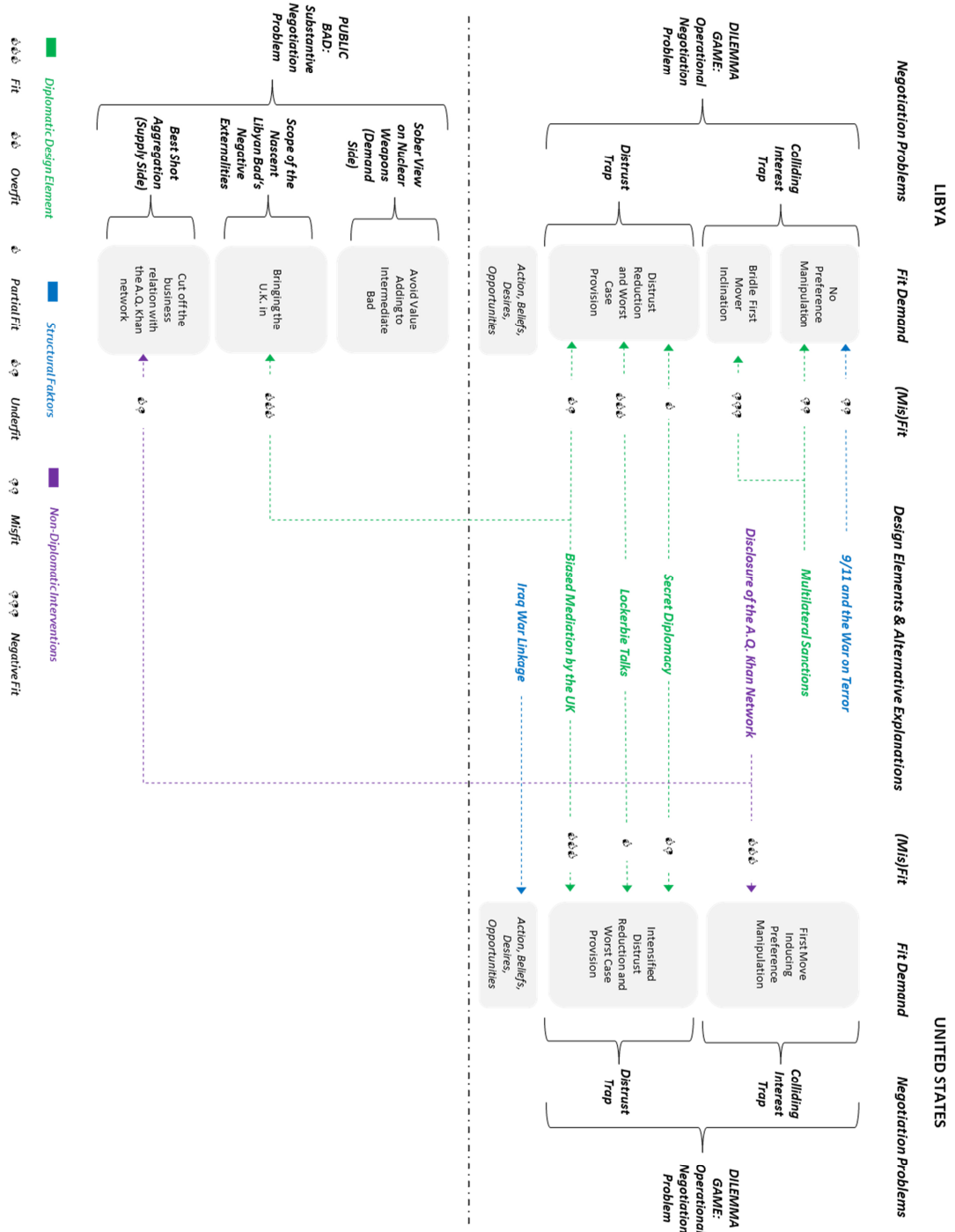
With regard to the players’ preference manipulation and the resolution of the *colliding interest trap*, the situation was however, less favorable. The only diplomatic tool that had a direct effect in terms of preference manipulation – multilateral UN sanctions – turned out to signify a *misfit*. That the *colliding interest trap* was in the end resolved at all must be attributed to the impact alternative explanations – the disclosure of the A.Q. network and the Iraq War linkage. Without the positive impact of these two alternative explanations, the *pre-negotiation phase* would – in all probability – have continued beyond the year 2003. And it is questionable whether Libya would have been at all a successful case of NRN.

The failure to properly resolve the *colliding interest trap* by *diplomatic design* is also the major explanation why the second part of the *pre-negotiation phase* was so prolonged and long-lasting. It was primarily the *misfitting* UN sanctions in the early 1990s that prematurely pushed Libya onto a cooperative course. Starting from spring 1992, the Qaddafi regime repeatedly tried to establish a diplomatic dialogue with the United States only to be constantly rebuffed by Washington. That the United States stayed instead in the state of unreciprocated defection (DC) was due to lacking preference manipulation.

In light of Libya’s diplomatic activities in the early 1990s, it was often voiced that the United States could have disarmed the Qaddafi regime 10 years earlier if it had only responded positively to Tripoli’s offers for a WMD diplomacy (Müller 2006; Hart 2004; Indyk 2004; Leverett 2004). While this view appears at first sight tempting, it nevertheless misreads the history of the *pre-negotiation phase* and ignores the underlying structure of the Imposed Deadlock Game. Being the deadlock player of this game constellation, Washington was deeply entrapped in a confrontational and antagonistic logic at that time. While it is true that the United States and not Libya was the principal spoiler of the bargaining process in the 1990s, it is nevertheless illusory to assume that Washington could have been able to start direct talks with Tripoli at any time before 2003. Due to the limited “fit performance” of the applied diplomatic design elements, the situation was simply not ripe for such a step.

The crucial ingredients of a diplomatic encounter under the condition of Imposed Deadlock Games – trust and interest – were simply missing.

Figure 26: (Mis)Fit in the 2nd Part of the Pre-Negotiation Phase



A) Multilateral Sanction – A Partial Fit

After having focusing at first on radical Palestinian groups with links to Syria and Iran, the investigation of the Lockerbie bombing revealed by the late 1980s more and more evidence that pointed in the direction of the Qaddafi regime. The scenario that it might have been the Libyan secret service that has planted a bomb on board of Pan Am flight 103 was for the first time made public in early October 1990 (e.g. Wines 1990). When the allegation of

Libya's responsibility became more and more consolidated and was corroborated by new evidence, the United States – together with the UK and France – brought the Lockerbie case before the UN Security Council (UNSC) by January 1992. After winning support from Russia, the UNSC Resolution 731 was unanimously adopted on 21 January 1992 urging Libya to “cooperated fully in establishing responsibility for the terrorist acts”. As the Qaddafi regime was reluctant to comply, a multilateral sanction regime was imposed by March 1992 (UNSC Resolution 748) and further intensified in November 1993 (UNSC Resolution 883). Libya, confronted with travel and petroleum-sector related restrictions, witnessed a further downsizing of its diplomatic relations, a freeze of Libyan financial assets and funds held in banking accounts abroad, an arms embargo, and a ban on direct air flights to Libya.

While the UN sanctions were primarily tailored to Libya's involvement in international terrorism, the WMD dimension played de facto an important role from the very beginning. In essence, it was clear to all sides that the multilateral sanctions were aiming at Libya's foreign policy in general – including Tripoli's aspiration for nuclear and chemical weapons.³²³

In the literature, we encounter by and large a positive evaluation of this design element. Highlighting several conducive domestic and international factors that increased the impact of the UN sanctions' impact, almost all scholars who have studied the subject came to the conclusion that multilateral coercion had a positive impact on changing Tripoli's behavioral pattern (e.g. Cortright & Lopez 2004: 23; Newnham 2009: 93 O'Sullivan 2003: 210; Palkki & Smith 2012: 263; Jentleson & Whytock 2006; Jakobsen 2012).³²⁴ The finding we revealed, however, is different. Certainly, we have not evaluated the impact of the UN sanctions on the American-Libyan rapprochement at large. But at least with regard to the American-Libyan NRN, our conclusion is clearly distinct from the mainstream view.

In the Imposed Deadlock Game which constituted the *procedural problem* of the second *pre-negotiation phase*, Libya was the non-deadlock player. In that sense, the multilateral coercion policy was a design element that was unnecessarily manipulating Tripoli's preference in favor for cooperation. It did not bridle Libya's “first mover” inclination but instead was pushing the Qaddafi regime in premature cooperation. The UN sanctions thereby fostered Washington's conviction that the disturbing features of Libya's foreign policy – such as the North African countries involvement in international terrorism or its

³²³ Little after the UN sanctions had been imposed on Libya, Washington emphasized that this coercive diplomatic design element would function also as a non-proliferation tool. For example, in September 1993 at a Hearing before the U.S. House of Representatives the CIA director, James Woolsey, underscored that “[f]ortunately, the UN sanctions imposed in the aftermath of the Pan Am 103 incident are assisting non-proliferation efforts” (U.S. Congress 1993b). Already in February 1993 in a written response to a questionnaire presented at a Hearing before the Senate Committee on Governmental Affairs, the U.S. Government made clear that the imposed UN sanctions on Libya had also the effect to deter the proliferation of unconventional weapons programs (U.S. Congress 1993a). Even more important: the Qaddafi regime understood from the very beginning that the UN sanctions were at least implicitly addressing the WMD issue. Correspondingly, Libya's unconventional weapons program played always a crucial role in Libya's backchannel initiatives towards Washington. This thinking was also expressed by Mohammed Bukhres, a Libyan-American with close ties to the Qaddafi family, who interviewed in 2004 reported that in 1992 “Gadhafi [sic] felt that the Americans wanted some more to get them interested, so he put some more [i.e. Libya's WMD programs] on the table” (see Slavin 2004).

³²⁴ For a rather critical review of the UN sanctions on Libya see Niblock 2001.

strive for WMD – could be resolved without direct diplomatic engagement. Under the condition of Imposed Deadlock Game, the multilateral coercion signified, therefore, a *misfit* and a *negative fit* (Figure 26).

First, the UN sanctions accelerated the Qaddafi's "fist mover inclination" and pushed Libya into premature cooperation. Based on the motivation survey, we assume that the Qaddafi regime – being the non-deadlock player in the Imposed Deadlock Game – was already at the beginning of the second part of the *pre-negotiation phase* in favor of joint cooperation. Nevertheless, it appears that Tripoli was in the first years of this diplomatic episode not following this logic. Its behavioral pattern was instead dominated by defection – in an expression of the inherent nature of the Imposed Deadlock Game. The picture changed however rapidly in early 1992. The obvious coincidence with the imposition of the UN sanctions suggests that it was primarily the multilateral coercion policy that made Tripoli launch its hapless and repeatedly rebuffed back-channel initiatives which proposed Washington a diplomatic dialogue to repair the U.S.-Libyan relation. It appears that already the preparation for the UN sanctions in January 1992 was sufficient to move the Qaddafi regime on a cooperative course.

Apart from the numerous diplomatic backdoor initiatives we described above (ch. 5.1.1), we can identify Libya's eagerness for joint cooperation also in the actions Tripoli undertook at the UN. Already in February 1992 UN Secretary General, Boutros Boutros-Ghali, noted in his report to the members of the UNSC that "there has been a certain evolution in the position of the Libyan authorities" (UN Secretary General 1992). In order to find reconciliation on the Lockerbie case, Libya showed considerable flexibility and made already in spring 1992 a far-reaching proposal (an international trial to be held in a third country) which was in many respect similar to the agreement that the United States and the UK eventually accepted six years later in June 1998.

Second, since Libya was actively searching for cooperation, Washington indulge the hope that all the issues it had with Tripoli could be resolved without direct diplomatic engagement with the disliked Qaddafi regime. Libya's willingness for cooperation was primarily attributed to the impact of the UN sanctions, and it was assumed that Tripoli would in the end, bend down and reverse its foreign policy course if only the applied coercion were intrusive enough. It went unnoticed that Libya had a more profound interest in cooperation beyond the narrow setting of the UN sanctions. While hoping to make Libya "surrender" in the sense of unreciprocated cooperation (CD), Washington was critical to any effort of direct engagement with the Qaddafi regime. For example, when the ex-Senator Gary Hart and later the former U.S. diplomat Herman Cohn were approach by the Tripoli to act as intermediates for direct communication with the United States, they were later scolded by the State Department for having met at all with the Libyans given that such activities were unwise as long the Qaddafi regime was still under sanctions (Interview with W. White, June 2012, Annex 16; Hart 2004). According to Gary Hart, senior officials in Washington clearly conveyed to him that the United States was not prepared to respond to Libya's diplomatic backchannel initiatives until all requirements of the UN sanctions were

met: "We will have no discussions with the Libyans (...) until they turn over the Pan Am bombers" (Hart 2004).³²⁵

Third, the UN sanctions were way too massive. Since Libya was any way inclined for cooperation, active "preference manipulation" was unnecessary. Against that background, it is revealing that Libya already showed a cooperative pattern on various fronts in January 1992 – at a time where it was still unclear whether the UNSC would in the end vote in favor for embargo politics. Even more revealing is however that Libya continued its cooperative course towards the United States after the UN sanctions were suspended. In April 1999 the UN halted its coercive policy against Libya after Tripoli had extradited the two suspected Libyan secret service officers – Abdel Basset Ali al-Megrahi and Lamin Khalifah Fhimah – to stand trial at a special court in the Netherlands. Despite having escaped from economic coercion, Libya was still eager to achieve cooperation with the United States – a behavioral pattern characteristic for a non-deadlock player in the Imposed Deadlock Game.

Finally, the unnecessary "preference manipulation" by multilateral sanctions signified a waste of governance resources and caused negative social and humanitarian side-effects. Although Tripoli was not facing a complete oil embargo as it had been enforced in the early 1990s upon Iraq, the impact of the UN sanction had nevertheless a twofold "magnifying effect" (O'Sullivan 2003: 218). On the one hand, multilateral coercion accelerated the downturn of the Libyan economy which had started in the 1980s. On the other hand, they indirectly tightened the unilateral U.S. sanctions since Libya was now not able anymore to compensate U.S. technology (which was, in particular, important for the oil drilling and airline industry) through alternative trading partners (Newnham 2009: 87; Palkii & Smith 2012: 267; Vandewalle 2008: 156).³²⁶ The damage the UN sanctions inflicted on Libya's economic affected the life of the Libyan population.³²⁷ The number of families directly dependent on food ration increased, corruption was growing, the health and education systems were suffering from financial cutbacks, and the rate of unemployment was further rising in particular among younger Libyans – the fastest growing proportion of the Libyan

³²⁵ Indulging the hope that Libya would in the end bend down and change its course because of coercion, the United States further intensified its unilateral sanctions during the 1990s. Already in April 1992 Washington issued the Executive Order 12801 which „prohibiting access to US airspace to any flights bound to or flying from Libya“. In 1996 the Iran-Libya Sanction Act (ISLA) was adopted which punished foreign firms with signification investment in Libya's (or Iran's) petroleum sector. In the same year the U.S. Congress passed the Antiterrorism and Effective Death Penalty Act (AEDPA) which included a mechanism that would ban U.S. aid and financial assistance if a third country would provide military assistance to Libya (Reynolds & Wan 2012: 64-5; Cirincione, Wolfsthal & Rajkumar 2005: 318-9).

³²⁶ While the exact link between the UN sanctions and Libya's economic and social performance is difficult to draw and to quantify, the coincidence and magnitude is still considerable. Between 1992 and 1999 Libya's economic growth came practically to a standstill and was during that time never above 0.8 %. Meanwhile the per capita GDP decreased from \$7,311 (1992) to \$5,896 (1999). In 1998 the export revenues dropped to a volume of approx. \$7 billions. As direct air traffic to Libya came to a halt due to the sanctions, the North African country's airline industry suffered a damage of around \$ 900 million during the period of the multilateral sanctions. Moreover, the purchase of conventional arms for which Libya has spent in the early 1980s in average \$3 billion a year grinded to a complete halt despite some smaller acquisition via the international black market. Inflation was sharply rising and reached between 1993 and 1997 an average rate around 35 %. (Newnham 2009; Niblock 2001: 60-73; O'Sullivan 2003: 195-202; Palikki & Smith 2012: 267-9; Vandewalle 2008: 156-60; Werenfels 2008: 8).

³²⁷ Although this figure appears exaggerated, Tripoli later claimed that it had suffered a lost in national wealth of approx. \$26.5 billion due to the UN sanctions regimes (Hochman 2006: 68; Palkki & Smith 2012: 269).

population (Niblock 2001: 74-80; O'Sullivan 2003: 212; Palkki & Smith 2012: 267-8; Werenfels 2008: 8).³²⁸

B) The Pre-Dating Lockerbie Talks – A Testing Ground for the Latter NRN

Direct diplomacy on Libya's WMD programs was not a premier, but rather a replay of a negotiation dynamic Libya and the United States (supported by the UK) had already practice with regard Libya's involvement in the Lockerbie bombing. It appears that these talks, which started in May 1999, were important to reduce distrust for both sides and helped to overcome their worst case thinking. For the NRN the pre-dating "Lockerbie talks" function as a sort of "diplomatic testing ground" where both sides had the opportunity to probe their opponent's honesty and trustworthiness. Consequentially, we arrive at a positive evaluation of the "Lockerbie talks" and rate this diplomatic design element in terms of distrust reduction for the Qaddafi regime as a *fit*. For the United States, the Lockerbie talks represented – in all probability – a *partial fit*. In essence, the Lockerbie talks had on the United States the same positive implications as it had on the Libya. But since Washington was the deadlock player during the Imposed Deadlock Game, it had simply a higher demand for confidence building than the Qaddafi regime – a fact that limit the actual performance of the "Lockerbie talks" in light of this particular "fit demand" (Figure 26).

In April 1999 the UN suspended the multilateral sanctions against Tripoli. Libya started to reintegrate into the international economy. However, in light of dwindling support for further coercion, the United States – and to a lesser extent the UK – made clear that it would veto a complete lifting of the UN sanctions at the UNSC until the Libya had fulfilled all obligations demanded in resolution 731 (Jan. 1992) and 748 (March 1993). The most important issue for Washington which was still pending in the late 1990s was the appropriate compensation for the families of the victims of Pan Am flight 103.³²⁹

It was under these particular conditions that the Clinton administration decided to respond for the first time to the repeated offers for a diplomatic dialogue Libya proposed since the early 1990s. Starting from May 1999, Libya and Washington held series of secret meetings in several places in Europe to sound out the way forward on the Pan Am 103 issue (e.g. St. John 2008: 134-6; Suskind 2006; Indyk 2004). Briefly interrupted during the U.S. Presidential campaign in 2000 in order to avoid political backlashes if the dialogue with the Qaddafi regime would surface in public, the "Lockerbie talks" were resumed by the Bush Junior administration in January 2001 when Libyan and U.S. officials (who were supported by the UK) meet on the sidelines of UN meetings in New York (Leverett 2004; St. John 2004: 393, Slavin 2004). Presumably, the Bush Junior administration continued the diplomatic

³²⁸ While the multilateral sanctions affected the life of the ordinary Libyans, it did however not lead to a humanitarian crisis like it was the case in 1990s in Iraq (O'Sullivan 2003: 211-2; Reynolds & Wan 2012). In addition, the Qaddafi regime was still able to continue its expensive prestige projects such as the Man-Made River – a large and very costly irrigation system which were planned to pump water from remote desert aquifers into Libya's dry coastal lowlands. It was assumed that the Man-Made River projected has swallowed around 15 % of the entire Libyan government expenditures in the 1990s (Niblock 2001: 64-70).

³²⁹ "The payment of appropriate compensation" was requirement listed in UNSC resolution 731 (1992). See paragraph 3 of the resolution text.

engagement with the Qaddafi regime because of the same motivation that had already driven the Clinton administration into secret talks with Libya: the fear that the support by the international community for continued pressure on Tripoli could further erode without having resolved all pending issues of the Lockerbie bombing.

In August 2003, the Lockerbie talks finally reached a solution when Libya agreed to pay in a sequential procedure \$2.7 billion compensation to the families of the 270 victims killed in the Pan Am 103 bombing (St. John 2008: 136; Bowen 2006: 61, 65). After Libya had transferred the first tranche of \$4 million to the victim families, the UNSC decided to permanently lift the sanctions in September 2003 – a rather symbolic gesture since the multilateral coercion was after its suspension in April 1999 exerting no practical impact on Libya anymore.

Although Tripoli had issued since the early 1990s repeated offers for a U.S.-Libyan dialogue, there is solid ground to assume that the Qaddafi had made these proposals despite having little trust in the United States' sincerity. Interviewed by Milton Virost in 1990s, Abdulati Alobidi, the responsible Libyan diplomat for the day-to-day policy towards the United States, said for example: "Frankly, we don't trust the Americans (...) Libya is still on the State Department list of terrorist sponsors, though Washington acknowledges that we have not been involved in terrorism for three or four years" (Virost 1999: 74).³³⁰ As we have explained above, it was the UN coercion that propelled Libya into premature cooperation. Without the multilateral sanctions, the spreading distrust and lacking reciprocation by the United States would have swiftly corrected the cooperative course the Qaddafi regime hasty embarked in the early 1990s. The discrete modus of quiet diplomacy mitigated the negative consequences of unreciprocated cooperation but it was not reducing Libya's distrust. According to our analysis, this picture was only changed by the "Lockerbie talks". Now the Qaddafi regime experience for the first time that the United States were indeed a potential negotiation partner – a discovery that must have come for the power elite in Tripoli as a relief. The "Lockerbie talks" were in that sense adjusting the odd situation of distrustful cooperation initiatives Libya had applied since the early 1990s.

The nature and scope of the pre-dating Lockerbie talks provided Libya with a solid fundament to build confidence in the United States. First, the similarities with the later NRN were relatively high. Both bargaining dynamics had a tripartite nature and included not only the United States and Libya but also the UK. Both negotiation dynamics were held under the cloak of secrecy at different venues mainly in Western Europe. And both diplomatic episodes were facilitated by Prince Bandar bin-Sultan, the influential ambassador of Saudi Arabia to the United States who hosted several of the secret meetings (Interview with M. Indyk 2011, Nov. 2011, Annex 16; Interview with P. Pillar, Dec. 2011, Annex 16). Second, the Lockerbie talks and the Libyan NRN were marked by a high degree of personal continuity. The Libyan negotiation team remained in both bargaining dynamics by and large unchanged. Both processes were steered by Moussa Koussa, who was in the Lockerbie talks

³³⁰ In that situation it is also noteworthy that we revealed in our "operational code analysis" that Muammar al-Qaddafi had a rather negative perception of cooperation (ch. 5.2.1.1). Until the late 1999 he saw conflict and not cooperation as the best strategy to handle problems in foreign affairs (I1).

and the latter NRN always accompanied by Mohammed Zwai, the Libyan ambassador to London, and Abdellati Obaidi, the Libyan ambassador to Rome (Beaumont, Ahmed & Bright 2003; Bowen 2006: 62). Third, the Lockerbie talks were also used as a format for U.S.-Libyan intelligence exchange on Islamist terror organizations – an issue that was in particular close to the Qaddafi regime’s heart. Finally, the pending aspects of the Lockerbie case were reportedly easier to handle than the latter diplomacy on the WMD issue (Franz & Collins 2007: 305). The Lockerbie talks were, therefore, a perfect “testing ground” for the latter NRN.

Against that background, it is little surprising that we encounter solid evidence suggesting that the “Lockerbie talks” helped the Qaddafi regime to reduced its distrust vis-à-vis the United States. For example, Martin Indyk has reported that the Libyans were during the “Lockerbie talks” very accommodative: “whatever we asked them to do, they would do it (...) In essence, we said ‘jump!’ and they said ‘how high?’” (Interview with M. Indyk, Nov. 2011, Annex 16). Paul Pillar made a similar statement and recalled that the Libyans wanted to establish during the first meeting in May 1999 “a full-blown intelligence liaison relationship” – a leap forward that was certainly too big for Washington at that time (Interview P. Pillar, Dec. 2011, Annex 16). Moreover, we observe that the pattern of the diplomatic proposals Libya was putting forward changed when the “Lockerbie talks” started. In the period prior to the “Lockerbie talks”, the Qaddafi regime’s offers for a diplomatic process on WMD were rather unspecific and vague. The reach-outs to Washington were executed by emissaries of various kind (Hart 2004; Interview Wayn White Dec. 2011, Annex 16). With the beginning of the Lockerbie talks, however, Tripoli’s proposals were directly submitted by high-ranking members of the Qaddafi regime – such as Moussa Koussa or Saif al-Islam. Moreover, Libya’s proposals regarding the WMD issue became more concrete and precise when the bargaining process on the Lockerbie issue started. For example, in May 1999 on the sidelines of the nascent “Lockerbie talks”, Moussa Koussa made the relatively precise offer by putting forward Tripoli’s readiness to dismantle its unconventional weapons programs, to sign the Chemical Weapons Convention (CWC), and to allow international inspectors to visit Libya’s clandestine WMD sites. And in September 2002, Muammar al-Qaddafi himself voiced for the first time his willingness for *nuclear reversal* when he responded to a personal letter send to him by the British Prime Minister Tony Blair (Fidler, Huband & Khalaf 2004: 16; St. John: 398).³³¹

But the “Lockerbie talks” helped not only Libya to reduce its distrust vis-à-vis the United States. This pre-dating bargaining cycle also provided Washington with more confidence in the Qaddafi regime. For example, Martin Indyk, came to the conclusion that these predating talks “established a channel of communication that was working both sides and

³³¹ In that context it is also noteworthy that Libya took in the early 2000s several steps to integrate itself into the international arms control and non-proliferation architecture. In November 2001 Libya signed the Comprehensive Test Ban Treaty (CTBT). One month later the Libyan Leader notified its readiness to sign the Chemical Weapons Convention (CWC). And in November 2002 Libya signed the International Code of Conduct against Ballistic Missile Proliferation (Bowen 2006: 61; Squassoni & Feickert 2004; St. John 2004: 394).

allowed both sides to develop confidence” (Interview with M. Indyk, Nov. 2011, Annex).³³² Paul Pillar, who was acting as the responsible senior CIA officer for the engagement with the Libyans, has seconded Indyk’s assessment by saying: “I personally (...) came away from those rounds persuaded of their [Libyans] seriousness (...) and this was what I reported back to my superiors (Interview with P. Pillar, Dec. 2011, Annex 16).³³³

Certainly, neither Washington nor Tripoli had planned the “Lockerbie talks” as a design element for the later NRN. The positive interplays between these two bargaining process was a favorable coincidence and not an expression of a well-planned sequencing strategy as some U.S. officials later alleged.³³⁴ Moreover, the successful conduct of the “Lockerbie talks” created no automatism for the latter WMD talks. Both sides, Libya and the United States, had not thought the NRN as a mere extension of the “Lockerbie talks” but regarded the negotiations on Libya’s nuclear weapons program as a different bargaining cycle which required an independent decision to be started. However, all that does not contest the fact that the “Lockerbie talks” had an important trust building effect primarily for the Qaddafi regime but also on the United States.

C) Quiet Diplomacy

Until late 2003 the American-Libyan engagement remained withdrawn from the public. Before the public announcement of Libya’s *nuclear reversal* was aired in the evening hours of the 19th December 2003, the negotiation process where tightly held under the cloak of secrecy. The few leakages to the press about the nascent diplomatic encounter that happened prior to December 2003 have apparently never caught any major media attention.³³⁵ It was only in 2004 that the entire history of the Libyan NRN with its long overture starting in the 1990s was revealed in the press (e.g. Hart 2004, Slavin 2004, Indyk 2004). Already in his public statement delivered in the evening hours on 19th December 2003 George W. Bush made clear that the agreement “with Libya came about through quiet

³³² It was also reported that the pre-dating “Lockerbie talks” had played a certain role for George W. Bush’s decision. In the decisive White House meeting in April 2003 George W. Bush was, reportedly, debriefed by its foreign policy and intelligence advisors of the past experience of the “Lockerbie talks” (Suskind 2006). It is very likely that the reference to this predating bargaining process was conducive for the positive presidential vote.

³³³ Tim Dowse, who participated for the UK in the talks with the Libyans, had likewise made clear that the decision to start a diplomatic process on WMD with the Libyans in early 2003 had been considerable facilitate by the pre-dating Lockerbie talks: “We engaged [in 2003] because we were able to talk to the Libyans anyway” (Interview with T. Dowse, Feb. 2012, Annex 16).

³³⁴ According to an anonymous senior State Department officials interviewed by the Ron Suskind: “[I]t needed to be one step completed, before the next could begin (...) You do not want these families [the Pan Am 103 victims families] and their compensation to be mixed with the dismantling of chemical weapons facilities” (Suskind 2006; see also Miller 2007: 28). This reasoning is alluding to an active US sequence strategy that gave priority to “Lockerbie talks” and scheduled WMD diplomacy as a second step. Reportedly, there was no deliberated sequencing strategy and the Lockerbie issue was given priority because the United States was in the late 1990s not fully aware of the acceleration the Libyan nuclear weapons program had taken starting by the late 1990s (Interview with M. Indyk, Nov. 2011, Annex 16; Interview with P. Pillar, Dec. 2011, Annex 16).

³³⁵ Prior to the public statement on 19th December 2003 there were several press articles reporting about the nascent diplomatic engagement between the United States and Libya – in particular the visit of Moussa Koussa to London in Fall 2001 (e.g. Pelham 2001; Taheri 2003; Awwad 2002). However, it appears that these reports, which were mainly published in Arab speaking newspapers (e.g. Asharq al-Awsat), never sparked any major media attention.

diplomacy” (Bush, 19th Dec. 2003). Consequentially, there is ground to assume that the design element of “quiet diplomacy” must have had some impact on the U.S.-Libyan engagement.

The “best explanation” we could infer from the historical data is that the impact of “quiet diplomacy” was primarily of relevance for the resolution of the *distrust trap* Washington and Libya were embroiled with during the Imposed Deadlock Game. For Libya, the high level of secrecy was of particular importance. In the light of the Qaddafi regime’s strategic disposition, this design element represented – in all probability – a *partial fit*. For the United States, instead, “quiet diplomacy” gained relevance only at the very end of the *pre-negotiation phase* and represented for Washington’s decision signifying an *underfit* (Figure 26).

All the backchannel approaches that the Qaddafi regime launched starting from spring 1992 were held in utmost secrecy – an important distinction to the highly visible media campaign Tripoli had applied at regular intervals during the 1980s in order to pacify the United States (see e.g. Libya’s charm offensive, ch. 5.3.1.2). There is solid ground to assume that “quiet diplomacy” functioned for Libya as a sort of “diplomatic cocoon”. It allowed the Qaddafi regime to embark a cooperative course at a time when Washington was not yet ready to respond to Libya’s diplomatic offers. Speaking in game theoretical terms, throughout the 1990s Libya repeatedly faced its least preferred strategic outcome – unreciprocated cooperation (CD). “Quiet diplomacy” signified for Libya a worst-case provision. Concealed from public attention, the consequences of ongoing U.S. rebuffs were mitigated. The cloak of secrecy shielded Libya’s diplomatic failure away from public critique. Since these initiative were official not existing, Libya was not facing any torment to explain publicly to the Libyan audience or to other Arab nations why it repeatedly missed influencing Washington in its interest. If there had been no cloak of secrecy, it is unlikely that Tripoli would have continued its offers for a diplomatic engagement despite ongoing rejection by the United States. Rather, the Qaddafi regime would have – in all probability – relapsed into the confrontational pattern it had pursued in the late 1980s. Harsh anti-American rhetoric would have been the logical consequence.

Nevertheless, “quiet diplomacy” was only *partial fitting* to Libya’s strategic posture. While the high level of concealment functioned as a worst-case provision, this design element was not meeting another important aspect necessary for the resolution of the *distrust trap*: confidence building. The mere fact that Libya’s diplomatic activities were held under the cloak of secrecy was by itself not conducive to lower the suspicion Tripoli had vis-à-vis the United States. In particularly the ongoing rejection of its diplomatic offers throughout the 1990s was certainly not helpful to allaying Libya’s doubts about Washington’s sincerity.

For the United States instead “quiet diplomacy” gained only relevance at the very end of the *pre-negotiation phase*. According to our analysis, it was not until spring 2003 that the secret nature of the nascent NRN moved into the center of Washington’s attention. Moreover, while the cloak of secrecy represented for the Qaddafi regime an indispensable necessity that allowed Tripoli to pursue cooperation despite ongoing defection by the

United States, “quiet diplomacy” had for Washington during the *pre-negotiation phase* no operational relevance. United States was until spring 2003 not involved in any direct diplomatic action with Libya on WMD. Therefore “quiet diplomacy” was not a *modus operandi* that Washington was actively applying at that time.

Nevertheless, concealment was still conducive when the United States eventually moved towards cooperation in spring 2003. Washington’s decision making was not affected by the practice of “quiet diplomacy” but – in all probability – by the *prospect* that future explorative talks on Libya’s WMD programs would be held in utmost secrecy. The assumption that concealment would be an inherent part of the upcoming negotiations with the Qaddafi was – in all probability – promoting George W. Bush’s decision in favor for a diplomatic engagement with Libya.

If there would have been the slightest concern that the explorative talks on Libya’s WMD program would get the attention of the public and the U.S. media, Washington would have certainly hesitated to become involved in such a negotiation process. Moreover, the assumption that Washington had a strong interest to conceal future talks with Libya on WMD is also supported by the way it handled the diplomatic engagement with Tripoli on the Lockerbie issue which had already started by May 1999. Given that the U.S. public and media was highly critical of the Qaddafi regime, the Clinton and later the Bush Junior administration was eager to maintain a high level of secrecy. In the late 1990s and the early 2000s, large parts of the U.S. audience and certainly many of the Pan Am 103 victim families which had close ties with key figures in U.S. Congress were not ready to take a diplomatic engagement with Libya at face value (Interview with M. Indyk, Nov. 2011, Annex 16; Albright 2003: 328).³³⁶ “Quiet diplomacy” was for Washington a way to provide against domestic backlashes. Consequentially, an important U.S. precondition to which Libya had to agree in advance before the start of talks on the Lockerbie issue was that these negotiations had to be held in utmost secrecy and were not to be mentioned in public under any circumstances (Indyk 2004; St. John 2008: 134).³³⁷

³³⁶ A conversation that Secretary of State Madeleine Albright had with Attorney General, Janet Reno, at a dinner on January 15, 1998 illustrates the problem of domestic backlashes that were assumed to occur if the diplomatic engagement with Libya would attract the attention of the media and the wider public. When Madeleine Albright discussed with Janet Reno the possible option of direct talks with Tripoli about its involvement in the bombing of Pan Am 103 both came to the conclusion if this initiative would be leaked, the Clinton administration would “be accused of negotiating with terrorists” (Albright 2003: 329-330).

³³⁷ Referring to the U.S.-Libyan talks on the Lockerbie issue, Martin Indyk made for example clear that in the late 1990 the “[f]ears about domestic backlash” was high in Washington “[b]ecause the Lockerbie victims had a very effective network (...) and they had some spokespersons who were (...) very strong and very opposed to having anything to do with Gaddafi (Interview with M. Indyk, Nov. 2012, Annex 16). Paul Pillar, who participated at the side of Martin Indyk at the early rounds of the talks on the Qaddafi regime’s involvement in international terrorism, seconded this assessment and said that if something had leaked “it would have open up the Clinton administration to undoubted charges especially from their political opponents (...) that we were playing footsie with the loathing dictatorship” (Interview with P. Pillar, Dec. 2011, Annex 16).

D) Biased Mediation – the UK’s involvement

A particularly important element in terms of confidence building was the UK’s involvement during the second part of the *pre-negotiation phase* as a “biased mediator”.³³⁸ London’s participation in the nascent American-Libyan diplomacy process helped, in particular, the United States to reduce its distrust towards the Qaddafi regime. We therefore rate this design element as a *fit*.

However, the UK’s involvement was not only conducive for Washington’s trust building. This design element also helped the Qaddafi regime to lower its suspicion towards a diplomatic engagement with Washington. But, since London was clearly siding with its close ally, the United States, and was applying a “biased mediation” effort, we have evaluated the confidence building implications of the London’s involvement for the Qaddafi regime only as an *underfit*.

In addition, the UK’s efforts also had positive implications for the *substantive negotiation problem*. As we have outlined above, the effective resolution of Libya’s *nuclear bad* requires an optimal negotiation coalition (ch. 3.1.3.1). In order to arrive at a comprehensive and lasting resolution of the *substantive negotiation problem*, those actors who are affected by the corresponding “negative externalities” should “have a say” in the resolution process. Since the UK suffered from the Libyan *nuclear bad*, it was important to involve London in the U.S.-Libyan disarmament talks – and be it only in the role of a “biased mediator”. Consequentially, we have rated this design element with regard to this particular requirement as a *fit* (Figure 26).

Before London took an active stance on the WMD issue and tried to persuade the United States to engage with Qaddafi regime, the mediation effort of the Blair government already surfaced during the diplomatic struggle in the Lockerbie case. For example, London spend considerable effort to convince the United States to agree with the compromise to hold the trial of the two Libyan suspects in a third country – a proposal Washington had at first vehemently opposed (Albright 2003: 329; Matar & Thabit 2004: 128). London also took the lead in arranging the practical steps that eventually led to the handover of Abdel Basset Ali al-Megrahi and Lamin Khalifah Fhimah (Niblock 2001: 55-8; Black 1998a; Black 1998b). And in the late 1990s, when the multilateral sanctions were suspended, London urged the Clinton administration to engage directly with Libya in the just discussed Lockerbie talks (Interview with M. Indyk, Nov. 2011, Annex 16).³³⁹

When Libya eventually proposed in March 2003 its offer to “to clear the air about” WMD, London was clearly in favor for direct WMD talks and advocated this option also in Washington. On the sidelines of a Camp David meeting in late March 2003, Tony Blair raised the point of a secret negotiation process with the Qaddafi regime about WMD with

³³⁸ For other literature that likewise come to the conclusion that the United Kingdom had played a positive role in American-Libyan diplomatic engagement on WMD see: Bowen 2006: 59; Jakobsen 2012: 503; Joffé 2004; Matar & Thabit 2004: 195; U.K. House of Commons 2004: 20

³³⁹ According to Ambassador Martin Indyk, the British Prime Minister “Tony Blair was pushing [President] Clinton very hard” to stark the secret talks on the remaining issue of the Lockerbie issue (Interview with M. Indyk, Nov. 2011, Annex 16).

Georg W. Bush (e.g. Beaumont, Kamal & Bright 2003; Corera 2006: 183; Tucker 2009: 364; Suskind 2006). According to William Tobey, a US State Department official, “the Americans were skeptical, but for several minutes, Bush and Blair huddled over whether the offer might be serious, and if it were, what it implied” (Tobey 2014). To our knowledge this conversation in March 2003 was the first time that the concrete opportunity of NRN with Libya was elevated to George W. Bush.³⁴⁰ A diplomatic process with a notorious Middle East dictator on unconventional weapons program must have appeared in many respect inconsistent with the official reading of the US intervention in Iraq, which was framed as a preventive military strike to avoid the danger of WMD. It is difficult to imagine that anyone else but the British Prime Minister would have been able to set such a difficult topic on the agenda of the U.S. President in spring 2003.

Certainly, London was not a textbook mediator. It was not meeting the criteria of neutrality and impartiality that are often associated with third party interventions in international conflicts. Rather, the Blair government acted as a “biased mediator” that clearly sided with its traditional ally, the United States. But there is solid ground to assume that it was exactly the biased nature of the UK’s persuasion effort that helped Washington to build the sufficient confidence to engage directly with Libya in exploratory talks on unconventional weapons programs.

Concerning their policy towards the Qaddafi regime, Washington and London were by and large on the same page. Although the United States was far more deeply entangled in a hostile turmoil with Tripoli, London had also a very troubled past with the North African country. There was no other U.S. ally that had experienced similar bad relations with the North African Country than the UK. In particular the bombing of Pan Am 103 over the Scottish town Lockerbie had deepened London’s and Washington’s “companionship” in their stance towards the Qaddafi regime. We assume that it was this particular “brother-in-arms relations” that formed the basis for UK’s successful mediation towards the United States. The certainty of shared goals must have made Washington in particular responsive to London’s recommendations. It eventually helped the Blair government to allay Washington’s worst-case perception vis-à-vis the Qaddafi regime.³⁴¹

³⁴⁰ There were also reports that Tony Blair had altered the need for a broader rapprochement with Libya with George W. Bush during a Camp David meeting held in September 2002 (see e.g. Corera 2006: 180-1). But it appears that at that time this option was still too unconcrete and was only loosely discussed.

³⁴¹ But apart from the brother-in-arms relationship, London’s clout in Washington’s Libyan policy was presumably further increased by the fact that the UK was more knowledgeable and experience in the direct engagement with Libya. Unlike the United States, London had maintained – despite the official rupture of diplomatic ties – informal contact with the Qaddafi regime (Bowen 2006: 59; Viorst 1999). In the early 1992 Tripoli and the UK had engaged in an informal intelligence exchange in which the Qaddafi regime unveiled certain episodes of its past relations with the IRA including arms deliveries provided to the Irish terror group (Niblock 2001: 45; Norton-Taylor 1992; Pick 1992). Already in the late 1990s London had resumed formal diplomatic relation with Tripoli. This step was preceded by a direct British-Libyan engagement on the compensation of the family of Yvonne Fletcher, the British policewoman shoot from the inside of the Libyan embassy in April 1984. The way was paved for a diplomatic restart in 1999 after Libya eventually took responsibility for the murder, promised to support the investigation, and paid £250,000 in compensation to Yvonne Fletcher’s family (e.g. O’Sullivan 2003: 377; Bowen 2006: 59; Norton-Taylor 2009; Ronen 2006: 279-80; Jentleson & Whytock 2005/6: 70).

That the biased nature of London's intervention was helpful to move Washington towards cooperation becomes, in particular, clear if we compare the Blair government's efforts with third party interventions by other actors – namely, South Africa and Saudi Arabia. Even though Riyadh's and Pretoria's initiatives were more akin to the textbook concept of conflict mediation since their efforts were meeting in many respects the criterion of neutrality and impartiality, both actors had not the same political clout London enjoyed in Washington. Both, the famous South African President, Nelson Mandela as well as the influential Saudi Arabian ambassador to the United States, Prince Bandar bin-Sultan, vehemently campaigned for a more benign stance towards the Qaddafi regime and conducted active shuttle diplomacy in the late 1990s when the United States and Libya were engaging on the Lockerbie issue (Boyd-Judson 2005; St. John 2003: 464-5; Niblock 2001: 58; Matar & Thabit 2004; Interview with M. Indyk, Nov. 2011, Annex 16). But despite their assiduous diplomacy effort neither Saudi Arabia nor South Africa had any decisive impact on Washington's willingness to agree to a rapprochement with Libya (Niblock 2001: 58). Reportedly, the U.S. decision makers never fully trusted the involvement of both players (Boyd-Judson 2005: 86; Matar & Thabit 2004: 169). At certain points, Washington took even measures to sidestep and exclude these two players from the handling of the Lockerbie issue when Riyadh's and Pretoria's shuttle diplomacy became in the view of the Clinton administration too intense by the late 1990s. For example, the United States commissioned the UN General Secretary's office to execute all coordination and communication with Tripoli – a strategy that was reportedly meant to cut back the initiatives of Saudi Arabia and South Africa (Matar & Thabit 2004: 181-88). And when the United States and Libya eventually started a direct negotiation process by May 1999, South Africa was completely excluded from this process, and Saudi Arabia's role was downsized to the function of a practical facilitator. Represented again by Prince Bandar, Riyadh acted as a communication liaison between Tripoli and Washington and was on some occasions providing venues for the secret meetings at different Saudi-owned properties in Western Europe.³⁴²

Thus, the UK involvement in the nascent American-Libyan engagement is a good example for all those scholars who have claimed that neutrality and impartiality is not necessary a *sine qua non* condition for successful mediation (e.g. Carnevale & Arad 1996; Touval 1985; Smith 1985). At least in some negotiation dynamics "biased mediators", who have close ties with one of the conflict parties, appear to achieve higher performance. In addition, the UK participation in the Libyan NRN is also a good example of the fact that even the disadvantaged conflict party (i.e. Libya) is appreciating biased mediation as long as the positive implications of this approach outweigh negative side-effects.

³⁴² But even as a facilitator the United States was not fully trusting Saudi Arabia. Therefore, Washington was using its connection with the PLO to verify the communication with Qaddafi regime. Martin Indyk said for example: "We used the Saudis because [Prince] Banda had direct connection to Gaddafi and Moussa Koussa. But we didn't quite trust the Saudis either (...) Even while we used him [Prince Banda], we set up a separate channel to verify what we were hearing from him. And that was an unusual channel. That was that was the PLO (...) a separate channel between Abu Masar [Jassir Arafat] and Moussa Koussa (Interview with M. Indyk, Nov. 2011, Annex 16).

Certainly, Libya had rather preferred Saudi Arabia or South Africa as the mediator for its diplomatic engagement with the United States. It was reported that Muammar al-Qaddafi was clearly in favor of the of Pretoria's and Riyadh's active role in the conflict with the United States. In several public statements, he highly appreciated the personal involvement of Nelson Mandela and Prince Bandar and effusively thanked them for their support (e.g. Matar & Thabit 2004: 198; Boyd-Judson 2005). However, when the Qaddafi regime eventually recognized that London was able to actually influence Washington in favor of the desired Libyan-American rapprochement, Tripoli was not opposed to the UK's involvement and its role as "biased mediator". On the contrary, Tripoli even actively tried to approach the UK in the early 2000s, pleasing London to act as an intermediate in Libya's ongoing backchannel initiatives. And it was not for nothing that Saif al-Islam was sent by his father to London and not to any other Western European capital when Libya launched a new attempt to start a diplomatic process with the United States on its WMD program in March 2003 (Interview with T. Dowse, Feb. 2012, Annex 16; Fidler, Huband & Khalaf 2004; Indyk 2004: 21; Ronen 2006: 277).

In addition, the Blair government itself undertook not only active steps towards Washington but was also reaching out to the Qaddafi regime. The first approach London made in that regard occurred in August 2002 when Mike O'Brien, the British Minister for the Middle East, paid a visit to Libya and meet with Muammar al-Qaddafi – the first travel of a British cabinet member to Libya since the rupture of the diplomatic relations in 1984. In his conversation with the Libyan leader O'Brien, reportedly addressed the WMD issue and received from Qaddafi positive signals (e.g. Dejevsky 2004: 6; Joffé 2004: 223; Callies de Salies 2005: 31). One month later, in September 2002, Tony Blair wrote a letter to Muammar al-Qaddafi in which he also mentioned the option of direct talks on Libya's WMD programs.³⁴³ Again Muammar al-Qaddafi showed openness to the British proposal. Moreover, the Libyan leader was indicated in his written reply he would instruct his foreign minister to prepare a diplomatic engagement with the West on unconventional weapons programs (e.g. Fidler, Huband & Khalaf 2004: 16; St. John 2004: 398).

There is no historical data that allows us to evaluate how the UK initiatives affected the decision making of the Qaddafi regime. But since these two high-profile approaches were the first time that Western politicians seized the idea of a WMD dialogue Tripoli had floated at numerous occasions in the last 10 years, it is hard to believe that the UK outreach in summer 2002 left Tripoli unmoved. After the long rupture with the UK, Muammar al-Qaddafi must have been delighted by the correspondence with Tony Blair. But since the Blair government's approach towards Tripoli remained narrow and since the UK's role as mediator was limited due to its close alliance with the United States, we have evaluated this link only as an *underfit*. While it – in all probability – contributed to the Qaddafi regime's confidence building, this diplomatic tool had not tapped its full potential. We

³⁴³ It was reported that the British Prime Minister received positive backing by the US President for this step (Beaumont, Kamal & Bright 2003; Bowen 2006: 62; Miller 2006: 27). In that sense the initiative by Tony Blair is clearly in the logic of mediation between the US and Libyan and is not just representing a unilateral effort to improve the British-Libyan relationship.

assume that if the London had taken a more vigorous mediation effort, the confidence building implications could have been even more intense.

E) Ongoing Disclosure of the A.Q. Khan Network

The disclosure of the A.Q. Khan network and the insights of this intelligence operations provided about the nature and scope of the Libyan nuclear weapons program, had likewise positive implications during the second part of the *pre-negotiation phase*. This non-diplomatic instrument affected the *procedural* as well as the *substantial negotiation problem*. The ongoing intelligence disclosure of the A.Q. Khan helped to manipulate Washington's preference in favor of a diplomatic engagement with the Qaddafi regime and signified a complete match with this particular "fit demand".

