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Berlin School of Economics and Law
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Cultivating an Entrepreneurial Mindset

Perspectives from Theory and Practice

in partial fulfillment for the degree of
Bachelor of Arts

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List of Abbreviations

E.x	Entrepreneur x (e.g. E.1 = Entrepreneur 1)
EM	Entrepreneurial Mindset
EMP	Entrepreneurial Mindset Profile
F.x	Facilitator x (e.g. F.1 = Facilitator 1)
FoM	Fuzziness of Mindsets
GEM	Global Entrepreneurship Monitor
GME	Growth Mindset in Entrepreneurship
MCET	MindCette Entrepreneurial Test
RQ	Research Question

Affidavit

I declare that I wrote this thesis independently and on my own. I clearly marked any language or ideas borrowed from other sources as not my own and documented their sources. The thesis does not contain any work that I have handed in or have had graded earlier on. I am aware that any failure to do so constitutes plagiarism. Plagiarism is the presentation of another person's thoughts or words as if they were my own—even if I summarize, paraphrase, condense, cut, rearrange, or otherwise alter them. I am aware of the consequences and sanctions plagiarism entails. Among others, consequences may include nullification of the thesis, exclusion from the BA program without a degree, and legal consequences for lying under oath. These consequences also apply retrospectively, i.e. if plagiarism is discovered after the thesis has been accepted and graded.

My name: Hannah Böhm

Title of my thesis:

Cultivating an Entrepreneurial Mindset: *Perspectives from Theory and Practice*

Date: 23.03.2022

Signature:  _____

1 Introduction

Stimulating the economic growth of countries, entrepreneurship has become a central attempt to enhance the overall welfare of both developed and emerging nations. Thus it is increasingly argued that an enhancement of entrepreneurs entails an improvement in societal welfare and poverty alleviation (Sutter et al., 2019, p. 210). Entrepreneurial education is considered an essential lever in this endeavor.

The assignment of entrepreneurship education encompasses equipping potential entrepreneurs with relevant skills for accelerating economic development through the generation of novel ideas and the creation of viable ventures (Turker and Selcuk, 2009, p. 142). Entrepreneurship education was identified to be concerned with five main issues: the variety of the audience, objectives, content, pedagogies and assessment methods (Alberti et al., 2005, p. 453). Lekoko et al. (2012) conducted a study, presenting the best practices concerned with these issues. Findings suggest that entrepreneurship courses aim either at preparing students for starting a business, teaching general business skills or informing about the role of entrepreneurship in economic development, focusing on theoretical knowledge transfer of opportunity recognition, marketing skills, and risk and venture management. They however conclude that a lack of practical entrepreneurship experiences incorporated in the syllabus, results in the failure of conveying an entrepreneurial mindset (p. 12031).

Entrepreneurial mindset (EM) is a mindset associated with entrepreneurial activity. It is relevant, as it holds a mediating role, translating the influences of entrepreneurship education into entrepreneurial intentions (Handayati et al., 2020, p. 5).

Baggen et al. (2021) argue for a ‘wide approach to entrepreneurship education’, which goes beyond defining entrepreneurial competencies and enabling learning activities for enfolded and developing such competencies. The suggested approach further demands for a stimulation of an entrepreneurial mindset. They state that, although advancing, ‘wide’ entrepreneurship programs are still scarce (p. 2).

In combination with the notion that due to global changes, driving increasingly complex and uncertain environments, entrepreneurial skills, attributes and behaviors are in demand at all levels of society (Henry et al. 2005), the need for more effective entrepreneurship education is pronounced.

EM is highlighted in this context. Its operationalization however is fraught with stumbling blocks. First of all, the missing consensus of concept definitions is problematic (French, 2016,

p. 673). While the common understanding of mindset is shaped by oversimplifications in personal development books and social media, scientific literature draws on complex theories from cognitive and behavioral psychology.

Another issue lies in the methodology of research conducted in the field. So far empirical validation was merely focused on developing quantitative measures (e.g. Stauffer, 2015; Davis et al., 2016; Shaver & Commarmond, 2018) for EM. As Naumann (2017) justifiably suggests a qualitative approach, as the in-depth understanding of EM, the interactions between its attributes, its circumstances, and impacts are yet to be explored, since so far rather neglected (p. 166).

The purpose of this thesis is to fill this gap and offer a clear understanding of EM and its applicability. The main objective is to establish a foundation for the cultivation of an EM, providing recommendations for entrepreneurship education. The work aims to answer the following research questions (RQ):

RQ1: *What is a mindset and how does it manifest?*

RQ2: *What is an EM and what are its dimensions?*

RQ3: *Can an EM be developed? What are the implications for its development?*

The work is structured into six chapters, as visualized in Figure 1. Following this introduction, Chapter 2 gives a comprehensive overview over the theoretical knowledge base. It covers research on the domains of mindset, entrepreneurship and EM, to clarify the nature, context, dimensions and characteristics of the concept. Addressing the gap of qualitative research, Chapter 3 presents the approach of conducting semi-structured in-depth interviews. In total three entrepreneurs and three entrepreneurship facilitators (coaches and lecturers) were interviewed, depicting internal and external perspectives respectively. Adding circumstances, influences and impacts to the theory of the EM concept, the interdisciplinarity of the interviewees ensures richness and depth of insight. The discussion in Chapter 4 analyzes parallels between theory and empirical findings, proposes a novel framework for mindset conceptualizations, answers the given research questions and provides practical value by suggesting a structure for EM cultivation programs. Limitations and an outlook for future research is given in Chapter 5, concluding with a final synopsis in Chapter 6.

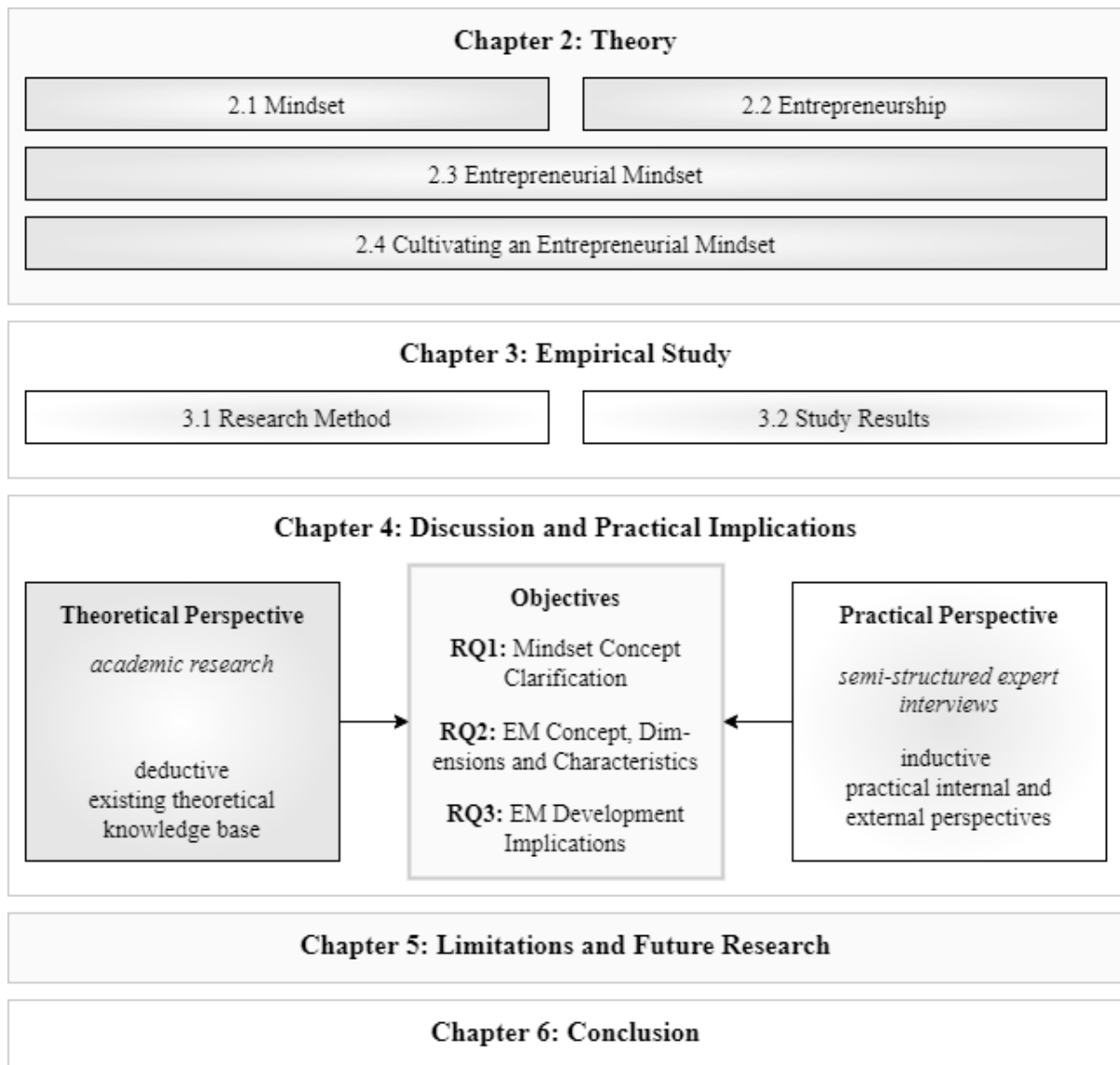


Figure 1: Structure of Research Paper (own illustration)

2 Theory

2.1 Mindset

2.1.1 Divergent Definitions of Mindset

When analyzing mindset theory there is considerable heterogeneity among definitions. However, a comprehensive understanding of the construct is crucial for its operationalization. Approaching the question what mindset is, the term is first examined in widespread linguistic usage, which is a relevant representation of common understanding and thereafter illuminated from a theoretical research perspective.

2.1.1.1 Common Linguistic Usage of ‘Mindset’

Table 1 summarises the definitions of the most authoritative dictionaries in the English-speaking world. Whilst it is undeniable that the formulations vary significantly, certain keywords repeat. The frequency of terms used within the dictionaries is analyzed in table 2.