Moreover, this non-diplomatic instrument contributed also to the resolution of Libya's *nuclear bad*. However, with regard to the *substantial negotiation problem*, its performance was less convincing. During the *pre-negotiation phase*, the intelligence about the network was still too limited and was not yet allowing the United States to take tangible actions that would have cut the business ties between the Qaddafi regime and the nuclear smuggle ring – an assessment that made us rate the disclosure of the A.Q. Khan network only as an *underfit* in light of this particular requirement (Figure 26).

Throughout the 1990s, Washington rejected Tripoli's repeated offers for WMD talks. A central motive behind Washington's ongoing rebuffs was the assumption that Tripoli's nuclear weapons program was entrapped in a standstill and was, therefore, posing no immediate threat to the United States. The U.S. intelligence community reportedly perceived Libya in the late 1990s as an "inept bungler, the court jester among the band of nations seeking (...) nuclear capabilities" (Commission on the Intelligence Capabilities 2005: 259-260). And recalling the situation in the 1990s Martin Indyk said: "Disarmament was a lower priority at that time (...) We were not aware of his [Muammar al-Qaddafi's] nuclear program (...) We did have Qaddafi's chemical weapons on our agenda. But it was a lower priority because we didn't think it was particular advance" (Interview with M. Indyk, Nov. 2011, Annex 16).

In the late 1990s and early 2000s, the U.S. and the U.K. intelligence community was however, disclosing more and more information about the A.Q. Khan network activities and thereby also became aware of the accelerated development of the Qaddafi regime's nuclear weapons program. As a consequence, the risk assessment regarding Tripoli's WMD ambition was rising sharply at that time. While it was originally assumed that Libya would cross the "nuclear threshold", not before 2015, the estimated timeframe was reduced to the year 2007. New evidence stemming from the intelligence disclosure of the A.Q. Khan network "led technical analysts to change their views dramatically about the Libyans' abilities" (Commission on the Intelligence Capabilities 2005: 260).³⁴⁴

³⁴⁴ The British intelligence community came reportedly to similar results as their U.S. colleagues. For example, by July 2002 the MI6 concluded that the transnational smuggle ring was in essence "central to all aspects of the Libyan nuclear weapons programme [sic]" (U.K. House of Commons 2004: 18).

There is no available data about how the new risk assessment affected Washington's decision making. However, it is very likely that it "manipulated" the Bush Junior administration's preference in favor of a diplomatic engagement with the Qaddafi regime. Given that the Libya's connection with the A.Q. Khan network was, reportedly, an important impetus for the UK to start its mediation efforts in favor of direct diplomatic process with Tripoli, there is solid ground to assume that this motive played for the United States was likewise an important role. According to Tim Dowse, a British diplomat who participated in the WMD talks in 2003, Libya's "relation to the A.Q. Khan network (...) was a main concern (...) [A]nd some of the worst case assessments were that they would be the next country to get nuclear weapons – rather ahead of Iran. And so we were very keen to pursue it [a tripartite engagement on the Qaddafi regime's WMD programs]" (Interview with T. Dowse, Feb. 2012, Annex 16; see also: Interview with S. Hadley, June 2012, Annex 16).

While the disclosure of the A.Q. Khan network represented a *fit* in terms of the *colliding interest trap*, the performance of this non-diplomatic design element in the resolution of Libya's *nuclear bad* was however less prominent. In the early 2000s, the U.S intelligence community, and their British colleagues had not yet revealed sufficient information about the A.Q. Khan network to take direct actions against the smuggling ring. Rather, the major progress in that regard took place during the year 2003 – at a time where the diplomatic process had already entered into the *pre-agreement phase* (e.g. Heupel 2008; Corera 2006: 186; Commission on the Intelligence Capabilities 2005: 257; U.K. House of Commons 2004: 21).

F) Strategic Readjustment: How the Iraq War Propelled the US into Cooperation

Whether or not the Second Iraq War had an impact on Libya's nuclear disarmament is certainly the most intensively discussed aspect about the Qaddafi regime's *nuclear reversal* (e.g. Jentleson & Whytock 2005/6; Litwak 2007; St. John 2008). While the protagonist of the Bush and Blair administration have pointed out that it was the Second Iraq War that forced Qaddafi into nuclear disarmament, this argument was vividly contested by numerous scholars (e.g. Indyk 2004a, Indyk 2004b; Leverett 2004; Müller 2006). To say it right from the start: none of the previous accounts grasp the full picture of the role the Iraq War had played in Libya's *nuclear reversal* – although each sides appears to have disclosed at least a part of the complex reality.

The massive deployment of US troops to the Gulf region in spring 2003 had an impact on Muammar al-Qaddafi. Always suspicious and distrustful of the United States, the Libyan leader was very concerned about Washington's show of force first in Afghanistan and later in Iraq.³⁴⁵ It was reported that Muammar al-Qaddafi expressed concerns in a conversation with the Italian Prime Minister Silvio Berlusconi that after the Iraq invasion, the US military force could turn to Libya (Joseph 2009: 12). Moreover, a classified cable sent from the US

³⁴⁵ That neo-conservatives members of the Bush Junior administration – first and foremost John R. Bolton (Under Secretary for Arms Control and International Security at the US State Department) – continued to utter harsh language against Libya was probably further inflaming these concerns.

embassy in Cairo reported – according to Judith Miller – a phone call Muammar al-Qaddafi had given to Egyptian president Mubarak in late 2002 in which he uttered strong fears about a future attack by U.S. forces. And according to a U.S. Congress delegation visiting Libya in 2004 after the conclusion of the disarmament deal, Muammar al-Qaddafi admitted that the Iraq War was an important driver behind his decision (Miller 2006; Joseph 2009: 12). Moreover, one could not close its eyes from that fact that the massive deployment of troops in the Gulf region in March 2003 highly coincides with the Qaddafi regime’s renewed offer for disarmament talks. Saif al-Islam conveyed this message exactly in the same week as the Iraq intervention started (Interview with T. Dowse, February 2012, Annex 16).

But one should not push this argument too far and should not misread Muammar al-Qaddafi’s concerns. The U.S. Iraq intervention certainly affected the timing and sequencing of Tripoli’s negotiation offers. But the Second Iraq War neither urged the Qaddafi regime on a cooperative course nor forced Libya to reverse its WMD programs. The massive show of force in the Gulf region certainly alarmed Muammar al-Qaddafi. But as numerous scholars have laid out correctly, the Iraq war came simply too late to have had a meaningful impact. Libya had already been ready for direct negotiations on its unconventional weapons programs since the early 1990s (e.g. Hart 2004; Indyk 2004a; 2004b; Müller 2006). However, even if the Iraq War had been started some years early, it would not have contributed much to Libya’s decision for cooperation either. Being the non-deadlock player in the Imposed Deadlock Game, trust and a brief inciting interest stimulation to overcome the Nash Equilibrium were the only two drivers the Qaddafi regime needed to embark a cooperative course of during the *pre-negotiation phase*.

As we have shown above, these two requirements were already provided to Libya during the 1990s. Moreover, if the Qaddafi regime had not been anyway on a cooperative course, the second Iraq War would have signified a massive preference manipulation which was for Libya – being the non-deadlock player in the Imposed Deadlock Game – irrelevant and unnecessary.

However, the Iraq War was nevertheless of utmost importance for overcoming the Imposed Deadlock Game – but in a completely different way than discussed thus far. The show of force in the Gulf didn’t move the Qaddafi regime but the United States into cooperation. The Second Iraq War bestowed Washington with a new strategic desire and thereby rendered the diplomatic engagement with Tripoli in an attractive option.

In the “interest profile” of the United States (ch. 5.2.1.2; see also Figure 19) we have already explained that the Bush Junior administration underwent a significant shift in spring 2003. At that time, Washington became eager to link the Second Iraq War to the nascent diplomatic process with the Qaddafi regime. It was the emerging of this new desire that was the decisive driving force behind the U.S. decision to overcome the Imposed Deadlock Game in April 2003.

The prospect to yield political profit from the bargaining process with Tripoli for the broader Bush Doctrine and the attempt to establish a new Pax Americana in the Middle East explains why Washington eventually agreed to start explorative talks with Tripoli on its

nuclear weapons program despite the fact that only few “preference manipulation” in favor of cooperation had been provided to the United States during the second part of the *pre-negotiation phase*. The predating “Lockerbie talks”, “quiet diplomacy”, and the UK’s “biased mediation” were helpful to allay Washington’s concerns vis-à-vis the Qaddafi regime. But confidence building is under the condition of the Imposed Deadlock Game a necessary but not a sufficient condition for cooperation. Despite the overcoming of the *distrust trap*, the *colliding interest trap* continued to prevail. Until April 2003 Washington had simply no interest in cooperating with the Qaddafi regime on WMD. This was only changed when the United States’ desire was shifted by the Iraq War linkage.

Of course, at the very beginning, the Bush administration could not have known how exactly to use the bargaining process with Libya for its broader power projects in the Middle East. But what was clear was that the nascent diplomatic engagement should be integrated as a supportive component into the Bush Doctrine. In the White House meeting where the decision to engage Qaddafi regime was eventually taken, President Bush admonished that the diplomatic process with Tripoli should be pursued in a way that its outcome would “send a signal to the world” and that Bush Junior administration would “get some deliverable from this process” (Suskind 2006, Suskind 2007: 222-3; Frantz & Collins 2007: 306).

Without this shift in Washington’s strategic desires, it is rather unlikely that the Bush Junior administration had started a diplomatic engagement with Tripoli. In all probability, the Imposed Deadlock Game had not been overcome. After all, the bargaining process with the Qaddafi regime involved considerable political risk and was prone to provoke domestic turbulences. Without the U.S. policy towards Libya becoming a component in the broader Bush Doctrine, the voices of those who expressed concerns about engaging with the Qaddafi regime – first and foremost Vice President Dick Cheney (Suskind 2006) – would have exerted more influence on George W. Bush’s decision making. There is a good chance that under such circumstance George W. Bush had given his veto exploratory talks with Tripoli. However, the picture changed when the U.S. policy towards Libya became a supportive element for the Iraq War – by far the biggest foreign policy project of Bush Junior administration. The diplomatic engagement on Libya’s WMD was abruptly bestowed with a high priority. The bargaining process suddenly became an attractive and feasible endeavor that served Washington’s high politics interests. In that sense, the issue linkage marked a case of self-inducement into cooperation at a time when the nascent diplomatic process with Libya had by itself promised little concrete benefits.

G) 9/11 and the War on Terror

Several scholars have pointed out 9/11 and the War on Terror as an important structural driver for the American-Libyan rapprochement (e.g. Ronen 2008; Joseph 2008: 13; Newnham 2009: 92). While this argument appears at first sight convincing, our analysis nevertheless reveals that these structural factors had no positive implications for resolving the *procedural negotiation problem* of the *pre-negotiation phase* but instead signified a *misfit* (Figure 26).

Islamic fundamentalists were declared enemies of the Qaddafi regime since the 1970s.³⁴⁶ Libya's struggle with the Islamic opposition intensified in the 1990s. Anti-government attacks by organizations such as the Libyan Islamic Fighting Group and the Libyan Martyrs' Movement caused around 600 casualties between 1995 and 1998 (e.g. Exenberger 2002; Jentleson & Whytock 2006: 66; Palkki & Smith 2012: 271). And in late May 1998, Muammar al-Qaddafi only closely escaped a terror attack on his convoy near Benghazi which killed three of his guards and wounded himself at the elbow (Martinez 2007: 57).

When Washington launched after 9/11 the War on Terror, the Qaddafi regime saw a "window of opportunity" to implement the long desired rapprochement with the United States. Pointing out that many of the 9/11 terrorists came from Saudi Arabia, Muammar al-Qaddafi and the power elite in Tripoli even indulged the hope to become Riyadh's heir as the U.S. closest ally in the Middle East (Interview with T. Dowse, Fe. 2012, Annex 16).³⁴⁷

Consequentially, Libya was not only the first Arab country that expressed its condolences to the United States after 9/11, according to a confidential U.S. cable sent from the American embassy in Cairo, Muammar al-Qaddafi even called "every Arab leader on his Rolodex" in the effort to persuade them to likewise condemn the terror attacks on New York and Washington (Frantz & Collins 2007: 304). During the preparations for the Afghanistan war, the Libyan leader denounced the Taliban as "godless promoter of political Islam" and justified the U.S. intervention as a justified act of self-defense (O'Sullivan 2003: 185). In January 2002 Libya announced internationally a \$1 million reward for all information that would lead to members of Islamic terrorist groups (St. John 2004: 394). Moreover, the American-Libyan intelligence exchange on terrorist groups, which took place on the sidelines of the "Lockerbie talks" since the late 1990s, was intensified after 9/11 (Interview with P. Pillar, Dec. 2011, Annex 16).

Certainly, the Bush administration noticed Libya's antipathy towards Islamic fundamentalists. According to the CIA director George Tenet, the Qaddafi regime's support for the U.S. War on Terror was noticed as "an interesting sign" (Tenet 2007: 288). However, Washington was in the early 2000s still very cautious vis-à-vis the Qaddafi regime. The Bush Junior administration was not prepared to jump into a joint U.S.-Libyan cooperation on anti-terrorism policy which Tripoli actively proposed at that time. Thus, 9/11 and the War on Terror had for Washington's view on the American-Libyan rapprochement mainly atmospheric implications.

For Libya instead, these two structural factors made the Qaddafi regime even more eager to cooperate with the United State (Interview with T. Dowse, Feb. 2012, Annex 16).³⁴⁸ The

³⁴⁶ Tellingly, in the early 1990s Libya was the first country that issued an Interpol arrest warrant against Osama Bin Laden (Joffé 2004: 223).

³⁴⁷ According to Tim Dowse, Muammar al-Qaddafi was in the early 2000s "very, very anti-Saudi. He was telling us [the UK] and in particular the U.S.: The Saudis they are not your best friends. You be better very suspicious about them. They are very dangerous. They are fundamentalists. They are very bad for you. What you need is me." (Interview with T. Dowse, Feb. 2012, Annex 16).

³⁴⁸ Even after the rapprochement with the United States had been executed, the members of the Qaddafi regime continued to overrate the implications of 9/11. In an interview with the journalist Judith Miller, Saif al-Islam said for example in reference to 9/11: "Overnight we found ourselves in a different world. So Libya had to redesign its policies to cope with these new realities" (Miller 2006).

U.S. War on Terror and 9/11 were, therefore, acting against the “fit demand” to bridle Libya’s first mover inclination. We therefore, rated these two structural factors as a *misfit*.

5.3.3 Pre-Agreement Phase (March – December 2003)

In comparison to the previous *pre-negotiation phase*, which prevailed for more than 15 years, the nine months long *pre-agreement phase* was relatively short. It was a period that was characterized by secret talks held mainly between senior figures of the Libyan, the US, and the UK intelligence community at different venues in Europe and North Africa. From March to December 2003 both sides – the members of Qaddafi regime and the UK-US team – pondered on the question whether to start direct negotiations on a disarmament agreement. Preparing for these final negotiations was the major purpose of this period.

Unlike the previous *pre-negotiation phase*, structural factors and non-diplomatic interventions played during the *pre-agreement phase* no role. Instead, this episode of the Libyan NRN was “won” exclusively by diplomacy. The different diplomatic design elements that were applied – either intentionally or unintentionally – cleared the way for the following *agreement phase*. *Diplomatic design* moved the players into a stage where they were eventually ready to give their consent to direct negotiations on a final disarmament agreement by early December 2003.

5.3.3.1 Procedural & Substantial Negotiation Problems

The *procedural negotiation problem* the United States and Libya faced during the *pre-agreement phase* is – according to our analysis – best described as an Alibi Game. While still challenging to resolve, the Alibi Game was more benign in terms of joint cooperation than the previous Imposed Deadlock Game – not to mention the pure Deadlock Game, which dominated the first part of the *pre-negotiation phase* in the late 1980s. But while the *procedural problems* became over the years less and less confrontational, the *substantial negotiation problem* (i.e. Libya’s *nuclear bad*) remained by and large unchanged. Certainly, we observed in the *pre-agreement phase* some efforts to address at least some aspects of Libya’s *nuclear bad*. Therefore, we describe the “fit demand” for the *substantial negotiation problem* already in this section (see part B and Figure 27). However, during the *pre-agreement phase*, the resolution of Libya’s *nuclear bad* lived rather in the shadow. Between spring and fall 2003 the *procedural problem dimensions* were simply still too massive. Meaningful diplomatic progress to resolve Libya’s *nuclear bad* was not possible at that time. It was only during the following *agreement phase* (December 2003) that the *substantial negotiation problem* received full attention and became an agenda item in the negotiation process.

A) The Alibi Game

Alibi Games have been widely neglected by IR scholars. That is in every respect deplorable since it is very likely that Alibi Games occur relatively often in international politics.³⁴⁹ During the Libyan NRN we encounter this strategic constellation twice (apart from the *pre-agreement phase*, the Alibi Game also dominated the following *agreement phase*).

³⁴⁹ For more a more detailed discussion on the neglect of Alibi Games see ch. 6.1.1.4.

Alibi Games share in appearance numerous similarities with the widely discussed PD Game. Like PD Games, Alibi Games have only one pareto-inferior Nash Equilibrium (N) that falls on the outcome of mutual defection (DD). And, like PD Games, the Qualified Pareto Optimum (P+) coincides in Alibi Games with the outcome of joint cooperation (CC) (Figure 22). However, unlike PD games, Alibi Games are marked by a biased structure.

The nature of this particular 2x2 game constellations becomes more tangible if we return to the original PD metaphor and image that one of the imprisoned suspects (in our case Libya) is fortunate to have an alibi for the crime he is charged with. Under the condition of the Alibi Game, the classic PD metaphor would read as follows: Normally both player have a strong incentive for defection and are expected to confess individually to the public prosecutor. For the prisoner who is protected by an alibi, this logic, however, does not apply. Having a watertight excuse makes unilateral confession needless. The testimony of his comrade would not hold up against the alibi this suspect is able to present. Mutual confession (DD) is therefore for the prisoner with the alibi less threatening and more comfortable. In addition, normally both suspects would face only a short sentence for some pretext (say for example illegal possession of handguns) if they would collectively remain silent (CC). But here again, the alibi is also protecting against the minor charge and would lead to the outcome that the prisoner with the alibi is set free (Figure).

Figure22: Alibi Game in the Pre-Agreement Phase (March - December 2003)

		USA	
		nuclear reversal negotiation [C]	no negotiation [D]
Libya	nuclear reversal negotiation [C]	4,3 P+	1,4
	no negotiation [D]	2,1	3,2 M,N

US preference hierarchy: DC > CC > DD > CD
 Libya's preference hierarchy: CC > DD > DC > CD

C = Cooperation D = Defection M = MaxiMin Solution N = Nash Equilibrium P+ = Qualified Pareto

Given the numerous similarities, there is a relatively high chance that strategic constellations which were described by past scholars as examples of PD Games – such as the Second Morocco Crisis in 1911 or the Middle East Conflict in the 1990s (Beck 1997; Synder & Dising 1977) – were in reality Alibi Games. This is problematic since, Alibi Games operated according to a different logic than PD Games and, consequentially, require a different resolution strategy.

Alibi games are marked a by a double trap. If there is no external intervention that drives the conflicting parties into joint cooperation (CC), both sides are likely to step into the deadlock situation (DD) when striving to maximize their individual utilities. The non-alibi player (i.e. in our case the United States) acts in such a constellation as the spoiler of joint cooperation. Having a strong inclination for unilateral defection (DC), this actor is prone to trigger a “race to the bottom”. Its counterpart, the alibi player (i.e. in our case Libya), is instead more leaning towards joint cooperation (CC). This outcome signifies the alibi player’s best possible choice. However, once the non-alibi player has chosen unilateral defection, this actor is very likely to follow this pattern. First, because unilateral defection

(CD) is the most unfavorable outcome of the alibi player. Second, because the deadlock constellation (DD) is for the alibi player not a bad choice but its second best option. Once mutual defection (DD) is established, both players have little chance to escape from this situation. The deadlock scenario (DD) signifies a Nash Equilibrium (N) from which the actors could not depart unilateral without rendering themselves worse off (Figure 22).

However, apart from the *colliding interest trap* Alibi Games are also marked by a *distrust trap*. Even if we assume that the players would overcome the *colliding interest trap*, *distrust* would still detain them in the deadlock constellation (DD). As soon as the both sides have doubts and concerns about their counterpart's sincerity, the Maximin solution (M) would be their preferred choice to protect themselves against the consequences of the worst-case scenario of unreciprocated cooperation (CD). Since the Maximin Solution (M) coincides with the outcome of mutual defection (DD), *distrust* leads to the same outcome as the *colliding interest trap* (Figure 22).

What kind of diplomatic intervention would *fit* the Alibi Game? What is the "optimal solution" in light of this particular *procedural negotiation problem*?

(1) Colliding Interest Trap: We have already mentioned that the Alibi Game is relatively benign in terms of achieving the outcome of joint cooperation (CC). Due to the more cooperative nature of the Alibi Game, costly preference manipulation is rendered redundant – a fact that makes the "fit demand" of the Alibi Game clearly distinct from the resolution strategy required for previous Imposed Deadlock Game and the pure Deadlock Game. The manipulation of the players' preferences would not be harmful for the resolution of the Alibi Game's *colliding interest trap*. But it would certainly signify an inefficient investment of governance resources. The alibi player (i.e. Libya) is anyway in favor for joint cooperation (CC). Thus, in terms of the *colliding interest trap* the non-alibi player (i.e. the United States) is the real problem. However, with a well-choreographed diplomatic intervention it is also possible to nudge even this actor onto a cooperative course. If only the timing is handled properly, resolving *colliding interest traps* in Alibi Games is inexpensive and does not require costly rewards (or sanctions).

For the non-alibi player (i.e. the United States) it is less the lacking inclination for cooperation that is problematic. After all the outcome of joint cooperation (CC) signifies for this actor the second best choice. In comparison to mutual defection (DD), it is, therefore, a far more attractive outcome. The essential stumbling block for sustainable cooperation is the non-alibi player's strong temptation to exploit its counterpart's favor for cooperation (Figure 27). As soon as the Alibi Game is turning into a cooperative course, defection would become for this actor an attractive choice. If the alibi player is opting for cooperation, the non-alibi player has the chance to reap in its best possible outcome by choosing defection (DC). This is, of course, a short-sighted move since the alibi player is likely to retaliate with the consequence that the players relapse again into the deadlock scenario (DD). However, following the principles of Enlightened Rationalism we do not assume that real world actors are hyper-rational players. Consequentially, such a short-sighted strategy is indeed possible in international politics.

A diplomatic intervention that aims to get along without costly preference manipulation of the non-alibi player's payoff structure would, therefore, require "precautionary measures" against the possible exploitation of cooperation (Figure 27). How the precaution against exploitation is implemented is dependent to the strategic constellation in the individual cases. For example, if the non-alibi player has already experienced the painful consequences of the deadlock outcome (DD), the temptation for defection could be tamed by recalling this situation – in the sense of taking advantage of the "shadow of the past." Precaution against the exploitation of cooperation could also take the form of highlighting the contrast between the long-term beneficial results of joint cooperation (CC) and the "flash in the pan" effects of unilateral defection. However, regardless of the actual implementation, a "precaution against cooperation-exploitation" is an important "fit demand" for the successful resolution of the Alibi Game (Figure 27).

The "omission of preference manipulation" and "precaution against cooperation-exploitation" is crucial for the resolution of the Alibi Game. However, a diplomatic intervention that is matching with the nature of this particular dilemma game has also to encourage the alibi player to "move first" into the direction of joint cooperation (CC) (Figure 27). Since joint cooperation (CC) signifies the alibi player's best possible choice anyway, animating this actor to take active steps towards this outcome is an intervention which involves little governance resources. Rather, what is required is a moderate impetus that makes the alibi player act according to its own interests. The alibi player's choice for cooperation represents for its counterpart, the non-alibi player, not only a temptation for defection. This move is at the same time for the non-alibi player the crucial incentive for likewise choosing cooperation. If the alibi player is not moving first, the non-alibi player will not opt for cooperation. Without the alibi player's first move the entire diplomatic intervention would be more complicated and more costly. In such a case we would need "preference manipulation" – equivalent to one pay off point – in order to drive the non-alibi player from its most desired scenario (i.e. unilateral defection, DC) to the second best choice (i.e. joint cooperation, CC) (Figure 22). Timing and a well-tailored sequencing of moves are therefore essential in the Alibi Game and signifies an efficient substitution for costly rewards (or sanctions).

(2) *Distrust Trap*: Rationality assumed, "first moving," "omission of preference manipulation", and "exploitation precaution" is the crucial "fit demand" for overcoming the *colliding interest trap* in Alibi Games (Figure 22). However, resolving the *colliding interest trap* alone is insufficient for sustainable cooperation. Rather, the Alibi Game requires a parallel resolution of the *distrust trap*. Ways and means need to be installed that helped to reduce the players' mutual suspicion and overcome their worst-case thinking.

As we have already outlined above, game theory has certain limits when it comes to the operationalization of (dis)trust (ch. 3.1.3.2 see also ch. 6.1.1.4). Confidence building is per se not the home-turf of game theory. However, what we can derive from the nature of the Alibi Game – and the finding is in many respect similar to our analysis of the previous Imposed Deadlock Game – is that distrust reduction needs to be biased. The players of the Alibi Game are assumed to have divergent tolerance regarding distrust.

When suspicion starts to loom, the alibi player (i.e. Libya) is more inclined to choose the Maximin solution (M) and hold on to this strategy. After all, mutual defection (DD) is for this actor the second best option and therefore in general relatively comfortable – in particular when the prospect of achieving the best possible outcome of joint cooperation (CC) turns into a “pipe dream” in light of the (real or perceived) insincerity of the non-alibi player (i.e. the United States). Therefore, the alibi player is assumed to opt more swiftly in favor of the Maximin solution. The non-alibi player is instead believed to be more hesitant regarding this decision since the deadlock scenario is for this actor less attractive (Figure 22).

Obviously, the varying tolerance regarding *distrust* has a consequence for diplomatic design. The alibi player must be subjected to more intensive distrust reduction than its counterpart. What is required is a biased approach of confidence building (Figure 27).

B) Libya's Nuclear Bad

Similar to the Alibi Game, the *substantial negotiation problem* – Libya's nuclear bad – is marked by a double trap. Resolving this problem required the resolution of a *colliding interest* and of an *injustice trap*.

The *colliding interest trap* was constituted by fact that the United States – and to a lesser extent also the UK – had the intention to escape from the “negative externalities” imposed by Libya's nuclear bad. As we have outlined above in the application of our *fit taxonomy* (ch. 5.2.2.1), both, the United States but also the UK, were particular allergic to the security risks resulting from the Qaddafi regime's WMD ambitions. Consequentially, Washington and London were eager to change this situation. Dismantling all of Libya's WMD once and for all was their core objective. Libya for its part was, however, interested in maintaining its nuclear weapons program. Despite the direct diplomatic engagement starting in spring 2003, Tripoli continued to strive for the atomic bombs. The efforts to build up a uranium enrichment facility with the help of the A.Q. Khan network were not slowed down during the *pre-agreement phase*.

As long as at least one side continues to maximize its individual utilities, a sustainable resolution of Libya's nuclear weapons program is impossible. If the *bad doer* (i.e. Libya) continues to strive for an atomic bomb, the *bad sufferers* (i.e. Washington and London) would be confronted with “negative externalities”. And if the *bad sufferers* succeed in eliminating Libya's nuclear bad, the *bad doer* would be deprived of the benefits it envisioned to receive from its nuclear weapons program.

Moreover, a lasting resolution of this *substantial negotiation problem* is only possible if both sides confront – apart from the *colliding interest trap* – also the *injustice trap*. Seen from the perspective of the US-UK negotiation team, the Qaddafi regime had violated every international disarmament and non-proliferation treaty it had ever signed. But not only that the North African country had placed itself outside the international norms, it had also caused by its rogue behavior fear and security concerns to its neighboring states and the entire region (ch. 3.1.3.1). In the Libyan perspective, however, disarmament would mean

doing away with an important power instrument which was expected to increase the Qaddafi regime's prestige and security and on which one had invested already considerable resources. *Nuclear reversal* was therefore likely to lead to an unjust negotiation outcome in which Libya was rendered worse off.

What does all this mean in terms of the *fit demand*? What is the "optimal solution strategy" design elements have to meet in order to achieve a sustainable resolution of Libya's *nuclear bad*?

(1) The Liberation Strategy: When facing a *public bad*, presumably the most pressing requirement is to neutralize its "negative externalities" and stop the suffering of by-standing third parties. What is needed is a "liberation strategy". As we have outlined already in the theoretical section (3.1.3.1) such a "liberation strategy" cannot be applied *a gusto* but has to be carefully applied in the sense of "surgical intervention". It is important to avoid that neither too much nor too little of a *bad doer's* strategic portfolio is cut-off, but only the "negative externalities" of the actual public bad are removed. We also explained above that while there are different ways to deactivate *public bads* and undo "negative externalities" (i.e. internalization, externalization or elimination, see also Table 5), the most important guidance for such an operation is the scope and nature of a *public bad's* consumption – its "demand side."

In the application of our *fit taxonomy* to the Libyan case we revealed that Tripoli's *nuclear bad* was with regard to its "demand side" exclusively tailored to the needs of the inner circle of the Qaddafi regime. It was not Libya's security and its national prestige in general that was meant to increase with the nuclear program but the security and the prestige of the power elite in Tripoli. We therefore have drawn the conclusion that the "demand side" of Libya's *nuclear bad* was constituted by a "private good" (ch. 5.2.2.3).

Public bads that have a "private good demand side" allow for little strategic flexibility. Complete elimination is the only reasonable strategy that *fits* into this problem structure (see Table 5). The situation would have been different if the "demand side" of the Libyan *nuclear bad* had the structure of a "club good" instead of a "private good". In such a situation one could have resorted to the strategy of "externalization". Offering "club membership" to outsiders who suffer from negative consequences would be a viable strategy to deactivate a *public bad*.³⁵⁰ However, with regard to *public bads* that are based on "private goods" interventions beneath elimination – such as containment, reduction, or inclusion of bad sufferer – are neither a suitable nor a sustainable option. A "private public bad" would still radiate "negative externalities" to the outside world. Moreover, the "rivalry in consumption", which is inherent to "private public bads", set strict limits to flexible resolution approaches. In essence, a "liberation strategy" for *private-public bads* that builds on externalization of benefits or internalization of "negative externalities" is, in essence, synonymous with elimination since it drives the "rivalry of consumption" inherent in that

³⁵⁰ In essence this is the central logic of the "nuclear umbrella" where allies are allowed to "consume" the "positive externalities" of a nuclear weapons program in the sense of "extended deterrence" with the consequence that these actors feel not threatened by the atomic bombs of their neighboring country.

particular bad type to a maximum. The intensive overuse of “private-public bads” lead likewise to their eradication.

However, elimination strategies are not alike. Due to its specific nature, the Libyan nuclear weapons program required not a radical eradication. Such an approach would represent an *overfit*. As we have explained above, Libya’s nuclear weapons program was, in essence, a *public bad* “in the making.” It was built by the “best shot aggregation”. In late 2003 the Qaddafi regime was still years away from a deployable atomic bomb, and the individual component of its nuclear weapons program pose by itself little threat to the outside world. External supply was essential for Tripoli’s nuclear efforts. Without this pivotal support from abroad – provided since the mid-1990s by the A.Q. Khan network – the *bad* production would have remained a meaningless torso which posed no significant threat to the outside world. Without a capable “best shot manufacture” potent to piece the various loose ends of the Qaddafi regime’s nuclear efforts together, it is difficult to believe that Libya would have ever been able to cross the “nuclear threshold.” An intrusive eradication of the entire nuclear weapons program including the dismantlement of its entire scientific and technological infrastructure would, therefore “overshot the mark”. Consequentially, not “radical eradication” but “targeted elimination” represents the “optimal problem solution” that would best *fit* to the nature and scope of Libya’s *nuclear bad*.

(2) The Substitution Strategy: But even “targeted elimination” would only signify a partial resolution of the *colliding interest trap*. It is relatively obvious that the “targeted elimination” would not satisfy Libya’s interest.

Analyzing the Libyan nuclear program with the help of the *public bad approach* (ch. 5.2.2.2) we came to the conclusion that Tripoli’s WMD effort is best described as an “intermediate bad” which was embedded in a broader “fabrication chain”. The nascent nuclear weapons program was not an end in itself but rather served the realization of two strategic goals – the improvement of the regime’s security and its prestige. “Targeted elimination” would have certainly done away with the “negative externalities” but it would have also interrupt Libya’s “fabrication chain” and would deprive the Qaddafi regime from an important instrument to realize its “final goods” which were – when taken in isolation – by themselves unproblematic.

Under these circumstances a lasting and sustainable negotiation outcome is unlikely. What is required is a “substitution strategy” that would fill the gap in the “fabrication chain” caused by the elimination of the *nuclear bad* and would allow an uninterrupted realization of the two “final goods”. A suitable replacement for the eliminated *nuclear bad* has thereby to fulfill two criteria:

First, a well-matching substitution designated to replace the removed “intermediate production stage” once implemented by the *nuclear bad* has to be free of “negative externalities”. Anything else would signify “a jump out of the frying pan into the fire”. In terms of a satisfying and lasting resolution of the *colliding interest trap* it makes no sense to swap one *public bad* for another.

Second, the provided substitute has to match with the “*final goods*”. A replacement that is not or only partly in line with the nature of the original “*fabrication chain*” will not meet its end. Such a *misfitting* replacement would not restore the original “*fabrication chain*”. In that sense, the “*substitution strategy*” is distinct from the provision of ordinary rewards which often only provide incentives but which do in many cases not function as “*gap filling*” replacements suitable to the “*final good(s)*” of a *bad doer*.

If these two criteria are met, the “*substitution strategy*” is contributing to a sustainable resolution of the *colliding interest trap*. The interest of the former *bad doer* would be satisfied since the replacement would restore the original “*fabrication chain*” allowing the realization of the “*final goods*” without causing any harm to the outside world (Figure 22). If, however, no substitution is provided or these two criteria are not or only partly meet, the diplomatic resolution of *public bads* is likely to result in an impasse. In such a case a former *atomic renegade state* would suffer “*nuclear phantom pains*” in light of its interrupted “*fabrication chain*” and would – in all probability – unilaterally search for a suitable replacement which would allow to resume the fabrication of its “*final good*”(s). The *atomic renegade’s* strive to fill the gap of the eliminated nuclear weapons program could, for example, lead to an intensified build-up of conventional armament. But also a clandestine restart of the nuclear program is in such a situation within the realm of possibility.

Although it appears a first glance inappropriate – if not even despicable – to provide former *bad doers* with something in return for reverting to their negative and harmful behavior, a stable negotiation outcome is only possible if the “*substitution strategy*” and the “*liberation strategy*” are applied in parallel.

(3) The Injustice Trap: Apart from *colliding interest traps*, negotiation dynamics are often burdened by an *injustice trap*. Even if both sides profit from a negotiation results an unjust allocation of gains could still undermine the achieved agreement. If one side is gaining more than the other, the willingness to implement the negotiated agreement and to comply with its requirements is likely to dwindle. Injustice is assumed to give rise to disappointment, frustration, and anger (see ch. 3.1.3.1).

In order to analyse *injustice traps*, we have introduced the concept of the Egalitarian Optimum (E+) (ch. 3.1.2.3). The Egalitarian Optimum signifies a state where the involved negotiating parties are not only gaining but where they are gaining equally. As we have already explained above in the “*fit taxonomy chapter*,” the Egalitarian Optimum is achieved if the substitution of the *intermediate bad* and the elimination of the *bad’s* “*negative externalities*” yield equal benefits for both sides. In such a situation the former *bad doer* (i.e. in our case Libya) is gaining as much as the former bad sufferer (i.e. in our case the United States but also the UK). Both the “*liberation*” and the “*substitution strategy*” are required to respond not only to the nature of a *public bad*, but they also have to be applied in a “*harmonized*” way. Although the benefits of these two strategies are often not comparable in qualitative terms (due to the fact that they often have a very different nature dependent on the involved actors), the profits that they provide have, however, to

harmonize with each other in qualitative terms.³⁵¹ For example, if a *bad sufferer* is completed liberated from all “negative externalities”, this achievement has to be taken into consideration in the substitution provided to the *bad doer*.³⁵²

With regard to the Libyan case, the crucial “fit demand” regarding the *injustice trap*, therefore, requires providing a substitute to the Qaddafi regime that is equivalent to the benefits the *bad sufferers* (the United States and the UK) would receive by the “targeted elimination” (Figure 27).

5.3.3.2 Fit & Misfit during the Pre-Agreement Phase

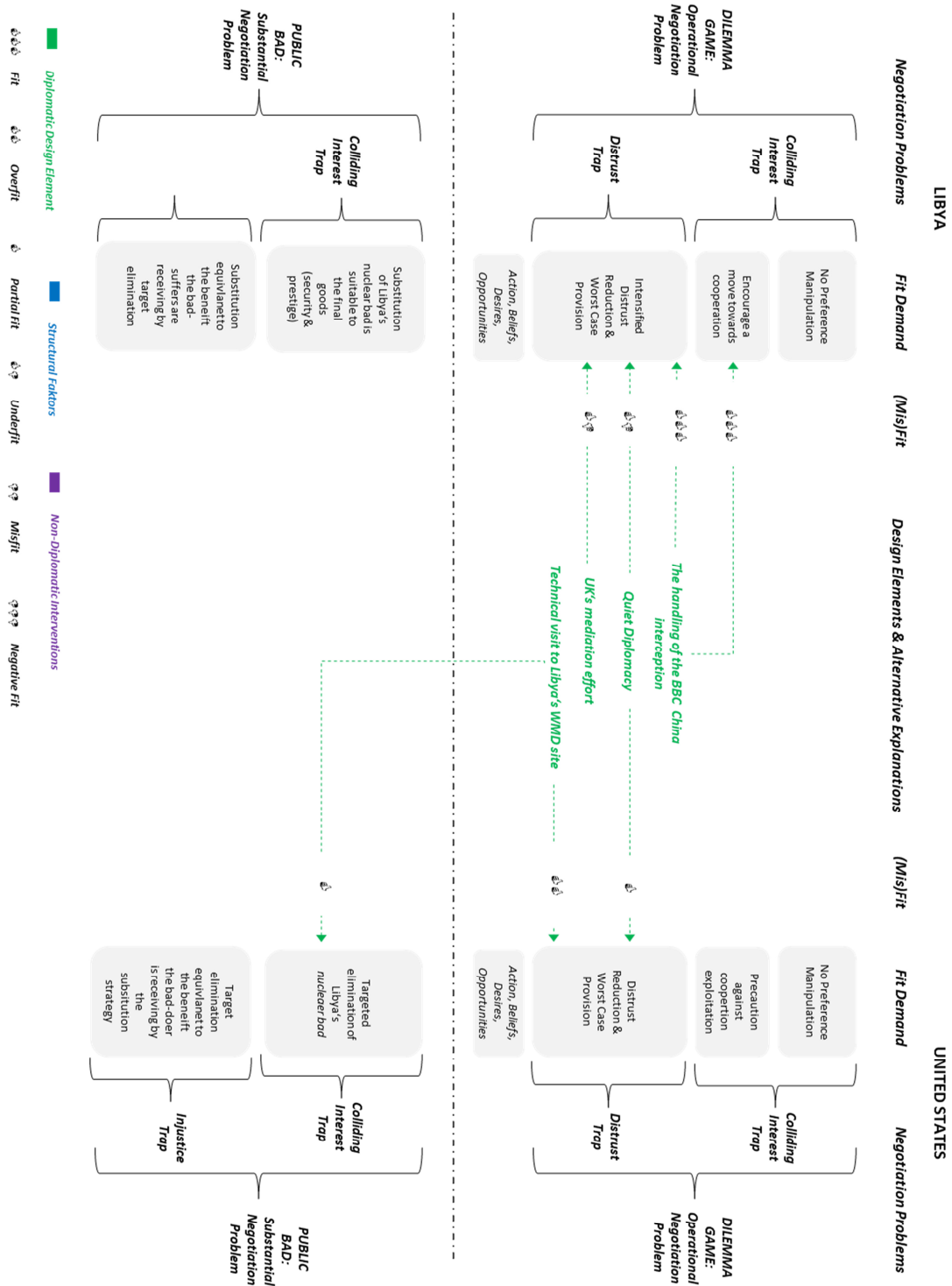
The *pre-agreement phase* was exclusively dominated by diplomatic design element (Figure 27). During this episode of the Libyan NRN structural factors or non-diplomatic interventions played no role – a fact that makes the *pre-agreement phase* clearly distinct from the previous *pre-negotiation phases*. Consequentially, the Alibi Game was exclusively resolved by diplomacy. What is in that regard also noteworthy is that none of the applied diplomatic design elements signified a *misfit* or a *negative fit*. In particular, no misplaced preference manipulation had been applied – a common mistake of mismatching diplomatic interventions of which we have witnessed in the previous *pre-negotiation phase* on several occasions. Certainly, not all diplomatic tools signified a perfect match. Rather, most of the design elements – namely “quiet diplomacy”, “London’s mediation efforts”, and the “technical visits to Libya’s WMD sites” – were marked by *partial fits*, *underfits* or *overfits*. The only factor that was an all-out success was the “interception of the BBC China” in early October 2003 and its diplomatic handling by the UK-US team. The seizure of a large quantity of uranium enrichment centrifuges on the German-owned vessel in the Mediterranean designated for the Qaddafi regime’s *fit* not only to the resolution of the Alibi Game’s *distrust trap* but also provided a crucial push for Tripoli to embark the path of cooperation as a “first mover” (Figure 27).

Although the diplomatic engagement had already reached a certain level of “maturity” and the chance of a final disarmament agreement came in the course of the year 2003 more and more into reach, the *pre-agreement phase* was still primarily dominated by the *procedural problem dimension*. With one exception (technical visits), all applied design elements were focused on the resolution of the Alibi Game. The *substantial negotiation problem* – Libya’s *nuclear bad* – played almost no role. Its resolution was left to the following *agreement* and *post-agreement phase*.

³⁵¹ At that point we shall note that in some situations *injustice traps* might be resolved automatically as a by-product of the balance resolution of the *colliding interest trap*. Equal distribution is unintentionally established by the negotiation parties.

³⁵² Note that we are able to arrive at just constellation even in those situations where the *colliding interest traps* are not or only partly resolved. As we described above (ch. 3.1.2), *injustice traps* and their resolution are independent from the *colliding interest traps*. Equal distribution of losses or of inappropriate gains is likewise a suitable approach to overcome *injustice traps*.

Figure 27: The Varieties of (Mis)Fits in the Pre-Agreement Phase



A) Worst Case Provision by Quiet Diplomacy

“Quiet diplomacy” was already a crucial part of the previous *pre-negotiation phase* (ch. 5.3.2.2). As we have outlined above, the high level of concealment contributed to the resolution of the Imposed Deadlock Game. When the trilateral talks on Libya’s WMD started in spring 2003, it was therefore only logical that this bargaining process was likewise held in utmost secrecy. According to our analysis the cloak of secrecy, which was maintained until the evening hours of the 19th December 2003 when Libya’s *nuclear reversal* was eventually made public, also had a positive impact on the resolution of the

Alibi Game's *distrust trap*. However, the relevance of this design element swapped for the two sides in comparison to the previous *pre-negotiation phase*. Having been relatively important during the Imposed Deadlock Game, "quiet diplomacy" lost significance for the Qaddafi regime and represented in the *pre-agreement phase* only an *underfit*. However, after having been rather irrelevant during the previous *pre-negotiation phase*, distrust reduction gained for the United States considerable importance starting by March 2003 – a development that made us rate the implication of this design element for the United States as a *partial fit* (Figure 27).

There is solid ground to assume that Libya held "quiet diplomacy" in high esteem when the negotiation process on WMD entered into the *pre-agreement phase*. As a dictatorial regime, Libya was in general little inclined to transparency. The high level of concealment allowed to shield the nascent diplomatic engagement away from the public and the international media and avoided potential audience costs. However, there are numerous indicators that "quiet diplomacy" lost much of its relevance it had for Libya's strategic decision making during the previous *pre-negotiation phase*. After having entered the *pre-agreement phase*, this design element became insufficient in meeting the high demand the Qaddafi regime now had in terms of distrust reduction in light of the dominating Alibi Game.

First, the function of "quiet diplomacy" as a necessary worst-case provision was fading away. In the previous *pre-negotiation phase*, concealment had played for the Qaddafi regime's decision making a considerable role. The high level of secrecy mitigated the negative consequences that were stemming from the fact that the United States was throughout the 1990s rejecting Tripoli's offers for diplomatic engagement. Now in the *pre-agreement phase* where the United States had eventually taken the decision to engage with Tripoli, the function "quiet diplomacy" once had for the Qaddafi regime lost relevance. Moreover, being the alibi player Libya was largely immune to the danger of unilateral defection by the United States. Bestowed with high strategic flexibility, Libya was in the position to easily retaliate and to protect itself against this worst-case scenario by opting for mutual defection – a state that would have been for the Qaddafi regime relatively comfortable at that time (Figure 27). Second, there is evidence that "quiet diplomacy" was perceived by Libya more and more as an indicator for the United States' lacking will to move towards joint cooperation – the outcome which the Qaddafi regime, being the alibi player, desired the most. In 2003 Tripoli feared that Washington could simply walk away from the diplomatic process, could deny that there had been a diplomatic engagement, and could recur instead to military coercion in order to force Libya into nuclear disarmament. Therefore, the Qaddafi regime showed by late summer 2003 growing unease with the unchanged high level of concealment.³⁵³ Third, the cloak of secrecy had for the Qaddafi regime – beyond

³⁵³ For example, when Tony Blair made in September 2003 another effort to convince Libya to give up its unconventional weapons programs by sending a personal letter to Muammar al-Qaddafi, Tripoli demanded that this message was not passed on by a member of the secret service – the only officials Libya had meet so far during the numerous rounds of explorative WMD talks. Instead, the Qaddafi regime insisted to see someone from the UK's political level in order to assure that the Western commitment to diplomacy was real (Corera 2006: 184-5). It was never revealed who was sent by London to convey Tony Blair's message to Muammar al-Qaddafi. But according to the BBC journalist, Gordon Corera, who

some atmospheric implications – no substantial impact in terms of *distrust reduction* at that time. The mere fact that one was talking with the United States in a forum which was withdrawn from public eyes were by itself not conducive for reducing the suspicion Tripoli continued to hold vis-à-vis Washington in 2003.

While for Libya “quiet diplomacy” lost importance compared to the role it played in the previous *pre-negotiation phase*, the opposite applied to the United States. While in generally interested in holding any engagement with the disliked Qaddafi regime firmly under the cloak of secrecy, concealment had for the United States prior to spring 2003 no operational relevance (see ch. 5.3.2.2). What made George W. Bush eventually give his “green light” to the diplomatic encounter was not the *practice* of “quiet diplomacy” but the *prospect* that the upcoming talks with Libya would be held in secrecy.

When the diplomatic process entered into the *pre-agreement phase*, this picture changed. Concealment became for Washington an actual diplomatic tool. It transformed from a hypothetical to a practical instrument to lower the risk of the worst-case scenario. The high level of secrecy was deemed important since it shielded the talks with the Libyans away from the media and domestic critique (Interview with R. Joseph, Nov. 2011, Annex 16; see also: Litwak 2007: 185; St. John 2002: 190-1). Correspondingly, Tim Dowse, a British diplomat who participated in the talks with the Libyans, said that the nascent negotiations with the Libyans were “held extremely tight because we had the concern that any sort of leak could wreck the whole thing” (Interview with T. Dowse 2012 Annex 16; see also: Interview with S. Hadley June 2012, Annex 16).

However, “quiet diplomacy” was not only important for hiding the engagement with Libya from the public. Washington held this design element – in all likelihood – also in high esteem because it provided against the danger of Libya turning its back on the diplomatic process and returning to the aggressive anti-American foreign policy it had pursued in the past. Reportedly, Washington was in summer and fall 2003 still fearful that the Qaddafi regime could choose unilateral defection (e.g. Corera 2006: 185; Joseph 2009).³⁵⁴ Very similar to the logic that applied to Libya in the early 1990s (ch. 5.3.2.2), “the cloak of secrecy” would have in such a case helped Washington to mitigate the negative consequences and would have allowed simply to deny the existence of a diplomatic engagement with Libya.