Source	Definition	Keywords	Synonyms
Merriam-Webster. (n.d.)	<p>1. a mental attitude or inclination</p> <p>“Politicians trying to determine the mindset of voters.”</p> <p>“A particular way of thinking.”</p> <p>2. a fixed state of mind</p> <p>“His mind-set does not allow for new situations.”</p>	<p>mental attitude</p> <p>inclination</p> <p>way of thinking</p> <p>state of mind</p> <p>fixed</p>	<p>angle, attitude, outlook, perspective, disposition, habit, emotion, sentiment strain, belief, expression, character</p>
Cambridge Dictionary. (n.d.)	<p>a person's way of thinking and their opinions</p> <p>“to have a different/the same mindset”</p> <p>“It's extraordinary how hard it is to change the mindset of the public and the press.”</p>	<p>way of thinking</p> <p>opinions</p> <p>hard to change</p>	<p>mentality, outlook</p>
American Heritage Dictionary. (n.d.)	<p>1. A fixed mental attitude or disposition that predetermines a person's responses to and interpretations of situations</p> <p>2. An inclination or a habit</p>	<p>mental attitude</p> <p>mental disposition</p> <p>influence behavior and thoughts</p> <p>inclination</p> <p>habit</p> <p>fixed</p>	<p>x</p>
Chambers Dictionary. (n.d.)	<p>an attitude or habit of mind, especially a firmly fixed one</p>	<p>attitude of mind</p> <p>habit of mind</p> <p>firmly fixed</p>	<p>x</p>
Collins Dictionary. (n.d.)	<p>If you refer to someone's mindset, you mean their general attitudes and the way they typically think about things.</p> <p>“We have to change people's mindsets and motivate them. “</p> <p>“Flexible working was part of the mindset of the company from the start.”</p>	<p>general attitudes</p> <p>way of thinking</p> <p>can be changed</p>	<p>attitudes, outlook, perspectives, position</p>

Oxford Dictionary. (n.d.)	a set of attitudes or fixed ideas that somebody has and that are often difficult to change “a conservative mindset” “the mindset of the current generation”	set of attitudes fixed ideas difficult to change	mentality
Dictionary.com. (n.d.)	1. a fixed attitude, disposition, or mood “His conservative mindset sometimes causes him to miss out on important opportunities.” “Her judgmental mindset has cost her a number of friendships.” 2. an intention or inclination “I’m not sure what her mindset will be when you ask her about her plans.”	attitude disposition mood intention inclination fixed	attitude, ethos, mentality, psyche

Table 1: Summary of Mindset Definitions in English Dictionaries (own work)

Keywords of Mindset Definitions	Synonyms of Mindset
attitude (6) way of thinking (3) inclination (3) disposition (2) habit (2) state of mind (1) opinions (1) ideas (1) mood (1) intention (1) mental/mind/thinking (5) fixed (4) changeable (3)	attitude (3) mentality (3) outlook (3) perspective (2) position (1) ethos (1) psyche (1) angle (1) disposition (1) habit (1) emotion (1) sentiment (1) strain (1) belief (1) expression (1) character (1)

Table 2: Frequencies of Keywords and Synonyms in Table 1 (own work)

Thereafter, ‘attitude’ seems to come closest to the concept of mindset as it is part of nearly all interpretations. ‘Way of thinking’, ‘inclination’, ‘mentality’ and ‘outlook’ similarly describe the nature of the construct. In the analysis, the relevance of cognition also becomes clear as either one of the words ‘mental’, ‘thinking’, or ‘mind’ are part of every explanation. What the definitions don’t agree on is whether mindset is fixed or changeable. Four definitions state mindset to be fixed, three claim it is malleable, with two of them emphasizing transformation

was difficult. Summarizing the expressions, mindset is understood as a cognitive state or process that is either fixed or changeable.

2.1.1.2 Academic Conceptualizations of Mindset

In like manner, exploration of mindset conceptualizations by scholars are commonly acknowledged as imperative for individual or organizational success (Brooks et al., 2012; Dweck, 2016; Kennedy et al., 2013) but reveal substantial divergences. French (2016) designates this phenomenon as the “*fuzziness of mindsets*” (p. 1), and denounces mindset as an “*indistinct, vague concept*” (p. 2). Despite varying definitions across disciplines, within disciplines, and even among scholars examining the same mindsets, he identified three major streams, which together form the ‘fuzziness of mindset’ framework (FoM).

The cognitive psychology stream is rooted in the conceptualization of the pioneers of the term mindset Gollwitzer and Bayer (1999) who understand it as “*the sum total of the activated cognitive procedures*” in response to a given task (p. 405). **The focus on both tasks and cognitive processes is shared among scholars of cognitive psychology** (Torelli and Kaikati, 2009; Nenkov, 2012; Xu and Wyer, 2012).

Contrary to the relative consensus in the cognitive psychology stream, social psychology and organizational leadership scholars rarely agree on a single definition. However, a common defining characteristic can be identified. A vast array of studies evaluates various topics, ranging from global versus local to social comparison, having in common the emphasis on cognitive processes of filtering information and knowledge. **Mindset is conceptualized as a predisposition or filter used on cognition that regulates human experience** (Benson and Dresdow, 2003; Gupta and Govindarajan, 2002; Oyserman et al., 2009; Rhinesmith, 1992). The understanding of whether the concept is individual or collective in its nature diverges among researchers.

The emerging field of positive psychology takes a broader view on the concept. **Moving beyond a specific cognitive process, mindset is characterized as inherent individual or collective beliefs or views of reality.** The scope of attention of this third theoretical stream includes studies on education (Brooks et al., 2012), ethics (Issa and Pick, 2010), and human potential to develop traits and abilities (Dweck, 2006).

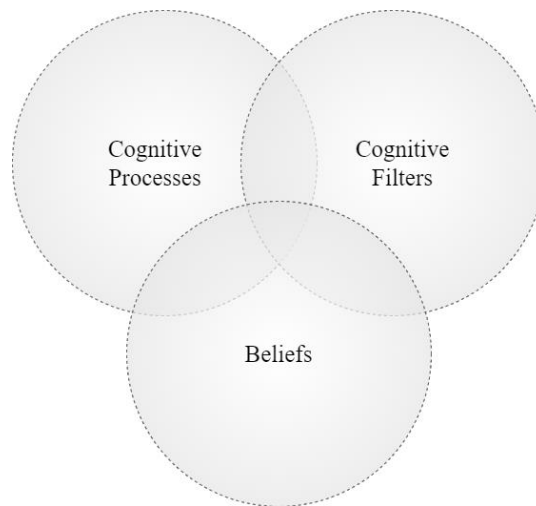


Figure 2: The Fuzziness of Mindset Conceptualizations in Scholarly Research (adapted from French, 2016)

The heterogeneity of definitions in common linguistic usage and academic research largely coincides. Figure 2 illustrates differences and overlaps of the presented mindset conceptualizations. Whilst aspects of all streams shape common understanding of the construct, implications of differing conceptualizations should not be underestimated as they shape scholarly discussion and influence its potential to be operationalized.

2.1.2 Explanatory Mindset Pairs

Scholars and psychologists have established a number of theories of oppositional mindsets. The presented pairs are representative of the three distinct streams of mindset theory: cognitive, social, and positive psychology. They aim to illustrate the conceptualizations and to demonstrate that all three definitions yield functionality and opportunity for intervention.

2.1.2.1 Cognitive Process: Deliberative and Implemental Mindsets

The comparison of deliberative and implemental mindsets originates in Gollwitzer's (1990) theory of action phases. His conception of mindset as a set of task-facilitating cognitive processes typifies the cognitive psychology stream.

The theory models four consecutive steps of goal pursuit, namely: predecisional, preactional, actional, and postactional phases. Figure 3 depicts those in the same order attributing to them numerical values (I - IV).

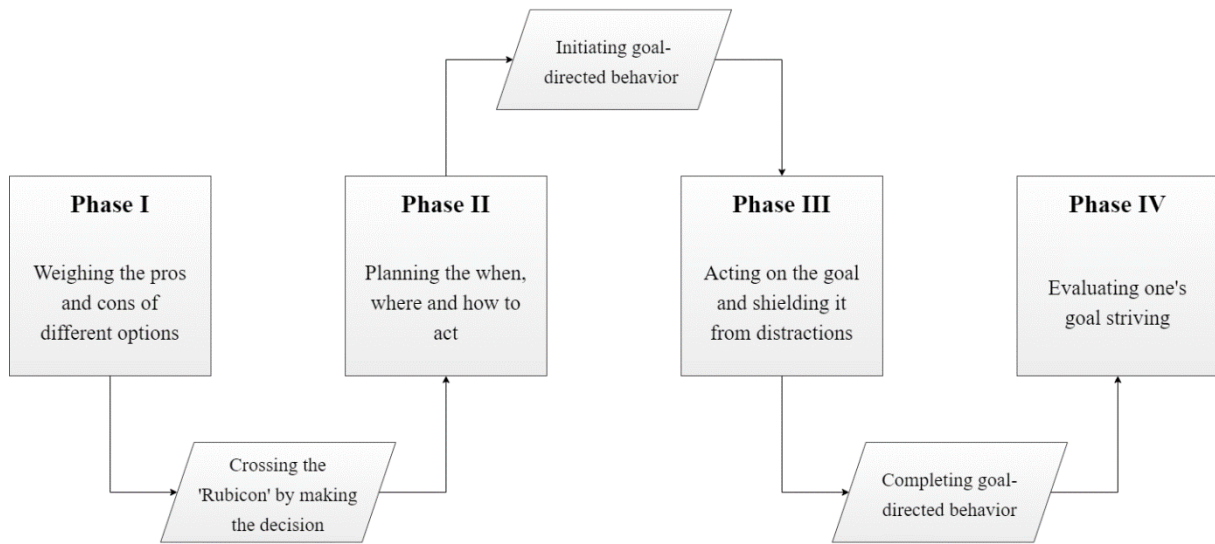


Figure 3: The Model of Action Phases (adapted from Gollwitzer, 1990 and Keller et al., 2020)

To each of these phases, he assigns a distinct mindset which describes the most suitable cognitive process to deal with the tasks of the respective phase.