The relevance the Bush junior administration associated to “quiet diplomacy” is reflected by the relatively small circle of insiders who were involved in this diplomatic effort. Unlike the talks with Libya on the Lockerbie case, which started in spring 1999, both the State Department and the Department of Defense were completely excluded from this process. Throughout the entire *pre-agreement phase* the engagement with the Qaddafi regime was exclusively run by US intelligence community. Apart from a handful of key figures at the CIA

investigated this episode of British foreign policy, it was a “sufficiently distinguished figure to show the Libyans that this was a serious negotiation” (Corera 2006: 185)

³⁵⁴ For example, Robert Joseph recalled that those of the Bush junior administration that were involved in this diplomatic encounter were very skeptical about Libya and were assuming that the Qaddafi regime would simply “hedge its bets” (Interview with R. Joseph Nov. 2011, Annex 16).

and the White House, other members of the Bush junior administration were not even informed – not even Secretary of State, Colin Powell, or Secretary of Defense, Donald Rumsfeld (e.g. Joseph 2009; Rice 2011; Suskind 2006; Tobey 2014).³⁵⁵ A similar level of secrecy was applied in London where apart from some senior MI6 officials, Foreign Secretary Jack Straw and Defense Secretary Geoff Hoon were the only members of the Prime Ministers Cabinet who were let in on the tripartite talks on Libya’s WMD (Evans 2004).

However, while the relevance of “quiet diplomacy” has increased for Washington at the turn from the *pre-negotiation phase* to the *pre-agreement phase*, we would rate the impact of this particular design element not higher than a *partial fit* (Figure 27). While the high level of concealment was important to provide against the worst-case scenario of unreciprocated cooperation, this design element was nevertheless unlikely to contribute to actual distrust reduction.

B) The UK’s Ongoing Involvement

Apart from “quiet diplomacy” London’s ongoing involvement was another constant factor that remained in place when the nascent negotiation process on Libya’s WMD programs entered from the *pre-negotiation* into the *pre-agreement phase*. The explorative talks which started in spring 2003 had a tripartite nature and the engagement with the Qaddafi regime was jointly shouldered by London and Washington. Reportedly, Steven Kappes, who steered the talks with the Libyans for the Bush junior administration, was always accompanied by British counterpart, the MI6 senior officer Mark Allen. However, the role of the “biased mediator” London had played in the previous *pre-negotiation phase* (ch. 5.3.2.2) lost relevance by April 2003. While the UK’s efforts to persuade the Qaddafi regime to reverse its WMD program remained in the state of an *underfit*, the positive mediation effects the Blair government had on Washington during the resolution of the Imposed Deadlock Game vanished – in all probability (Figure 27).

We found no indication that the Blair government had between April and December 2003 any meaningful influence on Washington’s stance in the engagement with Libya. Rather, the UK and the United States became highly intertwined during this phase. The historical evidence suggests that these two actors almost acted as a monolithically player in the talks with the Qaddafi regime. For example, Tim Dowse described the British-American cooperation during the pre-agreement phase as “very close”. Coordination between the

³⁵⁵ But the high level of secrecy lead unintendedly also to some negative side-effects. Those members of the administration who were not involved – first and foremost John Bolton (Undersecretary of State for International Security and Arms Control) – undertook actions which contradicted Washington’s stance involving the danger that the U.S. strategy would appear inconsistent. For example, in June 2003 John Bolton publically accused Libya for having build-up a bioweapons program – a reproach that was not only misplaced with regard to the parallel disarmament negotiations but also overdrawn in light of the inexistent Libyan bioweapons (Bolton 2003).

two capitals was tight and at “every stage of the diplomatic process” the United States and the UK “agreed beyond the next step” (Interview with T. Dowse Feb. 2012, Annex 16).³⁵⁶

For the sake of political influence and close relations to one of the conflict parties, neutrality and impartiality play subordinated roles for “biased mediators”. Therefore, his particular type of third party intervention walks “on a thin line”. The danger to transform from a mediator into a conflict party is always high. In hindsight, it appears that London had cross this line during the *pre-agreement phase*. The “best explanation” we could reveal based on the historical evidence is that the Blair government had not maintained the necessary strategic distance required to exceed influence on Washington as a mediator. The positive role London had played for the United States’ decision-making in the resolution of the Impose Deadlock Game therefore lacked in the *pre-agreement phase*.³⁵⁷

But abandoning the role of the “biased mediator” meant in no way that the Blair government would have improved its clout on Tripoli’s decision making. In September 2003 the UK undertook again a mediation effort towards Libya in the form of a personal letter Tony Blair wrote to Muammar al-Qaddafi asking for further experts visit to Libya’s clandestine WMD sites. While this step was, reportedly, welcomed by the Libyan leader, it had – in all likelihood – no meaningful impact beyond atmospheric improvements (MacLeod 2006; Corera 2006: 185). In essence, with the exchange of letters, Tony Blair reran an approach he had already used in summer 2002 (ch. 5.3.2.2). Since the strategic setting had changed considerable and Libya was now engaged in direct talks with the West, a simple “replay” of last year’s mediation initiative was unlikely to create new momentum in terms of confidence building. The Blair government’s mediation efforts towards the Qaddafi regime, therefore, remained below its possibilities – a finding that made us rate this diplomatic design element as an *underfit* (Figure 27).

C) The Interception of the BBC China & its Diplomatic Handling

The seizure of the BBC China in early October 2003, as well as the diplomatic handling of this intelligence operation, had a decisive impact on the disarmament negotiations. The character of the *pre-agreement phase* was changed by the interception of the German-owned vessel, which had boarded among its cargo five 40-foot containers with nuclear weapons-related equipment dedicated for the Libya’s WMD program. According to Robert Joseph, it was only the by seizure of the BBC China that the diplomatic process gained momentum after it had entered by summer 2003 into an impasse (Interview with R. Joseph, Nov. 2011, Annex 16).

³⁵⁶ A similar description was given by Stephen Hadley, at that time Deputy National Security Advisor. Asked about the relationship between the United States and the UK during the negotiation process with the Libyans in 2003, Hadley said “it was a joint approach. We shared intelligence and cooperated in the operational aspects” (Interview with S. Hadley, June 2012, Annex 16). And according to Robert Joseph, the Bush junior administration’s principal negotiator, London and Washington worked “very closely together” at that time (Interview with R. Joseph Nov. 2011, Annex 16).

³⁵⁷ While not acting as a mediator anymore, the UK slipped into the role of a facilitator. Since the UK’s embassy in Tripoli was already reopened in the late 1990s, London provided crucial diplomatic infrastructure that facilitated the interaction with the Libyans during the *pre-agreement phase* (Frantz & Collins 2007: 307).

Almost all previous studies on Libya's nuclear disarmament have given considerable attention to the BBC China incidence (e.g. Bowen 2006; Frantz & Meyer 2005; Joseph 2009: 7; Rice 2011: 249; Suskind 2007). The seizure of the clandestine A.Q. Khan delivery to Libya's nuclear weapons program was mainly described as "intelligence leverage" (Bowen 2006). It was believed that it had put additional pressure on Muammar al-Qaddafi, forced him to forego the evasive and fickle strategy Libya had pursued in the three-way talks during summer 2003, and stirred him towards a more cooperative stance in WMD diplomacy. However, it appears that this view is misleading. With the help of our *fit taxonomy*, we are able to show that past scholars have misinterpreted the function the BBC China interception had played for Libya's *nuclear reversal*.

It is beyond question that the seizure of the vessel shocked Tripoli. It showed Muammar al-Qaddafi and his advisors that Western intelligence was able to track down his clandestine proliferation efforts and had the capability to thwart the plan to build a nuclear weapons capacity (e.g. Commission on the Intelligence Capabilities of the United States 2005: 252; Joseph 2009: 16).³⁵⁸ However, the historical evidence suggests that it was not the seizure of the BBC China but rather the diplomatic handling of this event by the US-UK negotiation team that causes crucial impact on Tripoli. The way Washington and London dealt with this disclosure had – in all probability – an important confidence-building effect on the Qaddafi regime. And since this design element signified a crucial factor that helped Libya to escape from the *distrust trap*, we rate it as a *fit* (Figure 27).

Immediately after the interception on October 4, Washington and London worried about negative consequences for the disarmament negotiations with Libya (MacLeod 2006; Tobey 2014). According to a senior US official who had been interviewed by Robin Wright under anonymity, there was a tangible danger that the seizure would "derail the effort" to dismantle Tripoli's WMD programs (Wright 2004). Already three days after the interception on October 7, Steven Kappes and Mark Allen flew to Tripoli and meet with Muammar al-Qaddafi. Apart from repeating their demand for technical visits to the sites of Libya's WMD program, allaying Tripoli's concerns which had sharply risen after the seizure was the major objective of their conversation. Reportedly, Kappes and Allen made clear that the interception of the BBC China would remain under the "cloak of secrecy" and that it was on no account the prelude for a public campaign to shame the Qaddafi regime for its illegal proliferation efforts (Suskind 2006; Joseph 2009: 7; Tobey 2014).³⁵⁹ Stephen Kappes was

³⁵⁸ Time Dowse, British Foreign Office, said for example: "We did reveal it [the interception of the BBC China] to the Libyans (...) and they did realized how good our information was and this clearly shocked them" (Interview with T. Dowse, Feb. 2012, Annex 16). John S. Wolf, US Assistant Secretary for Non-Proliferation, made a similar observation: "The capture of the BBC China helped make clear to Libya that we had a lot of information about what it was doing" (Rubin 2014: 143; Frantz & Meyer 2005).

³⁵⁹ After Libya's *nuclear reversal* rumors emerged that Libya had used the BBC China as a "bargain chip" for the disarmament talks (e.g. Crawford 2004). The delivery should have underscored that Libya was really determined to build up a nuclear weapons program. Libya had the hopes, the argument goes, to rise thereby its stakes in the negotiation process, increase its leverage, and achieve a better position for demanding rewards and compensation for its *nuclear reversal*. According to these rumors, it had been the Libyans themselves who gave the tip that lead to the interception of the BBC China (Crawford 2004). This argument appears however unlikely in light of Libya's motivation we have survey in this chapter. Moreover, when I asked Tim Dowse about these allegations he said: "No – Certainly not. They certainly didn't try to do that" (Interview with T. Dowse, Feb. 2012, Annex 16). In addition, it was reported that Mr.

quoted to have said during the meeting with Muammar al-Qaddafi: “You are the drowning man and I am the lifeguard” (Frantz & Collins 2007: 310).

The interception of the BBC China was presumably one of the most successful intelligence operations in the entire history of counter-proliferation. The amount of confiscated nuclear weapons-related equipment was by all means spectacular (Commission on the Intelligence Capabilities of the United States 2005: ch. 6). In 2003 it perfectly fit into the Bush administration’s commitment to pursue a more robust and active policy towards the spread of WMD (e.g. National Strategy to Combat Weapons of Mass Destruction, December 2002). If this successful operation had been hailed in public, it would have underscored the Bush junior administration’s firm stance in terms of counter-proliferation – a tempting prospect in the light of the crescendo of critique on the U.S. intelligence inglorious performance regarding WMD in Iraq. Moreover, the seizure of the BBC China would have perfectly matched to the Bush junior administration’s objective to establish a new global non-proliferation regime (Meier 2008). In May 2003 Washington had launched the so-called Proliferation Security Initiative (PSI). Aiming to improve the international framework for like-minded states to interdict clandestine shipments of WMD and related items by air, land and sea, the BBC China incident appears as a textbook example of how the PSI was meant to operate. While ten states had joined the PSI at its inauguration, Washington was in fall 2003 actively lobbying for further support to this initiative. Making the seizure of the BBC China public would have considerably bolstered these efforts.

Given that there were numerous tempting reasons to “go public”, the decision to not trumpet this big intelligence success to the media was a tough decision in October 2003. The White House staff weighed the pros and cons. After all, the interdiction of the BBC China had been authorized directly by George W. Bush and had therefore high priority. After some considerations Robert Joseph and Stephen Hadley came, reportedly, to the decision to keep the secret in order to not jeopardize the diplomacy engagement with the Qaddafi regime. Reportedly, President George W. Bush and his Cabinet approved this decision (Tobey 2014).

We do not know whether Muammar al-Qaddafi and his close entourage were fully aware how great the sacrifice was that the Bush junior administration made by keeping the seizure of the BBC China secret. What was, however, reported is that Tripoli highly appreciated Washington’s accommodative step to maintain strict silence. According to Saif al-Islam it was in particular the discreet handling of the BBC incidence that increased Muammar al-Qaddafi’s trust in the United States. “We realized” Saif al-Islam said later in 2004 “that we were dealing with friends and sincere people” (MacLeod 2006; Tobey 2014). The handling of the BBC China seizure was the first time that Tripoli could really see that Washington was a trustworthy negotiation party. Equipped with a “smoking gun” of Libya’s proliferation effort, Washington had in essence all what it needed to launch a public shaming campaign against Libya. That Washington was not opting for that choice but was instead willing to continue the diplomatic process, proofed Tripoli’s worst case thinking

Ghanem, the Libyan Primer Minister in 2003, was bursting out in laughter when he was asked whether this allegations were true (Fidler, Huband & Khalaf 2004).

wrong. It sent a strong confidence-building signal. Tellingly, the immediate outcome of the meeting between Kappes, Allen and Muammar al-Qaddafi on 7th October was that Tripoli eventually gave “green light” for the technical visits to the clandestine WMD side – a demand the US-UK team had put forward since spring 2003 only to be constantly rebuffed by Tripoli.

Thus, there is solid ground to assume that the interdiction of the BBC China and in particular its discreet handling by the US-UK team signified a design element that *fit* to the requirement of intensified distrust reduction.³⁶⁰ We assume that the entire negotiation process would have taken a different turn, if the Bush junior administration had not decided to keep the seizure of the BBC China secret. If this interception had been made public, the Qaddafi regime would have – in all probability – walked away from the diplomatic engagement and had instead returned to the antagonistic and confrontation ridden pattern in had pursued in its policy towards the United States during past decades.

Consequentially, the suggestion put forward by past scholars that the seizure of the BBC China was a coercive tool that forced the Qaddafi regime to advance in the diplomatic encounter is very likely to be misleading. Apart from the historic evidence we just cited, this argument is at odds with the nature of the *procedural negotiation problem* Libya and the United States faced during the *pre-agreement phase*. Being the alibi player Tripoli was – in all probability – highly interested in joint cooperation with the United States before the seizure of the BBC China. It was instead distrust that prevented the North African country to embark a more cooperative pathway (Palkki & Smith 2012: 272; Corera 2006: 185).³⁶¹ Moreover, that Libya was running a nuclear weapons program and that the U.S. intelligence knew about it, was for all parties involved in the trilateral talks not a secret (Frantz & Meyer 2005). The interception of the BBC China was a shock for Tripoli but it was – in all probability – not a completely unexpected event. The seized delivery of the large amount of loaded uranium enrichment centrifuges was an important evidence of Libya’s quest for the atomic bomb. However, in strategic terms it was not new information but rather a confirmation of what all players already knew of.

However, while the BBC China interception and its handling had primarily implications for the *distrust trap*, this diplomatic design element did also contribute to the resolution of the *colliding interest trap*. Certainly, it is unlikely that the interception was a preference manipulation in favor for cooperation – as suggested by past scholars. But there is ground to believe that this incident encouraged the Qaddafi regime to act according its desires. Being the alibi player Libya wanted cooperation. The BBC China was the nudge that made Tripoli take the first step in that direction (Figure 27).

³⁶⁰ It appears that intersections of clandestine shipments played already in the late 1990s a certain role for the Qaddafi regime’s inclination. Although public available information of this episode remains murky, it was reported that in May 1999 the Great Britain intercepted a delivery of missiles component on their way to Libya. Two months later Libya and the UK established diplomatic relations (Rubin 2014: 141).

³⁶¹ It was reported that distrust in Tripoli was still very high during the course of the year 2003. The power circle in Tripoli was concerned that a negotiated reversal of its WMD programs would make Libya appear weak. In particular in the high times of the second Iraq War, the Qaddafi regime wanted to avoid the impression to have backed down to the West in light of Washington’s show of force (MacLeod 2006).

Typically for an Alibi Player, Libya's bargaining strategy was oscillating on cooperation-confrontation continuum throughout the *pre-agreement phase*. While the series of explorative talks were kicked off by the cooperative offer put forward by Saif al-Islam and Moussa Koussa in London in March 2003, Libya showed throughout spring and summer a rather confrontational bargaining pattern. Most noteworthy in that regard is the fact that Libya started even to deny the existence of a WMD program – a step back in comparison to Tripoli's relative accommodative opening (Rice 2011: 249; Interview with R. Joseph, Nov. 2011, Annex 16; Interview with T. Dowse, Feb. 2012, Annex 16). By October 2003, after the seizure of the BBC China, this pattern however changed. Libya not only allowed for technical visits to its WMD sites but appeared in general more open and accommodative. Tellingly, in an interview given to Bruce St. John Saif al-Islam gave already in October 2003 the hint that Libya was about to make soon an "important announcement" (St. John 2004: 397).

It is likely that this changing pattern is not only attributed to the reduction of *distrust* but also the result of an encouraging nudge Libya got from the seizure from the gentle handling of the BBC China incident. Libya was now acting as a "first mover" in terms of joint cooperation – a requirement that we have identified as crucial for the resolution of the Alibi Game (ch. 5.3.3.1, see also: Figure 27).

D) Technical Visits to Libya's WMD Sites

On 7th October 2003, Libya eventually gave its "green light" to technical visits to the sites of its clandestine WMD program – a request the US-UK negotiation team had put forward since spring 2003.³⁶² With that step Libya underscored that it was ready to embark the pathway of *nuclear reversal*. In late October (19th - 29th October) and in early December (1st - 12th December) a joint team of MI6 and CIA WMD-experts inspected Libya's secret WMD facilities (Fidler, Huband & Khalaf 2004; Bowen 2006: 66; Evans 2004; Miller 2006; Tucker 2009). The transparency provided to the Western fact-finding mission increased from the first to the second visit (Corera 2006: 188-9). While in October 2003 Libya had allowed access to the facilities of its chemical weapons and ballistic missiles programs, it unveiled its nuclear weapons program only during the December visit.³⁶³ Towards the end of the second visit, Tripoli put its will for disarmament in concrete terms. Moussa Koussa conveyed to his western counterparts that Libya was ready to admit its proliferation efforts, disarm its nuclear and chemical weapons program, host inspections by the IAEA and by the OPCW, and abide by the MTCR (Joseph 2009: 7-8).

There is solid ground to assume that these visits, which are best described as a measurement of "ex-ante verification," represent the pivotal confidence building impetus

³⁶² The term "inspections" which was originally used by the Western side saw vehemently resistance by Tripoli. The representatives of the Qaddafi regime, however, became more relaxed if London and Washington started to speak of "visits" instead (Tenet 2007: 292).

³⁶³ It was, for example, at the second visit in early December 2003 that it became clear that Libya had no active biological weapons program – a concern that had haunted Western experts for a long time. The Qaddafi regime had only briefly toyed with the idea to set up such a program but had never achieved substantial progress in that regards (Tucker 2009: 363).

for the United States. This design element matched to the distrust reduction required to solve the Alibi Game. As Libya was making credible and sound advance in terms of joint cooperation, Washington was able to allay its long-held suspicion vis-à-vis the Qaddafi regime.³⁶⁴ But at the same time, it appears that this type of ex-ante verification marked an *overfit*. There is evidence that the technical visits were too intrusive, implied the danger of depriving Tripoli of its diplomatic leverage for the future disarmament talks, and had, therefore, the potential to jeopardize the solution of the entire Alibi Game.

Since Libya's unconventional weapons programs were first and foremost pointed against a possible US aggression, Libya would have hardly envisioned that CIA weapons experts and their British colleagues from MI6 would be the first "sightseer" of its clandestine WMD facilities. That these least likely visitors were now welcomed by Libya, marked a sea change that was clearly understood by decision makers the United States. After Libya had allergically refused throughout summer 2003 any form of on-sight-inspections to its WMD programs, Tripoli's consent and the ample transparency reportedly affected the strategic considerations of the relevant policy makers in Washington. It was a clear signal of a new momentum. That Libya revealed aspect about its program that Western intelligence was not aware of was in particular trust building. Reflecting the technical visits Tim Dowse (British Foreign Office) later said, for example, "(...) it was the fact that they told us something that we didn't know. That gave us the high confidence that this time they are ready to deal with us" (Interview with T. Dowse 2012). The joint US-UK inspector team were for example ushered by their Libyan hosts to a "turkey farm" which turned out to be a covered site for chemical weapons production (Interview with Tim Dowse 2012; Tobey 2014). Moreover, it was revealed to the surprised Western experts that Libya's chemical weapons program had not only produced the blister chemical warfare agent "mustard sulfur" but also had started to fabricate small amounts of nerve agents (Tucker 2009). And a moment that caused a particular surprise was when the Libyans handed over towards the end of the second visit blueprints for nuclear warhead design which they had shopped from the A.Q. Khan network (Bowen 2006: 66; Frantz & Meyer 2005; Tucker 2009; Miller 2006; Evans 2004).³⁶⁵

³⁶⁴ In fall 2003 the Bush junior administration had still considerable doubts about Libya's sincerity. In particular that Tripoli displayed an evasive and fickle bargaining strategy and started to deny its WMD programs, which it had already admitted at the beginning of the *pre-agreement phase*, caused concern in Washington. The former National Security Advisor and later Secretary of State, Condoleezza Rice, said for example in her memoirs: "As we were getting close to agreement, though, the Libyans started to balk (...). It looked as if the whole effort was unraveling as Tripoli started to deny the existence of programs to which it had already admitted" (Rice 2011: 249). Uncertainty that Libya would in the end not cooperate is also reflected in a debriefing Stephen Kappes reportedly gave at the White House in September 2003. He said: "the Libyans have multiple reasons for wanting to do a deal now (...) Still – Tripoli's track record is such that they would likely get cold feet before the deal was done" (Tenet 2007: 293). But also Washington's brother-in-arms during the engagement with Libya, the Blair government, had at that time considerable concerns. According to the BBC journalist, Gordon Corera, "[t]here was no doubt in the minds of the Prime Minister's closest national security advisers that Gaddafi wanted to rejoin the international community but that was not the same as being willing to give up all his weapons" (Corera 2006: 183).

³⁶⁵ In the literature we occasionally encounter the argument that the Bush junior administration pressed for early technical visits as a farsighted anticipation of the later involvement of the U.S. Congress. If the NRN were about to proceed, it was expected by Washington that Libya would demand a swift suspension of all sanctions the United States had imposed on the North African country. However, such a

Asked about the decisive turning point in the US expectation vis-à-vis the Qaddafi regime during the WMD reversal diplomacy Robert Joseph said for example “It didn’t really change for me until the second visit (...) that was when I said to myself: I think they probably made a strategic decision to give up their WMD” (Interview with R. Joseph 2011). Later Robert Joseph’s boss, National Security Advisor Condoleezza Rice, described the technical visits and its consequences in similar ways: “At first, we didn’t put much faith in the overture, but we ultimately decided to send a joint CIA/MI5 team to assess the situation. It returned with a positive report: Qaddafi was serious” (Rice 2011: 249).³⁶⁶

The technical visits had clearly a positive impact on Washington’s distrust reduction. However, we assume that this diplomatic design element represented – in all probability – an *overfit*. As an instrument of confidence building, it appeared overdosed and too intrusive implying the danger of provoking unintended negative side effects. After all, Libya was exposing the lifelines of its WMD program – a step that was close to unilateral disarmament.³⁶⁷ Libya revealed almost all of its nuclear weapons programs *before* the negotiation process was completed. Thereby, the Qaddafi was giving away much of its diplomatic leverage it could make use of during the final *agreement phase*. According to Frantz and Collins, who wrote an investigative study on the A.Q. Khan network which also addressed in length the Libyan nuclear weapons program, the technical visits provided London and Washington with “enough information to bomb the programs out of existence if need be” (Frantz & Collins 2007: 311). Thus, the technical visits were close to leaving the realm of diplomacy and almost represented non-diplomatic intervention.

Although it never played out and Libya continued its willingness for cooperation throughout fall 2003, the far-reaching “ex-ante verification” implied the danger of re-establishing Libya’s distrust. Being the alibi player, Libya was at that time sensitive to any signs of US

step would have required a positive vote by the U.S. Congress which was expected to be more inclined to comply with this request if the White House would have been able to provide inventory about the scope of the Libyan WMD program (Fidler, Huband & Khalaf 2004; MacLeod 2006; Braut-Hegghammer 2008: 68). While this argument seems plausible we have not found additional evidence for this consideration.

³⁶⁶ This view was also echoed by Paula DeSutter (Assistant Secretary of State for Verification and Compliance) at a Hearing before the U.S. Senate in February 2004. According to DeSutter it had been these expert visits that laid the ground work for the later successful disarmament of Libya’s WMD programs (U.S. Congress (2004)).

³⁶⁷ A moment where the over-scaled nature of the technical visits became in particular obvious was in meeting held between Stephen Kappes, Mark Allen and Moussa Koussa in London in November 2003. Not fully content with the first expert visit where Libya has not fully unveiled its nuclear weapons program, Allen and Kappes were demanding for more information and were applying an “intelligence leverage”. A compact disc was handed over to Moussa Koussa containing the record of an intercepted phone call Maqtoub Maqtoub, the head of the Libyan nuclear weapons program, had made on 28th February 2002 with Abdul Kadir Khan, the operation leader of A.Q. Khan network. Reportedly, the eavesdropped conversation revolved around technical details of Libya’s nuclear weapons program (Miller 2006; Tenet 2007: 296; Joseph 2009: 56; Corera 2006: 190). Certainly, the Libyans became at the following visit in early December more open. In light of the trust building impact of the BBC China incidence, it is however questionably whether the applied “intelligence leverage” was really conducive in that regards or whether it contributed to the over-scaling of the “ex-ante verification”. By November 2003 Libya had already demonstrated its willingness to cooperate and had shown openness in the technical visits that was remarkably in the light of the traditional hostility of the American-Libyan relationship – given that the diplomatic process was still in the *pre-agreement phase* were Libya could have not been certain that the United States was in the end really willing to negotiated a final disarmament deal. Moreover, after the spectacular seizure of the BBC China which revealed thousands components of uranium enrichment centrifuges, it is questionable whether an intercepted phone conversation could have at all exceed any additional pressure on the Qaddafi regime.

dishonesty. The intrusive inspections by the American and British WMD experts could have been easily interpreted in that light. The danger of a “zero-sum trust building” – increasing the U.S. confidence while decreasing Libya’s trust – was high.

Certainly, it is difficult to say how much distrust reduction is sufficient to allow the non-alibi player (i.e. the United States) agree to joint cooperation. But it is likely that Washington would have been able to move to the next step of direct negotiations on a final disarmament agreement also with the less intrusive on-site inspection.

But the technical visits to Libya’s clandestine WMD sites had not only an impact in terms of the *procedural negotiation problem*. Rather, this diplomatic design element also affected the *substantial negotiation problem* and marked an additional step to dismantle *Libya’s nuclear bad* (Figure). The CIA and the MI6 began to investigate the Libyan nuclear weapons program starting by the early 2000s – in many respects a side product of the effort to track down the A.Q. Khan network (Frantz & Collins 2007: 305; Commission on the Intelligence Capabilities 2005). By 2003 London and Washington were however still uncertain about the actual scope of the Qaddafi regime’s nuclear weapons program. From that point of view, technical visits were regarded as an essential tool to gain further intelligence. When Tripoli eventually agreed to allow these visits the MI6 and CIA intelligence officers involved in the on-site inspections were eager to disclose as much of the Libyan weapon program and push as much as possible for the additional information.

Stocktaking is not the same like dismantling. But the inventory the UK and the US made of Libya’s nuclear program during the two visits were the necessary precondition for the later efforts that lead to the elimination of the “negative externalities” of *Libya’s nuclear bad*. In that sense, we evaluate the technical visits as a design element that had at least *partial fit* for this particular “fit demand”.

5.3.4 Agreement: Nuclear Bad & Continued Alibi Game

In early December 2003, the diplomatic process eventually entered into the *agreement phase*. In a relatively short period of time, Libya and the United States, supported by the UK, negotiated a disarmament accord that was announced in the evening hours of the 19th December 2003. Most of the work was done in a single meeting, which took place on 16th December in London. Taking less than three weeks, the *agreement phase* was the shortest episode of the entire diplomatic process on Libya’s *nuclear reversal*. However, its swiftness shall not blur the fact that the *agreement phase* was still relatively “bumpy”. The negotiating parties had to overcome several obstacles that all had the potential to wreck the diplomatic process. And the negotiation outcome – the disarmament accord that initiated Libya’s *nuclear reversal* – was in the end marked by a series of shortcomings. In particular, the negotiated agreement announced on the 19th December did not address all aspects of the *substantial negotiation problem* (i.e. Libya’s *nuclear bad*). Thus, when the *agreement phase* came to an end in late December 2003, the U.S.–Libyan bargaining process was haunted by challenges that needed to be addressed in the following *post-agreement phase*.

5.3.4.1 Procedural & Substantial Negotiation Problems

The diplomatic task the players faced was changing when the negotiation process entered in early December 2003 from the *pre-agreement phase* into the *agreement phase*. They were not anymore confronted with the question whether or not to start direct negotiations on a final disarmament accord. Instead, they had to weigh the decision whether they were willing to give their consent to a final disarmament agreement. To agree or not to agree was the crucial question (Figure 22).

Figure 22: Alibi Game during the Agreement Phase

		USA	
		agree to the disarmament accord [C]	not agree [D]
Libya	agree to the disarmament accord [C]	4,3 P+	1,4
	not agree [D]	2,1	3,2 M,N

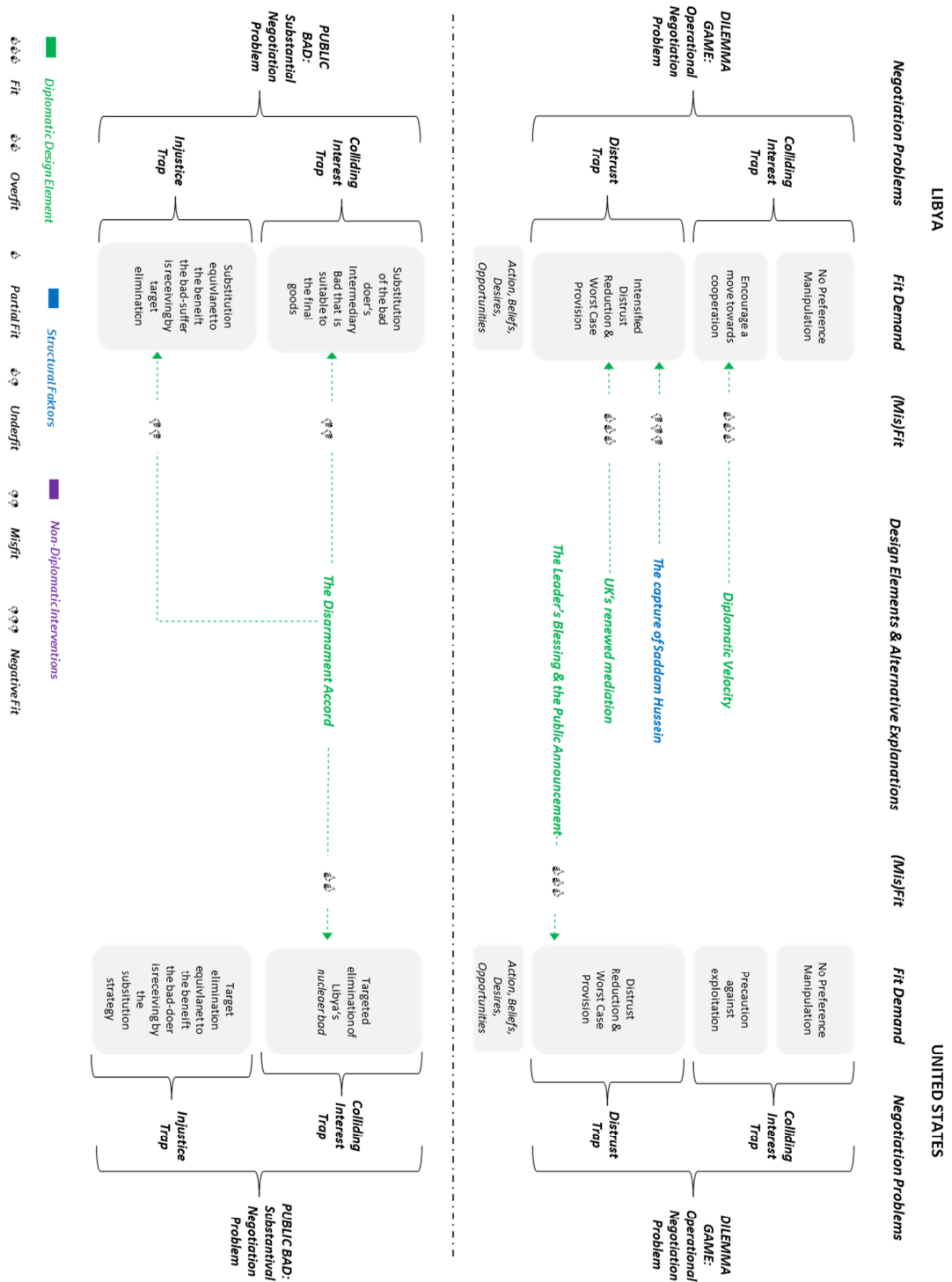
US preference hierarchy: DC > CC > DD > CD
 Libya’s preference hierarchy: CC > DD > DC > CD

C = Cooperation D = Defection M = MaxiMin Solution N = Nash Equilibrium P+ = Qualified Pareto Optimum

But while the diplomatic task was changing, the nature of the 2x2 dilemma game that underlay this strategy constellation remained stable. Similar to the *pre-agreement phase*, the United States and Libya were confronted with an Alibi Game. Like in the previous episode, the *procedural negotiation problem* the two sides were facing was determined by this particular game constellation. Consequentially, the relation between the two parties – the US–UK team on one side and the Qaddafi regime on the other – remained relatively tense. Despite all the preparatory work that had been executed in the *pre-agreement phase*, Tripoli and Washington still faced the very same procedural negotiation challenge. Despite nine months of direct talks and two on-site inspections at Libya’s WMD facilities, distrust still prevailed and the interest between the players were still ridden with conflicts.

In that sense, the *agreement phase* was the only episode in the negotiation process on Libya's *nuclear reversal* where the trend of a constant improvement of the *procedural negotiation problems*, which we observed in the diplomatic phases since the late 1980s thus far, was interrupted. The strategic constellation had not become more benign in comparison to the previous phase.

Figure 28: Varieties of (Mis)Fit during Agreement Phase



However, not only the *procedural problem*, but also the *substantial problem constellation* (i.e. Libya's *nuclear bad*) remained by and large unchanged. Since the negotiating parties had in the previous diplomatic episodes only addressed certain parts of Libya's *nuclear bad*, the actual resolution of the *substantial negotiation problem* was still pending. Since the

diplomatic handling of Libya's WMD programs was squeezed into the *agreement phase* into a period of less than three weeks, it is in hindsight little astonishing that the outcome remained unsatisfactory in the end.

5.3.4.2 Fit & Misfit during the Agreement Phase

Libya's *nuclear bad* had played only a subordinated role during the previous phases of the U.S.–Libya bargaining dynamic. In the *agreement phase*, however, this challenge became a major focus of the NRN process. The attempt to agree upon a disarmament accord that would bring an end to Libya's *nuclear bad*, absorbed most of the diplomatic activities in December 2003. At first glance, the result of these efforts – the disarmament accord of 19th December – appears like an outstanding success. It initiated Libya's *nuclear reversal*, significantly curtailed Tripoli's strategic missiles capability, and established an intrusive verification regime. But as soon as we apply the *public bad approach*, we reveal that the outcome of the *agreement phase* was less promising. Rather, Libya's *nuclear bad* was only partly resolved. The disarmament accord was biased in favor of the United States. By agreeing to reverse its nuclear weapons program, the Qaddafi regime lost an important power tool without receiving tangible compensation in return.

In essence, the biased nature of the disarmament accord is primarily explained by the fact that the negotiating parties tried to resolve the *substantial negotiation problem* before they had settled all *procedural negotiation problems*. The talks that eventually led to the agreement took place in a daylong session on 16th December 2003. At that time, the Alibi Game was still “under full steam”. The *colliding interest* and *distrust trap* of this game constellation were still unbridled when the tripartite talks on the final disarmament accord started. Efforts to resolve this problematic constellation – such as the UK's mediation effort – took place *after* the key features of the disarmament accord were already negotiated. Thus, many of the diplomatic design elements applied during the *agreement phase* simply too late to have a meaningful impact for the resolution of the *substantial negotiation problem*.

A) The Capture of Saddam Hussein

On 14th December 2003, two days before the US–UK team met with Moussa Koussa and those accompanying him in London to negotiate the final disarmament accord, US special forces pulled the former Iraqi dictator Saddam Hussein out of a spider hole on a farm near the city of Tikrit. Later, members of the Bush junior administration claimed that Saddam Hussein's capture had a decisive impact on Muammar al-Qaddafi. It was said that this operation, which received intensive media coverage around the world, was the final impetus for the Libyan leader's decision to give in to nuclear disarmament. Vice President Dick Cheney made, for example, the argument that Muammar al-Qaddafi “watched what we did in Afghanistan and Iraq (...) Five days after we arrested Saddam Hussein, Colonel

Qaddafi went public and said, I give up, come and get it, it's all yours" (Office of the Vice President 2004).³⁶⁸

However, the historic evidence suggests that the capture of Saddam Hussein was not helpful for the resolution of the Alibi Game. On the contrary, it rather signified a structural factor that hampered the negotiation process as it inflamed Tripoli's worst case thinking and strengthened the *distrust trap*. Anti-US feelings were reportedly reemerging among the members of the Qaddafi regime in 2003 due to the US lead Iraq intervention (MacLeod 2006; Miller 2006; Tucker 2009: 365). The humiliating capture of Saddam Hussein added to this general trend. Reportedly, Muammar al-Qaddafi had even toyed with the idea to postpone the diplomacy engagement after the capture of the former Iraqi dictator became public (MacLeod 2006). Correspondingly, the Qaddafi regime later denied the narrative of the Bush junior administration that the Iraq War in general and the capture of Saddam Hussein in particular were important drivers for Libya's *nuclear reversal* (Jentleson & Whytok 2005).³⁶⁹ Moreover, being the alibi player during the *agreement phase*, Libya's choice for cooperation would have not required additional coercion. Joint cooperation was Tripoli's most desired outcome anyway. There was no need for any additional preference manipulation (Figure 28).

To some extent, the negative impact of Saddam Hussein's capture was mitigated by the fact that this incident was not actively brought-up by the US-UK team during the final round of talks with the Libyan on 16th December 2003. Robert Joseph, the head of the US delegation in this meeting, denied that the Western side had made any hints that Libya would face a similar fate like Iraq if it would not agree to nuclear disarmament (Interview with R. Joseph, Nov. 2011, Annex 16).³⁷⁰ However, since the seizure of Saddam Hussein was to some extent shielded away from the actual negotiation process, we still have to rate this factor as a *negative fit* (Figure 28).

B) An Unfinished Agreement

The disarmament accord that the US-UK team negotiated with the representatives of the Qaddafi regime remained unfinished. It did not fulfill all the requirements that were necessary for a lasting resolution of the *substantial negotiation problem*. When the *agreement phase* came to an end in late December 2003, Libya's *nuclear bad* remained only partly resolved. The dismantlement of Libya's nuclear weapons program was relatively intrusive. The accord codified a deep cutting disarmament process. Libya did not, however, receive any meaningful concession in return. The disarmament agreement entailed no tangible substitution that could have replaced the function Libya's *nuclear bad* had for the

³⁶⁸ Interestingly, George W. Bush was more cautious in his assessment. In his memoir the former US President wrote „the liberation of Iraq had an impact beyond its borders. Six days after Saddam's capture, Colonel Muammar Qaddafi (...) publicly confessed that he had been developing chemical and nuclear weapons (...) *It's possible the timing was a coincidence. But I don't think so*" (emphasis by the author) (Bush 2010: 268).

³⁶⁹ For example, Mohammed Bukhres, a Libyan-American with close ties to the Qaddafi family said in 2004: "We tried for a long time to get relations with the United States. Don't let anyone tell you it's because of the invasion of Iraq" (Slavin 2004).

³⁷⁰ Asked whether any threats have played a role during these talks, Robert Joseph said: "No absolutely not. I didn't threaten anybody" (Interview with R. Joseph, Nov. 2011, Annex 16).

Qaddafi regime's "fabrication chain". Rather, with the complete dismantlement of the Libyan WMD programs, the fabrication of the "final goods" Tripoli desired to achieve – regime security and prestige – remained distorted. The agreement made the United States better off. Libya instead remained trapped in a state of a biased distribution of gains and losses.

(i) Exaggerated Elimination

Nuclear bads impose "negative externalities" to the outside world. As we have explained above, the United States and the UK were the major *bad sufferers* of Libya's nuclear ambitions. London and Washington were not only entangled in a decade long confrontation with the Qaddafi regime, but were also the only two players in the early 2000s who were aware of Libya's accelerated nuclear build up. At that time, new intelligence evidence made the United States and the UK very sensitive to Tripoli's nuclear efforts. To escape from the "negative externalities" of Libya's *nuclear bad*, the elimination of the nuclear weapons program was the only possible choice.

Above, we have explained that Libya's *nuclear bad* had at its very core a "private good", which was exclusively reserved for the powerful elite of the Qaddafi regime. When the internal structure of a human-made "public bad" has the internal structure of a "club", a "common pool" or a "network good", policy makers could apply other resolution strategy than elimination (such as externalization or internalization, see Table 5). In the case of "private public bads", however, elimination is the only possible option.

Against that background, the disarmament agreement appears at first sight as a perfect match. Libya agreed to dismantle its nuclear and its chemical weapons programs and gave consent to an international inspection regime which would control its former WMD sites. However, Tripoli agreed in addition to two requests of the United States that were at that time unprecedented in the history of WMD disarmament: (1) the removal of all sensitive equipment and materials to the United States and (2) a deep cutting limitation on Libya's arsenal of strategic missiles. With that, the disarmament accord was relatively strict and intrusive and – in all probability – "overshot the mark".

In 2013, ten years after Libya's *nuclear reversal*, the removal of WMD technology and material was an important element of the international effort to eliminate Syria's chemical weapons stockpiles in the midst of a severe civil war. However, in December 2003, such procedure was a novelty in the history of WMD disarmament. Even the UNSCOM Mission to Iraq, which destroyed Saddam Hussein's unconventional weapons program in the 1990s based on an sweeping UNSC mandate, had executed the dismantlement process within the country. That Libya agreed to deep-cutting restrictions of its strategic missiles arsenal (max. range 300 km, max. payload 500 kg) was the second historic novelty. This request was not supported by international law. There is no disarmament or non-proliferation treaty that would outlaw the development, stockpiling, and use of strategic missiles. The technical parameters put forward to limit Libya's strategic arsenal stem from the MTCR which restrict only the export but not the possession of ballistic missiles.

From the US point of view, these far-reaching demands were perfectly understandable. In mid-December 2003 the talks on the disarmament accord took place at a time where the *procedural negotiation problem* was anything but resolved. The Alibi Game continued to dominate Tripoli's and Washington's strategic pattern and the logic of this game constellation were leaving its marks on the content of the agreement. Consequentially, distrust towards Libya was still high on the Western side and an intrusive disarmament accord was perceived as a well matching precaution measures if the Qaddafi regime would try to backpedal its *nuclear reversal* (e.g. Corera 2006: 191; Frantz & Meyer 2005; Frantz & Collins 2007: 312). But aiming for a comprehensive and strict disarmament accord the United States was – in all likelihood – demanding too much. According to our analysis, the far-reaching disarmament agreement signified with regard to the required “targeted elimination” an *overfit* (Figure 28).

Libya's nuclear weapons program was a *public bad* in the making. In late 2003, Tripoli was still years away from a functioning nuclear weapons program – let alone a deployable nuclear weapon. Applying the *public bad approach*, we came to the conclusion that Libya's nuclear build up was following the *best shot* logic. It was a program that was completely dependent on external support. Without foreign supply of technology, know how, and material delivered by the A.Q. Khan network, Libya's nuclear weapons program was unlikely to operate. Its individual components posed by themselves only a faint security risk. As the A.Q. Khan network was about to be disclosed in late 2003, Tripoli would have had little chance to resume its nuclear ambitions.

In all probability, the requirement of “targeted elimination” would have been fulfilled with a less intrusive approach. Removing only the most sensitive parts of Libya's nuclear weapons program would have been sufficient. In such a case, the “best shot aggregation” that the Qaddafi regime applied would have been thwarted. The Qaddafi regime would have been unable to restart its program for the foreseeable future.

Certainly, the far-reaching disarmament deal meant no immediate harm to the negotiation process. However, it signified an inefficient investment of resources that could have been saved if the elimination strategy had been tailored more closely to the nature and scope of Libya's *nuclear bad*. After all, the swift removal of all sensitive WMD related materials and technology, which started in early 2004, was relatively costly. Already, by February 2004 the United States had invested more than \$2.5 million dollars for this task (U.S. Congress 2004).

(ii) No Suitable Substitution

The disarmament agreement was not only “half-baked” because of the too intrusive requirements. It also failed to provide the Qaddafi regime with a suitable substitution. As we have explained above, it is only possible to achieve sustainable and lasting resolutions of *substantial negotiation problems* if former *bad doers* are able to resume their “fabrication chains”. In order to assure an uninterrupted production of “final goods”, it is compulsory to fill the gaps caused by the elimination of *public bads*.

Although the nascent Libya nuclear weapons program was in late 2003 still a *public bad* in the making, the power elite in Tripoli deemed it nevertheless a valuable tool to enhance its security and, to a lesser extent, its prestige. With the disarmament agreement of December 2003, Libya lost an important instrument to realize these “final goods”. In order to assure lasting compliance with the agreement, Tripoli was in need of a suitable replacement. However, the negotiated disarmament accord contained no tangible substitution that would have made a noticeable contribution to the Qaddafi regime’s security or prestige. Apart from rather loose and undefined promises about the future rapprochement, no solid replacement for the eliminated *nuclear bad* was provided. With regard to this particular “fit demand”, the Libyan disarmament agreement signified a *misfit*. The omission of a “substitution strategy” was not helpful for the resolution of the *substantial negotiation problem* (Figure 28).

Already during the trilateral talks in spring and summer 2003, Moussa Koussa and his team had demanded some form of concession for Libya’s *nuclear reversal*. Referring to the “final goods” of its nuclear weapons program, Tripoli was primarily requesting a concession that would ensure regime security. Apart from a complete lifting of the unilateral sanctions, Moussa Koussa and his *entourage* asked primarily for US security guarantees and military assistance. When the diplomatic engagement entered into the *agreement phase* in December, Libya started to reiterate these requests more vigorously (e.g. Fidler, Huband & Khalaf 2004; Braut-Hegghammer 2008: 68; Palkki & Smith 2012: 275). But apart from the security related demands, Libya also asked at that time for considerations that were speaking the language of prestige and respect. Tripoli tried not only to tie its *nuclear reversal* to an immediate restoration of diplomatic relations with the United States but also made attempts to force the promise that Muammar al-Qaddafi would be invited to an official visit to London as a follow-up to the announcement of Libya’s *nuclear reversal* (Interview with T. Dowse, Feb. 2012, Annex 16; MacLeod 2006).

However, all Libyan requests were rejected by the Western side – an act that made the intrusive and far-reaching dismantlement of Tripoli’s WMD program appear even more biased. Even though the Bush junior administration was pressing for an intrusive and deep cutting disarmament agreement, it was not ready to provide concession. Instead, Washington followed a no-bargain strategy and was shrinking back from giving in to any of Tripoli’s concessions.³⁷¹ The inner circle of the Bush junior administration was eager to avoid the impression that the disarmament accord looked too much like a “deal”. In all probability, there was the fear that yielding to Libya’s requests could be interpreted as an inconsistency with the tough approach the United States was pursuing toward rogue states at that time (Corera 2006: 192; Joseph 2009: 94; Tobey 2014; Interview with Joseph 2011).³⁷²

³⁷¹ Later Robert Joseph, the head of the U.S. delegation during the *agreement phase*, said: “at the [negotiation] table I gave them nothing. I certainly made the argument that this [nuclear reversal] would be in the interest of Libya (...) But I wasn’t there to negotiate some half-baked, consensus, compromise document” (Interview with R. Joseph, Nov. 2011, Annex 16).