In the predecisional phase, pondering on a decision which goal to pursue evokes a deliberative mindset. It grades desirability and feasibility of presented options and finally leads to a decision. Gollwitzer and Keller (2016) herald the transition between phases I and II the ‘Rubicon’. This metaphorical crossover illustrates the decision as a climax, a turning point in the presented task. It further marks the start of the preactional phase (p. 5). Defining for this stage in the model is concrete planning of reaching the previously set goal. The characteristics of an implemental mindset are beneficial as they allow for the required focus. Passing through actional and postactional phases completes goal pursuit, activating actional and evaluative mindsets respectively (p. 2). The focus is upon the first two phases, as their polarity is more explored in scholarly research and more representative for the illustration of the topic at hand.

Phase	Task	Mindset
predecisional	decision-making	deliberative
goal-setting motivation	<ul style="list-style-type: none"> • set preferences among wishes and desires • deliberate desirability and feasibility of options 	<ul style="list-style-type: none"> • heightened receptiveness to all kinds of information • open-mindedness • objective analysis of feasibility-related information

		<ul style="list-style-type: none"> impartial analysis of desirability-related information lower correspondence between attitude and behavior
preactional goal-striving volition	planning	implemental
	<ul style="list-style-type: none"> start goal-directed behavior plan on when, where, and how to act 	<ul style="list-style-type: none"> focused and selective orientation to processing information closed-mindedness overly optimistic analysis of feasibility-related information partial analysis of desirability-related information greater correspondence between attitude and behavior
actional goal-striving volition	realization	actional
	<ul style="list-style-type: none"> bring initiated goal-directed behavior to an end determined and persistent goal-striving 	<ul style="list-style-type: none"> closed-mindedness focused on action
postactional goal-setting motivation	reflection	evaluative
	<ul style="list-style-type: none"> decide whether the goal was achieved 	<ul style="list-style-type: none"> open-mindedness objective analysis

Table 3: Description of Phases - Theory of Action Phases (own work, based on Gollwitzer and Bayer, 1999 and Keller et al., 2020)

Table 3 summarizes the theory and specifies the tasks to be performed in each phase, as well as the characteristics of each mindset.

The first phase is determined by the weighing of opportunities, forming preferences, and coming to a decision. To perform this task in the best possible way, a cognitive orientation towards open-mindedness and a high receptiveness to all kinds of accessible information is crucial. To create an informed choice, objective analysis of feasibility and impartial evaluation of desirability of all potential goals is necessary. These features are defining the deliberative mindset.

Once the rubicon is crossed and the decision taken, the implemental mindset takes over. To start acting upon the chosen goal and plan the essential steps towards it, a higher focus and protection against distractions and conflicting behaviors is crucial. A selective orientation to

processing information and related closed-mindedness is prevalent in this second phase. Feasibility is overestimated in favor of the goal. Plus, there is a bias towards desirability rather than the downsides of the goal.

While the motivation experienced in the predecisional phase during goal-setting is creative and full of desire, the motivation transforms into an ambitious commitment, facilitating goal-striving, and is labeled volition during preaction and action. The activated commitment explains the higher correspondence between attitude and behavior during the second and third phases found in a study by Henderson et al. in 2008. Consequently, the implemental mindset is suggested to have beneficial effects on task performance.

Nevertheless, both mindsets also possess similar attributes. Once a person gets more involved in a task, an accentuation of the task-facilitating mental processes follows. Neither mindsets vanish immediately upon task completion, their inertia can be utilized, influencing temporally subsequent tasks of a different nature (Gollwitzer, 2012, p. 530). Therefore deliberative and implemental mindsets are tools facilitating decision-making and task completion. This, of course, requires the awareness of cognitive procedures and their particularities.

2.1.2.2 Cognitive Filter: Abundance and Scarcity Mindsets

Looking into social psychology and organizational leadership, mindset is not bound to the individual but can equally overarch organizations or communities. This is due to its conceptualization as a cognitive filter rather than a cognitive process.

The chosen representations for this phenomenon are abundance and scarcity mental models. Already in nature, the chosen exemplary mindsets differ from the ones presented previously. Whilst deliberative and implemental mindsets are naturally interchanged depending on the task at hand, abundance and scarcity mindsets are two opposites on a spectrum, in between which one's mindset is allocated. This position on the scale is highly personal and remains relatively fixed.

The comparison originates from Covey's (1989) book 'The Seven Habits of Highly Effective People'. In its fourth chapter 'Thinking Win-Win' Covey presents six paradigms of interaction.

1. Win/Win - 'We both win'
2. Win/Lose - 'I win, you lose'
3. Lose/Win - 'I lose, you win'
4. Lose/Lose - 'I lose, you lose'

5. Win - 'I win'
6. Win/Win or No Deal - 'We both win, or we have no deal'

In fact its five different paradigms with the sixth adding a principle to the first one. The presented scenarios describe attitudes with which individuals enter negotiations and outcomes for the same. The first term is directed to the 'self' and the second to 'them'. The combination of the parties' mindsets determines the outcome. While a Lose/Lose or Lose/Win attitude can easily be identified as detrimental for any type of interaction, a Win/Lose mentality might be suitable for certain situations, like competitions that are designed to pick only one winner. The Win attitude doesn't take into account another party. This attitude is common in situations of no competition - individuals with this inclination aim to secure their own ends and leave it to others to secure theirs.

However, in relationships, in both private and business contexts, cooperation is the basis for success. Win/Lose or Lose/Win mentalities might secure a satisfactory outcome for one party short term, long term it will likely turn into Lose/Lose consequently, as negative experiences affect future negotiations. Therefore, effectiveness can only be achieved through a Win/Win attitude of both negotiation partners.

Extending the principle, Covey (1989) emphasizes that deals should only be accepted if the outcome is mutually beneficial. If no synergistic solution can be identified, both parties should agree to disagree and search for a mutually satisfactory solution elsewhere (p. 213).

This philosophy of human interaction requires considerable interpersonal leadership skills, particularly in interactions with individuals deeply scripted in Win/Lose. According to Covey (1989), the character of a person is the foundation of the Win/Win principle. He names three character traits that are essential: integrity, as the prerequisite for trust, maturity, the balance of courage and consideration, and an abundance mentality (p. 217). The last is of interest here.

In his book (Covey, 1989, p. 219), he provides an excellent description of the mindset spectrum: *"Most people are deeply scripted in the scarcity mentality. They see life as a finite pie: If someone gets a big piece of pie, it means less for everyone else – and most importantly, for them. Our thinking should be that there is plenty out there for everybody. This abundance mentality flows out of a deep sense of personal worth and security. It results in sharing recognition, profits and responsibility. It opens up and creates new options and alternatives. It turns personal joy and fulfillment outward. It recognizes unlimited possibilities for positive interactions, growth and development."*

Abundance and scarcity are the two opposites of the spectrum on his described mindset on human interaction. The mentality of each individual can be allocated on one or the other side or anywhere in between. The position on the scale serves as a cognitive filter, as is typical for the organizational development stream, influencing thoughts, feelings, and behaviors associated with human interaction.

Freebairn-Smith (2010), a researcher and founder of OPG, an organizational development consultancy, studied which behaviors are characteristic of abundance and scarcity mindsets. She collected answers from 16 senior organizational development practitioners on her expert survey (p. 56). Table 4 shows her findings.

Behavior	Scarcity Count	Neutral Count	Abundance Count
exhibiting pessimism	15	0	1
behaving in petty ways	14	1	1
withholding information	13	1	2
exhibiting fear	13	1	2
seeking resources	1	10	5
delegating	2	3	11
minimizing criticism	2	2	12
protecting staff from abusive conditions	1	5	10
learning	0	4	12
expressing compassion	1	2	13
acting locally but thinking globally	0	4	12
thinking in the long-term	0	4	12
giving praise	1	2	13
listening	0	2	14
sharing information	2	1	13
demonstrating faith in good outcomes	0	2	14
thinking in terms of the whole system	1	2	13
encouraging creativity	1	1	14
focusing on being and not only doing	1	0	15
sharing the limelight	0	2	14
inspiring others	1	1	14
exhibiting optimism	1	0	15

Table 4: Expert Ratings of Likelihood of Leadership Behaviors in Scarcity or Abundance Leaders (adapted from Freebairn-Smith, 2010)

The associated identified behaviors illustrate impressively distinct leadership styles, operating on scarcity or abundance.

Freebairn-Smith (2010), thoroughly summarizes the impact of the oppositional mindsets: *“Abundance and scarcity orientations have serious implications for science, cultures, organizations, people, and the planet because they affect behavior. A review of the literature indicates that the scarcity-abundance spectrum has affected such disparate fields as economics, sustainability, philosophy, organizational behavior, and politics.”* Later on, she adds: *“Tying this study’s results to the work of [...] authors on optimism and abundance, one can say that an optimistic or abundance mental model does matter in a leader. It has a positive impact on individuals working for such a boss and it makes for a healthier organization”* (p.72).

Analyzing the matters of leadership (Freebairn-Smith, 2010) or human interaction in a broader sense (Covey, 1989), both Covey and Freebairn-Smith recognize the benefit of understanding mindsets as it provides insights into effective behaviors and therefore enables intervention.

2.1.2.3 Belief System: Fixed and Growth Mindsets

For illustrating the positive psychology stream, Dweck’s (2006, 2012) fixed and growth mindsets are suggested. Conceptualized as inherent beliefs, mindsets in this sense, alike used above, influence thoughts, feelings, and behaviors.

Her scale with fixed and growth mindsets as opposite ends of the continuum represents one’s belief in human potential to develop traits and abilities. Dweck’s conceptualization stems from and mirrors the discussion in psychology, whether nature or nurture influences abilities more significantly. Individuals with a fixed mindset assume that they are limited to certain talents or gifts which are innate to their personality. Contrary to this growth mindset believes in the development of skills and abilities, through hard work, good strategies, and input from others. How an individual interprets his or her own identity hence is a belief and therefore alterable.

Dweck’s (2006) book ‘Mindset: The new psychology of success’ spread her concepts and uplifted ‘growth mindset’ to a buzzword used commonly in business contexts. Being gratified by the impact her research had on improvements of motivation, productivity, and innovation in both, individuals and companies, she however witnessed some amount of distortion of her research. Therefore, she published an article (Dweck, 2016), dispelling common misconceptions.