³⁷² After Libya’s *nuclear reversal* was announced in late December 2003, numerous members of the Qaddafi regime tried to depict the disarmament accord as the outcome of a give-and-take negotiation

Thus, there was no room for substitution. All that Tripoli received in return was the rather vague promise that the American–Libyan relationship would improve in the future. Tellingly, in their public statements on December 19 neither George W. Bush nor Tony Blair mentioned any concrete concession – such as the lifting of sanctions or the resumption of diplomatic ties. Both Western leaders remained relatively evasive in that regard. For example, President Bush said in his statement: “Libya can regain a secure and respected place among the nations, and over time, achieve far better relations with the United States (...) As Libya becomes a more peaceful nation, it can be a source of stability in Africa and the Middle East” (Bush 19 Dec. 2003).³⁷³

(iii) Prevailing Injustice Trap

The international applause Libya received after having publically announced its decision for *nuclear reversal* could not obscure the fact that the Qaddafi regime faced an *injustice trap* at the end of the *agreement phase*. The disarmament agreement was obviously biased. The accord made the United States better off.

The requirement for distributive justice we have introduced based on the *public bad approach* was not met. The Qaddafi regime was certainly not receiving a substitution equivalent to the benefits the United States and the UK gained by the elimination of Libya’s *nuclear bad* (ch. 3.1.3.1). Consequentially, we have to rate the disarmament accord with regard to this requirement as a *misfit* (Figure 28).

That the agreement was biased in favor of the United States was a fact that neo-conservative members of the Bush junior administration in particular liked to emphasize. For example, after the deal had been wrapped up, John Bolton (Under Secretary of State for Arms Control and International Security Affairs) proudly portrayed the agreement at various occasions as a the outcome “no freeze negotiation” (Bolton 2004).³⁷⁴ And in September 2004, Paula DeSutter (Assistant Secretary of State for Verification, Compliance, and Implementation) delivered a similar statement when she said that “Libya's commitment was not made with preconditions. There was no freeze proposal” (U.S. Congress 2004b).

process. For example, Muhammed al-Zitani (Secretary of the Libyan General People’s Congress), claimed that during the negotiation process the “United States has promised to defend Libya against any foreign aggression”. A similar assertion was made by Saif al-Islam: “This is not a secret. It is a political deal; give and take. We give you this much and you give me this much” (Joseph 2009: 94-95). However, these claims were – in all probability – attempts to disguise the biased nature of the negotiation process and its outcome. Consequentially, members of the Bush junior administration had contradicted to these statements – in particular since they were uttered only those members of the Qaddafi regime who had personally played no role in the tripartite talks during the *agreement phase*. Robert Joseph said, for example: “Such assertions, although often cited by others without direct knowledge of the secret discussion, simply were incorrect” (Joseph 2009: 94).

³⁷³ Prime Minister Tony Blair was similar evasive as he said: “I have spoken to Colonel Gaddafi to say that, as the process of dismantlement goes forward, I now look forward to developing a productive relationship with him and with Libya” (Blair 19 Dec. 2003).

³⁷⁴ In the early 2000s the diplomatic engagement on Iran’s nuclear program had gained momentum. The option to “freeze” Teheran’s nuclear efforts was at that time widely discussed in Washington.

C) Safeguarding the Agreement by the Leader's Blessing

Although the disarmament deal was very much in favor of the United States and the Bush junior administration, Washington had likewise concerns by late December 2003. The fear was that Libya would get cold feet in the end and would walk away from the agreement in the “eleventh hour”. According to an anonymous British official who was involved in these talks, the West was at that time still “worrying that it was all going to get called off” (Frantz & Meyer 2005). And another Western participant said: “We lacked confidence that the Libyans would really go ahead with this [the agreement]. Gaddafi [sic] was the kind of mercurial character you could never be sure was going to do it” (Corera 2006: 191).

Consequentially, the United States was on the search for a mechanism that would provide against this worst case scenario. The request of a personal commitment by Muammar al-Qaddafi that would attach the Libyan dictator to the agreement was, against that background, a crucial design element that *fit* to the nature of the Alibi Game and helped allay Washington's distrust (Figure 28).

After the diplomatic engagement with the Qaddafi regime was strictly pursued under the cloak of secrecy, Washington was ready to allow a high level of transparency. The public eye was now thought as a safeguarding mechanism. According to Tim Dowse, a public statement by the Libyan leader was crucial for the Western negotiators because then the “personal prestige and credibility of the Muammar was attached to the agreement”. That would assure that agreement would “stay in the Libyan system” and would not be easily repudiated (Interview with T. Dowse, Feb. 2012, Annex).

The request for the leader's blessing turned out to be one of the most challenging and time consuming aspects in the trilateral negotiations. The US–UK team insisted on the request that Muammar al-Qaddafi himself should read the text of the disarmament statement.³⁷⁵ However, Moussa Koussa and his team were reluctant to agree to the Western demand, which they described as an embarrassing step for the Libyan leader (Corera 2006: 192; Frantz & Collins 2007: 311; Tobey 2014).³⁷⁶ In the end, a face saving compromise was found. The Libyan foreign minister would read the agreed statement on Libya's state TV followed by a brief public blessing of Muammar al-Qaddafi (Joseph 2009: 59-60, 63).

D) The UK Returned to its Role as “Biased Mediator”

The disarmament accord was biased and put Libya into a disadvantaged position vis-à-vis the United States. Confidence building and successful distrust reduction is a crucial explanation why the Qaddafi regime agreed nevertheless to the disarmament accord. That

³⁷⁵ That request was directly approved by President Bush and Prime Minister Tony Blair (Joseph 2009: 63; Tobey 2014; Fidler, Hubad & Roula 2004; Corera 2006: 191).

³⁷⁶ What in addition aggravated the negotiation situation, were the uncalculated consequences that were bound to a public disarmament announcement. As the negotiation process was held extremely close and had been conducted in utmost secrecy, neither the national audiences nor the lower ranks of the bureaucratic hierarchy had been prepared for the deal. In particular for the Libyan population, which had been indoctrinated that the United States is the neo-colonialist enemy, the decision to reverse its nuclear weapons and search a rapprochement with the West must have appeared as a sharp U-turn (Frantz & Collins 2007: 312).

the UK returned during the *agreement phase* to its role as mediator was, in that particular constellation, supportive and helped to ease the resolution of the Alibi Game. Therefore, we have evaluated this design element as a *fit* (Figure 28).

As we have outlined above (5.3.3.1), in Alibi Games one player (i.e. the alibi player; in our case Libya) is in need of intensified distrust reduction. As soon as doubts about the other side's sincerity are emerging, this actor is tempted to choose defection and remain in the situation of mutual defection (DD) since this outcome coincides within Alibi Games with the Maximin Solution (M). While in general inclined in favor of joint cooperation (CC), it is distrust that holds the alibi player back from embarking on a cooperative pathway. Considerable confidence building efforts are required to change this situation. It appears that this task was accomplished in the *agreement phase* by an intervention of the British Prime Minister Tony Blair. While the UK had during most parts of the *pre-agreement phase* ceased to play the role of an active mediator (ch. 5.3.3.2), it retrieved this function in December 2003.

After the US–UK team had negotiated the disarmament accord with the representatives from Tripoli on December 16th, the crucial obstacle was to gain Muammar al-Qaddafi's consent. The Libyan leader hesitated to give the "green light". In particular in light of the biased nature of the agreement, the Western side was well aware that this would not be an easy task.³⁷⁷ However, Moussa Koussa and his team reportedly had doubts too. When they were getting ready to depart in the evening hours of 16th December after a day-long talk with the US–UK team, they were not confident that the negotiation outcome would be approved by Muammar al-Qaddafi (Tobey 2014). Qaddafi was not only discontent with the working of the negotiated reversal statement and disliked the idea that he himself should make the announcement, the Libyan leader had also two more fundamental concerns. Qaddafi wanted to avoid the impression that Tripoli had bent down to Western pressure. In the light of the recent capture of Saddam Hussein, the Libyan dictator appeared particularly alert to the fact that the audience in the Arab world would draw this conclusion too easily. In addition, Muammar al-Qaddafi was still haunted by the fear that the United States could use Libya's public acknowledgement of WMD possession as a pretext to attack Libya and even launch a military intervention against the country.³⁷⁸

It was in that difficult situation that Tony Blair reached out to Muammar al-Qaddafi and thereby managed to allay his concerns. The British Prime Minister reassured the Libyan leader that as long as Tripoli would clearly express its decision to abandon all its unconventional weapons programs, Washington and London would immediately react with welcoming statements (Beaumont, Ahmed & Bright 2003; Corera 2006: 193; Joseph 2009: 63; Tobey 2014; Ahmed & Bright 2003).

³⁷⁷ For example, Robert Joseph said: "I tell you I wouldn't have wanted to be the Libyan guy going to Gaddafi" (Interview with R. Joseph, Nov. 2011, Annex 16).

³⁷⁸ According the recollection of Robert Joseph the Libyans "were concerned if they did give it up [the nuclear weapons program] they would be next on the target list. Because if they acknowledge having this nuclear weapons program publically, that would be an invitation to an American strike" (Interview with R. Joseph, Nov. 2011, Annex 16).

It is hard to believe that this high profile mediation initiative had no impact on Muammar al-Qaddafi's decision making. The phone call between Tripoli and London in December 2003 was in every sense historic. It was Qaddafi's first direct conversation with a British Prime Minister since the early 1980s. Moreover, the direct intervention by Tony Blair was probably well adjusted to Qaddafi's mindset, since the Libyan dictator perceived foreign policy and international affairs in many respects as an expression of personal ties and individual relations. Tellingly, after Libya's *nuclear reversal* was announced in December 2003, several members of the Qaddafi regime – including Saif al-Islam, Prime Minister Shukri Ghanim, and Muammar al-Qaddafi himself – gave high credit to the UK's vital role in the WMD talks (Bowen 2006: 59; St. John 2004: 398).

E) Diplomatic Velocity

The *agreement phase* is in particular outstanding because it was so astonishingly short. In the previous *pre-agreement phase* where the same negotiating parties were likewise confronted with an Alibi Game, it took altogether nine months to achieve a resolution. The *agreement phase* was over in less than three weeks. According to our analysis, the high degree of "diplomatic velocity" is not only outstanding it was, in all probability, also conducive for the resolution of the Alibi Game. We assume the swiftness of the negotiation process played a crucial role for the resolution of the *colliding interest trap*. The "best explanation" we revealed from the historic evidence is that "diplomatic velocity" encouraged the alibi player (i.e. Libya) to embark the pathway of cooperation. Therefore, we rated this design element as a *fit* (Figure 28).

Alibi players always have a strong inclination for joint cooperation. Cooperation is their most desired outcome. However, alibi players are also prone to choose defection and remain within the deadlock situation (DD). Once stepped into this strategic constellation they are unlikely to depart given that this outcome is relatively comfortable for these players. What is therefore required is that the alibi players are provided with a "nudge" to leave the state of mutual defection and with precaution measures that avoid them ever ending up in that situation.

In the previous *pre-agreement phase*, the explorative WMD talks entered into a non-conclusive back-and-forth mode soon after its start in spring 2003, where neither side could pull themselves together and dare a cooperative move. In the *agreement phase*, however, it appears that the diplomatic process never became trapped in the deadlock situation (DD). The number of strategic moves was simply too limited and the diplomatic schedule too tight. As soon as the direct tripartite talks started, the momentum of cooperation was by and large maintained. Since Libya – the alibi player – never stepped into the outcome of mutual defection (DD), the need for additional impetus for cooperation was simply not needed. The fast moving negotiation process and the quickly agreed disarmament accord helped to maintain the momentum in favor for joint cooperation.

5.3.5 Post-Agreement Phase: Biased Stag Hunt Game & the Lingering Nuclear Bad

With the announcement of Libya's *nuclear reversal* on 19th December 2003, the bargaining process entered into its final stage – the *post-agreement phase*. The central task of this episode was the implementation of the disarmament accord. The elimination of the most critical parts of Tripoli's WMD programs was conducted swiftly by two removal operations in January and March 2004. However, the destruction of the less sensitive components dragged on. In particular, the dismantlement of Libya's chemical weapons stockpile was rather slow.

The WMD issue remained a “standing item” in the slowly improving U.S.–Libyan relationship. When Muammar al-Qaddafi was toppled in summer 2011, the disarmament accord was still not fully completed. Rather, new chemical weapons were found in the Libyan Desert by rebel forces. The Qaddafi regime had never declared them, neither to the United States nor to the OPCW – a flagrant violation of the disarmament accord.

1.3.5.1 Procedural & Substantial Negotiation Problems

During the *post-agreement phase*, the substantial negotiation problem remained by and large unchanged. Libya's *nuclear bad*, which was only partly resolved by the disarmament accord of December 2003, continued to linger. However, with regard to the *procedural negotiation problem*, we witnessed a major shift in the *post-agreement phase*. The players were confronted with a new strategic situation that is best described as a Biased Stag Hunt Game – a 2x2 game constellation that is marked by a *distrust trap* but not by a *colliding interest trap*.

A) Biased Stag Hunt Game

The historic evidence suggests that the *procedural negotiation problem* between the United States and Libya improved substantially when the diplomatic process entered into the final *post-agreement phase*. Applying our *fit taxonomy* to this final episode of the American–Libyan bargaining process, we come to the conclusion that it was, in all probability, dominated by a Biased Stag Hunt Game.

Although the Biased Stag Hunt Game is not completely unproblematic, it signifies a relatively benign strategic constellation where the chance of joint cooperation is relatively high. Both players have a strong tendency for joint cooperation (CC) – an outcome that coincides within the Biased Stag Hunt Game with the Qualified Pareto Optimum (P+) (Figure 24). Joint cooperation is self-sufficient. Once achieved, this situation is likely to continue since it represents one of the two Nash Equilibriums (N) of the Biased Stag Hunt Game, from which none of the players could depart without rendering themselves worse off.

Given the overall cooperative nature of the Biased Stag Hunt Game, one might wonder whether there is at all a *procedural negotiation problem*. Certainly, the Biased Stag Hunt

Game knows no *colliding interest trap*. Since both sides are strongly inclined for joint problem resolution, there is no room for conflict interest. The major challenge of this particular game constellation is instead the *distrust trap*. Lacking confidence in the other side’s sincerity could drive the players easily into the unattractive but safe outcome of mutual defection (DD). As soon as the players have the impression that their counterparts are intending to cheat, they are likely to recur to the Maximin Solution (M) – a strategy that coincides in the Biased Stag Hunt Game with the deadlock situation (DD). Once the players have stumbled into this constellation, they are trapped. Distrust makes them pursue a behavioral pattern that is against their desire for joint cooperation.

Figure 24: Biased Stag Hunt Game

		USA	
		Implement the Agreement [C]	Defect from Implementation [D]
Libya	Implement the Agreement [C]	4,4 N,P+	1,3
	Defect from Implementation [D]	2,1	3,2 M,N

US preference hierarchy: CC > DC > DD > CD
 Libya's preference hierarchy: CC > DD > DC > CD

C = Cooperation D = Defection M = MaxiMin Solution N = Nash Equilibrium P+ = Qualified Pareto Optimum

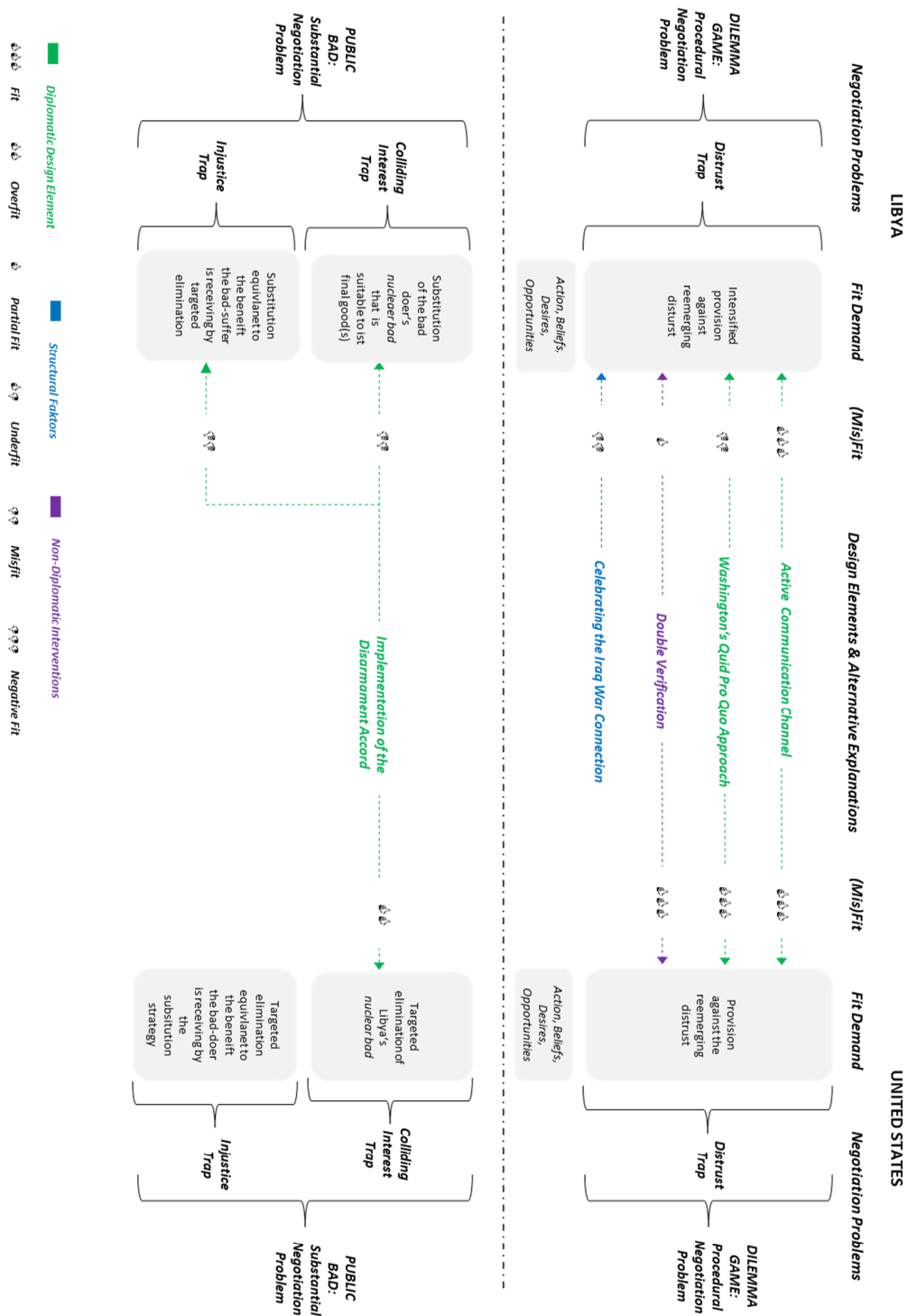
In the Biased Stag Hunt Game, the deplorable and “irrational” nature of *social traps* becomes particularly obvious. Since both players are strongly interested in joint cooperation, the perception of the other side’s insincerity is obviously wrong. However, misinterpretation, diplomatic mishaps, or unintended side effects could nevertheless initiate a “race to the bottom” that neither of the players had wanted.

In terms of the “optimal problem resolution” revealed with the help of our *fit taxonomy*, the Biased Stag Hunt Game is similar to the previous Alibi Game in the sense that it likewise requires no preference manipulation. Since there is no *colliding interest trap*, there is no need to change the strategic calculation of the involved negotiating parties in favor of joint cooperation. Another similarity with the previous Alibi Game is that mutual defection (DD) is less harmful for one of the players – in our case Libya. Although Libya would have preferred joint cooperation (CC) during the *post-agreement phase*, mutual defection would have signified a more comfortable outcome for the Qaddafi regime than for the United States. After all, the deadlock situation (DD) was Tripoli’s second best choice during the *post-agreement phase* (Figure 24). Consequentially, as soon as evidence appeared that its counterpart might play tricks, the Qaddafi regime was more likely to choose defection than the United States. It is primarily this divergent “distaste” for mutual defection that makes this game constellation “biased”.

The divergent dislike for mutual defection has implications for the “fit demand”. A diplomatic intervention designed to overcome the *distrust trap* has to respond to the relatively benign but biased nature of this game constellation. Moreover, unlike the previous Alibi Game, direct action to reduce distrust and build confidence among negotiating parties is not needed. Such an approach would instead signify an inefficient intervention. Under normal conditions, we assume that the players cooperate with each

other and that their daily interaction provides sufficient momentum in terms of confidence building.

Figure 28: Varieties (Mis)Fits in the Post-Agreement Phase (2004-2011)



What is instead needed is not an active confidence building intervention but rather a precautionary measure that provides against the (re)emerging distrust. It is important to avoid at an early stage misinterpretation and false perception of the other side's honesty, which might occur unintendedly during the negotiation process. Thus, prevention is the central strategy to resolve Biased Stag Hunt Games.

Given its higher sensitivity to distrust, the biased stag hunter (in our case Libya) needs special attention. The “fit demand” to resolve the *distrust trap* is in that sense biased too. This negotiating party requires a more intensive precaution against the danger of (re)emerging suspicion (Figure 24).

B) The Lingering Nuclear Bad

In the *post-agreement phase*, the explanatory power of the *public bad approach* becomes particularly obvious. If one had tried to grasp the *substantial negotiation problem* the players faced at that time without the help of the *public bad approach* one would have, in all probability, been tempted to jump to the apparent but false conclusion that the Libyan NRN were an overall success. Although most of Libya’s nuclear weapons program was eliminated by mid-2004, the resolution of the underlying *substantial negotiation problem* was uncompleted. While the *procedural problem dimension* took a “cooperative turn” at the beginning of the *post-agreement phase*, the *substantial negotiation problem* – Libya’s *nuclear bad* – lost little of its complexity. It lingered on and caused – as we will show in this section – ongoing problems in the *post-agreement phase*. In essence, the WMD issue remained a burden to the slowly improving U.S.–Libyan ties until the Qaddafi regime was toppled in 2011. If we had not looked upon the *post-agreement phase* through the prism of the *public bad approach*, this finding would appear illogical. However, with the help of this approach we could clearly pinpoint the difficulties of the *post-agreement phase*.

Given that the swift negotiations of the *agreement phase* had resulted in a biased disarmament accord, many aspects of Libya’s *nuclear bad* remained unresolved after December 2003. Most outstanding in that regard was the fact that Libya had not received a suitable substitution that would replace its abandoned nuclear weapons program. No surrogate had been provided that could have replaced the function the nuclear weapons program once had for Tripoli’s broader “fabrication chain”. In essence, Libya remained entangled in a *colliding interest trap*.

In addition, the situation at the beginning of the *post-agreement phase* was also dissatisfying for the Qaddafi regime in terms of *distributive justice*. With the intrusive elimination of Libya’s *nuclear bad*, which was quickly implemented between winter and spring 2004, the United States had gained considerably more benefits from the negotiation process than Libya. Thus, not only the *colliding interest trap* but also the *injustice trap* remained unresolved during the *post-agreement phase*.

5.3.5.2 (Mis)Fit in the Post-Agreement Phase

In the recollection of US officials who participated in the *post-agreement phase*, this last episode of the diplomatic engagement with Libya is often depicted in a rather positive light (e.g. DeSutter 2004a, Mahely 2004). However, our analysis reveals that there was no reason to a positive portrayal. Rather, the diplomatic efforts undertaken during the *post-agreement phase* had numerous shortcomings – both with regard to the *procedural* and the *substantial negotiation problem*. Even though most parts of the Libyan WMD programs were swiftly eliminated, this episode of the American–Libyan engagement dragged on.

Although Libya had not restarted to strive for unconventional weapons, the Qaddafi regime's enthusiasm in terms of implementing the disarmament agreement was dwindling, starting in the mid-2000s. When the *post-agreement phase* came to an abrupt end with the toppling of Muammar al-Qaddafi, the situation still remained unsatisfactory.

In hindsight, the *post-agreement phase* appears even more problematic than the two previous episodes of the NRN process (i.e. the *pre-agreement* and the *agreement phase*). We witnessed more misfitting diplomatic design elements than we had seen in the bargaining dynamic between March and December 2003. Given that the final episode of the Libyan NRN was dominated by the relatively benign and cooperative Biased Stag Hunt Game, the number of imperfect diplomatic interventions is astonishing.

Certainly, there is no evidence that the Biased Stag Hunt Game had ever slipped into the deadlock situation (DD). Although the Qaddafi regime interrupted the implementation of the disarmament agreement at some occasions (e.g. withholding the removal of highly enriched uranium or the suspended dismantlement of Scud-B missiles), both players stayed mostly on a cooperative course. However, that shall not blur the fact that little precaution was provided to prevent such a scenario. In terms of effective diplomatic intervention, the *post-agreement phase* remained under-provisioned. While Libya – being the biased stag hunt player – would have been in need for a special treatment in terms of confidence building, it was the United States that was clearly better off in that regard. With its sequenced “quid pro quo” approach and with the “double verification”, Washington was bestowed with two tools that helped to overcome its suspicion vis-à-vis the Qaddafi regime. Tripoli's quest for confidence building was instead primarily satisfied through active communication – a very conventional and low-cost design element. The priority of Libya's distrust reduction, determined by the nature of the Biased Stag Hunt Game, was not properly reflected during the *post-agreement phase*.

A) Celebrating the alleged Iraq War Connection

The outlook that the diplomatic engagement with the Qaddafi regime could be useful for the Bush junior's major power project – the intervention into Iraq – was an important driver for Washington's decision to start negotiating with Tripoli in spring 2003 (ch. 5.3.2.2). However, while having been crucial for overcoming the Imposed Deadlock Game in the *pre-negotiation phase*, it turned out that the Iraq War linkage had negative implications for the resolution of the Biased Stag Hunt Game in the *post-agreement phase*. Consequentially, we have rated this structural impact factor as a *misfit*.

Right after the Qaddafi regime had announced its disarmament decision, the foreign policy establishment in Washington – including members of the Bush administration – was eager to celebrate the “demonstration effect” the Second Iraq War allegedly had on Libya's decision to abandon its WMD programs. Vice President Dick Cheney said for example that Libya's *nuclear reversal* was “one of the great by-products (...) of what we did in Iraq and Afghanistan” (Washington Post, October 5, 2004). Congressman Tom Lantos portrayed the Iraq War as a “pedagogic value” for Libya (Palkki & Smith 2012: 269). George W. Bush made a similar although more cryptic statement when he said “Libya is now peacefully

dismantling its weapons programs. Libya understood that America and others will enforce [Bush] doctrine” (New York Times, October 1, 2004).³⁷⁹

Celebrating the Iraq War connection is the logical consequence of the instruction George W. Bush had given in April 2003: “to get something deliverable from this process” for Washington’s policy in the Middle East (Suskind 2006, Frantz & Collins 2007: 306). Hailing this linkage publically was in that sense a “negative echo” of the positive implications this factor had for overcoming the Imposed Deadlock Game of the *pre-negotiation phase*.

Certainly, the assertion that it was the Iraq War that forced Libya into disarmament was historically false. Tripoli had already been ready for a diplomatic process on WMD disarmament in the early 1990s. And, as we have explained above, it was in the end not Libya but the United States that was driven into a diplomatic process by the Iraq intervention. However, the fact that the Iraq War linkage was an inaccurate historic description did not limit its negative implications.

Celebrating the alleged “demonstration effect” must have been a satisfying pleasure for the members of the Bush administration – particularly in light of the growing international and domestic critique of the Iraq War. But in terms of the Biased Stag Hunt Game, this structural factor signified, in all probability, a *misfit* (Figure 28). Since Libya was in need for an intensive provision against reemerging distrust, the hailing of the positive impacts of the Iraq War was clearly mismatching. After all, it was nourishing exactly the narrative the Qaddafi regime eagerly wanted to avoid. Tripoli attached great importance to the portrayal that it had not backed down to Western pressure but had taken the decision of *nuclear reversal* of its own free will (Bowen 2006: 72; Joseph 2009). Consequentially, Muammar al-Qaddafi and his entourage were frustrated when they witnessed in 2004 a growing number statements that depicted Libya’s *nuclear reversal* as a consequence of the Iraq War (Miller 2006; St. John 2008a: 138).

Members of the Qaddafi regime publically rebuffed these assertions. For example, in February 2004 the Libyan foreign minister, Abdel Rahman Shalgham, vigorously rejected the assertion that Libya had made “concession” to the United States and that this false impression was owed to the “poisonous pens” of the Arab media (Dejevsky 2004: 6). Interviewed in 2004, Mohammed Bukhres, a Libyan-American with close ties to the Qaddafi family, said: “We tried for a long time to get relations with the United States. Don’t let anyone tell you it’s because of the invasion of Iraq” (Slavin 2004). In particular, Tripoli found it annoying that the United States decided in July 2004 to present to the media the uranium enrichment centrifuges and other highly sensitive technology that had been shipped from Libya to Tennessee. The sensational press conference, which was held at a high security facility of the Oak Ridge National Laboratory, was in every sense a high-profile event since not only the U.S. Secretary of Energy, Spencer Abraham, but also President George W. Bush attended. Reportedly, the Libyans were disturbed by the pictures taken at this event, which presented Libya’s WMD technology like a spoil of war (Wing & Simpson 2013: 133-4).

³⁷⁹ See also: Blair 2010: 391; Cheney 2011: 420.

B) Active Communication Channels

Particularly at the beginning of the *post-agreement phase*, Libya and the United States still had considerable concerns about the other side's sincerity. For example, an official of the Bush junior administration who had been interviewed anonymously by the Los Angeles Times said that Washington and London were living at that time "with the possibility that Kadafi [sic] might change his mind" (Frantz & Meyer 2005). That assessment was also echoed by Jodie Daniel, a Secretary of State official who was involved in the dismantlement of the Libyan WMD programs, who said that in 2004 the United States was concerned "to get the stuff [WMD related technology and materials] out [of Libya] as fast as possible before Qaddafi changes his mind" (Interview with D. Jody; Dec. 2011, Annex 16). Reportedly, the members of the Qaddafi regime had similar concerns and were distrustful towards the United States (Tobey 2004; Tucker 2009: 367).

Against that background, the communication channels between Washington and Tripoli, which were quickly established in early 2004, were most likely helpful in providing against the risk of reemerging distrust. This final episode of the bargaining process was dominated by technical experts. The *post-agreement phase* was primarily about the practical implementation of the negotiated disarmament. An active diplomatic channel parallel to the dismantlement practice was therefore not a matter of course. We interpret the dense interaction between the United States and Libya as a helpful instrument to settle the misunderstandings and false perceptions that continued to linger between the negotiation parties. Consequently, we rate this design element as a *fit* (Figure 28).

The first trilateral meeting in the *post-agreement phase* was held already on the 5th January 2004 with the objective to agree upon the numerous details of the disarmament process that had not been addressed in the original disarmament agreement.³⁸⁰ This meeting was the beginning of a series of coordination sessions, which were reportedly all held in a cooperative and open atmosphere (Interview with J. Daniel Dec. 2011, Annex 16; Interview with K. Ward, June 2012, Annex 16; Joseph 2009: 71-76). In order to further streamline the communication process, the two sides agreed to establish the so-called "Trilateral Steering and Cooperation Committee".³⁸¹ This coordination mechanism brought high ranking officials from the UK, the United States, and Libya together on a regular basis and also organized the exchange between responsible officials on lower ranks (DeSutter 2004; Interview with K. Ward June 2012, Annex 16; Tucker 2009: 370).³⁸² Numerous problems that occurred during the implementation of the disarmament accord were addressed through this channel – such as the issue on Libya's Scud-B missiles or the halted shipment of highly enriched uranium to Russia (see section E). It is likely that these problems would have caused higher collateral damage if there had been no active communication channel between Tripoli and Washington.

³⁸⁰ It was, for example, only at the meeting on 5th January that the redirection of former employees of the Libyan WMD programs was put on the agenda.

³⁸¹ Other practical elements that were believed to be conducive for the exchange between the two sides were for example the reciprocal reopening of diplomatic missions in Washington and Tripoli in summer 2004 or the fact that the group of actors who were responsible for WMD issues on both sides had been rather small (Interview with K. Ward, June 2012, Annex 16).

³⁸² Officially the TSCC was established in September 2004. However, this mechanism had existed de facto already in the months before (Blanchard 2009: 26; DeSutter 2004).

C) Washington's Sequenced Quid Pro Quo Approach

In the implementation of the December 2003 disarmament accord, the United States was applying a sequenced “quid pro quo” approach. Washington only took action after the Qaddafi regime had moved first. In late September 2004, Paula DeSutter (Assistant Secretary of State for Verification and Compliance) presented this approach in a hearing at the U.S. Congress by explaining that the State Department had separated Libya’s disarmament process in three steps and had only reciprocated to Libya “in response to each phase of the elimination effort” (U.S. Congress 2004b).³⁸³ Already at a hearing in February 2004, William Burns, Assistant Secretary of State for Near Eastern Affairs, had explained that this biased “quid pro quo” road map towards Libya “would depend upon continued good-faith implementation by Libya of its commitments on terrorism, WMD, and missiles” (U.S. Congress 2004a: 6). Ken Ward, a Department of State official who had played a responsible role in the elimination of Libya’s unconventional weapons programs, portrayed the U.S. engagement with Libya in the *post-agreement phase* by the picture of two persons on ladders where the second (i.e. the United States) was only taking steps after the first (i.e. the Qaddafi regime) had moved (Interview with K. Ward, June 2012, Annex 16; see also interview with S. Hadley, June 2012, Annex 16).³⁸⁴

It was perfectly rational for the United States to follow this cautious scheme in the *post-agreement phase*. The sequenced “quid pro quo” approach provided Washington with a sort of “safety net” if Libya would choose to cheat. For the United States, this design element therefore marked a *fit* in terms of the required provision against reemerging distrust (Figure 28).

However, while the “quid pro quo” approach was conducive for Washington, it is obvious that this scheme was not helpful for Tripoli’s decision making in the *post-agreement phase*. This bargaining tactic was not reflecting the biased nature of the *procedural negotiation problem* that dominated the U.S.–Libyan relations in the WMD policy field after December 2003. In the Biased Stag Hunt Game, it was Libya and not the United States that was in need for intensive confidence building. Moreover, Washington’s “quid pro quo” approach had all the ingredients to cause reemerging distrust and ran the risk of inflaming Libya’s suspicion.

Although there is no explicit evidence that the “quid pro quo” approach had actually increased the Qaddafi regime’s distrust, there are at least some indicators signifying that

³⁸³ Phase I: lifting travel restriction after the removal of high risk WMD equipment and materials by air, Phase II: termination of the Iran-Libya Sanctions Act with respect to Libya, restarting diplomatic relations, and general license for trade and investment after the less critical WMD equipment had been removed from Libya by ship. Phase III: lifting of the national emergency state vis-à-vis Libya, ending economic sanctions including unfreezing Libyan assets, and permitting aviation trade after Libya had allowed for a comprehensive inspection to verify the completion of their disarmament efforts (U.S. Congress 2004b).

³⁸⁴ Even after the vast majority of Libya’s unconventional weapons programs had been eliminated, Washington was not changing track and continued to apply its “quid pro quo approach”. For example, in August 2009 when confronted with the renewed request from the Qaddafi regime for more support in the effort to redirect former Libyan WMD scientists and technicians, the U.S. embassy in Tripoli clearly express the view that it was the responsibility of the Libyans to “move first”. In the cable send to the head office in Washington it is said: “we are unable to consider expanded cooperation until Libya makes good faith efforts to meet the (...) critical deadlines for destruction and/or disposal of its WMD and related materials”(U.S. Embassy Tripoli 10 Aug. 2009).

Tripoli became more and more disturbed by Washington's bargaining pattern towards the mid-2000s. At the beginning of the *post-agreement phase*, the Qaddafi regime was apparently tolerant towards the United States preference to act as the "second mover". However, Tripoli started to complain when the Bush junior administration was not changing its hesitant cooperation strategy, even though Libya had dismantled the vast majority of its WMD programs (St. John 2008: 137-9; Jakobson 2011; Reynolds & Wan 2012: 101). Consequentially, in light of the "optimal problem resolution" required for Libya's ongoing cooperation, the sequenced "quid pro quo" approach signified a *misfit*.

D) Double Verification

The monitoring of Libya's WMD disarmament, which was established at the beginning of the *post-agreement phase*, was relatively intense. Apart from inspections at the various sites of Libya's WMD programs, numerous former Libyan weaponeers were interviewed about their past activities and a considerable amount of documents and records were studied in order to gain insights into the Qaddafi regime's nuclear ambitions. Most outstanding in that regard was, however, that Libya was subjected to a double verification regime. In parallel to the efforts of the two specialized international organizations – the IAEA and the OPCW – the United States together with the UK set up a second line of monitoring (Interview with K. Ward June 2012, Annex 16; Hart & Kile 2005; Tucker 2009). Libya's compliance with its disarmament obligations were checked twice. The inspection focused on the same facilities and sites. Both monitoring regimes took place around the same time. In both cases, the bulk of the work was done between January and September 2004, and both lines of verification were relatively intrusive (Boureston & Feldman 2004: 87; Bowen 2006: 73). Both the US–UK team as well as the IAEA and the OPCW were provided with ample information. Libya had already been very open during the two technical visits in October and December 2003. However, in the *post-agreement phase*, Tripoli became even more transparent and was ready to fully disclose its entire WMD programs (Bowen 2008; Mahley 2004: 6; Tobey 2014).³⁸⁵

The double layer of monitoring was not free of friction. In particular, Washington and the IAEA became entangled in a "turf war", which was, according to Wing and Simpson, sparked "over the place of and the need for the agency" in the project of Libya's disarmament (Wing & Simpson 2013: 102). The IAEA was disappointed that it had not been included in the trilateral negotiations in December 2003 and publically called into question the U.S. assessment of the Libyan nuclear weapons program, describing it as less dangerous and implying that Washington had issued an alarmistic evaluation of the Qaddafi regime's nuclear ambitions (Bowen 2006: 73; Koppel 2003). That Washington was instead eager to establish a second line of monitoring different to the efforts of the OPCW and the IAEA was presumably owed to the fact that the Bush junior administration held verification by

³⁸⁵ For example, the Libyans were now revealing that they had additional 750 unfiled 500-kilogram chemical bombs – weapons that had not been mentioned during the early visits in October and December 2003 (Tobey 2014). According Donald Mahley, the first US diplomat that touched Libyan soil after the rupture of diplomatic ties, the Qaddafi regime was completely open and fully disclosed every part of the its WMD program. Having later recollect his memories Donald Mahley wrote: "When we asked to see equipment or inside buildings, or a site where we thought there might be some activity that had not been declared, we got what we asked for, in the overwhelming majority of cases quickly and with outstanding effort on the part of our Libyan hosts" (Mahley 2004).

international organization in general in rather low esteem. This instrument was often portrayed as providing only a “false sense of security” (Charbonneau 2004; Cirincione 2007: 112-115).³⁸⁶ In the particular circumstance of the Libyan case, Washington’s critique of the IAEA and its verification practice was not baseless. After all, the watchdog organization had monitored Libya’s civil nuclear research reactor in Tajoura since the 1970s without detecting any inconsistencies (Wing & Simpson 2013: 102).

Despite these frictions, there is solid ground to assume that the doubled layered verification was indeed helpful to allay the concerns that Washington had vis-à-vis the Qaddafi regime at the beginning of the *post-agreement phase*. We assume that this non-diplomatic intervention *fit* to required precaution against reemerging distrust (Figure 28).

Despite the squabbling with the IAEA, the United States was content with the practical monitoring of Libya’s disarmament. At a Congress Hearing in late September 2003, Paula DeSutter said: “Verification is not a science, and no verification determination can be absolutely certain. But (...) what I am saying with regard to Libya, is that we have verified with reasonable certainty that Libya has eliminated, or has set in place the elimination of all its WMD and MTCR-class missile programs” (U.S. Congress 2004a). This assessment was also echoed by the U.S. intelligence community, which came – by referring to the intensive verification of Libya’s effort to dismantle its WMD programs – in 2004 to the conclusion that there is only an “extremely low probability of things going wrong” (Commission on the Intelligence Capabilities 2005: 262).

However, for Libya the double verification signified only a *partial fit* – at least this is the “best explanation” we could reveal from the historic evidence (Figure 28). In all probability, the Qaddafi regime had no problem with verification as such. Most likely, the intensive monitoring was regarded as an instrument to demonstrate that there was no reason for further indulging distrust and suspicion towards Libya. Verification was in that sense a “show case” of Libya’s willingness for joint cooperation. However, Libya made no secret of the fact that it would have preferred a single verification regime. While its preference for the two layers of monitoring shifted over time, Tripoli was always in favor for a comprehensive approach.³⁸⁷

E) Slow & Insufficient Substitution

When analyzed through the lens of the *public bad approach*, the disarmament agreement negotiated in December 2003 was incomplete. As we have explained above, the U.S.–

³⁸⁶ In particular John Bolton (Undersecretary of State for Arms Control and International Security Affairs from 2001 to 2005) who became in the *post-agreement phase* the key player at the Bush administration on the effort to eliminate the Libyan WMD programs, were an outspoken critic of verification by international organization in arms control and non-proliferation (Cirincione 2007: 112-115).

³⁸⁷ At first Tripoli clearly preferred the monitoring by the United States and the UK in an expression of its inclination for a swift rapprochement with Washington. At that time Libya was rather reluctant in its cooperation with the international organizations. However, several months after the Qaddafi regime’s announced its decision for nuclear disarmament the Arab press started to become more skeptical about Tripoli’s move. Critique was uttered that Libya had bent down to U.S. pressure and the show of force in Iraq. As a consequence, the Qaddafi regime ostentatious searched the cooperation with international organizations in order to dispel this impression (Interview with K. Ward, June 2012, Annex 16; Bowen 2006: 72; Wing & Simpson 2013: 133).

Libyan accord was biased and insufficient since it provided no suitable substitution for Libya's eliminated *nuclear bad*. The Qaddafi regime's original "fabrication chain", oriented at the "final goods" of security and prestige, remained interrupted. This failure of the *agreement phase* dragged on in the *post-agreement phase*. During its implementation, the biased nature of the disarmament accord was not corrected. The substitution of Libya's *nuclear bad* was slow and insufficient – a finding that made us rate the implementation of the disarmament agreement as a *misfit* (Figure 28).

Deprived from an important power tool to realize its desired "final goods", the Qaddafi regime started to suffer "nuclear phantom pains" towards the end of the *post-agreement phase*. The historic evidence suggests that, at least on some occasions, Tripoli was sorry to have let their nuclear weapons program go so cheaply (e.g. Yonhap, 26th April 2010; Annex 3). Although this argument is hypothetical, one could not exclude that the Qaddafi regime, which was toppled in 2011, might have tried one day to ease its longing by a return to nuclear efforts. Certainly, during the *post-agreement phase*, the rapprochement with the United States gained pace and the Qaddafi regime received, starting by 2004, several rewards in return for having abandoned its WMD programs. However, these concessions were not sufficient to close the gap the eliminated *nuclear bad* had teared in Tripoli's "fabrication chain". For Libya, the *substantial negotiation problem* was not resolved and the North African country remained entangled in a *colliding interest* and an *injustice trap*.

At the beginning of the *post-agreement phase*, it appears that Libya was not annoyed by the fact that it had gained relatively little in return for its decision to reverse its WMD programs. In all probability, the international applause for its nuclear disarmament and the swift reintegration as a normal player into world politics superimposed the lacking substitution and the biased disarmament deal.³⁸⁸ Libya was at that time expecting that its decision for *nuclear reversal* would pay off as soon as the desired rapprochement with the United States gathered pace. At that time, the signals Tripoli was receiving were promising. Until September 2004, Washington had lifted most of its unilateral sanctions,³⁸⁹ U.S. companies started to return to the Libyan market, and Western European leaders – first and foremost Tony Blair – were welcoming Muammar al-Qaddafi back in international politics (Jakobson 2012; Reynolds & Wan 2012: 101). Tellingly, in early 2005 Saif al-Islam was still portraying the disarmament accord as an "attractive deal" due to the "promise and incentives from the United States and Britain" (AFP, 5th April 2005). In correspondence with this optimistic view, Libya was during the first years also actively supporting the elimination of its WMD programs, including the swift removal of its most sensitive technologies and materials (Interview with K. Ward, June 2012, Annex 16; interview with M. Mininni

³⁸⁸ There were only very few governments that were not welcoming Libya's decision for nuclear reversal – among them North Korea and Iran (Joseph 2009: 90).

³⁸⁹ In February 2004 the Bush administration lifted the travel restriction on Libya. In April 2003 the ILSA sanctions package was terminated for Libya and commercial activities including investment to the North African country were resume. In June 2004 a crucial step towards resuming normal diplomatic ties were taken by the inauguration of a Libyan Liaison Office in Washington. In September 2004 the International Emergency Economic Powers Act was lifted – a step that set free approx. \$1.3 billion of Libyan asset which had been frozen in U.S. banking accounts. But to the disappointment of Tripoli the Qaddafi regime remained relatively long on the U.S. list of state sponsors of terrorist. It was only in May 2006 that Libya were crossed from that list (St. John 2008: 137-9; Frantz & Mayer 2005; Jakobson 2011; Reynolds & Wan 2012: 101).

December 2011, Annex 16; see also Mahley 2004). The IAEA praised Libya for its “excellent cooperation” (AFP, 30th Aug. 2004). Also, the non-proliferation experts in London and Washington were content since Libya helped at the beginning of the *post-agreement phase* to throw light on the activities of the A.Q. Khan network (Wing & Simpson 2013: 134).

However, by mid-2005 the picture started to change. As the glee of the early *post-agreement phase* was fading away, the Qaddafi regime began to complain that it had not received enough in return for having decided in favor of WMD disarmament (Interview with Daniel December 2011, Annex 16; interview with M. Mininni December 2011, Annex 16; see also: Corera 2006: 194). From then onward, Libya’s grumble never came to a halt and was constantly expressed both in direct talks with U.S. representatives and in public forums. Frustrated with the little U.S. support, Libya recanted its status as a successful model for other nuclear weapons states. For example, in 2010 Muammar al-Qaddafi said during an interview with the South Korean press: “The problem is that Libya has not been compensated for its good deed. Therefore, the Libyan example is not attractive (...) Libya has not made any big gain, for example, using the nuclear peaceful purposes” (Yonhap, 26th April 2010; Annex 3).

There is solid ground to assume that the Libyan complaints were not just the product of disappointed hopes for more lucrative Western rewards. Rather, Libyan grumble were clearly framed along the lines of regime security and prestige – a fact that makes us interpret Tripoli’s dissatisfaction as a consequence of the insufficient substitution.

For example, Tripoli demanded constantly for close military relations with the United States. Throughout the 2000s, Libya was frequently asking for lethal military equipment and U.S. security guarantees (see, e.g. U.S. Embassy Tripoli, 31 Dec. 2008). When Muammar al-Qaddafi met, for example, the U.S. congressman Richard Lugar in summer 2005, he explained that in his view of an “appropriate reward” for Libya’s WMD disarmament meant the delivery of defensive weapons that would provide protection against external threats (U.S. Embassy Tripoli, 21. Aug. 2008). And in August 2009, Libya National Security Advisor, Muatassim al-Qaddafi, the Libyan dictator’s third born son, underscored the request for more military support by the United States by saying “Libya had given up much” and that it was “time for the U.S. to show some trust and confidence in the relationship” (U.S. Embassy Tripoli, Feb. 2009).

Apart from security related demands, Tripoli made also requests that could be interpreted as an expression of prestige. The Qaddafi regime was, for example, eager to conclude with the United States a “strategic alliance” and envisioned that Libya would, because of its *nuclear reversal*, receive a special treatment from Washington that would make the American–Libyan ties distinct from the U.S. policy towards other Arab countries (U.S. Embassy Tripoli, 31 Aug. 2005, 1 Sep. 2006, and 31 Dec. 2007). Presumably the most important vehicle for Libya’s desire of respect and special treatment was its demand for a large civil nuclear power plant – a request that oil-rich Tripoli uttered constantly towards the United States during the second half of the 2000s (U.S. Embassy Tripoli 8 May 2008).