The common belief that a ‘pure growth mindset’ exists and is obtained by being flexible and open-minded is refuted as a ‘false growth mindset’. Instead, Dweck clarifies that everyone obtains a mixture of growth and fixed mindsets which evolves with experience and is determined

by the situation (p. 26). She states that every individual faces ‘fixed mindset triggers’. Being confronted with challenges, receiving criticism, or underperforming prompts insecurities. Defensiveness in these exemplary situations inhibits growth (p. 27).

Simply rewarding effort according to her is not a suitable strategy to promote a growth mindset, neither in education nor in working environments. Companies that embrace growth truly, reward appropriate risk-taking, progress, and learning even after failure as well as the related processes like seeking help in a team and trying out new strategies. They promote collaboration over competition and are committed to the growth of every member of the organization. Continually reinforcing growth mindset values with concrete policies can make the difference between a workspace retrieving their employees’ ‘fixed mindset personas’ and supporting them to identify and work on their individual triggers to move towards the growth mindset end on the spectrum (p. 27).

Dweck (2012) also designates mindsets as “*implicit theories*” (p. 615). This implies that the beliefs that shape one’s worldview are not necessarily conscious. Understanding and transforming them into explicit beliefs however facilitates mindset intervention.

In his literature review on mindset theories, French (2016) lists an impressive amount of areas on which Dweck’s concept has been applied: intelligence, negotiation skills, romantic relationships, shyness, athletic abilities, conflict resolution, peace efforts, aggression, cross-race relations, and willpower. Growth mindset positively correlates with wide-ranging benefits in these fields (p. 682). The belief that abilities and skills can improve is therefore consistently exhorted as ‘the solution’ for overarching issues of individuals or organizations.

2.2 Entrepreneurship

2.2.1 Entrepreneurship Foundations

In the pursuit of EM, understanding the principles of entrepreneurship is crucial. Defining entrepreneurship and its ecosystem in the following seeks to lay the foundations and describe circumstances and influences on individuals pursuing a career in entrepreneurship.

2.2.1.1 Entrepreneurship Definition

“Entrepreneurship is an essential driver of societal health and wealth. It is also a formidable engine of economic growth. It promotes the essential innovation required not only to exploit new opportunities, promote productivity, and create employment but to also address some of

society's greatest challenges, such as the United Nations Sustainable Development Goals (SDGs) or the economic shockwave created by the COVID-19/Coronavirus pandemic.”

The presented introduction to the Global Entrepreneurship Monitor’s (GEM, n.d.) mission statement summarizes concisely the functions and benefits of entrepreneurship. While these benefits are widely recognized, the definition, akin to the mindset term, presents some difficulties. A single, commonly accepted definition of the term is nonexistent, though common elements tend to meet across the spectrum.

The Chinese researchers Kouakou et al. (2019) retrieved seven components of entrepreneurship from analyzing a list of nineteen definitions reaching from the genesis of the term in 1755 by the french venture capitalist Cantillon to Timonns and Spinelli’s definition in 2008 which can be reviewed in appendix 1. While opportunity recognition is presented as the essential aspect, risk-taking, value creation, and profit orientation are followed in importance by initiative-taking, innovation, and venture creation as summarized in table 5 (p. 124).

Level 1		opportunity recognition	
Level 2	risk-taking	value creation	profit orientation
Level 3	initiative-taking	innovation	venture creation

Table 5: Main elements of entrepreneurship cited in the definitions of scholars (adapted from Kouakou et al., 2019)

While the identified components already illustrate its nature, three streams of entrepreneurship definitions can be pinpointed (Sternberg and Wennekers, 2005, p. 195). The occupational notion refers to owning and managing one’s own business. The behavioral notion is focused on behaviors, associated typically with entrepreneurship such as recognizing and seizing economic opportunity, engaging in innovative practices, or assuming entrepreneurial risk. Finally, the new venture creation notion applies to the act of creating organizations.

Without any doubt, definitions are far from uniform, and each has its own merits. However, for the topic at hand, perhaps the most appropriate approach is the behavioral one which dates to Say (1815) and Schumpeter (1928). It posits the perception and exploitation of opportunities in the essence of entrepreneurship. Innovation and value creation are expressed in the change-promoting concept of ‘creative destruction’ frequently referenced in Schumpeter’s writings. Stevenson and Jarillo (1990) fittingly define entrepreneurship as “[t]he process by which

individuals – either on their own or inside organizations – pursue opportunities without regard to the resources they currently control” (p. 23). Pursuit implies a relentless focus, opportunity means a unique novel offering and it mentions resource constraints that haven’t been mentioned so far in the exploration which are, however, descriptive for the reality of entrepreneurs.

2.2.1.2 Entrepreneurial Ecosystem

The concept of entrepreneurial ecosystems has been increasingly used by policymakers to analyze economic development and to explain entrepreneurial activities. According to Mason and Brown (2014), *“The entrepreneurial ecosystem is a set of different individuals who can be potential or existing entrepreneurs, organizations that support entrepreneurship that can be businesses, venture capitalists, business angels, and banks, as well as institutions like universities, public sector agencies, and the entrepreneurial processes that occur inside the ecosystem such as the business birth rate, the number of high potential growth firms, the serial entrepreneurs and their entrepreneurial ambition”* (p. 5).