However, Washington was not prepared to respond to Libya's demands. In the US perspective, Libya had violated all arms control and non-proliferation treaties it had signed prior to December 2003. It was only naturally that Tripoli was obliged to undo its misbehavior. In Washington's view, it was only logical to apply "cautious rapprochement" with the former opponent.³⁹⁰ In a Hearing before the U.S. Congress in March 2005, William Burns said that despite the numerous positive evidences for a change in Libya's foreign policy "there remains a number of very real concerns. We should have no illusions about them, and addressing them will require steady determination and candor" (U.S. Congress 2005: 5).³⁹¹

Consequently, the U.S. embassy in Tripoli described the Libyan demands for appropriate substitution as a "ritualistic incantation" and as a "bid to put US interlocutors at a disadvantage at the beginning of a conversation" (U.S. Embassy 31 Aug. 2006). The U.S. officials who were directly entrusted with the Libyan affairs during the *post-agreement phase* were convinced that Libya had received sufficient rewards in return for its *nuclear reversal* (Interview with J. Daniel, December 2011; Interview with K. Ward June 2012, Annex 16).³⁹² The logic of a gap filling substitution that would have allowed Libya to continue the fabrication of its "final goods" – regime security and prestige – apparently never came into their mind.³⁹³

Towards the end of the *post-agreement phase*, the ongoing failure to resolve the *substantial negotiation problem* started to affect Libya's actual behavior in the disarmament field. The disappointment with the insufficient substitution, which had beforehand been expressed by complaints, was now translated into concrete actions. Presumably, the first step in that regard was Libya's withdrawal from a joint venture project

³⁹⁰ Two aspects that in particular hampering Washington's reengagement with Libya and increased the United States' distrust were the alleged Libyan attempts to assassinate the Saudi Crown Prince and the Libyan Prime Minister's public equivocation over the Qaddafi regime's responsibility for the Pan Am 103 bombing (Interview with R. Joseph, Nov. 2011, Annex 16; U.S. Congress 2005: 12). In addition, the families of the Lockerbie victims were also affecting Washington's cautious policy towards Tripoli. For example, when the Bush administration requested in June 2007 \$1.15 Million for measures to normalize the relationship with the Qaddafi regime the House Appropriation Committee blocked this funds until the Bush administration would certify that the families of the Lockerbie victims were fully compensated by the Qaddafi regime (St. John 2008: 139-40).

³⁹¹ As Ronald St. John has pointed out in his analysis of the American-Libyan relations after December 2003, it was in particular the "Bush administration's ideologues [that] worried about the Qaddafi of old and put their priority on punishing Libya for past deeds as opposed to rewarding it for policy change" (St. John 2008: 146).

³⁹² In 2009 the United States and Libya signed a non-binding pact on defense cooperation. However, this framework agreement had no immediate and tangible security implications. In the late 2000s the United States also made attempts to introduce Libya to the US lead Trans-Sahara-Counter-Terrorism-Partnership (TSCTP). However, insisting to be treated as a special partner, Libya was rather reluctant to become part in this regional initiative which was in Tripoli's perspective not reflecting the bilateral cooperation the Qaddafi regime had envisioned (St. John 2011: 140).

³⁹³ However, at least at the very beginning of the *post-agreement phase* there were indicators that Washington might have been aware of the logic of substitution. At least we could interpret a statement provided Paula DeSutter (Assistant Secretary of State for Verification and Compliance) to the House of Representatives in that regard. DeSutter said in September 2004: „It is, however, important that we recognize the momentous changes taken by Libya in dismantling its WMD and long-range missile programs. It could not have been an easy decision to abandon weapons programs in which it had invested untold amounts of money. It could not have been an easy decision for Libya to seek new ways to ensure its security" (U.S. Congress 2004b).

with the United States on the destruction of chemical warfare agents. As Libya became aware that the United States agreed to provide North Korea with a considerable amount of crude oil in exchange for a diplomatic breakthrough achieved in the six-party talks on the Pyongyang's nuclear weapons program, Muammar al-Qaddafi, reportedly, felt neglected and disrespected. Instead of a joint venture project, Tripoli was now requesting that Washington should pay for the entire destruction of the Libyan chemical warfare agent. As Washington declined this demand, Libya concluded a contract with a private Italian company (Interview with K. Ward, June 2012; Interview with M. Mininni, Dec. 2011, Annex 16; see also: Tucker 2009: 377). The American–Libyan joint venture project of a “nuclear medicine center” took a very similar fate.³⁹⁴ Libya also stopped the agreed dismantlement of its Scud-B missiles – an act of non-compliance with the disarmament accord of December 2003, which was only resolved after considerable diplomatic back-and-forth by a compromise with the United States.³⁹⁵ In addition, in late 2009 the Qaddafi regime even suspended the removal of seven containers of highly enriched uranium (HEU) designated to be flown to a special disposal plant in Russia. Libya explained that it had halted the shipment because it was “fed up” with the slow pace in the improvement of bilateral relations with the United States and the little compensation Washington had “promised in exchange for an end to its WMD programs, including cooperation in the military, security, nonproliferation, civil-nuclear and economic spheres” (Fisher 2010; Sanger 2011).

Probably the most important indicator for Libya's frustration with the slow and insufficient substitution of its *nuclear bad* was, however, the withholding of a considerable amount of chemical weapons – including hundreds of artillery shells loaded with mustard agents. In 2011, shortly after the downfall of the Qaddafi regime, rebel fighters discovered this arsenal at a remote military site in the Libyan desert (e.g. Smith, Warrick & Lynch 2011). The Qaddafi regime had never declared these chemical weapons, neither to the US–UK team nor to the OPCW. The purpose of this arsenal remains by and large unknown – including the question whether these weapons were intentionally hidden by the Qaddafi regime. It is possible that the Qaddafi regime had simply forgotten about this hidden arsenal – an expression of the North African country's chaotic bureaucracy (Interview with K. Ward, June 2012, Annex 16). However, in light of Tripoli's dissatisfaction with the U.S. rapprochement it is also likely that this flagrant violation of the American–Libyan disarmament accord was done on purpose.

³⁹⁴ Here too Libya ratcheted up its demands towards the United States and eventually withdrawal from the project (Interview with J. Daniel, Dec. 2011, Annex 16). Moreover, one could interpret Libya's growing effort to establish civil nuclear cooperation with a series of countries – including France, Argentina, Canada, Ukraine, and Russia – as an additional indicator for the growing frustration with the United States (Blanchard 2009: 26).

³⁹⁵ Libya had stopped the dismantlement of the Scud-B missiles with the argument that this requirement would cause harm to its national security strategy since it was not able to substitute the ageing Soviet Scud-B missiles with an alternative system within the five years grace period the United States had originally granted. After six months of negotiations with the Qaddafi regime, Washington eventually decided that Tripoli could keep its missiles although this concession was against the disarmament agreement of December 2003 (Interview with K. Ward, Dec. 2012, Annex 16).

6. CONCLUSION

In the introduction, we said that IR and rock n' roll have many things in common. One of the most striking similarities is certainly the common "pattern of consumption". On the one hand, rock n' roll fans love to hear "more of the same". After having tried and tested different schools and trends, most listeners of rock n' roll music develop an inclination for a particular style. IR is consumed in very similar ways. Once scholars have developed a "taste" for a particular "style", they apply the same set of theories, analytical approaches, and methods over and over again. In the introduction, we said that this "more of the same attitude" is not adverse to innovation. Innovation takes place in the form of an incremental process where external impulses are translated and adapted to the preferred "style". On the other hand, IR scholars and rock n' roll fans also adore "thrilling moments" – situations when they are electrified by breakthroughs which enlarge the spectrum of their cherished styles. In IR and rock n' roll, "thrilling moments" are rare. However, when they occur, they have the nature of "intriguing shock waves". While the "more of the same attitude" builds on the so-called "within style innovation", the "thrilling moments" are instead "innovation by discovery".

Since we now sum up our PhD project, we return to this two-fold "pattern of consumption". In the first part (ch. 6.1) of this chapter, we will discuss the results we achieved by applying the "more of the same attitude" to the single hard case study on the Libyan NRN. We will show that we have revealed many new and interesting insights about the performance of *diplomatic design* and about the bargaining dynamics with *atomic renegades*. Our research project was certainly innovative. We used a series of concepts that were never or only rarely applied in IR before – such as *diplomatic design*, the *problem of fit*, the *public bad approach* or the IBE based model development. However, although the different analytical perspectives we used were new or unused, they all signified "innovation by translation" since all of these concepts originated from neighboring (sub-)disciplines. The findings we revealed were pioneering but they do not substantially push the border of our "style". Instead, they signify welcoming analytical developments that could be smoothly integrated into the existing body of literature on trans- and international negotiations.

In the second part (ch. 6.2), we will present the *research desiderate* of our PhD project: *the logic of wisdom* (LoW). As a research desiderate, the LoW is not a result of our analysis in the narrow sense of the meaning. It was neither part of our research question nor have we actively studied it. But although we have not "searched" for it, we still deem it as a "finding" of this PhD project. We grant it a proper place in our conclusion. We are convinced that the research desiderate is the "thrilling moment". What we believe to have discovered *en passant* is, in essence, a new strategic mode of action and decision making that is rare but highly relevant for the understanding of world politics since it is likely to apply particularly in those situations where power differences are prominent, where

foreign policy challenges are high, or foreign policy makers are impelled to take decisions and actions under high time pressure.

6.1 “More of the Same”: Answering the Central Research Question in Two Steps

In the introduction chapter, we made clear that a proper response to our central research question (*How to design well-fitting NRN that drive atomic renegade states into nuclear disarmament*) requires both “backward-looking analysis” (ch. 6.1.1) and “forward-looking prescription” (ch. 6.1.2). Any answer to our central research question has to remain unsatisfactory if it does not respond properly to these two central research orientations prescribed by the overarching *policy paradigm*. Consequentially, we will structure the discussion of the findings we revealed under the “more of the same attitude” along these lines. In the section on the “backward-looking analysis”, we will at first discuss the performance of *diplomatic design* and its rival explanations (ch. 6.1.1.1). We will show that Libya was “won by diplomacy” and that alternative factors played a subordinated role at best. But we will also show that *diplomatic design* – and not other explanations promoted in the past by the literature on negotiation research – where the major driver behind the Libyan negotiation success. However, despite its overall impact, it is also true that the performance of individual diplomatic design elements was relatively diverse. What we encounter in the Libyan “hard case” was a “variety of (mis)fits”. We will devote an extra section showing the diversity of *diplomatic design’s* performance (ch. 6.1.1.2).

Moreover, the summary on the “backward-looking analysis” would be incomplete if we do not discuss the explorative and evaluative strength of the *fit taxonomy* (ch. 6.1.1.3 and ch. 6.1.1.4). The “backward-looking analysis” did not only reveal insights into the performance of diplomatic design elements, it also highlighted the evaluative and explorative strengths of the *fit taxonomy*. After all, it was primarily because of the *fit taxonomy* that we were able to develop a new narrative on Libya’s *nuclear reversal*.

Turning to the “forward-looking prescription” – the second part of our response to the general research question – we will elaborate not on the design but on the *designing*. The “forward looking prescription” takes what we have discovered in the “backward-looking analysis” and translates these findings into policy recommendations. It signifies in that sense the culmination of our multi-staged answer to the question: *how to design well-fitting NRN that drive atomic renegade states into nuclear disarmament*. Against that background, the most straightforward response we could give to our central research question without specifying a particular future NRN case is methodic in nature and goes as follows: (1) take the *fit taxonomy* we have developed and apply it in a prescriptive mode to the given strategic constellation (2) with its help, identify the “optimal problem solution” (3) on that basis, consider the available diplomatic tools that are likely to fit well to the ascertained problem and (4) piece them together into a coherent negotiation strategy.

However, all those readers who would prefer a more concrete and substantial answer to the “forward looking part” of our overarching research question instead of a general methodic recommendation do not have to despair. In order to show the prescriptive power

of the *fit taxonomy* we will run in the forward-looking section of the conclusion a brief “thought experiment”. We will elaborate on the promising diplomatic leverages Washington and Tripoli could have used in order make the Libyan NRN an even greater diplomatic success, if we assume that they had the chance to use the *fit taxonomy* (ch. 6.1.2).

6.1.1 The Backward-Look Analysis: The Performance of Diplomatic Design & the Fit Taxonomy

Libya was “won” by *diplomatic design*. Well-fitting *diplomatic design* is the most important explanation for Tripoli’s *nuclear reversal*. Of course, during the 23 years of the American-Libyan diplomatic struggle, we encounter numerous mismatching design elements and even diplomatic tools that were counter-productive signifying *misfits* and even *negative fits*. There were standstills in the bargaining dynamic and phases that were marked by deadlocks and diplomatic impasses. Moreover, some aspects of the *substantial negotiation problem*, which were studied through the lens of the *public bad approach*, were never fully resolved and lingered on until the Qaddafi regime was toppled in 2011. But even though a more carefully designed negotiation strategy could have achieved even better results, the NRN on Libya’s nuclear weapons program was nevertheless a “diplomatic success story”. The two key negotiation parties – the United States and the Qaddafi regime – moved from a very hostile and antagonistic situation in the late 1980s to a relatively benign constellation in the mid-2000s, resolving a “strategic cascade” of five consecutive *social traps*. Once a disarmament agreement was achieved in December 2003, Libya’s nuclear weapons program was quickly dismantled. The North African country – for a long time a textbook *atomic renegade regime* – returned into the *global nuclear order* allowing intrusive inspections to its clandestine WMD sites by the IAEA, by teams of U.S.-U.K. weapons experts, and by the OPCW.

Among the 14 examples of NRN, the U.S.-Libyan negotiation dynamic signified the “hard case” – if not even a “double hard case” (ch. 4.4). Given the hostile relationship and the state of the Libyan nuclear weapons program, we would have not assumed a successful negotiation outcome *a priori*. The fact that *diplomatic design* had a very high “fit performance” despite these adverse conditions is nourishing our optimistic assumption about man-made structures and procedures. In the Libyan case, we found that *nuclear reversal* was not dependent on a favorable structural environment. Apart from some occasions in the *pre-negotiation phase*, the diplomatic success was not promoted by endogenous shifts within the internal structure of the involved negotiation parties but was primarily achieved by the “manipulation” of the actor’s strategic calculations implemented by the impact of diplomatic design elements. The Libyan NRN therefore further bolsters our general assumption that one could successfully bargain even with the Devil – if only the negotiation strategy is well designed.

In negotiation research, *diplomatic design* was often thought as an epiphenomenon. It was often operationalized as a “projection surface” for larger impact factor – such as power-

based, structural, cognitive, or cultural approaches (see e.g. Kremenyuk 1991). With our PhD project, we showed that *diplomatic design* is an independent factor. Like neo-liberal scholars who showed in the 1980s and 1990s that international institutions and regimes are not mere epiphenomena (e.g. *International Organization*, 1982 vol. 36, no. 2), this doctoral thesis gives rise to the conviction that diplomatic design is a “stand-alone explanation” of autonomous analytical power.

6.1.1.1 Diplomatic Design & Alternative Explanations

NRN and its *diplomatic design* was the most important explanation for the Qaddafi regime’s *nuclear reversal*. Other explanations for *nuclear reversal* played no or only a limited role. Even the most prominent alternative factors (i.e. ideational shifts and liberal explanations) could have – when taken in isolation – not explained the Qaddafi regime’s successful disarmament. Already the bare numbers speak in favor for our assumption. In the 23 years of the American-Libyan struggle on the Qaddafi regime’s nuclear weapons program, we counted 20 design elements but only five structural factors and three non-diplomatic interventions. That finding is supporting the general historic assumption that in the post-Cold War era *nuclear reversal* was first and foremost a “negotiated phenomenon”. Without a profound comprehension of NRN, we are unable to understand why and how *atomic renegade states* reverse their nuclear weapons program and (re)turn to the *global nuclear order*.

But *diplomatic design* was not only the most important driver when compared to the alternative explanations for *nuclear reversal* (discussed in section A below). It was also the dominant factor within the logic of diplomacy. Other explanations for diplomatic success often discussed in negotiation research – such as number of participants, “veil of uncertainty”, or the “shadow of the future” – were irrelevant or did not apply in the Libyan case (discussed in section B below).

A) Alternative Explanations for Nuclear Reversal

Technology based, neorealist, ideational, and liberal approaches are certainly the most important alternative explanations for *nuclear reversal*. We have briefly described these concepts in the setup chapter (ch. 2.2.1). Now we will discuss why they were not or only partly applying in the Libya case.

(i) Technological Explanations: Technological explanations have traditionally played an important part in the nuclear policy field (see the “technological pull theory”). In that view, *nuclear reversal* is attributed to the severe technological and management problems that *atomic renegade states* face when attempting to pursue a nuclear weapons program.

The Libyan nuclear weapons program was constantly haunted by technological setbacks and failures (ch. 5.1.2). When it was dismantled in 2004, it was still in an “embryonic state” and several years away from crossing the “nuclear threshold”. However, technological or managerial problems are nevertheless unlikely to explain Tripoli’s *nuclear reversal*. On the contrary, the years that immediately preceded Libya’s *nuclear reversal* represent the most

successful period in the entire history of the Qaddafi regime's weapons program. Due to the support from the A.Q. Khan network, Tripoli was able to accelerate its proliferation efforts. The Libyan nuclear weapons program witnessed considerable progress at that time. From Tripoli's perspective, the chance to cross the "nuclear threshold" in the foreseeable future was never better than in the early 2000s (Commission on the Intelligence Capabilities 2005; see also ch. 5.1.2).

(ii) Neo-Realism: Although the key approach for proliferation and not for *deproliferation* – neo-realism has also a say in *nuclear reversal* (ch. 2.2.1). It is for example said that when the external threats, which once gave rise to a nuclear weapons program, start to decrease, *atomic renegades* will consider abandoning their nuclear endeavors.

The Qaddafi regime indeed witnessed a reduction of external pressure starting in the early 1990s. At that time, the Clinton administration halted the U.S. efforts to topple Muammar al-Qaddafi – an objective Ronald Ragan and George H.W. Bush had pursued, among other strategic goals, in their foreign policy towards the North African country (ch. 5.2.1.2). However, Tripoli's threat perception vis-à-vis the United States was constantly relatively high. Before 2004, the North African county was, in effect, always in a "state of alert". Even in the fall of 2003 when the final agreement on Libya's WMD programs was within close reach, Muammar al-Qaddafi was reportedly very concerned given the U.S. lead Iraq intervention. There is, for example, solid ground to assume that the capture of Saddam Hussein in early December 2003 in particular inflamed the Libyan leaders' concerns and was decreased his willingness to cooperate with the United States on WMD (ch. 5.3.4.2).

However, it would be likewise misleading to interpret Libya's threat perception as proof for the second neo-realist explanation of *nuclear reversal*. Several neo-realist scholars have argued that running a nuclear weapons program is risky since it renders the *atomic renegade state* vulnerable to military counter-proliferation measures. In order to avoid this danger, *nuclear reversal* is a viable option, these authors say (ch. 2.2.1). Certainly, Muammar al-Qaddafi and his close entourage were concerned by the U.S. power politics in the region. However, the Second Iraq War is still unlikely to be an explanation for Libya's *nuclear reversal* – although that was often the argument of neo-conservative analysts (ch. 5.3.2.2 and ch. 5.3.5.2). Apart from the fact that the "show of force" argument neglects more than a decade of American-Libyan diplomatic struggles which was kicked-off by Tripoli starting in the early 1990s (ch. 5.1.1), the U.S. lead intervention to topple Saddam Hussein was – in all probability – too distant to increase Tripoli's threat perception beyond the existing high state of alert. The "Iraqi theater" was several thousand kilometers away from Libya's border. Washington had not issued any concrete military threats against Tripoli at that time, and apart from the Gulf Region, U.S. troops were not significantly amassed in other parts of the Middle East in 2003.³⁹⁶

³⁹⁶ Moreover, the argument that Libya chose *nuclear reversal* because of fear in the early 2000's, is also unlikely when we apply a historic perspective. The only time that the Qaddafi regime witnessed a tangible military attack was when the Presidency of Ronald Reagan ordered the Operation El Dorado Canyon in April 1986. However, this military strike had not cooled down Tripoli's efforts to acquire an atomic bomb but had instead considerably inflamed Libya's nuclear ambition (ch. 5.3.1.2).

(iii) Ideational Explanations: However, in light of the ideational explanations, it is likewise incorrect to assume that the Second Iraq War was completely irrelevant for Libya's *nuclear reversal* – an argument that was made by a series of scholars (e.g. Indyk 2004a; Indyk 2004b; Leverett 2004; Müller 2006). Instead, it is one of the counter-intuitive findings of our PhD project stemming directly from the innovative powers of the *fit approach* that the U.S. lead intervention had a considerable impact – although quite different from the “show of force” argument. The Iraq War did not move Libya into disarmament but instead was a crucial factor that pulled the Bush junior administration into a diplomatic engagement with the Qaddafi regime (ch. 5.3.2.2). By spring 2003, the intervention to topple Saddam Hussein became Washington's major power project and initiated a shift in U.S. policy towards Libya. In light of the Iraq war, the diplomatic engagement with the Qaddafi regime on WMD, which Washington had refused throughout the 1990s, became a desirable project supportive to the broader U.S. Middle East strategy. The “Iraq War linkage” was in that sense an *ideational explanation* that affected the Bush junior administration's decision-making towards the end of the *pre-negotiation phase*.

The second ideational explanation was the gradual alternation of Muammar al-Qaddafi's worldview, which took place between the late 1980s and early 1990s, steering Libya's foreign policy towards a more cooperative and less hostile course, which made Tripoli more inclined to negotiate with the United States (ch. 5.2.1.1). The alternation in Muammar al-Qaddafi's “operational code” was an important variable for Tripoli's intensive backdoor channel initiative launched by spring 1992 with the objective to start a diplomatic process on a series of issues, including WMD.

Certainly, without these two ideational explanations, we would have been unable to understand the nature of the *pre-negotiation phase* of the American-Libyan bargaining dynamic. Both ideational explanations played a meaningful role in the resolution of the two strategic games that underpin that phase (i.e. the Deadlock Game and the Imposed Deadlock Game). However, ideational explanations neither dominated the NRN nor were they responsible for the Qaddafi regime's *nuclear reversal*. Consequentially, it is an exaggeration to say that Libya's denuclearization could have been achieved already in the 1990s if the United States had only agreed to the Libyan proposal for direct talks (e.g. Müller 2006). Instead, when taken in isolation, the effect of these two ideational explanations is rather limited. Ideational factors exerted an impact on the NRN process because they were supported and flanked by design elements. The shift in Washington's strategic desires that made the diplomatic engagement an element in the U.S. broader politics with the Middle East in general and to the Iraq War in particular, was, for example, supported by British mediation efforts including a personal intercession by Tony Blair (ch. 5.3.2.2). And despite a more cooperative Libyan foreign policy expressed by the alternation in Muammar al-Qaddafi's world view, Tripoli was only propelled to take concrete actions towards a diplomatic engagement when it was confronted by multilateral sanctions in spring 1992 (ch. 5.3.2.2).

(iv) Liberal Explanations: Like ideational factors, a liberal explanation played a certain role in the early phase of the American-Libyan negotiation process. In response to ongoing

socio-economic crises, which Libya witnessed in the late 1980s and early 1990s, a series of reforms were undertaken – the so-called “Libyan Perestroika” (ch. 5.3.1.2). Several steps were undertaken to liberalize and privatize the Libyan economy. Likewise, the harsh suppression Libya witnessed in the 1980s was at that time at least partially relaxed. These reform efforts were supported by a group of protagonists in the power circles of the Qaddafi regime, that had a “pro economy” and “outward-looking” perspective (Solingen 2007: ch. 10) and were arguing in favor of a more cooperative stance towards the West. Apart from Saif al-Islam, the second oldest son of Muammar al-Qaddafi who was, during the 1990s and 2000s, regarded by many observers as his father’s potential successor, Prime Minister Shukri Ghanem was assumed to be the second key figure of this reformist branch.

In our analysis, we found that these internal shifts had, in all probability, a positive impact on Tripoli’ decision making in the early 1990s and were working in parallel with the ideational changes in Muammar al-Qaddafi’s world view (ch. 5.3.1.2). However, similar to the ideational factors, the impact of the liberal explanation was too limited. When taken in isolation, these factors could likewise not explain the Qaddafi regime’s *nuclear reversal*. The changes in the internal structures of the Qaddafi regime never went far enough to have meaningful implications. When the Qaddafi regime was toppled in 2011, it was still a harsh dictatorship. Its socio-economy system was still primarily state controlled and subjected to intensive inference by political players. Moreover, the reform-oriented members of the Qaddafi regime (e.g. Saif al-Islam or the Libyan Prime Minister Shukri Ghanem) never developed a sufficient political cloud to influence the general strategic course of Libya’s foreign policy. In particular, in security-related issues – such as Libya’s nuclear weapons program – Muammar al-Qaddafi remained the central and uncontested decision maker (ch. 5.2.1).

B) Alternative Explanations for Diplomatic Success

Successful NRN was the central explanation for *nuclear reversal* and *diplomatic design* was the central explanations for successful NRN. Although far from perfect, the totality of design elements that were operating during the 23 years of the American-Libyan negotiation process satisfied the “optimal problem solution” identified with the help of the *fit taxonomy*. As we will show in this section, alternative explanations for this negotiation success were irrelevant and were not applied.

(i) Number of Participants: An important design-independent explanation for negotiation success often discussed in the literature is the *number of participants*, who take part in the bargaining processes (e.g. Olson & Zeckhauser 1966; Oye 1986: 18-22; Wanis-St. John & Dupont 2012: 205-210). Most scholars point out that the transaction costs increase with the growing number of actors and that cooperation becomes more difficult. Reductions in the number of participants is therefore an important explanation for “diplomatic success”.

However, this factor did not apply in the Libyan NRN. The bargaining process had, first and foremost, a bilateral character with the Qaddafi regime and the United States signifying the primary negotiation parties. Moreover, when the diplomatic engagement turned towards a

more cooperative mode by spring 2003, the number of participants was increased instead of decreased. In the *pre-agreement* and *agreement phase*, the U.K. became an important player in the negotiation process in its role as “biased mediator”. And during the *post-agreement phase* – the most benign episode of the NRN process – the number of participants was further enlarged when starting by early 2004 in the IAEA but also the OPCW became involved in the bargaining dynamics on the implementation of Libya’s disarmament.

(ii) Veil of Uncertainty: Another alternative explanation for negotiation success is the so-called “veil of uncertainty” (e.g. Oshrenko & Young 1993: 13; see also: Brennan & Buchanan 1985: 28-31). When actors are unable to foresee how a negotiation outcome might affect their own interest over time, they are more likely to apply an integrative instead of a distributive bargaining strategy. According to this approach, these actors become more inclined to formulate provisions that are fair or equitable.

While this argument might apply to negotiation dynamics in general, it was irrelevant in the Libyan case. Since Tripoli’s nuclear weapons program was illegal and violated the principles and norms of the NPT, it was relatively clear to the members of the Qaddafi regime that complete disarmament was the only possible outcome of a successful negotiation process with the United States. In that sense, there was no “veil of uncertainty” regarding the consequence of the American-Libyan engagement on Tripoli’s nuclear weapons program.

(iii) Shadow of the Future: Finally, the often-discussed “shadow of the future” concept represents another important design-independent explanation for successful bargaining dynamics (e.g. Axelrod 1987; Oye 1986: 12-18). The major argument of this approach is that the likelihood of cooperation is increasing when actors are expecting future interactions.

At first sight, this explanation appears to be relatively convincing for the Libya case, given that the negotiation dynamic was constantly improving over the years and the two parties were moving, step-by-step, from a hostile constellation to a relatively benign situation. However, a closer look reveals that this approach is likewise useless for the Libyan case and is unable to “dethrone” *diplomatic design* as the key driver for the successful NRN process.

Table 6: Overview on Diplomatic Design Elements

	Fit	Overfit	Partial Fit	Underfit	Misfit	Negativ Fit
Coercive Diplomacy				1	3	3
<i>Multilateral Sanctions (ch. 5.3.2.2)</i> <i>U.S. Military Threats (ch. 5.3.1.2)</i> <i>U.S. Naming & Blaming (ch. 5.3.1.2)</i> <i>U.S. Unilateral Sanctions (ch. 5.3.1.2)</i>				•	• • •	• • •
Inducements & Positiv Incentives		2			5	1
<i>Libya's Charm Offensive (ch. 5.3.1.2)</i> <i>Disarmament Accord (ch. 5.3.4.2)</i> <i>The Implementation of the Disarmament Accord (ch. 5.3.5.2)</i>		• •			• •• ••	•
Third Party Interventions	3			2	2	
<i>Mediation by Arab States (ch. 5.3.1.2)</i> <i>UK mediation efforts (ch. 5.3.2.2, ch. 5.3.3.2, and ch. 5.3.4.2)</i>	•••			••	••	
Structure of the Diplomatic Process	5		2	2	1	
<i>Quiet Diplomacy (ch. 5.3.2.2 and 5.3.3.2)</i> <i>Diplomatic Velocity (ch. 5.3.4.2)</i> <i>Choreography of the Public Announcement (ch. 5.3.4.2)</i> <i>Washington's Quid Pro Quo Approach (ch. 5.3.5.2)</i> <i>Communication Channel on Implementation (ch. 5.3.5.2)</i>	• • • ••		••	••	•	
Confidence Building Measures	3	1	2			
<i>Handling of the BBC China Interception (ch. 5.3.3.2)</i> <i>Technical visits to Libya's WMD sites (ch. 5.3.3.2)</i> <i>Lockerbie Talks (ch. 5.3.2.2)</i>	•• • •	•	• •			
Total	11	3	4	5	11	4
• = number of individual (mis)fit impacts						

First, the “shadow of the future” argument only applies when the involved parties expect continued interactions within the same strategic setting – conventionally expressed by a stable payoff structure (Oye 1986: 12; see also: Telsor 1980). Since the payoff structures were changing in the American-Libyan negotiations when the bargaining dynamic moved through the “five-stages cascade” of social dilemmas, this pre-condition is clearly not met. Second, the “shadow of the future” explanation is not universally valid. While it was found to promote cooperation in PD and Stag Hunt Games (e.g. Oye 1986a), it is believed to have even been counter-productive in Chicken Games (Goldstein 2010). As we have explained in the case study (ch. 5.3.1.1 and ch. 5.3.2.1), strategic iteration and the outlook of future interactions are also assumed to have negative implications for the Deadlock Game and its different subtypes (including the Imposed Deadlock Game) which dominated the procedural problem dimension in the Libyan case during the 16 years of the *pre-negotiation phase*. Under the antagonistic situation of these game constellations, iterated strategic interactions are likely to deepen the deadlock scenario and promote the perception that confrontation is a normal “form of living” and the “natural choice” from which the discussed players could not escape anyway.

6.1.1.2 Varieties of (Mis)Fit

However, although NRN and its design were the major explanations for Qaddafi regime’s *nuclear reversal*, the picture of this overall success becomes more amorphous as soon as we start to explore the performance of the individual design elements. When we dive into more detail, we encounter very distinct “varieties of (mis)fits”. While the high general performance was the primary characteristic of *diplomatic design* in the Libyan case, it is safe to say that variation was its second major feature. The U.S.-Libyan negotiations were in essence a “patchwork rug” where well-matching design elements were followed by interventions that were weak, indifferent, and ineffective, or even counter-productive. Tellingly, if we look through a quantitative lens on the performance of diplomatic design,

we find that those design elements that were ranked as *fits* represent an equally large group than those evaluated as *misfits* (eleven cases each) (Table 6).

Given that we have already elaborated on the nature of the individual design elements in detail in the case study, here in the conclusion, we will not be repetitive. Instead of focusing on individual design elements, we will try to decipher common patterns within the “varieties of (mis)fit”. The variations in the *diplomatic design’s* “fit performance” that are, in our view, most interesting and revealing are (A) the five uneven categories of *diplomatic design* (B) the varying causal pathways of individual design elements (C) the dissimilar resolution of the *procedural* and *substantial problem dimension* (D) the shortcomings in settling the *colliding interest* and the *injustice trap*, and (E) the variations between sender and receiver of *diplomatic design*. We will discuss these aspects in the following section.

A) Five Uneven Categories of Design Elements

For the sake of systematization, we have grouped the 20 individual design elements into five broader categories often discussed in IR literature (coercive diplomacy, inducements & positive incentives, mediation & third party interventions, design elements related to the structure of the diplomatic process, and confidence building measures). Apart from revealing that the U.S.-Libyan bargaining dynamic saw manifold and diverse design elements and was not dominated by a particular negotiation pattern, this five-tier systematization discloses that the performance between the different categories varied widely (Table 6).

Coercive diplomacy (i.e. military force, economic sanctions, and naming and blaming strategies) was among the five categories of the group of diplomatic design elements with the lowest “fit performance”. The Libyan case is therefore supporting the mainstream IR view that coercive diplomacy is *in general* not working (e.g. Haas 1997, Gause 1999, Mueller & Mueller 1999; Nurnber 2009). *Misfits* were dominant and a single *underfit* was the best achievement the different coercive design elements contributed to the Libyan-American bargaining process. But coercive diplomatic design was not only found to be in most of the cases ineffective and inefficient. We also revealed that it represents the group with the highest proportion of *negative fits* among the different categories of design element. When applying coercive design elements, the danger was high that these tools provoke counter-productive consequences and in essence make the problem they aim to resolve even more complicated (Table 6).

Table 7: Diplomatic Design Elements with Varying and Complex Causal Pathways

	Fit	Overfit	Partial Fit	Underfit	Misfit	Negativ Fit	Design Category
Multiple Mismatching Design Elements				1	5	3	
Multilateral Sanctions (ch. 5.3.2.2)					•	•	Coercive Diplomacy Coercive Diplomacy Coercive Diplomacy Positive Inducement
U.S. Military Threats (ch. 5.3.1.2)				•	•	•	
Libya's Charm Offensive (ch. 5.3.1.2)					•	•	
Mediation by Arab States (ch. 5.3.1.2)					••		
Multiple Matching Design Elements	5	1	2				
Communication Channel on Implementation (ch. 5.3.5.2)	••						Process Related Design Element Confidence Building Measures Confidence Building Measures Confidence Building Measures
Handling of the BBC China Interception (ch. 5.3.3.2)	••						
Technical visits to Libya's WMD sites (ch. 5.3.3.2)	•	•	•				
Lockerbie Talks (ch. 5.3.2.2)	•		•				
Ambiguous Design Elements	4	2			5		
Washington's Quid Pro Quo Approach (ch. 5.3.5.2)	•				•		Process Related Design Element
UK mediation efforts (ch. 5.3.2.2, ch. 5.3.3.2, and ch. 5.3.4.2)	•••			••			
Disarmament Accord (ch. 5.3.4.2)		•			••		Positive Inducement Positive Inducement
The Implementation of the Disarmament Accord (ch. 5.3.5.2)		•			••		
Evergreen Design Elements	3		2	4			
UK mediation efforts (ch. 5.3.2.2, ch. 5.3.3.2, and ch. 5.3.4.2)	•••			••	••		Mediation Process Related Design Element
Quiet Diplomacy (ch. 5.3.2.2 and 5.3.3.2)			••	••			

• = number of individual (mis)fit impacts

In terms of its overall performance, the category of *positive inducement* achieved only slightly better results.³⁹⁷ *Misfits* were clearly dominating the picture and we even encountered a *negative fit* (Table 6). That incentives were found in the “hard case” of the Libyan NRN to have an overall “fit performance” similarly as weak as coercive diplomacy, is particularly problematic for all those analysts who think foreign policy tools merely along the dichotomous categories of “carrots and sticks”.

Another aspect that is noteworthy about positive inducement – apart from its similarity to coercive diplomacy – is the “outlier structure” in its “fit performance” (Table 7). While the majority of design elements had mainly indifferent or negative implications, we encounter two *overfits* in this category – the rare constellation where an impact factor is effective but, in terms of efficiency, widely overdosed for the actual problem resolution.³⁹⁸

While positive inducements were marked by an “outlier structure”, *third party interventions* and *process related design elements* were found to have a “bifurcated fit performance”. Both categories achieved relatively solid results in the sense that around half the individual design elements were evaluated as *fits* (Table 6). However, despite high performing potentials, both categories are characterized by an equally strong cluster of ineffective or inefficient design elements.

Among the different categories of design elements, *confidence building measures* were found to have operated relatively efficiently and effectively in the specific setting of the Libyan NRN. While not every design element yielded a *fit*, the overall performance was relatively high and showed neither outliers nor bifurcations (Table 6).

³⁹⁷ Note that we have grouped the disarmament accord of December 2003 as well as its implementation into the category of “positive inducement” since both were – when seen in a broader perspective – primarily about initiating a rapprochement between the United States and Libya which could be understood as the overarching incentive for the entire negotiation dynamic.

³⁹⁸ The outlier structure as well as the similarity to coercive diplomacy represents important factors which will later (ch. 6.1.2.1) bolster our argument that the impact of positive inducement is, in essence, akin to a premodern “cannonball”.

B) Variable & Complex Causal Pathways

Looking beyond the just discussed categories and specifying more on the causal pathways of the individual design elements, we encounter additional variations in the “fit performance”. In essence, most of the design elements we studied in the Libyan NRN were marked by complex and multilayered causation. The most interesting causal pathways were the *multiple* and *ambiguous (mis)fits* as well as *evergreen matches* (Table 7).

Multiple (mis)matches are causal pathways that not only address one particular negotiation problem, but have instead several – either positive or negative – implications for a given negotiation dynamic. The interception of the BBC China and its diplomatic handling signified a *multiple match*, for example. This design element had positive implications in terms of trust building, but it also increased the Qaddafi regime’s interest in cooperation with the United States on nuclear disarmament and encouraged Tripoli to take the first step in that direction (ch. 5.3.3.2). In totality, *multiple matches* were as common as *multiple mismatches* – a category of particular problematic *diplomatic design* which included diplomatic tools such as the U.N. sanctions (ch. 5.3.2.2), Libya’s charm offensive in the late 1980s (ch. 5.3.1.2), or the hapless mediation efforts by Arab states (ch. 5.3.1.2) (Table 7).

Evergreen matches are causal pathways that have positive implications over time and provide contributions to the resolution of negotiation problems not just in one but across several bargaining phases. It is less their frequency or their impact intensity that makes these types of design elements particular, but rather their stable and constant performance.³⁹⁹ Quiet diplomacy represents, for example, an evergreen match (Table 7). It was not only conducive for the efforts to overcome the Imposed Deadlock Game in the *pre-negotiation phase* (1990 - 2003) but also contributed to resolve the Alibi Game in the following *pre-agreement phase* (April - December 2003) (ch. 5.3.2 and ch. 5.3.3).

Ambiguous (mis)matches (or *backfiring (mis)matches*) instead represented causal pathways of design elements with opposite implications either for the involved negotiating parties or for the different negotiation phases. *Ambiguous (mis)matches* therefore often have the character of zero-sum instruments since the positive effects they provide to one negotiation party are the logical consequence of the negative implications they have for their counterparts. The quid pro quo approach which the United States applied during the *post-agreement phase* (2004-2011) would, for example, fall into this category (ch. 5.3.5.1). However, *ambiguous (mis)matches* go beyond the conventional idea of zero-sum or distributive bargaining strategies, since they also cover “echo effects”. That is when, for example, a *misfitting* impact factor is transformed over time into a *fitting* design element – and vice versa.⁴⁰⁰

³⁹⁹ While there is, in theory, the possibility of evergreen *mismatches*, we have encountered no design element in the Libyan NRN that would fall into this particular category.

⁴⁰⁰ Take, for example, London’s mediation efforts. While this design element had, during most parts of the negotiation dynamic, a relative high “fit performance”, the U.K.’s role as a mediator suffered a set-back during the *pre-agreement phase* (April - December 2003) when this well-fitting diplomatic tool was turned into an *underfit* instrument – only to regain its strength in the following *agreement phase* (December 2003) (ch. 5.3.2.2, ch. 5.3.3.2, and ch. 5.3.4.2).

C) Dissimilar Resolution of the Procedural and Substantial Problem Dimensions

If we evaluate the *diplomatic design* with regard to the two central problem dimensions (i.e. *substantial* and *procedural negotiation problem dimension*), we encounter further variations in terms of “fit performance”. While the *procedural negotiation problems* were relatively convincingly resolved, the performance in terms of the *substantial problem dimension* was rather weak. While the two parties managed to move through the five-stage cascade of social traps step-by-step and were even able to overcome such challenging strategic constellations like the Impose Deadlock Game, they achieved only a partial resolution of the Libyan *nuclear bad*. Certainly, Tripoli’s nuclear weapons program was swiftly dismantled. However, due to the inappropriate resolution of the *substantial problem dimension*, the WMD issue remained an obstacle in the slowly improving American-Libyan relation after 2004 (ch. 5.3.5).

Table 8: Fit Performance in the Substantial & Procedural Problem Dimension

	Fit	Overfit	Partial Fit	Underfit	Misfit	Negativ Fit
Substantial Problem Dimension	•	••	•		••••	•
Procedural Problem Dimension	••••••••	•	•••	••••	••••••••	•••

The dissimilar resolution of the *procedural* and *substantial negotiation problem* is clearly visible when we look at the number of the applied design elements. While we counted 17 individual design elements addressing the operational challenges the Qaddafi regime and the United States faced during the negotiation process, we found only five diplomatic impact factors directed towards the *Libyan nuclear bad*.

In addition, the dissimilarity in the resolution of the two central problem dimensions has not only a quantitative but also a qualitative aspect. In relation to the absolute numbers of design elements applied, the “fit performance” varies strongly. We found that the intervention applied towards the *substantial negotiation problem* was proportionally more often marked by a *misfit* than with regard to the *procedural problem dimension* (Table 8).

Of course, we could name some reason for this dissimilarity. *Substantial problems* are often more difficult and challenging to resolve than the various *procedural problems* negotiating parties face during the bargaining process. Before the United States and Libya were able to move on to address the *nuclear bad*, they at first had to develop a solid relationship which was expressed in game-theoretical terms by the step-by-step passage through the five-stage cascade of social traps. Consequentially, it was only during the *pre-agreement phase* (April - December 2003) that the *substantial problem dimension* moved into the focus of the negotiating parties. In the previous *pre-negotiation phase*, the *nuclear bad* was, at best, only relevant in the form of preventive measures (ch. 5.3.1 and ch. 5.3.2).

Obviously, the varying performance of *diplomatic design* regarding these two essential problem dimensions is an annoying finding for all those practitioners and academics who are – implicitly or explicitly – inspired by the assumption that bargaining and diplomacy is,

in essence, the “engine room” of today’s inter- and transnational affairs capable of providing solutions to all different types of problems. While the Libyan NRN were a “success story”, the shaky “fit performance” with regard to the *substantial problem dimension* could nevertheless nourish the traditional suspicion against diplomacy entertained by many experts in international security policy. It fuels the conventional argument that diplomacy – in comparison to non-diplomatic interventions (first and foremost, military force) – is likely to fail when asked to handle “real global issues” that go beyond mere operational challenges.⁴⁰¹

D) Shortcomings in Settling the Colliding Interest and the Injustice Trap

If we study the “fit performance” in light of the three *social traps*, which – apart from the two problem dimensions – represent a crucial element of our *fit taxonomy*, we encounter additional “varieties of (mis)fit”. We found that the *distrust trap* was – aside from some exceptions (see Table 9) – relatively convincingly resolved. In the Libyan NRN, diplomatic design elements – not just those we have grouped into the category of confidence building measures – were relatively conducive in allaying distrust and suspicion among the negotiation parties.

Table 9: Varying Performance regarding the three Social Traps

	Fit	Overfit	Partial Fit	Underfit	Misfit	Negativ Fit
Colliding Interest Trap	••	••	•	•	••••••••	••
Distrust Trap	••••••••	•	•••	••••	••	•
Injustice Trap					••	

• = number of individual (mis)fit impacts

However, the positive implications with regard to *distrust* stands in stark contrast to the “fit performance” we revealed with regards to the *injustice trap*. (In)justice – operationalized in our PhD project by the *public bad approach* and the idea of the “good production chain” – was basically not on the agenda in the American-Libyan negotiations. We encountered only two misfitting interventions that were addressing this particular social trap (Table 9). Many of the problems that haunted the bargaining dynamics in the *post-agreement phase* (2004-2011) were associated with an omission to address the *injustice trap*. While the magnitude of this failure is stunning, the fact that *diplomatic design* was unable to resolve unjust and unfair situations is, by itself less puzzling. That inter- and transnational negotiations have a “justice problem” was widely discussed in the relevant literature in recent years (e.g. Müller & Druckman 2014; see also ch. 3.3.2). In light of the prohibitive nature of NRN, the persistence of injustice is even logical and understandable. The idea that an *atomic*

⁴⁰¹ Although the dissimilar problem resolution does not belittle the fact that Libya was “won” by diplomacy, it nevertheless points to the danger that negotiations have a tendency of becoming self-referential instruments. Above, we explained that *procedural negotiation problems* signify management problems that occur during the attempt to resolve the real, tangible issue – the *substantial problems*. But smooth, streamlined, and well-functioning management is only cold comfort, if it is not yielding any further impact. It is relatively evident that the successful handling of operational management problems is of little value by itself if *substantial problems* continue to prevail.

renegade state, who has violated the NPT for decades and has contested the *global nuclear order*, might be entitled to receive a suitable substitution that fills the gap caused by the dismantled nuclear weapons program, is difficult to conceive of and even more challenging to implement – in particular, when the negotiation parties have a tense and hostile relationship.

While the failure in terms of the *injustice trap* is understandable, the poor performance with regard to the *colliding interest trap* is a real surprise. Although the conflicting interests between Libya and the United States were addressed by many design elements, the actual impact was low and haunted by *misfits* (Table 9). The “fit performance” towards the *colliding interest trap* clearly lagged behind the achieved resolution of the *distrust trap*. Unlike the “(in)justice problem”, the literature on trans- and international negotiation does not suggest that *diplomatic design* would be weak in terms of resolving interest conflicts. On the contrary, the idea of the *colliding interest trap* and the chance to resolve it by diplomatic interventions, it is situated at the very heart of negotiation research (ch. 3.3.2).

E) Variations between Sender and Receiver of Diplomatic Design

Turning to the negotiating parties, we find additional varieties in the performance of *diplomatic design*. First, the Qaddafi regime was the primary addressee of the different diplomatic impact factors applied during the American-Libyan negotiations. Given that Libya was the *atomic renegade* who had to reverse its *nuclear bad*, it is little astonishing that the North African country received considerably more diplomatic interventions (17) than the United States (12) (Annex 14). However, not only in absolute numbers also with regard to the “fit performance”, we saw considerable variations between the two negotiation parties. The design elements applied towards Washington were less often marked by *misfits* and *negative fits* and saw proportionally more *underfits* and *partial fits* – two categories that played with regard to Libya almost no role (Annex 14).

If we look upon the sender and initiator of *diplomatic design*, the variety in terms of performance becomes even more pronounced.⁴⁰² We find that the Qaddafi regime was strikingly inactive. Apart from a single instrument (i.e. Tripoli’s failed charm offensive in the late 1980s, ch. 5.3.1.2) and the series of back-door initiatives Tripoli launched through various intermediaries starting in spring 1992, we saw no autonomous Libyan efforts to shape and influence the negotiation dynamic with the United States (Annex 15). Libya’s diplomatic actions were limited to design elements that the North African country “initiated” together with the United States. On the one hand, Tripoli’s strategic lethargy is astonishing given that it stood in stark contrast to the adventurous and ambitious activities the Qaddafi regime showed in other fields of its foreign policy. On the other hand, Libya was often bestowed with a very favorable strategic position in the bargaining process with

⁴⁰² Of course, *diplomatic design* does not require purposeful initiation. As we have discussed in the Setup chapter, it is this particularity that makes *diplomatic design* distinct from alternative concepts such as “policy tools” or “governance instruments” (ch. 2.3). Nevertheless *diplomatic design* is a malleable man-made structure. Design elements do not fall from the sky but have “designers” who – deliberately or unconsciously – *initiate* design elements.

the United States that, in theory, gave the North African country a powerful position to dominate the negotiations – a leverage Tripoli had not made use of.⁴⁰³

6.1.1.3 The Evaluative Performance of the Fit Taxonomy

We said above that the summary on the “backward-looking analysis” would be incomplete if we do not discuss the strength of the *fit taxonomy*. After all, it was primarily because of the *fit taxonomy* that we were able to develop a new narrative on Libya’s *nuclear reversal*. While we will elaborate in this section on the evaluative performance of the *fit taxonomy* (how accurate it analyzed the “fit performance” of *diplomatic design*), we will discuss in the following section (ch. 6.1.1.4) the explorative and innovative capacity of this model (how it opened up new perspectives on diplomatic design and negotiation dynamics).

In methodic terms, *fit taxonomies* are analytical models.⁴⁰⁴ Consequentially, all that is said in the literature about evaluating analytical models is relevant for our effort to assess the evaluative capabilities of *fit taxonomies*.

Scholars who want to clarify the nature of academic models often refer to maps (e.g. Clarke & Primo 2007: 742; Snidal 2004: 227-8). Like a map, a model is a “simplified picture of a part of real world” (March & Lave 1975). Maps and models do not represent social reality in totality but radically reduce complexity and isolate key factors that are of specific importance for their particular users. Like maps, models vary widely depending on their purpose and their scope of applicability.⁴⁰⁵ Like maps, the primary question we ask when

⁴⁰³ The strategic lethargy is remarkable in the pre-agreement in particular (ch. 5.3.3) and the agreement phase (ch. 5.3.4) when Libya was the *alibi player* and had therefore considerable strategic leverage to shape the negotiation dynamics in its favor.

⁴⁰⁴ Elaborating the evaluative performance of our *fit taxonomy* provides a good opportunity to recapitulate the various reasons why we made the effort to build this relatively complex model. Throughout our PhD project, we have discussed the different implications of this model. Now in the conclusion, it seems appropriate – for the sake of clarity – to summarize these different reasons. The *fit taxonomy* is a “multiple-purpose tool” with four distinct implications: *First* and most obviously, the *fit taxonomy* is mandatory for the application *fit approach*. Without a concise scheme to analyze a given problem structure and thereby identify the “optimal problem solution”, we are unable to study the “problem of fit”. *Second*, the fit taxonomy is also essential in light of the *policy paradigm’s* since it functions as a “prescriptive scheme” allowing us to identify well-matching diplomatic interventions to resolve current or future proliferation crises. Similar to construction manuals which are essential for the proper do-it-yourselfer handicraft for weekend repairs at one’s own property, “prescriptive schemes” are compulsory to formulate policy recommendations. Without guidance by “prescriptive schemes”, IR scholars as well as foreign policy practitioners would be either overwhelmed by the wide range of strategic opportunities or are prone to fall easy prey to misinterpretation and misperception of the actual problems they are asked to resolve. *Third*, the *fit taxonomy* has also methodic implications. In the method chapter (ch. 4.1), we explained that theoretical models are important when studying complex causal relations by the “process tracing technique”. By specifying cause-effect relations, narrowing down the critical aspects for the causal process which need to be studied in detail, and by listing a series of alternative explanations, the *fit taxonomy* was streamline our “process tracing” and help to avoid analytical errors (such as equi-finality, multi-finality or false causality, see footnote 42, Set Up ch.XXX). *Finally*, theoretical models are also essential in light of our overarching meta-theoretical position – Scientific Realism. It is one of the central claims of Scientific Realists that social reality is constituted of “ideas all the way down” (Wendt 1999: 68) and “that the objects under investigation in the social sciences are irreducible theoretically (Jackson 2008: 140). Our *fit taxonomy* which builds on different theories and analytical approaches is implementing this view.

⁴⁰⁵ For example, a topographical map, which contains relatively detailed spatial information (e.g. altitude, planting, settlement areas, and traffic route), is clearly distinct from a simple and plain metro map. Similarly, we encounter sophisticated formal mathematical models in IR (e.g. models axiomatic game

evaluating the performance of a model is not whether it is “true” or “false” but whether it is similar to the outside world.⁴⁰⁶ The performance of models – like those of maps – is first and foremost measured by their accuracy. When we speak about the “testing” of models, we mean probing its accuracy. Do models correctly represent the “slice of reality” that they claim to describe? Is the model coherent with our observation of reality?

The testing of models is the conventional view strongly associated with regression analysis (Clarke & Primo 2007: 741). Given that large-N statistical tests of a model’s accuracy lead to generalizable and representative findings, this preference is logical and understandable. However, although running regression analysis is desirable in general, it would be misleading to assume that the similarity between an analytical model and social reality could *per se* only be evaluated with the help of quantitative methods. Qualitative methods – such as small or single case studies – do also apply. For example, tourists are able to verify, by a single stroll through the alleys of an unknown city, whether their city plan is accurate or not.⁴⁰⁷ The same logic is also relevant for analytical models – such as our fit taxonomy.

But while there is nothing wrong with exploring the accuracy of our *fit taxonomy* within the narrow frame of the Libyan NRN case, the practical question is: how exactly do we assess the coherence between our *fit taxonomy* and our real-world observations of the American-Libyan negotiation process? We suggest a test that compares the *fit taxonomy’s* **prediction** with the **real-world observations** we made based on the historic evidence about the development of the Libyan-American negotiation process (i.e. “observation-prediction coherence”).

The “optimal problem solutions” (also known as the *fit demand*) are the central **predictions** stemming from our *fit taxonomy*. The central assumption of the *fit taxonomy* is that the *substantial* and *procedural negotiation problems* Libya and the United States faced during the 23 years of diplomatic struggle would resolve the better individual design elements (or its alternative explanation) were matched to the “optimal problem solution”. Instead, the central real-world **observation** we made in the history of the American-Libyan negotiation is the step-by-step evolution of the diplomatic process moving through five distinct bargaining phases before leading to the physical dismantlement of the Qaddafi regime’s nuclear weapons program.

Evaluating the *fit taxonomy’s* accuracy is testing the similarity between the taxonomy-based predictions with the real-world observations. It is exploring the question to what degree did the satisfaction of the inferred “optimal problem solution” by design elements, affecting the observed passing of the American-Libyan diplomatic process from one phase to another and the physical dismantlement of Libya’s nuclear weapons program? Our

theory) and rather simple verbal models (e.g. the “balance of power”) (Snidal 2004: 228; see also: Powell 1999).

⁴⁰⁶ For a more detailed discussion about the question whether or not models are “true” or “false”, see Clarke & Primo 2007.

⁴⁰⁷ It was Robert Powell who made it clear by referring to the seminal work of Kenneth Waltz (*Theory of International Politics*) and Robert Jervis (*Cooperation under the Security Dilemma*) that a statistics test is not a *sine qua non* condition for testing the accuracy of IR models (Powell 1999: 104-5).

model is accurate, if the satisfaction (or dissatisfaction) of the “optimal problem solution” – expressed by fitting (or misfitting) design elements – is either translating into real-world success (or failure). However, the model is inaccurate if we record – despite well matching design elements – no progress in the negotiation process or in the physical dismantlement efforts. We would arrive at the same assessment of inaccuracy if we observe an improvement of the real-world problems despite rampant misfits.⁴⁰⁸

A) Relatively High Accuracy of the Fit Taxonomy

Given that our *fit taxonomy* is a holistic model that stems from an IBE based development process which is condensing decades of research on inter- and transnational negotiation in to a single model, it is a little astonishing that our *fit taxonomy* was found to have a relatively high accuracy. The model-based predictions were, in many respects, coherent with the real-world observations we made in the NRN on the Qaddafi regime’s WMD programs. In the following, we will briefly discuss the “observation-prediction coherence” for the example of the *pre-agreement*, the *pre-negotiation* and the *post-agreement phase*.⁴⁰⁹

Pre-Agreement Phase (April - December 2003): In the *pre-agreement phase*, the “optimal problem solution” we have identified with the help of the *fit taxonomy* was satisfied to a very high degree. *Misfits* and *negative fits* were inexistent during that phase. Rather, the picture was dominated by *fits* and its different sub-categories (*partial fits*, *underfits*, and *overfits*; Figure 27). The relatively high “fit performance” was coherent with the real-world observations about the American-Libyan negotiation process. The *pre-agreement phase* was relatively swiftly resolved. Libya and the United States were able to clear the way forward for a final disarmament agreement within only nine months. Given the long history of very tense and hostile relations, this remarkable swift process becomes logical in light of the “observation-prediction coherence”.

Second Pre-Negotiation Phase (1990-2003): In the *second pre-negotiation phase*, the coherence between predictions and real-world observations are also relatively high – although it might appear, at first glance, that our *fit taxonomy* was rather inaccurate during this episode of the American-Libyan negotiation process. On the one hand, the “optimal problem solution” we identified with the help of the *fit taxonomy* was satisfied to a relatively high degree. We observed four *fits*, three *underfits*, and two *partial fits* but only

⁴⁰⁸ Of course, there is also the chance that (in)coherence between model-based predictions and our observations about social reality results from analysis and measuring errors. That is the case if either our inference from the *fit taxonomy* or our observations about the Libyan NRN are incorrect. Both would lead us to false findings. While those errors could never be ruled out entirely, we nevertheless regard it as a negligible risk given that our PhD project is the most profound and detailed analysis of the American-Libyan negotiations that was ever conducted.

⁴⁰⁹ The **first part of the pre-negotiation phase** (1987-1990) is irrelevant for the “prediction-observation comparison” since the alternative explanation for *diplomatic design* (i.e. the shift in Libya’s foreign policy) played a relatively dominant role. Therefore, we cannot properly evaluate the degree to which the prediction of the *fit taxonomy* was coherent with the real-world development in the American-Libyan negotiation dynamics. The **agreement phase** instead is akin to the pattern of the three phases we discuss in the text. It was likewise marked by a relatively high coherence between the taxonomy-based predictions and the real-world observations. We therefore decided to exclude it from the discussion.

two *misfits* and one *negative fit* in this phase (Figure 26). On the other hand, the *second pre-negotiation phase* was anything but swiftly resolved as one might expect given the convincing resolution of the “optimal problem solution”. Rather, it dragged on for 13 years until Washington eventually took the strategic decision to move the process to the next level and start exploratory talks on Libya’s WMD programs in spring 2003.

However, it would be too short-sighted to interpret this delay as a sign of inaccuracy of the *fit taxonomy*. If we analyze the satisfaction of an inferred “optimal problem solution” in a timely perspective, the initial impression of imprecision is resolved quickly. This view reveals that all the factors we evaluated as meaningful contributions to the problem resolution (namely the Lockerbie Talks, the mediation efforts of the United Kingdom, and the disclosure of the A.Q. Khan network) became relevant only at the very end of the *pre-negotiation phase*. This episode stagnated for a long time due to lacking diplomatic intervention. We observe little to no process throughout the 1990s. However, expressing a high “observation-prediction-coherence”, this phase of the American-Libyan negotiation dynamic was swiftly overcome as soon as design elements capable of resolving the predicted “optimal problem solution” were applied.

Post-Agreement Phase (2004 - 2011): In the *post-agreement phase*, the coherence between predictions of the *fit taxonomy* and the real-world observations were likewise high, although in the sense of a negative relation. In our analysis, we have disclosed that, in this final episode of the Libyan-American, it was first and foremost the “optimal problem solution” on the *substantial problem dimension* (i.e. Libya’s *nuclear bad*) that was only inadequately satisfied. Libya had received an insufficient substitution for its dismantled nuclear weapons program. Expressing similarity between the model’s prediction and real-world observation, we found that the WMD issue indeed continued to linger as a consequence of the unsatisfied “optimal problem solution”.

B) The Fit Taxonomy’s Imprecision: Precaution against Cooperation Exploitation

However, while in general very accurate, the *fit taxonomy* is imprecise with regards to one aspect: the precaution against cooperation exploitation. Based on our *fit taxonomy*, we have revealed on several occasions (e.g. for the *pre-agreement*, *agreement*, and *post-agreement phase*) that successful negotiations would need safeguarding against the risk that one negotiating party is exploiting the cooperative attitude of its counterpart.

In general, it is a very obvious assumption that rational actors, who negotiate with outspoken opponents, are more inclined to cooperate if they are provided with some sort of “safety net” which is reducing the danger that the other side is free-riding. Moreover, this idea is very central in the neoliberal research on international institutions and compliance. The problem of free riding plays a crucial role in the relevant literature and was often pointed out as one of the most essential preconditions for successful cooperation (Simmons & Martin 2002; Raustiala & Slaughter 2002).

However, in the Libyan NRN, this aspect was completely irrelevant for successful negotiations. In all three phases where that aspect was predicted by the *fit taxonomy*, we found that “precaution against cooperation exploitation” was not addressed by a single design element (or an alternative explanation factor). In clear contradiction to the *fit taxonomy’s* prediction, the omission of safeguarding remained without consequences for the evolution of the Libyan NRN. The bargaining process moved forward despite the danger that the United States could exploit Libya’s cooperation by unilateral defection (ch. 5.3.3.2, ch. 5.3.4.2, and ch. 5.3.5.2). Although Washington sometimes showed behavioral patterns that were at least close to unilateral defection, it did not – despite lacking precaution against exploitation – undertake any concrete efforts in that direction.⁴¹⁰ And the lack of design elements that could have avoid or at least mitigated the free-riding danger did not prevent Tripoli from giving cooperation a chance and moving actively ahead in the bargaining process – even though the Qaddafi regime put itself at considerable risk with that move.

This finding stands obviously in stark contrast to the mainstream research on compliance and international governance. The lack of a “cheating precaution” might be a particularity to the Libyan NRN. However, there is at least some grounds to assume that this aspect plays no or only a little role in negotiation dynamics *in general*. After all, the American-Libyan diplomacy on the Qaddafi regime’s nuclear weapons program – the “hard case” of NRN – must have been in particular sensitive to proper safeguarding against free-riding, given it was a very difficult, antagonistic and on many occasions a hostile negotiation process.

6.1.1.4 Exploration: Innovative Strength & Weakness of the *Fit Taxonomy*

Our doctoral thesis is the most in-depth, detailed, and comprehensive analysis of the American-Libyan diplomatic process. However, it would be misleading to ascribe the innovative powers of our study merely to the extensive study of documents and sources. Rather, most of our PhD project’s innovative implications stemmed from the *fit taxonomy*. It is owing to the *fit taxonomy* that we revealed a new narrative on Libya’s *nuclear reversal* and identified new analytical approaches we would have otherwise never applied to the research on international negotiations.

⁴¹⁰ During the final part of the *pre-agreement phase* between October and December 2003, we observed numerous signs that the United States was at least close to exploding the Qaddafi regime’s inclination for cooperation. When the Qaddafi regime had eventually agreed to allow technical visits to its WMD sites (ch. 5.3.3.2) – a central demand the United States had requested since April 2003 – Washington was not diminishing its pressure but instead pushed for more intrusive inspections. By December 2003, Libya had, in essence, exposed the lifeline of its WMD program. Given the comprehensive insights Libya allowed to US-UK experts, it must have been clear to the members of the Qaddafi regime that they had “slammed the door” to any future proliferation efforts. With agreeing to the intrusive technical visits, Libya was already on the route to disarmament – before the direct negotiations on a final disarmament agreement had even started. While Tripoli was making wide concessions, it was gaining little in return from the United States. Already during the first meeting of the *pre-agreement phase* held in April 2003, Libya had asked the United States of a “sign of good faith” (Tenet 2007: 290). However, even after Muammar al-Qaddafi had given his “green light” to the technical visits, the United States was not ready to show flexibility with regards to the Libyan request.

In view of its genesis (ch. 3.3), the innovative performance of the *fit taxonomy* does little to astonish. By developing the *fit taxonomy* based on our IBE approach, we dug deep into the literature on international negotiations and investigated a large series of potential approaches and concepts. Without the IBE approach, we would have certainly not taken the *public bad approach* into consideration. In all likelihood, we would have not developed a three-fold concept of *social traps* incorporating the *colliding interest*, the *injustice*, and the *distrust problem*. Moreover, we would have without the IBE approach probably not studied the *procedural* and *substantive problem dimension* in parallel. Against that background, it is only logical that the innovative *fit taxonomy* is leading to new, intriguing and even counter-intuitive findings.

However, despite its explorative powers and innovative potentials, the *fit taxonomy* has certain limits too. There are grounds to believe that our rationalist operationalization of “distrust” and “injustice” is delivering only a relatively narrow description of social reality with regards to these two particular aspects. However we have not encountered no evidence that this narrow concept on justice and distrust would negatively affected our analysis.

In the following section, we will briefly elaborate on some of the *fit taxonomy’s* innovative strengths and weaknesses. Apart from the evaluative performance discussed in the previous section, the explorative capacity of our model also signifies an important part of the “backward looking” analysis of our PhD project.

A) A New Narrative of Libya’s Nuclear Reversal

With the help of our *fit taxonomy*, we were able to develop a new narrative of Libya’s *nuclear reversal*. If we had not applied this concept, we would have – in all probability – at one point embarked on the “beaten track” laid out by previous scholars and may have failed to unearth important aspects about the negotiation dynamics.

For example, without our *fit taxonomy* we would have described, in all likelihood, the effort to disarm Muammar al-Qaddafi as an outstanding success story and had not taken into account that the WMD issue was never fully resolved – despite the complete dismantlement of Libya’s nuclear weapons program. Since the *injustice trap* was never really resolved and Libya was not provided with a suitable substitute that could have filled the gap of its abandoned *nuclear bad*, the *post-agreement phase* starting in January 2004 was never smooth (ch. 5.3.5.2). Moreover, without the *fit taxonomy*, we would have been unable to reveal the numerous counter-intuitive insights we found with regard to the individual design elements and negotiation problems (e.g. the role of the Second Iraq War or the interception of the BBC China).⁴¹¹

⁴¹¹ Apart from the BBC China incidence and the role of the Second Iraq War – two diplomatic episodes we have already discussed in length on other occasions of our PhD project (see ch. 5.3.3.2, ch. 6.1.1.1, and ch. 6.2.1.2), we could name more counter-intuitive findings that resulted from the application of the *fit taxonomy* and which clearly draw a different picture about the Libyan case than past studies: (1) It was already indicated by some scholars that the United States, not Libya, was the major spoiler during the *pre-*

Given that the *fit taxonomy* provided us with a new narrative of the Libyan case, we could only speculate what findings we might achieve if we would apply this analytical scheme to other NRN cases. There are grounds to believe that the South Korean, the Taiwanese, the Ukrainian NRN or even the recent negotiation on the Iranian nuclear program were *in reality* quiet different than they are conventionally described in the literature.

B) Conceptual Innovation: The Alibi Game and the Public Bad Approach

Apart from a new narrative, the explorative powers of the *fit taxonomy* are not exclusively limited to factual aspects. It is also innovative in conceptual terms in the sense that it introduced new analytical models, revealed general patterns, and gave “food for thought” to new academic questions. The conceptual innovation stemming from the application of the *fit taxonomy* becomes tangible with regard to the discovery of the Alibi Games and the *public bad approach*.⁴¹²

(1) The Example of the Alibi Game: The application of the *fit taxonomy* nourishes the assumption that the textbook examples of 2x2 games (such as the PD, the Chicken, the Assurance, or the Battle of Sexes Game) occur less often in international affairs than suggested by IR literature. Moreover, there are grounds to assume that the intensive use of these classic strategic constellations – which stem primarily from the mathematical-axiomatic application of game theory – might have led to misinterpretation and false description of real world problems in international affairs.⁴¹³ This problem, the alienation

negotiation phase. Washington refused to bargain a diplomatic solution to the Qaddafi regime’s WMD programs throughout the 1990s (e.g. Müller 2006). What was, however, not revealed thus far is that Libya with its forward leaning and pro-active behavior rushing pre-maturely onto a cooperative course in the early 1990s was no less problematic in the diplomatic process. Given the specific characteristics of the Imposed Deadlock Game which dominated the second part of the *pre-negotiation phase*, Libya’s hurried cooperation was not decreasing but instead increasing Washington’s reluctance to start direct talks with Tripoli about its WMD programs (ch. 5.3.2.2) **(2)** In addition to this, past studies have drawn a relatively positive picture of the multilateral sanctions (ch. 5.3.2.2). Libya was often hailed as an example for the positive performance of economic sanctions. We, however, showed that this assessment is incorrect and that the multilateral sanctions had rather negative implications for the American-Libyan negotiation process.

⁴¹² There are, of course, other examples where we could pinpoint the innovative potentials of the *fit taxonomy*: **(1)** The finding that strategic constellations belonging to the “family” of Deadlock Games (in the Libyan case, the Deadlock Game and the Imposed Deadlock Game) are less hopeless as they are often described in the literature (e.g. Dombrowsky 2007: 156; Oye 1986a). Although it is difficult to achieve cooperation under these circumstances, there is still a chance to resolve Deadlock-Games and Deadlock-like Games (ch. 5.3.1). As Celeste Wallander has pointed out, it is indeed puzzling why Deadlock Games have received so little attention in security studies even though this game type underlies many security problems (Wallander 1999: 20). **(2)** As we have outlined above (ch. 2.5), studying social change is often regarded as the “home turf” of constructivism, while rationalism is assumed to be static and motionless. However, by sequencing a cascade of *social traps*, we were able to conceptualize dynamic processes in high frequency. Constructivist analytical schemes would have difficulties to stand up to such a highly dynamic process. While the first part of the *pre-negotiation phase* – the shift from the Deadlock Game to the Imposed Deadlock Game – was primarily explained by an internal change in the Qaddafi regime’s payoff structure; most of the strategic dynamic in the American-Libyan negotiation process remained in the realm of rational choice. With the two sequencing methods we introduced (sequencing by translation and sequencing by weighing; ch. 4.3), we showed that we could grasp even very fast and small-scale strategic changes occurring in a frequency not of years but of weeks (see for example the *agreement phase*).

⁴¹³ In essence, this argument is reflecting a nearly two decade-old debate triggered by Stephen Walt (*Rigor or Rigor Mortis?*) in *International Security* (see: Martin 1999; Powell 1999; Walt 1999a; Walt 1999b; Zagare 1999).

between theoretic and empirical application of game theory, becomes particularly clear with regard to the Alibi Game – a strategic constellation that was only discovered by recurring to the *fit taxonomy*.

Alibi Games are a relatively “young” strategic concept. Even though Alibi Games laid already dormant in the 2x2 game taxonomy developed by Rapoport and Guyer (1966),⁴¹⁴ it was only in 2005 that they were unearthed as a meaningful “family” of strategic games when Robinson and Goforth developed a renewed classification of ordinal 2x2 games (Robinson & Goforth 2004, 2005). As we have outlined above, Alibi Games signify asymmetric PD Games (ch. 5.3.3.1). In essence, one could interpret the PD game as a “symmetric outlier” in the broader Alibi Game family. Among the 144 mathematical possible game constellations, there are six Alibi Games but only one *PD game*.⁴¹⁵ If social reality is not discriminating symmetry from asymmetry (which is rather unlikely), it is safe to assume that Alibi Games occur far more often than the classical PD Game. The assumption that Alibi Games are in reality more dominant than the often discussed PD, is also supported by our PhD project. Two out of five strategic constellations in the Libyan NRN were Alibi Games.

However, the relevance of the Alibi Games was thus far neglected in IR literature. Apart from the few studies that have analyzed asymmetric PD Games and thereby touch – without knowing – on Alibi Games (e.g. DeCanio & Fremstad 2013; Maoz & Felsenthal 1987), our PhD project is the first systematic empirical exploration of this particular game constellation. The ignorance of the Alibi Game stands in stark contrast to the near obsession that IR scholars showed for the PD Game. According to Robert Keohane, the PD game is the most central conceptualization for collective action problems and applies to various real-world situations within world politics (Keohane 1984: 68). Axelrod seconds this view by describing the PD Game “the E.coli of social science” (Axelrod 1997).

Of course, from a theoretical perspective, there are good reasons for focusing on the PD game. After all, the PD game is one of the most central concepts to challenge Adam Smith’s assumption of the “invisible hand” which had for a long time determined the thinking in social and economic science. As Arthur Stein has pointed out, the PD game “is the only two-actor example of a Pareto-deficient equilibrium that occurs when both actors have dominant strategies. It is for this reason that it has received so much scholarly attention” (Stein 1982: 305, fn. 11).

However, the theoretical value of the PD Game is not necessarily translating into real-world relevance. Consequentially, in our view, the strong misbalance between PD Games and the Alibi Games is symptomatic of the alienation between the mathematical-axonomic and the empirical-historical application of game theory in IR (for a detail discussion see Zangl 1994 and in particular Zürn 1992). The ignorance of the Alibi Games and the theoretical overdrawing of the PD Game strongly hints at the suggestion that many real-world phenomena that IR scholars have described in the past as PD games – such as the Second

⁴¹⁴ See for example game no. 47 and 48 (Rapoport & Guyer 1966)

⁴¹⁵ According to the taxonomy provided by Robinson and Goforth, the Alibi Games signify the cases no. 221, 231, 241, 412, 413, and 414 (cf. Robinson & Goforth 2005).

Morocco Crisis 1911 (Synder & Diesing 1977) or the Middle East Conflict in the 1990s (Beck 1997) – are *in reality* Alibi Games. As Robinson and Goforth have put it: “[T]he apparent real-world ubiquity of the PD may (...) be illusory – all those situations with nasty equilibria may seem to be PDs because we haven’t looked closely” (Robinson & Goforth 2004: 13).

Obviously, all this is not just a deplorable academic mishap that one could easily shrug off. For half a century, many IR scholars have based their consultancy to policy advisors on game theoretical reasoning. It is likely that many of their recommendations had been false or wrong.⁴¹⁶ As we have shown in our analysis of the Libyan NRN, Alibi Games require a particular resolution strategy that is not only different but also more complicated than the efforts demanded to overcome PD constellations (ch. 5.3.3.1).

(2) The Example of the Public Bad Approach: The introduction of the *public bad approach* is another conceptual innovation of the *fit taxonomy*. The *public bad approach* was only called into being by turning the conventional Theory of Collective Goods (TCG) up-side down. It would, however, be wrong to see the *public bad approach* only as a mirrored imitation of the TCG. Instead, the *public bad approach* is best understood as an extension of the TCG into a field where it was not operating beforehand. With the *public bad approach* areas of international security policy for which we could previously only report the absence of collective goods, become subjected to a detailed, sophisticated, and multifaceted analytical concept. Due to its systematic character, the *public bad approach* is, in addition, particularly suitable for comparison even between very diverse issue areas. Moreover, in our doctoral thesis, we prove that the *public bad approach* is an analytical scheme that allows a study of both the structure of problems and their resolution.

Presumably the best illustration of the *public bad approach’s* academic value is its analytical strength. It provided us with new insights and helped to clear up contradictions past scholars and analysts stumbled over when studying the Libyan case. Take for example the controversies about the maturity of Libya’s nuclear weapons program. There are conflicting views about how advanced and how dangerous the Qaddafi regime’s proliferation effort actually was. This debate became particularly prominent by the “bickering” in early 2004 between the IAEA and U.S.-U.K. security expert. The Vienna based watchdog organization held the opinion that Libya’s nuclear attempts had been “embryonic” and that the danger of a Libyan bomb had been exaggerated (El-Baradei 2011: ch. 6). Western non-proliferation experts were instead convinced that Tripoli’s efforts and, in particular, its cooperation with the A.Q. Khan network posed a serious security threat (Commission on Intelligence Capabilities 2005).

By applying our *fit taxonomy* and by describing Libya’s nuclear weapons program as a *public bad* that was following the “best shot threshold” aggregation logic, we were able to resolve these conflicting views and showed that both descriptions – the IAEA and the US-UK view – were only partly reflecting the historic reality (ch. 5.2.2). On the one hand, Libya’s nuclear weapons program was a “*public bad* in the making” which was still years away from crossing the nuclear threshold. On the other hand, the Qaddafi regime’s WMD ambitions

⁴¹⁶ For a good starting point into the debate about use and misuse of game theory see Stone (2001).

nevertheless poses a considerable security risk since cooperating with the A.Q. Kahn network brought Tripoli into the relatively fortunate position to implement the “best shot logic” of nuclear proliferation Libya had longed to apply since the early 1970s.

In the past literature, we found from time to time sporadic reference to the notion of *public bads* (e.g. Göker 2013; Sandler 2004). But it was only in this PhD project that this approach was for the first time introduced and systematically applied. Concerning the Alibi Game, we were empirically exploring a relatively young concept. With regards to the *public bad approach*, the innovative power of our PhD is even higher since we were breaking new academic ground.

C) Innovative Shortcomings: The Narrow Concepts of Injustice and Distrust

One of the major advantages of analytical models is that they clearly define their shortcomings. According to Duncan Snidal, it is even the “greatest virtue of a good model that it makes its own limitations apparent” (Snidal 2004: 228-9). With that in mind, we have to admit that our *fit taxonomy* is conceptually weak in terms of distrust and injustice.⁴¹⁷ Both aspects are relatively narrow and therefore likely to limit the explorative power of the *fit taxonomy*.

By definition, (dis)trust and (in)justice are about collective interpretation. What is regarded as (in)just and (un)trustworthy is, in essence, a social construction – a shared normative understanding. Although there is rational research on (dis)trust and (in)justice, both aspects are the “home turf” of constructivist approaches (see e.g. ch. 3.3.2.1). For scholars who follow the rationalist approach – even when they side with the non-orthodox Enlightened Rationalism – (dis)trust and (in)justice signify certainly not the first-choice research objective. Rather, “interest” is their most central and most dominate analytical category.

Since we have endeavored to develop a holistic and comprehensive model for the analysis of inter- and transnational negotiation dynamics we – as outlined above – nevertheless decided to integrate distrust and injustice into our research project. It is obvious that this inclusive approach had its price. With game theory and the public bad approach, the operationalization of both concepts was subjected to two rationalist theories – an aspect of our *fit taxonomy* that might attract most criticism by constructivist scholars. And honestly, they would have a point. Our operationalization of distrust and injustice is relatively narrow. In essence, we neither studied the nature of (in)justice and (dis)trust. We have not analyzed what being (un)just or (un)trustworthy actually meant for Tripoli and Washington during the NRN. The perception of the negotiating parties regarding these two aspects was not on our agenda. Rather, we applied a “negative concept” and were only studying the degree to which justice and trust were absent in the American-Libyan bargaining process. Moreover, by operationalizing distrust through the Maximin solution (i.e. game theory) and injustice by the “good production chain” (i.e. public bad approach), we subordinated both

⁴¹⁷ Another shortcoming one could possibly discuss is the fact that our approach has many hyper-rational elements – an aspect that we initially wanted to avoid when we criticized Orthodox Rationalism in the Setup chapter (see ch. 2.5.2).

concepts to the logic of “interest” (i.e. the realization of individual benefits) – a step that limits the independent analytical substance of these concepts (ch. 3.1.3).

In light of this conceptual weakness, it is only logical that the innovative potential of the *fit taxonomy* is limited – *in theory*. However, in terms of practical research on the Libyan NRN, we have not encountered any major difficulties. And we are unable to name concrete examples where the relatively narrow concept of distrust and injustice we applied had led to an under-complex description of social reality.

6.1.2 The Forward-Look: A General Answer to our Research Question & A Thought Experiment for better NRN

Since we were able to reveal with the “backward-looking analysis”, numerous findings about the fit performance of *diplomatic design*, we are now in the position to move on to the “forward looking prescription”. As we made clear above, this dimension is likewise essential to respond to our central research question (*how to design well-fitting NRN that drive atomic renegade states into nuclear disarmament*). The “forward looking prescription” represents the second mandatory research orientation request by the *policy paradigm*. Any response to our central research question has to remain unsatisfactory, if both aspects – the “backward looking” and the “forward-looking” dimension – are not answered adequately.

However, it is owed to the logic of the “forward-looking prescription” that without referring to a specific case of NRN, the response to our overarching research question has the nature of a “methodic” policy recommendation. The most straightforward answer we could envisage without referring to an individual example of a proliferation crises (such as currently the North Korean nuclear weapons program) reads as follows: IR scholars and foreign policy makers who search to drive an *atomic renegade state* into disarmament with the help of diplomacy should **(1) take the fit taxonomy we have developed and apply it in a prescriptive mode (2) identify the “optimal problem solution” with its help (3) on that basis, consider the available diplomatic tools that are likely to fit well to the ascertained problem and (4) compile them into a coherent negotiation strategy.**

That statement is the closest we get to the often desired “blueprint solution” for international negotiation challenges. It is the most compensated response one could give when bringing the “backward-looking analysis” and the “forward looking prescription” together.

However, all those readers who prefer a more concrete answer with a tangible recommendation regarding individual design elements must not be disappointed either. In order to give at least a certain impression about the prescriptive strength of the *fit taxonomy*, we have run a brief “thought experiment” based on our analysis of the Libyan NRN (ch. 6.1.2) and asked ourselves: *In light of the findings we achieved in our PhD project, what could Libya and the United States have done differently in order to improve the negotiation outcome, if they had had the chance to rerun the bargaining dynamic by systematically applying the fit approach? What diplomatic tools would have allowed them to enhance the overall design of the NRN process?*

The forward-looking “thought experiment” has two aspects: *First*, we will elaborate about promising diplomatic leverages Washington and Tripoli could have used in order make the Libyan NRN an even greater diplomatic success (ch. 6.1.2.1). Certainly, studying this question in length and detail would necessitate an extra research project. However, in a cursory outline, we identified at least five critical aspects that could have led to a better negotiation outcome – given that Tripoli and Washington had only been aware of the

insights we disclosed in the “backward looking analysis” of our PhD project and given that they had the willingness to act accordingly. Since the Libyan NRN in essence signifies a “double hard case”, there is a good chance that these five “lessons learned” would also improve the outcome of negotiation dynamics in other fields of international security policy. *Second*, we have to elaborate on whether real-world negotiating parties have *any* chance to apply the *fit approach* and the findings of diplomatic design in a prescriptive mode (ch. 6.1.2.2). After all, it could turn out that the *fit taxonomy* is too academic, too theoretical, and too complicated. The question is whether the *fit taxonomy* we have developed has relevance for world politics or whether it is merely fostering a “strategic illusion” (Betts 2000).

6.1.2.1 Five Diplomatic Leverages for more Bargaining Success

In a brief cursory overview, we have identified by applying the *fit taxonomy* five diplomatic leverages that would have rendered the Libyan NRN into an even greater “success story”: (A) use a “hidden champion” (B) take advantage of “evergreen” and “multiple fitting” diplomatic tools (C) take full advantage of the unsuspected potential of negotiation dynamics (D) give special credit to the design of agreements (E) unleash the impact of coercive diplomacy and positive inducement by thinking of both categories of design elements in terms of a “shotgun” and a “pre-modern cannon analogy”.

A) Take Advantage of the “Hidden Champions”

In a backward-looking section of the conclusion, we have grouped the different design elements into five categories (Table 6). In our view, the process-related design elements signify “hidden champions”. On the one hand, these factors had a relatively high “fit performance”. Except for Washington’s quid pro quo approach, *misfits* were absent in this category of diplomatic tools. On the other hand, this category of diplomatic design has received relatively little attention from policy makers and IR scholars. While other diplomatic tools – such as economic sanctions – have sparked major debates with vivid resonance in the public sphere, process related design elements were widely neglected. Only a handful of studies on international negotiation research have explicitly analyzed these aspects (e.g. Sjöstedt, Spector & Zartman 1994; Stanford 1992; Tallberg 2002). Instead foreign policy leaders tend to underappreciate process-related design elements because they often regard them as ordinary features of the day-to-day diplomatic practice and do not take them into consideration when they think in broader strategic terms.

In our view, however, these “hidden champions” of *diplomatic design* are very relevant for practical foreign policy. Being an effective but neglected category, process-related design elements could signify an unexploited recourse in difficult negotiation dynamics which is providing the chance for new diplomatic momentum. Moreover, process-related design elements represent often relatively inexpensive instruments that are immediately available to foreign policy practitioners (unlike, for example, coercive diplomacy or positive inducement). If the United States and Libya had made more use of these diplomatic

designs, the Libyan NRN would have been – in all probability – an even greater “success story”.

B) No “Blueprint Solutions” but Evergreen and Multiple Fits

That there are no “blueprint solutions” in international negotiations is a very obvious lesson we could draw from the Libyan “hard case”. While many academics and policy makers appear to indulge in the hope of “one size fits all” strategies which are capable of resolving a wide spectrum of problems in international affairs (see Ostrom et.al. 2007), we have revealed that, in reality, *diplomatic design* is first and foremost characterized – despite its overall impact – by a diverse and varying performance which surfaces as soon we climb down the “ladder of abstraction” and focus on the individual impact factors. Thus, the closest thing to “blue print solutions” we get are *evergreen* and *multiple fits* (Table 9).

In order to improve NRN and arrive at a more well-fitting design, Libya and the United States could have recurred more often to this type of design element. For example, one could have granted more importance to London’s mediation efforts – a prominent *evergreen fit* element. If London had already participated in an earlier stage in the *pre-negotiation phase*, and if Tripoli had, instead of relying at first on the mediation of Saudi Arabia and South Africa, turned to the Blair government as “biased mediator”, the overall impact of the Libyan NRN could have been enlarged (see ch. 5.3.2.2).

C) The Unsuspected Potentials of Negotiation Dynamics

Apart from hidden champions, we also encounter hidden potentials for a better and swifter negotiation outcome in Libyan-American negotiations – a finding that becomes salient by the systematic application of the *fit taxonomy*. There is evidence that diplomatic resources remained untapped which would have allowed for a more focused problem solution.

First, we have explained above that the activity of the two negotiation parties varied widely. While the United States were very active, the Qaddafi regime showed a rather passive bargaining behavior (ch. 6.1.1). Tripoli’s “strategic lethargy” could be regarded as an unused resource for high negotiation performance. Of course, more activism does not lead to a better negotiation outcome *per se*. However, there are grounds to believe that the failure to address the *injustice trap* is, in many respects, associated with Libya’s passive bargaining practice. A more well-balanced negotiation dynamic between Washington and Tripoli is therefore likely to have caused a different bargaining result.

Table 10: Ratio of (Mis)Fits in the Five Negotiation Phases

	Fit	Overfit	Partial Fit	Underfit	Misfit	Negativ Fit	Ratio
1st Pre-Negotiation Phase (1987-1990)				1	5	3	16
2nd Pre-Negotiation Phase (1990-2003)	3		2	2	1	1	33
Pre-Agreement Phase (March-December 2003)	2	1	2	2			31
Agreement Phase (December 2003)	3	1			2		27
Post-Agreement Phase (2004-2011)	3	1			3		29

Second, regarding the overall “fit performance”, the Libyan NRN showed a distinct pattern which is best described as “strategic sluggishness”. Apart from the first part of the *pre-negotiation phase* which was particularly difficult since it was marked by a pure Deadlock Game, the ratio between *misfits*, *fits* and its different sub-categories (e.g. *overfit*, *partial fit*, and *underfit*) remained by and large unchanged in the following four negotiation phases (Table 10).⁴¹⁸ Between the *second pre-negotiation phase* starting in early 1990 and the *post-agreement phase* ending in 2011, the overall “fit performance” was not improving – despite the fact that the problems the two parties were facing became constantly more and more benign and less difficult to handle.⁴¹⁹

The logic that difficult problems are difficult and simple problems are simple to resolve appears not to apply to the Libyan case. Expressing the idea of “strategic sluggishness”, it was as if the “fit performance” was adapted to the given level of difficulty in each negotiation phase. The more benign the problem became the more “relaxed” were the intervention. The ratio between negative and positive design element were for example in the *second pre-negotiation phase* by and large identical as in the *post-agreement phase* (Table 10).

That finding obviously signifies a “hidden potential”. It can be assumed that Libya and the United States could have achieved a better negotiation outcome if they had increased their diplomatic activity and creativity at the same pace the malignity of the actual bargaining problems were decreasing.

D) Give special Credit to the Design of Agreements

In our analysis, we found that the performance of *diplomatic design* is disturbingly weak with regard to the *substantial negotiation problems* and the *injustice trap* (ch. 6.1.1). Both shortcomings were closely related to the biased disarmament agreement that Libya and the United States rashly negotiated, supported by the UK, in December 2003. The achieved accord, publically announced in the evening hours of 19th December 2003, is a good example of an “agreeing-implementing trade-off”. Swiftly negotiated in a one-day meeting, the accord was not probably reflecting the nature of the Libyan *nuclear bad*. It failed to provide Tripoli with a suitable substitute for its dismantled nuclear weapons program. Implementation problems in the *post-agreement phase* in the form of the unresolved *injustice trap* were the consequence. In the light of this finding, there is solid ground to assume that a better and more carefully designed disarmament agreement could have increased the overall “fit performance” of the negotiation dynamic. If Washington and

⁴¹⁸ Given that the six (mis)fit categories of our evaluation scheme haven an ordinal structure we have multiplied the numbers of individual performance with ascending values (negative fit x 1, mistfit x 2, underfit x 3, etc.). The outcome of this operation – the proportion between the evaluation categories – is depicted in the right column of (Table 10).

⁴¹⁹ For example, negotiation phases which were marked by numerous *misfits* witnessed proportionally also many well-fitting design elements (e.g. the post-agreement phase, (Table 10). And in other phases where the “fit performance” of diplomatic design elements was instead less prominent, the negative implications were moderate too (e.g. pre-agreement phase (Table 10).

Tripoli had had the insights we gained with the help of the *fit taxonomy*, they might have had a chance to realize a better and more sustainable bargaining outcome.⁴²⁰

E) Coercion & Incentives – the Shotgun and the Cannonball Metaphor

In the Libyan NRN, we were surprised that the performance of diplomatic design was relatively weak with regard to the *colliding interest trap*. While the handling of the *injustice trap* and the *substantive negotiation problem* could have been improved by a better “agreement design”, we claim that resolution of the *colliding interest trap* could have been enhanced by a more prudent use of incentives and coercive tools.

Among the categories of diplomatic design elements, coercive diplomacy and positive inducement represent the group of diplomatic impact factors that had the highest relevance for the *colliding interest trap* and were most directly focused on this particular negotiation problem. Therefore, the insufficient resolution of the *colliding interest trap* and the weak performance of coercion and positive inducement are closely connected in the Libyan NRN.

A quick literature review reveals that the low “fit performance” of coercion and positive inducement we discovered in the Libyan NRN is not astonishing at all. Apart from some exceptions (e.g. Lopez & Cortright 2004), there are countless remarks in the literature pointing out that coercion is ineffective and is unlikely to work *in general* (e.g. Haas 1997, Gause 1999, Mueller & Mueller 1999; Nurnber 2009). Large-N studies have, for example, found that economic sanctions have a relatively low success rate which varied depending on the actual research project between 5 to 34 % (Hufbauer et.al. 1990; Pape 1997; Pape 1998). Although there is less research on incentives, we come to a similar conclusion if we tap into the debates about “appeasement” (e.g. Richardson 1988; Treisman 2004).

However, we claim that the American-Libyan bargaining dynamic could have been more successful, if the parties had been bestowed with the *fit taxonomy* and would have been able to decipher the fundamental logic of these two design elements: that coercion is, in essence, analogous of a “shotgun round” and the impact of positive inducement is basically akin to “pre-modern cannonballs”. Like shotguns and pre-modern cannons, coercion and positive incentives are powerful tools that are able to “take out” the “target” they are aimed at. But like shotgun rounds and cannonballs, both design elements are remarkably inaccurate. They often miss the desired objective (i.e. strategic consideration and the decision making of a particular opponent) and instead cause series of unintended side-effects. However, similar to shotgun rounds and pre-modern cannonballs, the accuracy of coercion and positive inducement could be substantially enhanced. Both tools need to be subjected to a process of “accuracy improvement”. If Washington and Tripoli – or other

⁴²⁰ The neglect of “agreement design” appears to be a more general problem in negotiation research that is not limited to the Libyan case. While agreements are obviously an integral part of international negotiations, they were relatively rarely studied in the literature. We saw intensive research on the bargaining process that lead to agreements in the last decades. However the scope, nature, and functions of bargaining accords were relatively seldom addressed by scholars (see e.g. Iklé 1964). Consequentially, “brink agreement design back in” would, in all probability, be for the benefit of the entire sub-discipline.

potential players – had applied this logic, the Libyan NRN would have been an even greater “diplomatic success story”.

(1) Coercive Diplomacy and the Shotgun Round Metaphor: It is undeniable that coercive diplomacy had a relatively low “fit performance” in the Libyan NRN. Coercive tools were the design category that was overrepresented by *misfits* and *negative fits* (Table 6). A more detailed and in-depth scrutiny of these design elements does not alter our negative evaluation. But it reveals that the coercive policy tools were not *per se* mismatching but instead had the potential to unfold considerable sway if we only focus on specific aspects. Like a shotgun round fired into the dark at the murky contours of an opponent, the coercive tools applied in the Libyan NRN were inaccurate but “hit” at least some parts of the “target”. For example, if we evaluate the military threat Washington applied towards the Qaddafi regime in the late 1980s exclusively against the requirement of a “massive and lasting interest manipulation” – one of the “optimal problem solution” we identified with the help of the *fit taxonomy* (see Figure 25) – it would have been the most successful design element during the entire first part of the *pre-negotiation phase*. It was the only impact factor that yielded, under the adverse circumstance of the Deadlock Game, at least an *underfit*. All other diplomatic tools applied during this phase did less well. The problem, however, was that the U.S. military threat against Tripoli triggered unintended side effects (i.e. increasing Libya’s distrust in the United States and further inflaming the desire for nuclear weapons, ch. 5.3.1.2) which were undermining the performance of this tool and rendered it – when the other aspects of the “optimal problem solution” (such as confidence building) are taken into account – in the overall perspective into a *negative fit*.⁴²¹ Thus, like a shotgun round, the military threat applied towards the Qaddafi regime “hit the target” but its inaccuracy undermined its overall impact.

The research on coercive diplomacy is haunted by inconsistencies. For example, despite the fact that the problematic nature of coercion is widely known, foreign policy leaders continue to use this instrument intensively. Coercive diplomacy, in particular economic sanctions, is a “course in the menu” of policy tools decision makers prefer to choose – although they are often very much aware of its shortcomings (Bapat & Morgan 2009; Hufbauer et.al. 2007). Another inconsistency is the varying impact of coercive diplomacy which was revealed by several large-N studies. When exploring the effects of sanctions beyond the conventional failure-success-dichotomy, Clifton Morgan, Navin Bapat, and Valentin Krustev found, for example, that the effectiveness of this particular design element is rising to a relatively high rate of 30 %. And in situations where a negotiated settlement was achieved among conflict parties, the impact of sanctions was found to increase even further by an additional 25 % (Morgan, Bapat and Krustev 2009: 101; see also: Drezner 2011). Obviously, these findings stand in stark contrast to the mainstream view which

⁴²¹ A similar conclusion could be drawn from the analysis of the UN sanctions imposed on Libya in the early 1990s. At first sight, one might be inclined to see this coercive tool as a full-blown success. Already the prospect of the UN coercion moved the Qaddafi regime onto a cooperation course (ch. 5.3.2.2). But the diplomatic momentum the UN coercion created eventually fell flat due to the negative side effects it triggered (i.e. acting against the *fit demand* to avoid preference manipulation and to bridle the first mover inclination).

emphasizes the low success rate of economic sanctions (see, in particular, Pape 1997; Pape 1998).

However, once we apply the metaphor of the shotgun round, these inconsistencies resolve and start to make sense. In all probability, policy makers recur intensively to coercive diplomacy – despite the well-known critique – because this design element is a very feasible “opener” for difficult conflict situations when the scope and nature of the actual problem constellation at hand is still unclear or is still changing. Although seldom a direct hit, coercive diplomacy – like shotgun rounds – represent “a shot into the dark” that is very likely to have at least some impact on the target. Moreover, in all probability, the higher performance of sanctions revealed by Morgan, Bapat and Krustev is attributed to the embeddedness in a negotiation process which allows for an adjustment of the accuracy of this tool – similar to a series of shotgun rounds. Embeddedness in a diplomatic strategy helps to readjust and correct the coercion and avoid negative side effects.⁴²² The diplomatic frame is improving the accuracy of coercion because it helps to translate the impact of this tool into a concrete political momentum which could lead to actual conflict resolution.⁴²³

(2) Positive Inducement & the Cannonball Metaphor: While the literature on coercion in general and on economic sanctions in particular is extensive, there is – apart from some exceptions – relatively little research on positive inducement (e.g. Bernauer & Ruloff 1999; Forsberg 2005; Newnham 2000; Newnham 2002; Nincic 2011; Nielsen & Simmons 2015; O’Sullivan 2000; Solingen 2012).⁴²⁴ Given the lack of research that was conducted, it is not astonishing that diplomatic inducement and rewards are primarily perceived as the mirror-inverted counterpart to coercive diplomacy. This view finds expression in the fact that incentives are often labeled as “positive sanctions” (Baldwin 1971). However, there is solid ground to believe that “positive sanctions” are more than just the flip-side of coercive diplomacy. Rather, we claim that positive inducement operated along a distinct logic that is, in essence, akin to pre-modern cannonballs.

Like shotguns, antique cannons are known for their inaccuracy. But unlike shotgun-rounds, which are very likely to always have an impact on the target although they rarely achieve a direct hit, pre-modern cannons often missed the target completely. Pre-modern artillery normally had to fire several rounds to get the range of the opponent they were aiming at.

⁴²² The positive impact of the “diplomatic embeddedness” of coercion tools appears logical and seems to be supported by historic cases (see, for example, Perthes 2014). However, this aspect was thus far not addressed by the recent debate on the “scope conditions” that are assumed to make coercive instruments more successful (e.g. Bapat & Kwon 2015; Drezner 2003). It was, for example, revealed that coercion in foreign policy is likely to improve its impact when international organizations are involved (Drezner 2000; Bapat & Morgan 2009), when the issue is of little relevance for the target actor (Morgan & Schwebach 1997; Ang & Peksen 2007), when the costs the sender had to bear by imposing and implementing the coercion policy were moderate or low (Bapat & Kwon 2015) or when the target is an allied democracy (Allen 2005; Bolks & Al-Sowayel 2000). Diplomatic embeddedness is missing in this list.

⁴²³ Note that all the coercive tools we witnessed during in the Libyan NRN were applied during the *pre-negotiation phases* when the American-Libyan diplomatic process was still embryonic – an explanation for their relatively low “fit performance”. At that time the diplomatic process was still unable to provide the just mentioned “accuracy improvement”.

⁴²⁴ Miroslav Nincic has, for example, pointed out that there are numerous large-N data sets on coercive diplomacy (e.g. the Correlates of War data set, the International Military Intervention project and the Threat and Imposition of Sanctions data set) but that none are devoted to positive inducement (Nincic 2011: 139).

But – unlike shotgun-rounds – once aiming accurately, cannon balls have a massive impact and normally took-out the target in a single shoot.

It is obvious that the cannonball metaphor has much in common with the discussion on positive incentives in foreign policy. “Positive sanctions” are likely to fail as many squander high amounts of resources. Moreover, “positive sanctions” could have also counter-productive implications in the sense that they provide rewards to bad-doers and, in the worst-case, even encourage them to continue to intensify their undesired behavior. But once incentive tools *fit* to a particular conflict situation, they often yield a remarkable impact and resolve many aspects of problems. Provided with well-matching incentives to change their behavioral patterns, bad doers stop their harmful course of action once and for all.

The nature of positive inducement in the sense of pre-modern cannonballs is primarily expressed in the Libyan NRN by the outlier structure of the “fit performance” we discovered with regard to this particular category of diplomatic design (ch. 6.1.1.2). While inducements and rewards applied during the Libyan NRN were predominantly marked by *misfits*, we found that once they “hit the target” in the sense of fitting to the “optimal problem solution”, they have a massive impact (in the Libyan case signified by one of the rare *overfits*) and resolves much of the given problem (Table 6).

6.1.2.2 Is the Fit Approach a Strategic Illusion?

Developing a feasible and successful strategy in foreign and security policy is a very difficult task and we encounter much skepticism in IR literature regarding this question (e.g. Betts 2000). Consequentially, it is an urgent and justified question whether IR scholars and even more so the practitioners of foreign policy have the chance to apply the *fit approach*. After all, the *fit taxonomy* is a very complicated and demanding model “soaked” with multiple IR theories. We claim, however, that the *fit approach* is indeed relevant and applicable for practical foreign policy – providing that the three following challenges are addressed properly.

First, the users of the *fit taxonomy* need to have a minimum of academic and theoretical training. In particular, they have to have the ability to use game theory and the *public bad approach*. However, we assume that this requirement is realizable given that bureaucracies of modern foreign and security policy (e.g. foreign offices, defense ministries, secret service organizations, etc.) are staffed with many academics, among them numerous IR scholars.

Second, *fit taxonomies* are particularly data hungry analytical tools. As we have explained above, users must at first conduct “constructivist research” and identify the motivations of involved actors (i.e. their desire and beliefs), before they can apply *fit taxonomies* in order to disclose the “optimal problem solution”. However, given that we were able to fulfil this task with the limited resources available to a PhD candidate, government organizations (as well as NGOs or international organizations) with more time, budge, and manpower, are assumed to handle this challenge even better.

Third, the application of the *fit taxonomy* could lead to unpleasant findings for those players who are embroiled in a diplomatic struggle. Take, for example, the discovery that the Qaddafi regime was, in the Libyan NRN, in need of a suitable substitute. Even if Washington had been aware of this particular *fit demand*, it would have been a requirement that was difficult to accept and even more difficult to implement in terms of concrete diplomatic actions – given the long and relatively hostile history of the American-Libyan relationship. But acknowledging this problem, we nevertheless assume that if users of the *fit approach* really endeavor to achieve sustainable and lasting negotiation outcomes, they are likely to follow its recommendations – even if the revealed *fit demands* are unpleasant from a short-term perspective.

6.2 “The Thrilling Moment”: The Logic of Wisdom

If there was something like a universal human DNA for social behavior, the desire for *wisdom* would probably be part of it. Since the beginning of time and in all civilizations, it appears that *(un)wisdom* has been a central reference point for human thought and action. *Wisdom* seems to be a key element in the worldview of indigenous people as much as it is a central theme in the vivid and growing “life coaching” literature in modern Western societies (e.g. Welsch 2011). It is therefore not astonishing that the notion of *wisdom* also plays a significant role in international affairs – in particular, in situations where foreign policy makers are confronted with potentially far-reaching and game-changing decisions.⁴²⁵

All this stands in stark contrast to the meagre existence the concept of *(un)wisdom* has eked out on the fringes of modern social science – including the discipline of International Relations (IR). While of unfailing prominence in the thinking and action of ordinary people and political leaders alike, “wisdom abstinence” (Speer 2004) in academia is striking. Since the 19th century, *wisdom* was only mentioned by scholars in passing and has not generated any meaningful debates, neither as a theoretical concept nor as a research subject. It is not an exaggeration to single out Aristotle as the last world-class scholar who granted the study of *wisdom* a primary place in his academic career (Smith 1998).

Studying the Libyan NRN, we discovered, on several occasions, a distinct pattern of strategic decision-making and actions for which we had no other explanation than to describe it as a feature of wisdom. On the one hand, the actors were intensively using far-reaching knowledge they had required about the given conflict situations. On the other hand, we witnessed acts of “strategic humility” in which the involved parties downsized their desires in order to reach the highest possible impact with limited means. The discovery of the so-called “Logic of Wisdom” (LoW; or the “wise strategy”) was our “thrilling moment” – an intriguing and overwhelming “shock wave” very similar to what rock n’ roll fans feel when they listened to a punk or grunge song for the first time.

In the common sense view, *wisdom* is primarily perceived as a static stock of knowledge, a personal competence, or even a virtue. We however claim – based on the discovery we made in the Libyan NRN – that *wisdom* is first and foremost a behavioral pattern. What we describe as the LoW is not reserved to elderly, knowledgeable, experienced, and charismatic personalities. It is not esoteric *hermectism* or a secrete science. Rather, LoW signifies a purposive and strategically applicable approach of decision-making and action. It

⁴²⁵ Take for example the recent negotiations on Iran’s nuclear program. After the six parties involved in these talks (the five permanent members of the UN Security Council and Germany) reached an agreement in July 2015, the Iranian President, Hassan Rouhani, praised it as a “victory of wisdom” – a slogan he had used repeatedly since his presidential election campaign in 2013 (Krüger 2015). The Republican presidential candidate in the election campaign 2016, Jeb Bush, instead rejected the deal as “extremely unwise” (Nagourney 2015), whereas President Obama said his successor would be “unwise to scuttle” the nuclear accord with Tehran (Olorunnipa 2015).

is a systematic process, which is scientifically explainable and understandable. It is a rational strategy relevant for ordinary people – such as foreign policy makers.

Residing in the realm of rational choice, LoW is clearly distinct from ideational or constructivist approaches of social change. However, LoW also differs from the logic of conventional rational strategy. In its general reading, the conventional rational strategy is understood as “the art or science of shaping means so as to promote ends in any field of conflict” (Bull 1968: 593). LoW represents exactly the opposite. What was unintentionally discovered in our PhD project was that LoW revolves around the idea of a “strategic self-manipulation” of one’s own desires. It represents the rare but influential act where actors deliberately adapt their ends (E) to the available means (M) and the given strategic context (S). In essence, LoW is a phenomenon most of us might have already experienced at some point in our professional careers or private lives. It is, in many respects, synonymous with the painful but liberating decision to let go cherished but increasingly unrealistic goals for the sake of regaining new opportunities. If ordinary people apply this strategy, why should state actors not do the same?

Although we find fragments of LoW in recent IR studies (e.g. Gelb 2009; Nye 2011: ch. 7; Nye 2008b: ch. 4; Yarhi-Milo 2013)⁴²⁶ and in the writings of historic intellectuals seen as the founding fathers of modern strategic studies (e.g. Niccolò Machiavelli or Carl von Clausewitz),⁴²⁷ LoW has never been studied before. It is a completely new academic concept. Research on LoW promises to reveal a rare but very significant phenomenon in foreign policy that is likely to be particularly relevant in strategic situations where actors are weak, in a hurry, or impelled to tackle challenging problems. Moreover, given the “wisdom abstinence” in academia, studying LoW would signify the first systematic approach to a phenomenon that had been neglected by social science since pre-modern times. At the moment, LoW is nothing more than an intriguing hypothesis that is urgently demanding for further research. But given that we found evidence for this phenomenon on several occasions in the Libyan NRN, there is solid ground to assume that at least some of the great success stories and some of the big failures we saw in the general history of foreign policy are the product of a proper or falsely used “wise strategy”.

⁴²⁶ In particular, in the work of Joseph Nye, we found numerous references pointing in the direction of wisdom. Apart from his concept of “smart power” (Nye 2009, 2011), it is especially Nye’s idea of “contextual intelligence” that is noteworthy (Nye 2008b: ch. 4). The concept “contextual intelligence” describes the ability of political leaders to acquire relevant strategic information that is needed to develop smart strategies. Historic leaders with high “contextual intelligence” were – according to Nye – Otto von Bismarck, Winston Churchill, or Dwight Eisenhower (2008: 88-91). Certainly, the concept of “contextual intelligence” is falling short in terms of revealing the phenomenon of LoW. Namely, it is not disclosing the procedures of “strategic self-manipulation” that is at very heart of the “wise strategy”. Nevertheless, “contextual intelligence” is very close to LoW. Tellingly, Nye has described his approach as follows: “contextual intelligence is an intuitive diagnostic skill that helps a leader to align tactics with objectives to create smart strategies in varying situations. Others have called it judgement or *wisdom* [author’s emphasis] (Nye 2008b: 87-8).

⁴²⁷ It is also noteworthy that we find fragments of the LoW already in the writings of those historic intellectuals who are regarded in the 20th century as the classic founding fathers of strategic studies. The ability of accurate political judgment and strategic “farsightedness” paired with tactic pragmatism – abilities one could classify as insignia of *wisdom* – has played, for example a central role in the thinking of Thukydides and Niccolò Machiavelli. For the Prussian war theoretician Carl von Clausewitz it was even the quintessence of all political competence (e.g. Münkler 1987: 492).

LoW is a “thrilling moment”. It has all that is needed to qualify for a real scientific “discovery”. It goes beyond the conventional “innovation by translation” or interpretation. Provided that future research will show that this phenomenon has relevance beyond the Libyan NRN, the “wise strategy” is likely to push the border of the discipline at least in the specific field of foreign policy and strategic studies.

6.2.1 What is Wisdom & Where Have We Found it in our PhD Project?

Before we discuss LoW in detail, we will at first elaborate on the nature of “wisdom” (ch. 6.2.1.1) and explain where exactly we have found evidence for the “wise strategy” in the Libyan NRN (ch. 6.2.1.2).

6.2.1.1 What is Wisdom?

Given the striking “wisdom abstinence”, it is perhaps little surprising that an exact definition of this phenomenon is missing in modern social science. Lacking an academic definition, we have operated with a “synoptic” concept building on our everyday understanding of *wisdom*. In essence, *wisdom* is assumed to revolve around three basic components:

First, *wisdom* is associated with pragmatism. It denotes a non-abstract inclination for feasible actions. For example, most of us would intuitively rather ascribe *wisdom* to an experienced country doctor than to a university professor. Consequentially, it is very likely that the “wisdom abstinence” we observe in modern social science stems exactly from the non-abstract, latently anti-theoretical connotations of the common sense understanding of *wisdom*. Most modern intellectuals, scholars, and philosophers who perceive themselves as “proper” scientists would hesitate to focus on a subject that has the potential to bestow them with the doubtful aura of esoteric gurus.

Second, *wisdom* implies comprehensive and farsighted knowledge as well as techniques to acquire new insights. In that sense, *wisdom* differs from “smartness”. Being just smart (or clever) does not necessarily require a comprehensive stock of accurate knowledge.

Third, *wisdom* appears to be bound to the notion of simplicity and humility. The idea of humble, self-restrained, and (in most cases) very old wise men and women seems to be a universal and trans-cultural theme we encounter in civilizations around the world. Likewise, it is not surprising that modern coaching literature, which in general has a strong inclination for the concept of *wisdom*, builds on the idea of humbleness and is regularly calling on its readers to “simplify” their lives (Kustenmacher 2004). Wisdom is thereby not necessarily synonymous with total abstinence or the renouncement of all worldly things. However, it requires at least the *ability* to be self-restrained and humble if circumstance requires.

6.2.1.2 The “Site of the Discovery”: Interception of “BBC China” and its Diplomatic Handling

We found evidence for the “wise strategy” – and for its failure – on several occasions in the Libyan NRN. The most prominent example, however, was the interception of BBC China and its diplomatic handling (ch. 5.3.3.2).⁴²⁸ It was already mentioned that the interception of BBC China and particularly its diplomatic handling was probably one of the most successful design elements in the entire history of the NRN on Tripoli’s WMD programs. This diplomatic tool was rated as a “multiple fit” and contributed significantly to the resolution of the Alibi Game. The interception of “BBC China” and its diplomacy was the major turning point in the *pre-agreement phase* and, as such, cleared the way for the disarmament agreement of December 2003.

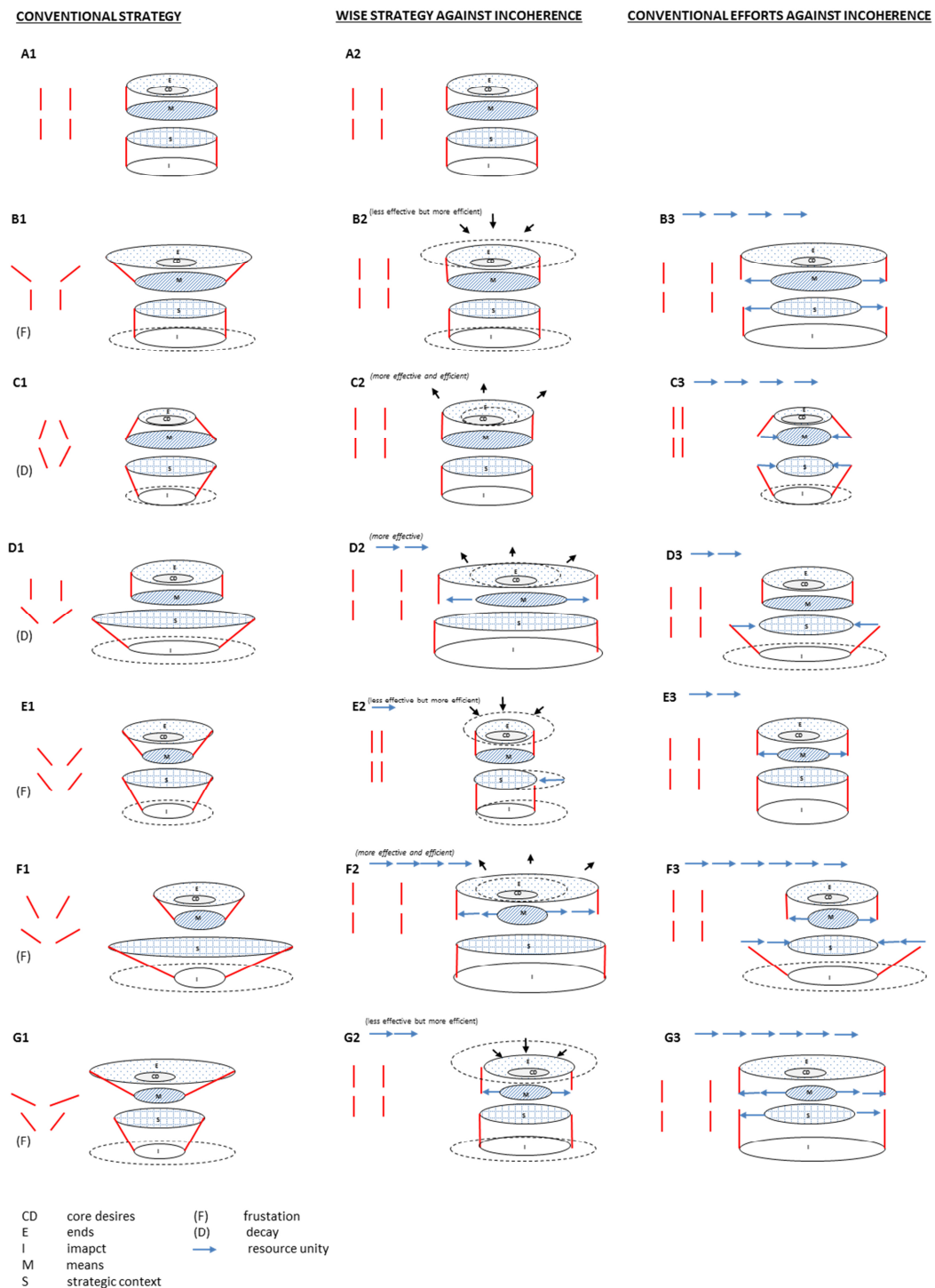
However, if we look beyond the high “fit performance” and dig deeper into the causal logic of this particular design element, we found evidence of the LoW. The diplomatic momentum generated by the seizure of “BBC China” was in essence triggered by an act of “strategic humility”. If the Bush junior administration had followed the logic of conventional strategic decision-making and had applied the tools (M) that best matched at that time to its ends (E), it would have disclosed the seizure of “BBC China” to the media.

Washington had started the *pre-agreement phase* in spring 2003 with the firm desire expressed by George W. Bush’s instruction to “get deliverables from this process” that could “send a signal to the world” (ch. 5.3.1.2). The seizure of BBC China had everything that would qualify for a deliverable with world-wide resonance. After all, the interception of this nuclear smuggling incident was one of the most spectacular success stories in the history of counter-proliferation. Making it public would have been very convincing proof of the Bush junior administration’s resolute commitment to fight nuclear proliferation. This step would have been perfectly in line with the tough approach against the “nuclear rogue states” Washington pursued in the early 2000s.⁴²⁹

⁴²⁸ Other occasions in the Libyan NRN where we have encountered evidence for the “wise strategy” (and its failure) are for example: the carefully scripted choreography of the public statements announcing the disarmament deal on 19th December 2003 (ch. 5.3.4.2) and in the hapless Libyan charm offensive launched in the late 1980s (ch. 5.3.1.2).

⁴²⁹ Moreover, as we have already outlined above, making the interception of the BBC China public would have been also in line with Washington’s effort to promote the Proliferation Security Initiative (PSI) – a new non-proliferation instrument the Bush junior administration had introduced in spring 2003 (ch. 5.3.3.2). In addition, the U.S. intelligence community was at that time still under critique for not having prevented 9/11 and were also facing new accusations due to lacking evidence that Saddam Hussein had pursued an illegal WMD program. Publically celebrating this “counter-proliferation coup” would have been crucial to re-establish the self-esteem of the U.S. secret service (see, for example, the Commission on the Intelligence Capabilities 2005).

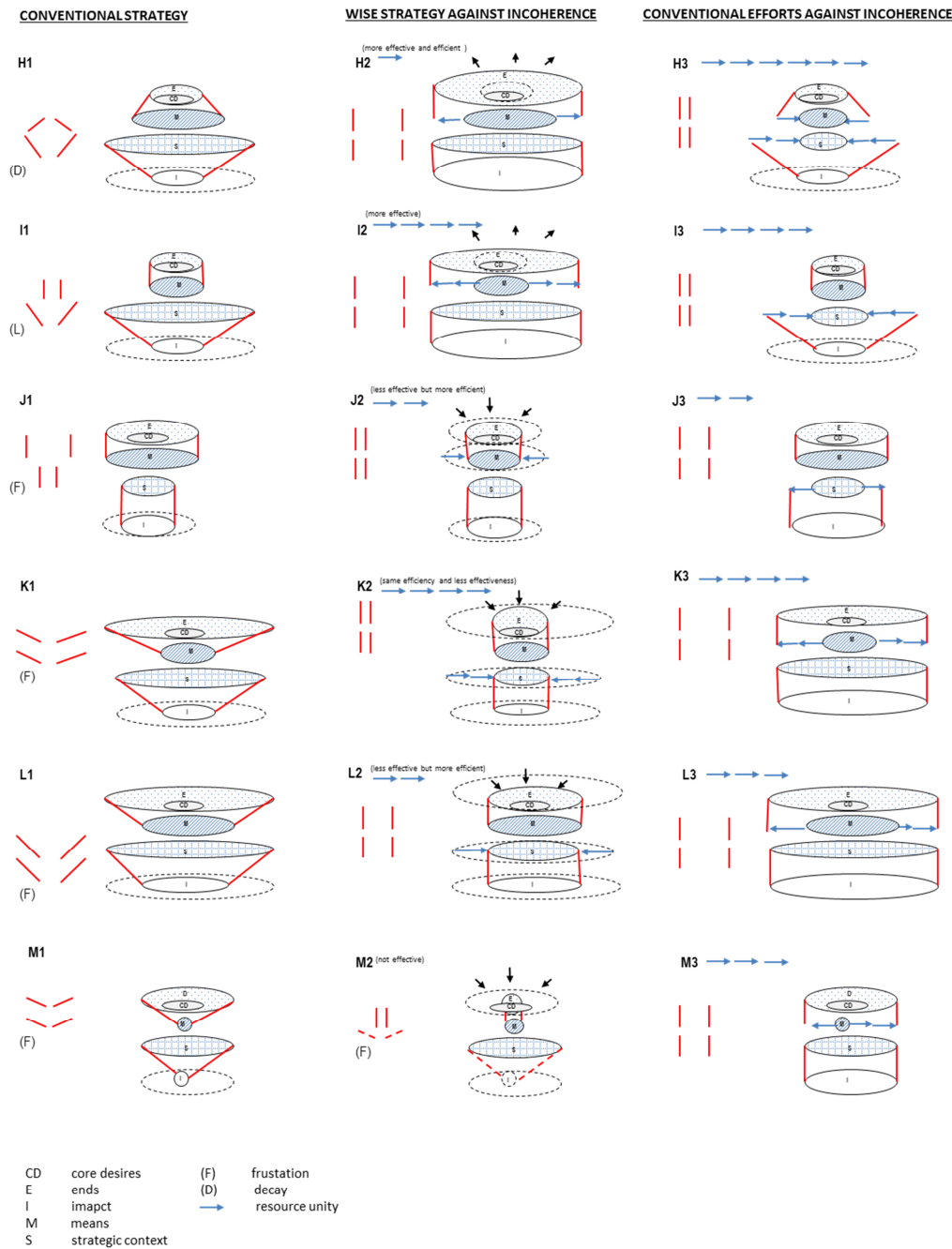
Figure 29: Varieties of the Logic of Wisdom (part 1)



In early October 2003, John Bolton's (Under Secretary for Arms Control and International Security at the US State Department) behavior is probably the best yardstick of what Washington would have done, if it had applied conventional strategic logic where means are shaped in accordance to ends. Due to the high level of secrecy, John Bolton – a neo-conservative, officially the responsible player in the Bush junior administration's non-proliferation policy and under normal circumstances a close confidant to the President – had been not aware of the ongoing talks with Tripoli. As soon as the interception of "BBC China" was reported to him through classified government channels, he hastily prepared a

press conference in order to trumpet this success story to the world pointing out the smoking gun that clearly indicated the existence of a Libyan nuclear weapons program.

Figure 30: Varieties of the Logic of Wisdom (part 2)



However, those actors who were involved in the nascent American-Libyan engagement (namely Robert Joseph and his colleagues at the White House) came – based on their knowledge of the strategic context and the nature of the Qaddafi regime – to the conclusion that the public disclosure of the “BBC China” incident would “wreck” the entire negotiation dynamic with Libya (MacLeod 2006; Tobey 2014; Wright 2004).⁴³⁰ Although the

⁴³⁰ And in hindsight, there is indeed little doubt that a public disclosure of the interception would have affected the entire engagement with the Qaddafi regime. As we have outlined in detail in the case chapter, there was no need for a negative incentive. Being the alibi player during the *pre-agreement phase*, Libya was strongly inclined for cooperation anyway. If Washington had made the seizure of the BBC China public and hailed it as a big non-proliferation success to the press (which it undoubtedly was),

prospect of announcing this big counter-proliferation success to the media was, reportedly, very tempting in light of the ends (E) the Bush junior administration was aiming to realize at that time, it was correctly understood as a mean (M) that was not coherent with the strategic context (S) of the Libyan-American negotiation process. In light of the swift actions that were required after the seizure, Washington instead showed self-restraint, scaled back its far-reaching desires, and chose instead to give priority to a cautious non-proliferation engagement with Libya. President George W. Bush decided for a discreet diplomatic handling of this affair through back-door channels. The press conference that John Bolton had organized was called off as soon as the White House and the CIA got wind of this plan (Tenet 2007: 294).

The strategic self-manipulation of Washington's ends (E) turned out to be the right choice and represented a powerful tool for the further NRN with the Qaddafi regime. The seizure of "BBC China" created a new situation in which the relation between means (M), ends (E), and the strategic context (S) became incoherent. LoW – the self-manipulation of one's own ends (E) – helped to restore this strategic imbalance and thereby created significant impact. The BBC China incident is therefore a good example of LoW. It was an act of "strategic humility".⁴³¹

6.2.2 The Logic of Wisdom and how it How it Differs from the Conventional Rational Strategy?

The conventional rational strategy is understood as the art of promoting ends (E) by shaping (M) and the strategic context (M). By shaping ends (E) in coherence with the available means (M) and the given strategic context (S), LoW is operating in the opposite direction to conventional rational strategy. But while distinct and different, it would be misleading to characterize the "wise strategy" as a logic that is opposed to the conventional view of strategic actions. Rather, LoW is a "situational corrective". As long as the conventional strategy is functioning well – expressed by coherence between ends (E), means (M) and strategic context (S) (signified in Figure 29 and 30 by straight red "boundary lines") – LoW is irrelevant. In fact, in such a situation, it would be "wise" to follow the conventional rational strategy (case A1 and A2, Figure 29).

However, it is a different case in situations where the conventional strategy goes "off track". As soon as the strategic layers become incoherent (signified by twisted red "boundary lines" in Figure 29 and 30), actors are not able to exert the impact (I) that would be possible in a coherent constellation (see the difference between a dotted or solid "impact line" in Figure 29 and 30). Such an incoherent constellation represents a foreign policy crisis and strategy failure. Apart from ineffective problem resolution (expressed by

Tripoli would have, in all probability, denied that it was pursuing a nuclear weapons program, rejected all accusations, desisted from the secret negotiation process on its WMD programs, and returned to an antagonistic and hostile policy towards the United States.

⁴³¹ In the taxonomy of ideal-typical LoW constellations, the example of the "BBC China" interception would signify the case B1/B2 (Figure 29).

the scope of impact (I)), it leads to a series of follow-up problems (among them political frustration (F) and strategic decay (D)).

Of course, in the logic of conventional rational strategy, actors could react to incoherence and reestablish harmony by increasing either their means (M) and/or by directly manipulating the strategic context (S) (see case B3-M3; Figure 29 and 30). However, the application of the “wise strategy” – understood as a “situational corrective” – would achieve *in general* better results under these conditions. While not necessarily better in terms of effectiveness (i.e. achieving a higher impact in a given strategic constellations), LoW is certainly operating more swiftly and more efficiently (i.e. economical use of resources; expressed by the blue arrows in Figure 29 and 30) than the conventional rational strategy. In a foreign policy crisis where actors are either weak, faced overwhelming problems, or are impelled to operate under high time pressure, the “wise strategy” is therefore *generally* a better choice than the conventional rational strategy.

We assume that misbalance between means (M), ends (E), and the strategic context (S) is a very common phenomenon in international affairs and is likely to occur more often than coherent strategic situations (see case A). Based on this assumption, we have modeled 13 ideal typical constellations of incoherence (see Figure 29 and 30). Misbalance is arriving because the available means are too small (e.g. case E1), the ends are either too humble (e.g. case C1) or too exaggerated (e.g. case B1), or because the strategic context is too challenging (e.g. case D1). Moreover, in international affairs, it is relatively safe to assume that we would also encounter a series of ideal types that build on a combination of the just mentioned factors (e.g. case F1 to L1, Figure 29 and 30).

In these situations of strategic incoherency, (1) actors are *unable to achieve* what they actually desire given that their means are limited (e.g. case B1 or G1). (2) Or they are *unwilling to realize* what they potentially could attain given the means that are available to them (e.g. case C1 or H1). (3) Or they do *not desire* what would be required give the challenging strategic context (e.g. case D1 or I1). However, regardless of the individual situation, as soon as misbalance settles, the players are not able to exert the impact (I) that would be possible in a more coherent situation.

Moreover, apart from falling short in terms of strategic impact (I), these situations of incoherency are likely to produce two types of follow-up problems that further complicate the situations: frustration (F) and decay (D). Frustration (F) is the logical consequence when actors are *unable* to achieve what they *actually desire* to attain. When the means (M) do not match an actor’s desire (E), dissatisfaction and grievance are the logical consequence (e.g. case B1, E1, or G1). The problem of decay (D) is instead assumed to occur in those cases where actors are *unwilling to realize* what they could potentially attain given the available means or when they do *not desire* what would be required to resolve the strategic challenge (e.g. case C1, D1, or H1). In a “decay constellation”, actors have “made themselves comfortable” in an unpleasant and awkward situation. The policy impact (I) is constantly too small in light of the strategic challenge. But since effective and sustainable problem resolution is not desired, the actors do not to change course. However, not

resolving the strategic challenge is slowly eroding the chance for future actions. The strategic challenge is assumed to grow over time. And the unused means that actors are not applying are likely to gradually fall into disrepair.

In almost all of these ideal-typical situations (see detail discussion of the outlier case M2 below), LoW could restore coherency between the different layers and thereby allows the involved actors to regain strategic impact and eliminate the follow-up problems of decay (D) and frustration (F). When the conventional rational strategy has become unbalanced, LoW is an effective corrector. How the “wise strategy” is operating is thereby dependant on the scope and nature of the original state of incoherency. What is, however, always at the very heart of the LoW is that it builds on the “strategic self-manipulation of one’s own desires. For the sake of coherency, the deliberate alternation of ends (E) makes LoW an approach that is clearly distinct from conventional strategic thinking.

In many situations, the self-manipulation of one’s own of ends (E) requires an act of “strategic humility” – similar to the approach the United States applied in the diplomatic handling of the BBC China interception. To regain coherence, actors are required to down-size their desires in correspondence with the available means (M) and the given strategic context (S) (e.g. case B2 and E2). However, it would be misleading to equate LoW in general with the humble, difficult, and often painful act of “strategic humility”.⁴³² In many situations, the self-manipulation of one’s own ends instead requires “strategic boldness” (e.g. case C2, D2 or I2). To restore coherence between the different strategic dimensions, actors are required to extend existent desires and actively develop new objectives. In these constellations, it would be extremely “unwise” to humbly down-size one’s ends (E). Essentially, the “wise strategy” signifies “political jiu-jitsu”. Its major strength is strategic flexibility. In a confrontation, the users of the “wise strategy” win and triumph not by firm resistance and with dogged determination but by strategic suppleness implemented by the agility of their desires – expressed either by strategic humility or boldness.

LoW is effective in the sense that it resolves strategic incoherence and thereby strikes at the root of foreign policy crises including the follow-up problems of political frustration (F) and strategic decay (D). However, when compared to the conventional rationalist efforts against incoherence (see cases B3-L3), LoW is not necessarily better in terms of effectiveness. The picture is rather mixed and the two approaches to handle the misbalance between the strategy layers – LoW and conventional strategy – “are on level pegging”. While the application of the “wise strategy” is yielding a higher impact (I) in some constellations than the conventional strategy against incoherence (e.g. case C2, D2, or H2), the conventional rational strategy is doing better in other situations (e.g. case B3, E3, or J3).

⁴³² The notion of “humility” is particularly prone to misunderstanding. “Strategic humility” is a purposive act that should not be confused with altruism. Moreover, “strategic humility” is not automatically leading to a gentle, cooperative, and accommodating foreign policy. The self-manipulation of one’s desires is completely indifferent to the way individual players might act in foreign affairs. Since it only signifies a particular mode of how actors “shape their minds”, “strategic humility” is applicable for military actors who eagerly try to win a war as much as it is relevant for diplomats who ponder the best cooperation strategy with a partner country.

But while not necessarily more effective, LoW is always the more efficient approach. When the conventional rationalist strategy tackles constellations of incoherence, it does it by either changing the available means (M) and/or by directly manipulating the strategic context (S) (see case B3-M3). Efforts to change the strategic context (S) are particularly difficult and costly (see, for example, the strategy of “nudging”; Thaler & Sunstein 2009). But enhancing one’s means (M) by enhancing the quantity and quality of availed foreign policy tools is resource-demanding too (expressed in the figures by the blue arrows (Figure 29 and 30)).

Certainly, the “wise strategy” requires power resources too. In several of the ideal-typical situations we have modeled, the strategic self-manipulation of one own’s ends is likewise triggering the need to change the available means (e.g. case C2, D2, F2) or, very occasionally, even the strategic context (case K2 and L2). However, even in those ideal-typical situations where power resources are required, the “wise strategy” is nevertheless always the more efficient choice (apart from the special case of M2 which we will discuss below). The strategic self-manipulation of one’s desires is saving power resources that would otherwise be needed to cope with incoherent strategic situations.⁴³³

Being more efficient and swifter makes the “wise strategy” a convincing approach to handle foreign policy crises. It is the very nature of foreign policy crisis that the relevant actors are confronted by more powerful opponents, face severe and challenging problems, or are impelled to operate under high time pressure. In all these situations, the LoW signifies a better choice than the conventional rational strategy. When weak, overwhelmed, or under time pressure, strategic self-manipulation of one’s ends is a powerful tool to regain strategic momentum and win a confrontation. Moreover, LoW is “high politics”. Manipulating one’s own ends is not an everyday practice left to subordinate bureaucratic actors. Rather, only the highest political levels (of a state, international organization, NGO, etc.) are entitled to take such far reaching and decisive decisions. Consequentially, we assume that big success and great failure in foreign policy is not always, but at least sometimes, the product of decision makers unknowingly applying the “wise strategy” or – in the case of failures – disrespecting its logics.

Certainly, the “wise strategy” is not a “blue print solution”. In constellations when foreign policy is not in a crisis mode, the conventional strategic approach might be more suitable. Moreover, there is, in addition, a fundamental restriction to the application of the “wise strategy”. The LoW resides in the realm of rationalism. Consequentially, self-restraint and downsizing of one’s own desires has its limits. The ultimate bottom line for LoW is defined by the concept of “core desires” (CD) – important vital ends that rational actors could

⁴³³ However, LoW is not free of charge. While conventional rational strategy is strongly oriented at power resources, the decisive vehicle of LoW is instead the “flexibility of the mind”, the willpower of foreign policy leaders, and strategic knowledge. The strategic self-manipulation of one’s desires represents, in most of the cases, a politically demanding, intellectual challenging, and often very painful decision. Moreover, expressing the common-sense understanding of “wisdom”, LoW is assumed to be in particular knowledge-hungry. What is required is not only “contextual intelligence” (Nye 2008b: ch. 4) of the strategic constellations but also a very clear understanding about the “interior” of one’s own desires. Strategic self-manipulation of one’s ends (E) is only possible when based on detailed knowledge about the scope and nature of current (in the case of “strategic humility”) or future desires (in the case of “strategic boldness”).

impossibly suspend. LoW is not applicable in situations where the effort to reestablish coherency would require abandoning parts of these “core desires” (see case M2, Figure 30).

Like deterrence or balance of power LoW is a strategic middle-range theory. Therein lies its central strength. LoW allows us to study not only shifts of an actor’s motivation – a process we could also analyze with more conventional approaches – but it also gives practical guidance on how to shape strategic desires in order to improve the impact of foreign policy. When systematically applied, the LoW has therefore a “backward-looking analytical” as well as a “forward-looking prescriptive” dimension.

6.2.4 Outlook

That we discovered LoW as an unintended side-effect of our PhD project was, in hindsight, not only pure chance. Rather, it is, to a considerable extent, a result of how we studied the Libyan NRN. It was because we took the burden “to hike all the way” from the “snowy heights” of meta-theory (i.e. the Enlightened Rationalism), over the foothills of our academic manifesto (the policy paradigm) to the low-lands of analytical research (*diplomatic design* and the *fit approach*). The unplanned discovery of LoW was the reward for this “challenging hike”. If we had structured this PhD project differently – for example, more along the idea of a book proposal (p. 17-18), we would have most certainly missed this point.

For example, the discovery of LoW would not have been possible without studying the “problem of fit” through the *fit taxonomy*. It was only by parallel insights into four strategic dimensions (ends (i.e. desires and beliefs), means (i.e. design elements), strategic context (i.e. negotiation problems) and the impact (i.e. “fit performance”)) that we became aware of the varying (in-)coherencies. Without such an in-depth understanding about these different strategic components, we would have, in all probability, been unable to discover the phenomenon of LoW.

The meta-theoretical approach of Enlightened Rationalism was likewise essential for the discovery of LoW. If one had to sketch out a research puzzle that perfectly match to the nature of Enlightened Rationalism, the “wise strategy” would be among the first candidate. LoW is, on the one hand, a rationalist approach were actors are assumed to maximize their utilities. But, on the other hand, it places the concept of strategic self-manipulation with the idea of an endogenous change of an actor’s motivation at the central stage and therefore goes clearly beyond Orthodox Rationalism. Consequentially, it was only by the strict application of Enlightened Rationalism that we were able to discover LoW.

Studying the “wise strategy” is methodically a very challenging endeavor. For example, considerable efforts are required to disclose the varying constellations of (in)coherency. However, a future research project on LoW would certainly be worth the effort given that the “wise strategy” signifies a promising added-value both for academic as well as for the sphere of practical foreign policy. As we said in the beginning of this section: at the moment, “logic of wisdom” is nothing but an intriguing hypothesis. But after IR scholars

have debated in the last two decades over the role of hard, soft and smart power (Nye 2011), the time has come to start thinking about “wise power”. Once better understood, LoW holds the promise to be a powerful strategic tool for practical foreign policy.⁴³⁴

⁴³⁴ There is, for example, some ground to believe that perhaps the most controversial foreign policy decision in recent years – Obama’s choice not to launch a punitive strike against the Assad regime in response to its chemical weapons attack on 13th August 2013 – had many elements of the LoW.

In his recent interview with the Atlantic journalist Jeffery Goldberg, Obama explained that “dropping bombs on someone to prove that you’re willing to drop bombs on someone is just about the worst reason to use force” (Goldberg 2016). When looking through the prism of “deterrence theory”, his words are probably the most absurd statement ever given by an acting U.S. President. After all, using force in order to retain strategic credibility is one of the core elements of deterrence. Consequentially, most foreign policy experts – including Obama’s national security advisers – were shocked by his decision in August 2013. Calling off the attack against the Assad regime was certainly at odds with the “Washington playbook” the U.S. foreign policy establishment is normally supposed to follow. But when thinking in terms of LoW the canceled strike appears as a farsighted decision which seems to express, in light of the circumstances in August 2013, a more abstract and higher-ranking strategic logic than the traditional “deterrence theory”.

Immediately after the devastating chemical weapons attack, which killed more than 1,000 people in the suburbs of Damascus, the Obama administration was determined to respond militarily. The Pentagon made all necessary preparations including the development of a target list. The primary reasoning was to enforce the “red line” Obama had drawn one year earlier in a public statement given on 20th August 2012 for a scenario in which chemical weapons would be used in Syria.

But while the machinery of the U.S. security apparatus was in full tilt towards a strike, Obama’s concerns grew. That the U.K. was withdrawing from military action since the British Parliament voted against Cameron’s plan to support the U.S. attack, further inflamed Obama’s doubts. In his own words, the major argument for canceling the attack at the “eleventh hour” was, however, the conviction that the mean (M) of a military strike was inconsistent with the strategic constellations (S). In his interview with Jeffery Goldberg, Obama said: “[O]ur assessment [was] that while we could inflict some damage on Assad, we could not, through a missile strike, eliminate the chemical weapons themselves, and what I would then face was the prospect of Assad having survived the strike and claiming he had successfully defied the United States, that the United States had acted unlawfully in the absence of a UN mandate, and that that would have potentially strengthened his hand rather than weakened it” (Goldberg 2016).

In an act of “strategic humility” Obama took on 30th August 2013, the very difficult decision and downsizing his own ends (E) in the LoW typical “self-manipulation” of his mind. While the objective to inactivate the Syrian chemical weapons program was still on the agenda, the goal of enforcing the “red line” and retain U.S. strategic credibility was off the table. Instead of a military strike, the Obama administration searched for a different mean (M) that was assumed to be more suitable to the given strategic context (S) – negotiations with Russia. Typical of LoW, Obama later described this difficult decision as a liberating act which in the end provided a higher impact (I) than conventional strategy. He speaks in the logic of “wise strategy” when he said: “[T]he fact that I was able to pull back from the immediate pressures and think through in my own mind what was in America’s interest (...) was as tough a decision as I’ve made — and I believe ultimately it was the right decision to make” (Goldberg 2016).

The historic evidence suggests that Obama’s “wise strategy” indeed had more impact (I) in the end than a military strike. The disarmament deal the U.S. negotiated with Russia led to a swift removal of Syria’s chemical weapons program. Of course applying limited force against the Assad regime had restored U.S. credibility in light of the “red line”. But it would have – in all probability – not led to an inactivation of the Syrian chemical weapons program. The “show of force” Washington planned to deliver in summer 2013 (e.g. five Arleigh Burke destroyers in the Mediterranean) was too small to topple the Assad regime or change the course of the Syrian Civil War. But it would have been large enough to put the U.S. on a “slippery slope” with the danger of becoming more entangled in “Syrian theater”. Of course, the Syrian regime, sadly, continues to use chemical weapons against civilians – even today. But, the current chemical warfare by the Assad regime has never reached the same scale – in substance (nerve agents (mainly sarin) vs. choking agent (mainly chlorine)) or in intensity (the series of medium and larger attacks between April to August 2013 vs. tactical and point-to-point use of chemical warfare agents mainly as admixture to barrel bombs) – it had before Syria’s accession to the Chemical Weapons Convention in 2013.

Certainly, the argument that Obama’s decision in 2013 was in essence an expression of LoW is nothing but an intriguing hypothesis at the moment. Whether it really happened the way we described it is a question that needs to be studied in a future research project.

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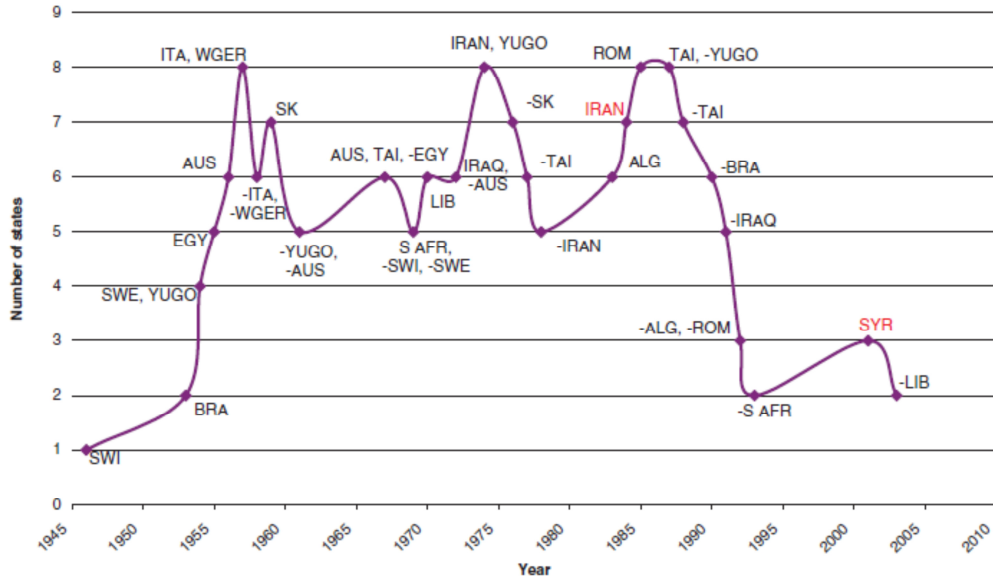
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8. ANNEX

Annex 1: Overview on Nuclear Proliferation and Nuclear Reversal



Source: Sagan 2011: fig. 2

Annex 2: Challenging Negotiation Environment

Challenging Negotiation Environment						
State	Negotiating Period & Partner(s)	Previous Conflicts [a]	Intensity Bilateral Trade [b]	Quantity and Quality of Overlapping Alliances [c] [d]	Dissimilarity of "National Identities" [e]	Challenging Negotiation Environment
Argentina	approx. from 1980 to 1994 with Brazil	very low no conflict since 1945 with negotiation party	high Exports form Argentina to Brazil: 14.8 %; exports form Brazil to Argentina: 6.7 %	high One defense pact with BRA since 1947	very low (1) no common language (Spanish vs. Portuguese) (2) common civilization (Latin American) (3) common socio-economic system (SL)	very low
Belarus	approx from 1990 to 1994 with Russia and USA	very low No conflict since 1945 with negotiation parties	low Exports form Belarus to USA & Russia: 40 %; exports from USA & Russia to Belarus: 0.4 %	very low No formal alliance with U.S. and Russia during negotiations	low (1) common language: yes (with Russia) no (with the West) (2) different civilizations: yes (with Russia: Orthodox civilization) no (with the West) (3) socio-economic system: yes (with Russia: OS) no (with U.S.: IS)	low
Brazil	approx. from 1980 to 1994 with Argentina	very low No conflict since 1945 with negotiation party	high Exports form Argentina to Brazil: 14.8 %; exports form Brazil to Argentina: 6.7 %	high One defense pact with BRA since 1947	very low (1) no common language (Spanish vs. Portuguese) (2) common civilization (Latin American) (3) common socio-economic system (SL)	very low
India	approx. from 1990 to 2001 with USA and Pakistan	very high 11 conflicts since 1945 with negotiation parties. Average HIIK (COSIMO) Conflict Intensity 2,8.	high Exports form India to Pakistan & USA: 19.6 %; exports from USA & Pakistan to India: 0.3 %	medium No formal alliance with U.S.; and one neutrality pact with Pakistan (entered into force on the 27th January 1991)	low (1) common language: yes (English as official language) (2) no common civilization (Islamic vs. Hindu civilization) (3) common socio-eco. system: no with US (IS vs. EL) yes (with Pakistan: both EL)	very low
Iran	since 2003 with France, Germany and UK; since 2006 also with China, Russia and USA (P5+1-talks)	high 5 conflict since 1945 with negotiation parties. Average HIIK (COSIMO) Conflict Intensity 2,2.	very high Exports from Iran to USA, Germany, Russia, UK, China and France: 5.7 %; exports form China, France, Germany, Russia, UK, and USA to Iran: 0.3 %	very low No formal alliance with negotiating parties	medium (1) no common language (Persian vs. French, German, Russian, Chinese and English) (2) no common civilization (Islamic vs. Western, Orthodox, and Sinic civilization) (3) no common socio-economic system (EL vs. IS, vs. OS, vs. SL)	very high
Kazakhstan	approx. from 1990 to 1994 with Russia and USA	very low No conflicts since 1945 with negotiation parties	very low Exports form Kazakhstan to USA & Russia: 58 %; exports form Russia & USA to Kazakhstan: 0.4 %	very low No formal alliance with U.S. and Russia	very low (1) common language: yes (with Russia) no (with the West) (2) different civilizations: yes (with Russia: Orthodox civilization) no (with the West) (3) no common socio-economic system (EL vs. OS, vs. IS)	very low
South Korea	approx. from 1975 to 1976 with USA	very low No conflicts since 1945 with negotiation party	medium Exports form South Korea to USA: 24.1 %; exports form USA to South Korea: 1.8 %	low One entente with the US (entered into force on October the 1st, 1953)	very high (1) no common language (Korean vs. English) (2) no common civilization (Sinic civilization vs. Western civilization) (3) no common socio-economic system (SL vs. IS)	low
Libya	in 2003 with UK and USA	medium 2 conflict since 1945 with negotiation parties. Average HIIK (COSIMO) Conflict Intensity 2,5.	very high Exports form Libya to UK & USA: 0.5 %; exports form UK & USA to Libya: 0.003 %	very low No formal alliance with U.S. and U.K.	very high (1) no common language (Arabic vs. English) (2) no common civilization (Islamic vs. Western civilization) (3) no common socio-economic system (EL vs. IS)	very high
Pakistan	approx. from 1990 to 2001 with USA and India	very high 11 conflicts since 1945 with negotiation parties. Average HIIK (COSIMO) Conflict Intensity 2,8.	medium Exports from Pakistan to India & USA: 13.8 %; exports form India & USA to Pakistan: 10.4 %	medium No formal alliance with U.S.; and one neutrality pact with India (entered into force on the 27th January 1991)	low (1) common language: yes (English as official language) (2) no common civilization (Islamic vs. Hindu civilization) (3) socio-eco. system: no with US (IS vs. EL) yes (with India: both EL)	medium
North Korea	since 1993 with the USA; since 2003 also with China, Russia, Japan, and South Korea (six-party-talks)	high 4 conflicts since 1945 with negotiation parties. Average HIIK (COSIMO) Conflict Intensity 2,8.	very low Exports from North Korea to USA, Russia, China, South Korea & Japan: 49.1 %; exports form China, Japan, Russia, South Korea, and USA: 0.05 %	very high No formal alliances with U.S., Japan and South Korea; one defence pact with China (entered into force on July 11th 1961); one entente with Russia (entered into force February 9th 2000)	high (1) common language: yes (with South Korea) no (with China, Russia, Japan and U.S.) (2) common sink civilization with China, and South Korea; no common civilization with Japan (Japanese civilization), Russia (Orthodox civilization) and the U.S. (Western Civilization) (3) no common socio-economic system (EL vs. IS)	low
Taiwan	approx. from 1976 to 1978 and again from 1987 to 1988 with USA	very low No conflicts since 1945 with negotiation party	high Exports form Taiwan to USA: 18.7 %; exports form USA to Taiwan: 4.3 %	high One defence pact with the US (entered into force on December the 2nd, 1954)	very high (1) no common language (English vs. Chinese) (2) no common civilization (Sinic civilization vs. Western civilization) (3) no common socio-economic system (EL vs. IS)	low
Ukraine	approx. from 1990 to 1994 with Russia and USA	low 2 conflicts since 1945 with negotiation parties. Average HIIK (COSIMO) Conflict Intensity 1,5.	high Exports form Ukraine to USA & Russia: 20.9 %; exports form USA & Russia to Ukraine: 0.3%	very low no formal alliance with U.S. and Russia	low (1) common language: yes (with Russia) no (with the West) (2) common civilization: yes (with Russia) no (with the West) (3) common socio-eco system: yes (with Russia: OS) no (with U.S.: IS)	medium

[a] Source: Heidelberg Institute for International Conflict Research (HIIK), COSIMO (Conflict Barometer). Value is a function of number of conflicts and average conflict intensity. The COSIMO 1 Data has four categories of conflict intensity: 1: Latent conflict, completely non-violent, open verbal claims; 2: Crisis, non violent, more intensive claims; 3: Severe crisis, sporadic irregular use of force, blockade, threat; 4: War, organized continuing use of force.

[b] Source: The Correlates of War Project: International Trade, 1870-2006 (v2.01) (Barbieri, Katherine, Omar Keshk, and Brian Pollins. 2008. Correlates of War Project Trade Data Set Codebook, Version 2.0., Online: <http://www.correlatesofwar.org> (02.04.2011)

[c] Source: Formal Alliances Data Set Version 3.03 (1816-2000) (cf. Correlates of War-Program <http://www.correlatesofwar.org> (07.08.2011); Gibler, Douglas M., and Meredith Sarkees. 2004. "Measuring Alliances: The Correlates of War Formal Interstate Alliance Data set, 1816-2000." Journal of Peace Research 41(2): 211-222; for the original version of : Singer, J. David, and Melvin Small. 1966. "Formal Alliances, 1815-1939." Journal of Peace Research 3:1-31.

[d] The Correlates of War Data set allows to evaluated the quality of alliances: (1) high = Defense Pact; (2) medium = Neutrality and Non-Aggression Pact (2) low = Entente

[e] The coding of the different socio-economic system bases on a record made by the Heidelberg Conflict barometer: IS = industrialized states of the Northern/Western hemisphere with market economies and pluralistic regimes; SH = Socialist and communist bloc states, Former USSR, eastern satellite states, PR China, Mongolia; EL = Developing economies, Third World states with underdeveloped market economies and weak or authoritarian political systems; OS = Eastern European democracies, Former East bloc states, in transformation process toward market economy and democracy; ISE = Industrialized states in developing regions like Australia, New Zealand, and South Africa; SHE = Socialist states in developing regions, North Korea, Vietnam, and Cuba; SL = Southeast Asian market economies; NIE = Newly industrialized economies (COSIMO 1; cf. Variable 12 <http://www.hiik.de/en/kosimo/kosimo1.html>) (02.04.2011).

Annex 3: Documents of the "Operational Code Analysis"

Date	Title	Type	Source	Date
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2010	Libya's Al-Qadhafi Explains Reasons for Switzerland Dispute	May 03	Interview	der Spiegel, Germany; World News Connection, 298350386
2010	Al-Qadhafi Addresses Delegation of Israeli Arabs	Apr 30	Speech	World News Connection, 298201760
2010	Al-Qadhafi Addresses Delegation of Israeli Arabs	Apr 30	Speech	al-Quds al Arabi Online
2010	KUNA: Al-Qadhafi Says US-Libyan Relations are 'Excellent'	Apr 26	Report	KUNA Online, Kuwait
2010	Yonhap: Qadhafi Dismisses Int'l Calls For Pressure on North Korean Nuke Dismantlement	Apr 26	Report	Yonhap
2010	SBS Dateline Interview with Gaddafi	Feb	Interview	SBS Dateline
2009	Russian TV interviews Libyan leader on Obama, Iran, UN	Dec 29	Interview	Center TV
2009	NATO wants to seize Russia's riches, Libyan leader tells Russian TV	Sep 03	Interview	Vesti TV
2009	Muammar Gaddafi Warns Against Provoking Russia	Apr 30	Report	ITAR-TASS
2009	Sky News exclusive interview with Libyan Leader colonel Gaddafi	Oct 25	Interview	Sky News
2008	The Pakistani Conundrum	Dec 18	Speech	Revolution Comitté Website
2008	Libyan Leader attacks Obama, calls on him to change US Mideast policy	June 11	Report	Great Jamahiriyah TV
2007	The Brother Leader addresses the Students of Oxford University	May 16	Speech	Revolution Comitté Website
2006	ROK Daily: Gaddafi 'Unsuccessful in N. Korea Mediation Efforts'	Sep 21	Report	Chosun Ilbo WWW-Text
2006	Qadhafi personal web page	Sep 21	Quote	Solingen, Etel: Nuclear Logics, Princeton/ Oxford: Princeton University Press 2007: 341/FN 37
2005	10 Question for Muammar Gaddafi	Jan 30	Interview	Time
2004	Qadhafi Says US Should Adopt Libyan System; Speech Covers Zionism, Oil, Terrorism	Aug 31	Speech	Tripoli Great Jamahiriyah TV; FBIS-Nes-2004-0901
2004	Al-Jazirah TV Interviews Libyan Leader on Weapons, US Ties, Other Issues	Dec 31	Interview	FBIS Report
2004	Libya: Al-Qadhafi Addresses General People's Congress	Mar 04	Speech	Tripoli Great Jamahiriyah TV
2004	Libya leader says the race to develop nuclear weapons is 'crazy'	Feb 29	Report	Raghavan, Sudarsan in: Tribune News Service
2004	The Arab League: Ignoring Reality, or Ignorance of it?	June 22	Speech	Revolution Committee Website
2003	The Makeover	Jan 19	Quote	Anderson, Scott: "The Makeover", in: The New York Times, January 19, 2003
1999	Al-Qadhafi on Palestinian State, Lockerbie	Mar 10	Report	Cairo MENA
1998	Libya: Al-Qadhafi Urges Arabs to Serve Ties with US	Oct 13	Report	Amman al-Dustur
1996	Libya: Al-Qadhafi on Terrorism, Peace, Other Issues	Mar 23	Interview	Dubayy Space Channel TV, Abu Dhabi; FBIS-NES-96-061 on 1996-03-28
1996	Al-Qadhafi, Mubarak Say No To Weapons of Mass Destruction	Aug 11	Report	Tripoli Great Jamahiriyah TV; FBIS-NES-96-157 on 1996-08-13
1995	Smaller Nations "Fooled" Into UN	Mar 08	Report	Tripoli JANA
1995	Qadhafi Shortly After NPT Review & Extension Conference	June	Quote	Bowen (2006)
1994	Al-Qadhafi Interviewed on Current Concerns	Mai 25	Interview	London, Al-Hayah; FBIS-NES-94-102 on 1994-05-26
1993	Al-Qadhafi Interviewed on Lockerbie, Peace Process	Nov 07	Interview	JANA; FBIS-NES-93-214
1992	Al-Qadhafi Discusses Lockerbie, Nuclear Weapons	Apr 23	Interview	Budapest REFORM in Hungarian, FBIS-NES-92-084 on 1992-04-30
1992	Al-Qadhafi on Lockerbie, Nuclear Weapons	Mar 28	Interview	Paris, Le Figaro, FBIS-NES-92-063 on 1992-04-01
1990	Al-Qadhafi on Nationalism, Israel, U.S.	Aug 10	Interview	Vienna Domestic Service, FBIS-NES-90-157 on 1990-08-14
1990	Al-Qadhafi on Gulf, Terrorists, Israel	Nov 12	Interview	Germany, Der Spiegel, FBIS-NES-90-219 on 1990-11-13
1990	Qaddafi in April 1990	April	Quote	Bowen (2006: 22)

1990	Al-Qadhafi Comments on Hostages, Recent Issues	Mai 25	Interview	Al-Hawadith/London; FBIS-NES-90-102
1989	Al-Qadhafi Interviewed on Bulgaria, Cyprus	Jun 25	Interview	Ankara Domestic Service; FBIS-NES-89-121
1989	Al-Hawadith Interviews al-Qadhafi	Jun 30	Interview	London/Al-Hawadith; FBIS-NES-89-124
1988	Austrian Paper Interviews al-Qadhafi	Feb 29	Interview	Vienna, Neue Krone-Zeitung; FBIS-NES-88-040
1988	JANA: Al-Qadhafi BBC Interview "Distorted"	Jan 16	Report	Tripoli JANA; FBIS-NES-88-011
1988	Al-Qadhafi Cited in Al-Safir Interview	Jan 01	Interview	Al-Safir/Beirut; FBIS-NES-88-007
1987	Qadhafi Press Conference at Arab Summit in Amman	Nov	Quote	Bowen (2006: 22)
1987	Qaddafi: Address to University Students	Jul	Speech	Spector, Leonard: Nuclear AmbitionsBoulder, CO: Westview Press 1990: 178
1986	Qadhafi interviewed by Der Kurier	Jan 23	Interview	Kurier, Austria; FBIS-MEA-86-016 on 1986-01-24
1986	Qadhafi interviewed by Lebanese Weekly	Jan 20	Interview	Al-Nahar al-Arabi Wa al-Duwali, Lebanon; FBIS-MEA-86-016 on 1986-01-24
1986	Al-Qadhafi Pledges Not to Produce Nuclear Bombs	Mrz 12	Interview	Kuwait KUNA; FBIS-MEA-86-048 on 1986-03-12
1986	Al-Qadhafi on Relations With Chad, U.S., Europe	Feb 23	Interview	Athens, Kiriakatiki Elevtherotipia; FBIS-MEA-86-036 on 1986-02-24
1986	Nuclear Weapons a great mistake against Humanity	Mar 10	Report	Bowen, Wyn Q.: Libya and Nuclear Proliferation. Stepping Back From the Brink, London: Routledge 2006: 18
1985	al-Qadhafi Interviewed on Nuclear Arms, Terrorism	03. Jun	Interview	Tokyo NHK Telev. Network; FBIS-MEA-85-109 on 1985-06-06
1985	Al-Qadhafi Receives USSR Message on Arms Talks	Jun 02	Report	Tripoli Jana; FBIS-MEA-85-106 on 1985-06-03
1984	Al-Qadhafi interviewed by DER SPIEGEL	Jan 09	Interview	der Spiegel, Germany; FBIS-NES-89-006 on 1989-01-10
1984	al-Qadhafi Grants Interview	Nov 28	Interview	Tripoli Voice of Arab Homeland; FBIS-MEA-84-230 on 1984-11-28
1983	Al-Qadhafi Speech at Opposition Movements Meeting	Feb 02	Speech	Tripoli JANA; FBIS-MEA-83-024 on 1983-02-03
1983	Al-Qadhafi Toast	Jan 22	Speech	Romania, Scinteia; FBIS-EEU-83-017 on 1983-01-25
1982	Al-Qadhafi: To Hell with U.S. and Saudi Arabia	Mar 02	Speech	Tripoli Domestic Service; FBIS-MEA-82-043 on 1982-03-04
1982	Al-Qadhafi Interviewed on Role in Mideast	Nov 09	Interview	Kuwait, Al-Watan; FBIS-MEA-82-221 on 1982-11-16
1981	Al-Qadhafi Speaks on Defense of Arab Nation	Mai 07	Speech	Tripoli JANA; FBIS-MEA-81-089 on 1981-05-08
1981	Al-Qadhafi Comments on Foreign Affairs Issues	Mar 22	Interview	Paris, AFP; FBIS-MEA-81-055 on 1981-03-23
1981	Al-Qadhafi Interviewed on Chad, Sudan, Mideast	Feb 15	Interview	Tripoli Voice of Arab Homeland; FBIS-MEA-81-031 on 1981-02-17
1981	Text of Der Spiegel Interview With Al-Qadhafi	Sep 21	Interview	Germany, Der Spiegel; FBIS-MEA-81-183 on 1981-09-22
1981	An Interview with Gaddafi	Jun 08	Interview	Time
1980	Al-Qaddafi : Liquidation Policy	Jun 16	Interview	Germany, Der Spiegel; FBIS-NES-90-219 on 1990-11-13
1980	Mu'ammr al-Qadhafi Interviewed by French TV	Jul 28	Interview	Paris, AFP; FBIS-MEA-80-147 on 1980-07-29
1980	al-Qadhafi Discusses Relations with Egypt, Atom Bomb	Jun 07	Interview	Tripoli JANA; FBIS-MEA-80-112 on 1980-06-09
1979	Jana Reports Al-Qadhafi Interview with Lebanese Paper	Feb 07	Report	Tripoli, Jana; FBIS-MEA-79-030 on 1979-02-12
1979	Qaddafi in Dec. 1979 on Nuclear Weapons	Dec	Speech	Bowen 2006: 18
1978	Qadhafi Speaks of Need For Libyan-U.S. Dialog	Oct 11	Report	Tripoli, Domestic Service, FBIS-MEA-78-198 on 1978-10-12
1976	Al-Qadhafi Discusses Ties with Soviets	Jun 07	Interview	DPA, Cairo, FBIS-MEA-76-111 on 1976-06-08
1976	British Correspondent Interviews Al-Qadhafi	Mai 02	Interview	London, The Sunday Telegraph, FBIS-MEA-76-087 on 1976-05-04

1974	The Ramadan War		Interview	Al-Ushu al-Arabi London, Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.
1974	Interview with a Yugoslav Newspaper		Interview	with Dara Janikovic/Zagreb, Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.
1974	Freedom		Speech	Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.
1974	Inter-Arab Relations	Apr 14	Interview	Beirut newspaper an-Nahar, Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.
1973	The Paris Symposium	Nov 24	Interview	Discussion at Plaza Hotel/Paris, Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.
1973	Euro-Arab Relations	Mai 14	Speech	key-not Speech/Tripoli, Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.
1973	The Third International Theory		Speech	Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.
1970	Evacuation of U.S. Airbase	Jun 11	Speech	Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.
1970	Libya and the World	Sep 01	Speech	Qaddafi (1976) The Battel of Destiny: Speeches and Interviews, London: Kalahari Pub.

Annex 4: Reenactment of Tripoli's Preferences in the Deadlock Game

LIBYA: First Part of the Pre-Negotiation Phase (Deadlock Game 1987- late 1980s)				
OPPORTUNITIES		DESIRES	TRANSLATING & WEIGHING REENACTMENT	PREFERENCES
				rank = fulfilled desires
CC Both sides agree to start exploratory talks	Resist against U.S. power politics	Starting direct talks with the United States would contradict the goal of resistance.	3	0%
	Respect & Recognition	Holding talks with the United States on the same eye level would execute Libya's goal to achieve respect and recognition from the United States.		100%
DC While the US is willing to talk, Libya is defecting	Resist against U.S. power politics	Rejection of a US offer for exploratory talks on WMD would fulfill Libya's objection for resistance.	1	100%
	Respect & Recognition	That the United States is willing to open with Libya a diplomatic channel would fulfill Libya's strategic objective to achieve respect and recognition. Washington's reach-out for a diplomatic process would have meant that the United States had recognized Libya as a crucial regional player and was ready to meet with Tripoli on the same eye level.		100%
DD Mutual disagreement; no exploratory talks	Resist against U.S. power politics	Rejection of a US offer for exploratory talks on WMD would fulfill Libya's objection for resistance.	2	100%
	Respect & Recognition	Reciprocating the U.S. defection would be in line with the Qaddafi regime's respect & recognition objective. Not reciprocating U.S. defection would undermine this goal. However, in view of this particular desire Libya would have assigned higher value to situation were the U.S. is proposing cooperation.		75%
CD While the US is willing to talk, Libya is defecting	Resist against U.S. power politics	This move would be completely inconsistent with the goal to resist U.S. power politics.	4	0%
	Respect & Recognition	Seen from a Libyan point of view, an unilateral offer for cooperation would be inconsistent with the objective to acquire respect and recognition from the United States.		0%
Outcome: DC > DD > CC > CD				

Annex 5: Reenactment of Washington's Preferences in the Deadlock Game

UNITED STATES: First Part of the Pre-Negotiation Phase (Deadlock Game 1987- late 1980s)				
OPPORTUNITIES		DESIRES	TRANSLATING & WEIGHING REENACTMENT	PREFERENCES
				rank ≈ fulfilled desires
CC Both sides agree to start exploratory talks	Improve US Security	Starting exploratory WMD talks with Libya would hold the promise that U.S. national security is improved by such a step. In general starting talks would be more likely to provide benefit for U.S. security than not speaking to Libya. However, it is uncertain whether such a process would lead to tangible results at all - let alone the question whether Libya is in the end really taking concrete steps towards disarmament	3	50%
	Orchestrate a regime change in Libya	Cooperation is inconsistent with the "regime change" objective.		0%
	Libya: a testing ground for anti-terrorism policy	Cooperation is inconsistent with the "testing ground" objective.		0%
DC While the US is willing to talk, Libya is defecting	Improve US Security	Libya's willingness to engage with Washington in a diplomatic process would indicate a cautious improvement of U.S. security. However, it would be uncertain whether Tripoli would sincerely propose disarmament or whether it would not merely setting up a diplomatic smoke screen. Moreover, apart from a Libyan offer to talk, one would not gain any tangible improvement in terms of security. Not reacting to Libya's offer would also send the signal to Tripoli and beyond that the US is not easy to sway by charm offensives of its opponents.	1	75%
	Orchestrate a regime change in Libya	Rejecting the Libyan offer for exploratory talks fulfills the objective to orchestrate a regime change in Libya.		100%
	Libya: a testing ground for anti-terrorism policy	Defection is consistent with the objective to convert Libya into a testing ground for the US anti-terrorism policy.		100%
DD Mutual disagreement; no exploratory talks	Improve US Security	In such a scenario the United States would not gain any tangible security improvement. However, reciprocating Libya's defection would represent a clear signal to the Qaddafi regime that the United States is acting in terms of <i>Realpolitik</i> . Although no substantial improvement would be achieved in terms of disarmament or non-proliferation, the clear signaling could be interpreted as a global contribution to U.S. national security.	2	50%
	Orchestrate a regime change in Libya	Mutual defection fulfills the objective to orchestrate a regime change in Libya.		100%
	Libya: a testing ground for anti-terrorism policy	Mutual defection is consistent with the objective to convert Libya into a testing ground for the US anti-terrorism policy.		100%
CD While the US is willing to talk, Libya is defecting	Improve US Security	Such a scenario would represent a security risk to the United States.	4	0%
	Orchestrate a regime change in Libya	Unreciprocated cooperation is inconsistent with this objective.		0%
	Libya: a testing ground for anti-terrorism policy	Such a move would not serve the goal to convert Libya into a testing ground for the US anti-terrorism policy.		0%
Outcome: DC > DD > CC > CD				

Annex 6: Reenactment of Libya's Preferences in the Imposed Deadlock Game

LIBYA: Second Part of the Pre-Negotiation Phase (Imposed Deadlock Game early 1990s - March 2003)				
OPPORTUNITIES	DESIRES	TRANSLATING & WEIGHING REENACTMENT	PREFERENCES	
				<i>rank = fulfilled desires</i>
CC Both sides agree to start exploratory talks	<i>Resist against U.S. power politics</i>	Generally speaking, starting a negotiation process with the US would contradict the goal of resistance. However, as the United States is in this scenario cooperative too and is not defection, resistance would have appeared misplaced - in particular since a diplomatic process is per se not the primary expression of U.S. power politics and therefore represents not the best platform to implement and manifest the general taste to oppose Washington.	2	50%
	<i>Search rapprochement with U.S.</i>	Exploratory talks on disarmament would have contribute substantially to the desired rapprochement with the United States. However, in this state of the diplomatic process the concerns in Tripoli about the United States' sincerity would have still been relatively high. The fear to be double crossed would have still loomed large.		75%
DC While the US is willing to talk, Libya is defecting	<i>Resist against U.S. power politics</i>	Rejection of a US offer for exploratory talks on WMD would have fulfill Libya's objection for resistance.	1	100%
	<i>Search rapprochement with U.S.</i>	This move would have be inconsistent with the goal to achieve a rapprochement with Washington. However, there is a certain likelihood that the US offer would have been not sincere. Therefore, it would have remained at this point a degree of uncertainty whether this choice is really inconsistent with the objective of rapprochement.		25%
DD Mutual disagreement; no exploratory talks	<i>Resist against U.S. power politics</i>	Reciprocated defection would have fully comply to the goal of resistance.	3	100%
	<i>Search rapprochement with U.S.</i>	Mutual defection would be inconsistent with the goal to achieve a rapprochement. Without having tried to reach-out to the United States, Libya would have acted clearly against the logic of the rapprochement objectives		0%
CD While the US is willing to talk, Libya is defecting	<i>Resist against U.S. power politics</i>	This move would have been completely inconsistent with the goal to resist U.S. power politics.	4	0%
	<i>Search rapprochement with U.S.</i>	Although unilateral appeasement would have increased the chance of a rapprochement with the United State, the fact that Washington was in such a scenario not reciprocating, would have rendered the prospect of a normalization in the American-Libyan relationship uncertain.		50%

Outcome: **DC > CC > DD > CD**

Annex 7: Reenactment of U.S. Preferences in the Imposed Deadlock Game

UNITED STATES: Second Part of the Pre-Negotiation Phase (Imposed Deadlock Game early 1990s - March 2003)						
OPPORTUNITIES	↔	DESIRES	→	TRANSLATING & WEIGHING REENACTMENT	→	PREFERENCES
						rank ≈ fulfilled desires
CC Both sides agree to start exploratory talks	<i>Improve US Security</i>	In general, starting talks would be more likely to provide benefit for US security than not speaking to Libya. However, in such a scenario it would have been uncertain whether such a process would lead to tangible results - let alone the question whether Libya would in the end take concrete steps towards dismantling its nuclear weapons program.	3	50%		
	<i>No softy impression</i>	Starting talks with Libya would have implied the high risk of domestic criticism. Washington could have been accused of being too soft on a grim Middle East dictator. However, potential domestic critique could have been tamed to a certain extent by the fact that Washington would have in the CC-scenario not taken a unilateral step but that the diplomatic move was reciprocated by Libya.		25%		
DC While the US is willing to talk, Libya is defecting	<i>Improve US Security</i>	That Libya was ready to start negotiation on its WMD disarmament would have been interpreted in Washington as a cautious signal that the U.S. security is improving and that Libya was starting to embark the path of WMD disarmament. However, unilateral defection by the United States would have also implied the danger of not encouraging Libya to further continue its cooperative pathway.	1	75%		
	<i>No softy impression</i>	Unreciprocated cooperation would have been a clear proof that Washington was pursuing a tough stance towards the Qaddafi regime.		100%		
DD Mutual disagreement; no exploratory talks	<i>Improve US Security</i>	In such a scenario the United States would not gain any tangible security improvement. However, reciprocating Libya's defection would represent a clear signal to the Qaddafi regime that the United States is acting in terms of <i>Realpolitik</i> . Although no substantial improvement would be achieved in terms of disarmament or non-proliferation, the clear signaling could be interpreted as a global contribution to U.S. national security.	2	50%		
	<i>No softy impression</i>	Washington would have been able to show that it was not soft on the Qaddafi regime.		100%		
CD While the US is willing to talk, Libya is defecting	<i>Improve US Security</i>	Such a scenario would have represented a security risk to the United States.	4	0%		
	<i>No softy impression</i>	Such a step of unilateral appeasement towards Tripoli would have lead to a crescendo of domestic criticism.		0%		
Outcome: DC > DD > CC > CD						

Annex 8: Reenactment of Libya's Preferences in Alibi Game (Pre-Agreement Phase)

LIBYA: Pre-Agreement Phase (Alibi Game, March-December 2003)				
OPPORTUNITIES		DESIRES	TRANSLATING & WEIGHING REENACTMENT	PREFERENCES
				<i>rank = fulfilled desires</i>
CC Both sides agree to begin direct negotiations on a binding disarmament agreement	<i>Resist against U.S. power politics</i>	In general, starting a negotiation process with the U.S. would contradict the goal of resistance. However, since in this scenario the United States would have been cooperative too and would have likewise not defected, resistance would appear misplaced - in particular since a diplomatic process is <i>per se</i> not the primary expression of U.S. power politics and therefore represents not the best platform to implement and manifest opposition against Washington.	1	50%
	<i>Search rapprochement with U.S.</i>	Negotiation on disarmament would contribute substantially to the desired rapprochement with the United States.		100%
DC While the US is willing to negotiate, Libya is defecting; no negotiations	<i>Resist against U.S. power politics</i>	Rejection of a US offer for a negotiation process aimed on Libya's disarmament would fulfill Libya's objection for resistance. However, as the US is willing to negotiate - although Washington's sincerity is uncertain - this diplomatic process would not be the best platform to execute resistance.	3	50%
	<i>Search rapprochement with U.S.</i>	The scenario where Libya would not respond to an U.S. offer for negotiation, would be inconsistent with the goal to achieve a rapprochement with the United States. However, in the pre-agreement phase there is still a certain likelihood that the US offer is not sincere and that Libya is not missing the desired rapprochement by turning down Washington's proposal.		25%
DD Mutual disagreement; no negotiations	<i>Resist against U.S. power politics</i>	Reciprocated defection would fully comply to the goal of resistance.	2	100%
	<i>Search rapprochement with U.S.</i>	To reciprocate for a U.S. defection by rejecting likewise the proposal of negotiation would not contribute to the desired rapprochement. However, as the United States would be in such a scenario not willing to normalize its relationship with Libya - despite the fact that a diplomatic process was set-up that could possibly lead to such an outcome - the chance of rapprochement is anyway uncertain.		25%
CD While the US is willing to negotiate, Libya is defecting; no negotiations	<i>Resist against U.S. power politics</i>	This move would be completely inconsistent with the goal to resist U.S. power politics.	4	0%
	<i>Search rapprochement with U.S.</i>	Although unilateral disarmament would increase the chance of a rapprochement with the United States, the fact that Washington is not reciprocating and is rather playing defection, renders the prospect of a normalization in the American-Libyan relationship uncertain.		50%
Outcome: CC > DD > DC > CD				

Annex 9: Reenactment of U.S. Preferences in the Alibi Game (Pre-Agreement phase)

UNITED STATES: Pre-Agreement Phase (Alibi Game March - December 2003)							
OPPORTUNITIES		↔	DESIRES	→	TRANSLATING & WEIGHING REENACTMENT	→	PREFERENCES
							rank = fulfilled desires
CC	Both sides agree to begin direct negotiations on a formal disarmament agreement	Improve US Security	Starting direct negotiations on a final disarmament agreement could lead to a future improvement of U.S. security. In general starting negotiations with the Qaddafi regime would be more likely to provide benefit for U.S. security than not speaking to Tripoli. However, it is not certain that such an accord is achievable - let alone the question whether Libya would in the end really taking concrete steps towards disarmament.	2		75%	
		No softy impression	Starting negotiations with Libya would certainly spark domestic criticism that Washington is too soft on a grim Middle East authoritarian regime. Moreover, it is at that early phase of the negotiation process still relatively uncertain whether such a negotiation process would in the end lead to Libya's disarmament. This fact would flame additional disapproval. The criticism would, however, be tamed to a certain extent by the fact that Washington is not proposing a unilateral act of appeasement but is negotiating with Libya in a tit-for-tat manner.			25%	
		Linkage to 2nd Iraq War	That Libya is ready to start disarmament negotiations could be put forward as an evidence for the impact of the Second Iraq War. However, the persuasiveness of this argument is reduced by the fact that Libya's willingness to negotiate is connected to the United States readiness to reciprocated with such a step and likewise start negotiations. Moreover, it is uncertain whether the negotiation process would really lead to Libya's disarmament.			75%	
DC	While Libya is willing to negotiate, the US is defecting; no negotiations	Improve US Security	That Libya's is ready to start negotiation on its WMD programs could be interpreted in Washington as a signal that the U.S. security is improving. Such a move by Libya could be indicate an early sign that Libya is starting to reverse its strive for WMD. Thus, not reciprocating to such a proposal could be counterproductive to US security. However, at this early stage of the negotiation process it would still be uncertain whether Libya is sincerely proposing disarmament or rather is setting up a diplomatic smoke screen. In addition, launching negotiations would not lead to any immediate, tangible improvement of US security.	1		50%	
		No softy impression	Washington would clearly show that it is not soft on the Qaddafi regime.			100%	
		Linkage to 2nd Iraq War	While not having offered any negotiation to Libya, Washington would be able to promote the narrative that the Iraq War forced Qaddafi's hand on proposing a diplomatic engagement with the US.			100%	
DD	Mutual defection; no disarmament negotiations	Improve US Security	In such a scenario the United States would not gain any tangible security improvement. However, reciprocating Libya's defection would send a clear signal to the Qaddafi regime that the United States is acting in the logic of Realpolitik and is ready to deter aggressive actions. Although no substantial improvement would be made in terms of disarmament, the clear signaling could be interpreted as a contribution to the improvement of US in its security struggle with unfriendly regimes. Along these lines one could flag the argument that not reciprocating Libya's defection would hurt Washington's longer terms security considerations.	3		50%	
		No softy impression	Washington would clearly show that it is not soft on the Qaddafi regime.			100%	
		Linkage to 2nd Iraq War	There would be no direct linkage to the 2nd Iraq War since Libya is not ready to give diplomacy a chance - let alone its willingness to reverse its WMD.			0%	
CD	US readiness to negotiate is not reciprocated by Libya; no disarmament negotiations	Improve US Security	Such a scenario would represent a security risk to the United States, as Libya is not willing to reverse its WMD programs.	4		0%	
		No softy impression	Policy maker would face a crescendo of criticism as the strategy of unilateral appeasement would reward Libya for its defection.			0%	
		Linkage to 2nd Iraq War	No linkage to the Second Iraq War would apply.			0%	
Outcome: DC > CC > DD > CD							

Annex 10: Reenactment of Libya's Preferences in Alibi Game (Agreement Phase)

LIBYA: Agreement Phase (Alibi Game, December 2003)					
OPPORTUNITIES		DESIRES	TRANSLATING & WEIGHING REENACTMENT	PREFERENCES	
				rank	≈ fulfilled desires
CC	Both side agree on a settlement to disarm Libya	Resist against US power politics	That Libya would make substantial concession to the US by voluntarily disarming its WMD programs, represents an inconsistency with the strategic goal of "resistance". However, a settlement with the US in reach, the strive for "resistance" against Washington's power politics appears more and more misplaced. A joint agreement is not the best platform to implement this particular policy goal. In that phase of the negotiation process, this strategic goal therefore becomes to a certain extent indifferent to the CC option.	1	50%
		Search rapprochement with US	A jointly negotiated disarmament agreement would fulfill to the desired rapprochement with the United States.		100%
DC	USA is ready to agree but Libya is rejecting the accord	Resist against US power politics	Rejection to a positive US vote in the disarmament would fulfill Libya's goal of resistance. However, as the proposal of a joint agreement is <i>per se</i> not an expression of U.S. power politics but rather manifest Washington's readiness to search consensus with Libya, such a move would be misplaced.	3	75%
		Search rapprochement with US	This move would be completely inconsistent with the goal to achieve a rapprochement with Washington.		0%
DD	Mutual disagreement; no disarmament accord	Resist against US power politics	Reciprocated defection would fully comply to the goal of resistance.	2	100%
		Search rapprochement with US	To reciprocate US defection by a parallel rejection would not contribute to the desired rapprochement with Washington. However, as the United States is in such a situation not willing to normalize its relationship with Libya, the chance of rapprochement would have been anyway uncertain.		25%
CD	Libya declares unilaterally its willingness to disarm while the US is defecting	Resist against US power politics	This move would be completely inconsistent with the goal to resist U.S. power politics.	4	0%
		Search rapprochement with US	Although unilateral disarmament would increase the chance of a rapprochement with the United State, the fact that the Washington is not reciprocating and rather playing defection, makes the prospect of a normalization in the American-Libyan relationship uncertain. There would be the danger that Libya's move towards disarmament is not rewarded by the United States.		50%

Outcome: CC > DD > DC > CD

Annex 11: Reenactment of U.S. Preferences in the Alibi Game (Agreement phase)

UNITED STATES: Agreement Phase (Alibi Game, December 2003)							
OPPORTUNITIES		↔	DESIRES	⇒	TRANSLATING & WEIGHING REENACTMENT	⇒	PREFERENCES
							<i>rank = fulfilled desires</i>
CC	Agree on an settlement that disarms Libya	Improve US Security	US security would be improved by a disarmament agreement. Washington would be relatively safe since in this scenario Libya is required to make all the costly moves (dismantle its WMD program). The danger to be double crossed by Tripoli is relatively little given that the diplomatic process on Libya's WMD reversal is already relatively advanced. However, this particular risk is still existing.	2		75%	
		No softy impression	A deal with Libya would certainly spark criticism that the US is too soft on a grim Middle East dictator. The criticism would, however, be tamed by the fact that Washington is not proposing an unilateral act of appeasement but is negotiating with Libya in a tit-for-tat manner.			50%	
		Linkage to 2nd Iraq War	In this scenario of joint cooperation, the narrative that it was primarily the Iraq War that propelled Libya into disarmament would lose a considerable extent of its persuasiveness. However, the fact that Libya had come so far to reverse its WMD programs can still be linked to the US lead intervention to topple Saddam Hussein despite the fact that eventual breakthrough was achieved by a diplomatic agreement.			50%	
DC	Libya declares an unilateral disarmament accord; the USA is defecting.	Improve US Security	The United States would substantially improve its security. Libya would disarm its WMD programs without putting Washington at risk of being double crossed in a direct negotiations with Tripoli.	1		100%	
		No softy impression	Washington would clearly show that it is not soft on the Qaddafi regime.			100%	
		Linkage to 2nd Iraq War	Having not provided any concession to Libya, Washington would be able to promote the narrative that the Iraq War forced Qaddafi's hand on WMD disarmament.			100%	
DD	Mutual disagreement; no settlement that disarms Libya	Improve US Security	Without holding negotiation and agreeing on an disarmament accord, Washington would avoid the danger to be double crossed by Libya. This attainment would, however, stand in a stark contrast to the obvious and tangible security threat as Libya's WMD program would - most likely - continue, if the DD option is chosen.	3		25%	
		No softy impression	Washington would clearly show that it is not soft on the Qaddafi regime.			100%	
		Linkage to 2nd Iraq War	There would be no direct linkage to the 2nd Iraq War as Libya is not ready to agree to disarmament.			0%	
CD	US readiness to agree is not reciprocated by Libya; no disarmament agreement	Improve US Security	Such a scenario would represent a security risk to the United States, as Libya is not willing to reverse its WMD programs.	4		0%	
		No softy impression	Policy maker would face a crescendo of criticism as the strategy of unilateral appeasement would reward Libya for its defection.			0%	
		Linkage to 2nd Iraq War	No linkage to the Second Iraq War would apply. Washington could, at best, ascribe the missing link to the false strategy of appeasement.			0%	
Outcome: DC > CC > DD > CD							

Annex 12: Reenactment of Libya's Preferences in the Biased Stag Hunt Game

UNITED STATES: Post-Agreement Phase (Biased Stag Hunt, since January 2004)						
OPPORTUNITIES	↔	DESIRES	→	TRANSLATING & WEIGHING REENACTMENT	→	PREFERENCES
						rank ≈ fulfilled desires
CC Both sides agree to implement the agreement	<i>Cautious rapprochement with Libya</i>	This choice would be in full compliance with the goal to reach a cautious rapprochement with Libya.	1	100%		
	<i>Improve US Security</i>	The US security would be improved by the implementation of the disarmament agreement.		100%		
	<i>Linkage to the 2nd Iraq War</i>	The narrative of the Iraq War linkage would be more persuasive if Libya would have implemented the disarmament agreement unilaterally and the United States would not provide incentives. Nevertheless, the very fact that Libya was disarming its WMD would still allow to draw ample connection to the recent U.S. lead Iraq intervention.		75%		
DC While Libya is implementing, the US is defecting	<i>Cautious rapprochement with Libya</i>	This move would clearly contradict the objective of a cautious rapprochement with Libya.	2	0%		
	<i>Improve US Security</i>	The United would substantially improve its security. Libya would disarm its WMD programs without putting Washington at risk of being double crossed.		100%		
	<i>Linkage to the 2nd Iraq War</i>	The narrative of the Iraq War linkage would be very persuasive in the DC game constellation.		100%		
DD Both sides are not implementing the agreement	<i>Cautious rapprochement with Libya</i>	Rapprochement with Libya would not be possible in the DD situation. However, as Libya would be in this scenario likewise not willing to normalize its relationship with the US, the chance of rapprochement would be anyway unlikely. Moreover, not reciprocating Libya's defection would contradict the effort to pursue the Libyan-American rapprochement with caution.	3	50%		
	<i>Improve US Security</i>	Not implementing the disarmament agreement would not contribute to US security. However, not reacting to Libya's non-compliance with defection would likewise undermine US security.		50%		
	<i>Linkage to the 2nd Iraq War</i>	There would be no direct linkage to the 2nd Iraq War as Libya is not ready to disarm.		0%		
CD While the US is implementing, Libya is defecting	<i>Cautious rapprochement with Libya</i>	Moving towards cooperation while Libya is choosing defection could be seen as a forthcoming step towards a rapprochement. However, in light of Libya's rejection to implement the disarmament agreement such a step would not gain any immediate tangible impact. Moreover, such an appeasement move would also contradict the idea to pursue the Libyan-American rapprochement with caution.	4	25%		
	<i>Improve US Security</i>	Such a scenario would represent a security risk to the United States, as Libya is not willing to reverse its WMD programs.		0%		
	<i>Linkage to the 2nd Iraq War</i>	There would be no direct linkage to the 2nd Iraq War as Libya is not ready to disarm.		0%		

Annex 13: Reenactment of U.S. Preferences in the Biased Stag Hunt Game

POST-AGREEMENT PHASE (since January 2004)				
LIBYA: the A-type payoff continues (CC > DD > DC > CD)*				
Strategic Options	Policy Goals	Translating Policy Goals into Considerations about Strategic Moves	Goal Attainment	Rank
CC Both sides agree to implement the achieved disarmament accord	Resist against US power politics	Although Libya was make substantial concession to the US by voluntarily disarming its WMD program - a step that would be normally completely inconsistent with the objective to "resist against US power politics" - the strive to implement this particular strategic goal were by and large misplaced during the Post-Agreement phase. The historic settlement that had been eventually achieved with the United States was in many respects unlikely to be an expression of US power politics. Rather in represented a joint agreement. Nevertheless, we cannot exclude that joint implementation would still have implication that stood against this particular policy goals which had been internalized by the Qaddafi regime during the past decades.	75%	1
	Search rapprochement with US	A jointly negotiated disarmament agreement would contribute substantially to the desired rapprochement with the United States.	100%	
DC While the US is implementing, Libya is defecting	Resist against US power politics	In general, rejection to a positive US vote in the disarmament would perfectly serve Libya's goal of resistance. However, as the US activities to implement a jointly agreed disarmament accord is perse not an expression of U.S. power politics but rather manifest Washington's readiness to normalize the American-Libyan relationship, such a move would be misplaced to a considerable extent.	50%	3
	Search rapprochement with US	This move would be completely inconsistent with the goal to achieve a rapprochement with Washington.	0%	
DD Both sides are not implementing the disarmament agreement	Resist against US power politics	Reciprocated defection would fully comply to the goal of resistance.	100%	2
	Search rapprochement with US	A rapprochement with Libya would not be possible in such a situation. However, as the US defection How ever, in light of the US defection a normalization of the American-Libyan relationship would be anyway uncertain. Moreover, not reciprocating the US defection would be run counter the idea of establishing a relationship on the same eye level.	25%	
CD While Libya is implementing, the US is defecting	Resist against US power politics	This move would be completely inconsistent with the goal to resist U.S. power politics.	0%	4
	Search rapprochement with US	Although unilateral disarmament would increase the chance of a rapprochement with the United State, the fact that the Washington is not reciprocating and is rather playing defection, makes the prospect of a normalization in the American-Libyan relationship uncertain. There would be the danger that Libya's dismantles its WMD programs without being rewarded by the US.	50%	

* Libya's payoff structure in the Post-Agreement Phase is marked by a slight inconsistency with the findings revealed through the Operational Code survey

Annex 14: Recipients of Diplomatic Design Elements

	Fit	Overfit	Partial Fit	Underfit	Misfit	Negativ Fit
Libya = Receiver	7	1	1	4	7	3
<i>Handling of the BBC China Interception (ch. 5.3.3.2)</i>	••					
<i>The Implementation of the Disarmament Accord (ch. 5.3.5.2)*</i>					••	
<i>U.S. Military Threats (ch. 5.3.1.2)*</i>				•	•	•
<i>U.S. Unilateral Sanctions (ch. 5.3.1.2)</i>					•	•
<i>U.S. Naming & Blaming (ch. 5.3.1.2)</i>					•	
<i>Quiet Diplomacy (during pre-agreement phase; ch. 5.3.3.2)*</i>				•		
<i>Quiet Diplomacy (during pre-negotiation phase; ch. 5.3.2.2)*</i>			•			
<i>Diplomatic Velocity (ch. 5.3.4.2)</i>	•					
<i>Washington's Quid Pro Quo Approach (ch. 5.3.5.2)*</i>					•	
<i>Disarmament Accord (ch. 5.3.4.2)*</i>		•				
<i>Lockerbie Talks (ch. 5.3.2.2)*</i>	•					
<i>Communication Channel on Implementation (ch. 5.3.5.2)*</i>	•					
<i>Mediation by Arab States (ch. 5.3.1.2)*</i>					•	
<i>Multilateral Sanctions (ch. 5.3.2.2)</i>					•	•
<i>UK mediation efforts (during pre-agreement phase; ch. 5.3.3.2)</i>				•		
<i>UK mediation efforts (during pre-negotiation phase; ch. 5.3.2.2)*</i>	•			•		
<i>UK mediation efforts (during agreement phase; ch. 5.3.4.2)</i>	•					
USA = Receiver	4	2	3	1	4	1
<i>Libya's Charm Offensive (ch. 5.3.1.2)</i>					•	•
<i>Choreography of the Public Announcement (ch. 5.3.4.2)</i>	•					
<i>The Implementation of the Disarmament Accord (ch. 5.3.5.2)*</i>		•				
<i>Technical visits to Libya's WMD sites (ch. 5.3.4.2)</i>		•	•			
<i>Quiet Diplomacy (during pre-agreement phase; ch. 5.3.3.2)*</i>			•			
<i>Quiet Diplomacy (during pre-negotiation phase; ch. 5.3.2.2)*</i>				•		
<i>Washington's Quid Pro Quo Approach (ch. 5.3.5.2)*</i>	•					
<i>Disarmament Accord (ch. 5.3.4.2)*</i>					••	
<i>Lockerbie Talks (ch. 5.3.2.2)*</i>			•			
<i>Communication Channel on Implementation (ch. 5.3.5.2)*</i>	•					
<i>Mediation by Arab States (ch. 5.3.1.2)*</i>					•	
<i>UK mediation efforts (during pre-negotiation phase; ch. 5.3.2.2)*</i>	•					
Total	11	3	4	5	11	4

* Design elements signifying dyads and were affecting the United States as well as Libya.

Annex 15: Initiators & Senders of Diplomatic Design Elements

	Fit	Overfit	Partial Fit	Underfit	Misfit	Negativ Fit
USA = Initiator	2	1	1	1	2	2
<i>U.S. Military Threats (ch. 5.3.1.2)</i>				•	•	•
<i>Technical visits to Libya's WMD sites (ch. 5.3.4.2)</i>		•	•			
<i>U.S. Unilateral Sanctions (ch. 5.3.1.2)</i>						•
<i>Handling of the BBC China Interception (ch. 5.3.4.2)</i>	••					
<i>U.S. Naming & Blaming (ch. 5.3.1.2)</i>					•	
Libya = Initiator					1	1
<i>Libya's Charm Offensive (ch. 5.3.1.2)</i>					•	•
USA & Libya = Initiator	6	2	3	2	5	
<i>Quiet Diplomacy (during pre-negotiation phase; ch. 5.3.2.2)</i>			•	•		
<i>Choreography of the Public Announcement (ch. 5.3.4.2)</i>	•					
<i>The Implementation of the Disarmament Accord (ch. 5.3.5.2)</i>		•			••	
<i>Quiet Diplomacy (during pre-agreement phase; ch. 5.3.2.2)</i>			•	•		
<i>Diplomatic Velocity (ch. 5.3.4.2)</i>	•					
<i>Washington's Quid Pro Quo Approach (ch. 5.3.5.2)</i>	•				•	
<i>Disarmament Accord (ch. 5.3.4.2)</i>		•			••	
<i>Lockerbie Talks (ch. 5.3.2.2)</i>	•		•			
<i>Communication Channel on Implementation (ch. 5.3.5.2)</i>	••					
Other Initiators (UK, International Community, Arab States)	3			2	3	1
<i>Mediation by Arab States (ch. 5.3.1.2)</i>					••	
<i>Multilateral Sanctions (ch. 5.3.2.2)</i>					•	•
<i>UK mediation efforts (during pre-agreement phase; ch. 5.3.3.2)</i>				•		
<i>UK mediation efforts (during pre-negotiation phase; ch. 5.3.2.2)</i>	••			•		
<i>UK mediation efforts (during agreement phase; ch. 5.3.4.2)</i>	•					
Total	11	3	4	5	11	4

Annex 16: List of Interviewed Participants

Dowse, Time (Director Cyber Policy, Foreign & Commonwealth Office), interviewed on 16th February, 2012, (3p.m.), London.

Hadley, Stephen (former National Security Advisor, U.S. White House), interviewed on 11th June 2012 (10 a.m., Washington time), telephone interview.

Indyk, Martin (former Assistant Secretary of State for Near Eastern Affairs), interviewed on 10th November 2011 (10 a.m.), Washington D.C.

Daniel, Jody (Lead Office of Regional Affairs, Middle East Team, Bureau of International Security and Non-proliferation, U.S. State Department), interviewed on 14st December 2011 (3 p.m.), Washington D.C.

Joseph, Robert (former Special Assistant on Proliferation Issues, National Security Council), interviewed on 3rd November 2011 (2 p.m.), Fairfax, Virginia.

Mininni, Margot (former U.S. Department of Energy, National Nuclear Security Administration (NNSA)), interviewed on 15th December 2011 (2:30 p.m.), Arlington, Virginia

Pillar, Paul (former CIA staff), interviewed on 7th December 2011 (11 a.m.), Washington D.C.

Ward, Ken (U.S. State Department, WMD issues), interviewed on 1st June 2012, Washington D.C.

White, Wayne (former U.S. State Department, Director Bureau of Intelligence and Research), interviewed on 8th June 2012, telephone interview.