An entrepreneurial ecosystem is therefore the social and economic environment affecting local entrepreneurship. It is a blend of social, economic, cultural, and political components within a region that, when effectively working together, create a nurturing ground and infrastructure for entrepreneurship and innovation (Audretsch and Belitski, 2017, p. 1030). The complex system of interactions between the agents within various socioeconomic, institutional and informational contexts generates new businesses and growth.

As illustrated in figure 4, policy, markets, finance, culture, support, and human capital are core domains of entrepreneurial ecosystems (Isenberg, 2011; Liguori et al., 2019). The agents compete for scarce resources, but in a cooperative way as, as the analogy to natural ecosystems suggests, there is a need for balance which ensures the survival of the actors within the system, which makes it relatively self-sustaining.

From a macro perspective, Cantner et al. (2020) argue that entrepreneurial ecosystems and business ecosystems are two subsets of a regional economic ecosystem, where entrepreneurs and intrapreneurs are the drivers of innovation and commercialization of ideas respectively (p. 408).

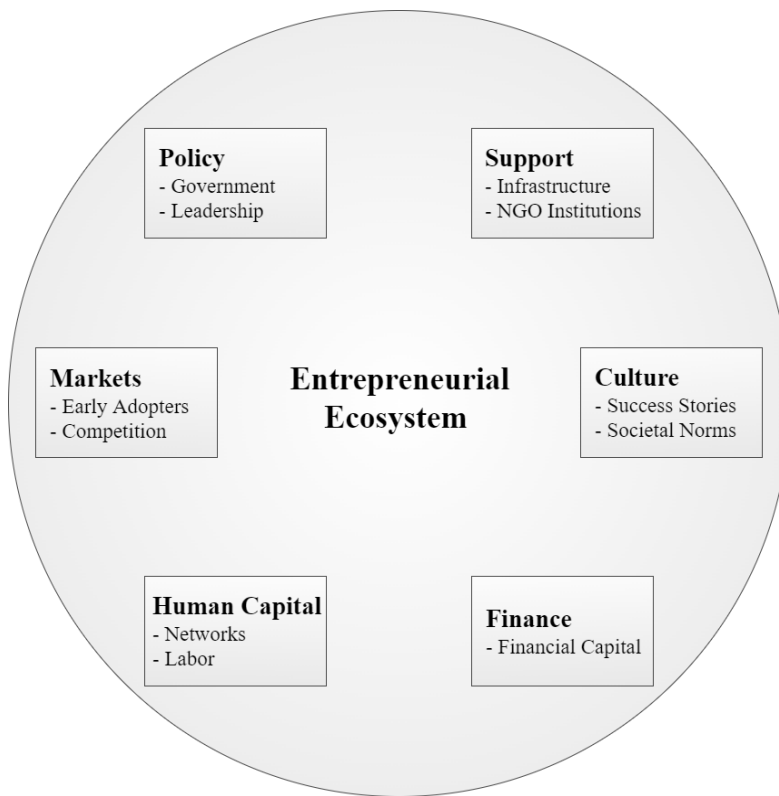


Figure 4: Agents in the Entrepreneurial Ecosystem (own work, based on Isenberg, 2011 and Liguori et al., 2019)

2.2.2 Entrepreneurial Processes

As entrepreneurial behavior is the mainstay of entrepreneurial success, apart from understanding the mere concept of entrepreneurship, and its circumstances, entrepreneurial processes are of high interest. Tapping into the logic behind intentions, opportunity pursuit, entrepreneurial decision-making, and understanding innovation creation are considered more relevant than venture creation procedures, which although qualified as entrepreneurial processes, do not reasonably reflect the behavioral notion of entrepreneurship, chosen as defining characteristic for this study.

2.2.2.1 Opportunity Pursuit: Discovery and Creation

The goal of entrepreneurs is to *“form and exploit opportunities”* (Shane, 2003, p. 4).

McMullen and Shepherd (2006) argue *“that a decision is a necessary but insufficient condition for the occurrence of entrepreneurship”* (p. 134), it is rather the decision to act that is required. Based on this assumption they contemplate that *“entrepreneurs respond to and create change through their entrepreneurial actions, where entrepreneurial action refers to behavior in response to a judgmental decision under uncertainty about a possible opportunity for profit”* (p.

134). Entrepreneurs are required to escape ignorance, discover or create a solution that is currently not there and overcome uncertainty through less perceived uncertainty or a higher willingness to bear it.

McMullen and Shepherd (2006, p. 146) proposed a conceptual model of entrepreneurial action - which they refer to as ‘action framework’ that takes effect as soon as an environmental change prepares the ground for business opportunities (p. 139). Figure 5 illustrates the two stages of their model, the attention and evaluation stage. During the attention stage uncertainty is at a radical height as there is no or only few prior knowledge about the occurring change. Knowledge together with an individual’s personal strategy, which is understood as a “*pattern of decisions in the acquisition, retention, and utilization of information that serves to meet certain objectives*” (p. 140) lead to the recognition of a ‘third person opportunity’, a belief that the situation bears an opportunity in general.

The feasibility and desirability of the ‘third-person opportunity’ is in turn assessed by an individual in the evaluation stage before being claimed as a ‘first-person opportunity’, a belief that the situation bears opportunity for the individual, which spurs action. Entrepreneurial action on opportunities thus is an outcome of a cognitive and motivational process.

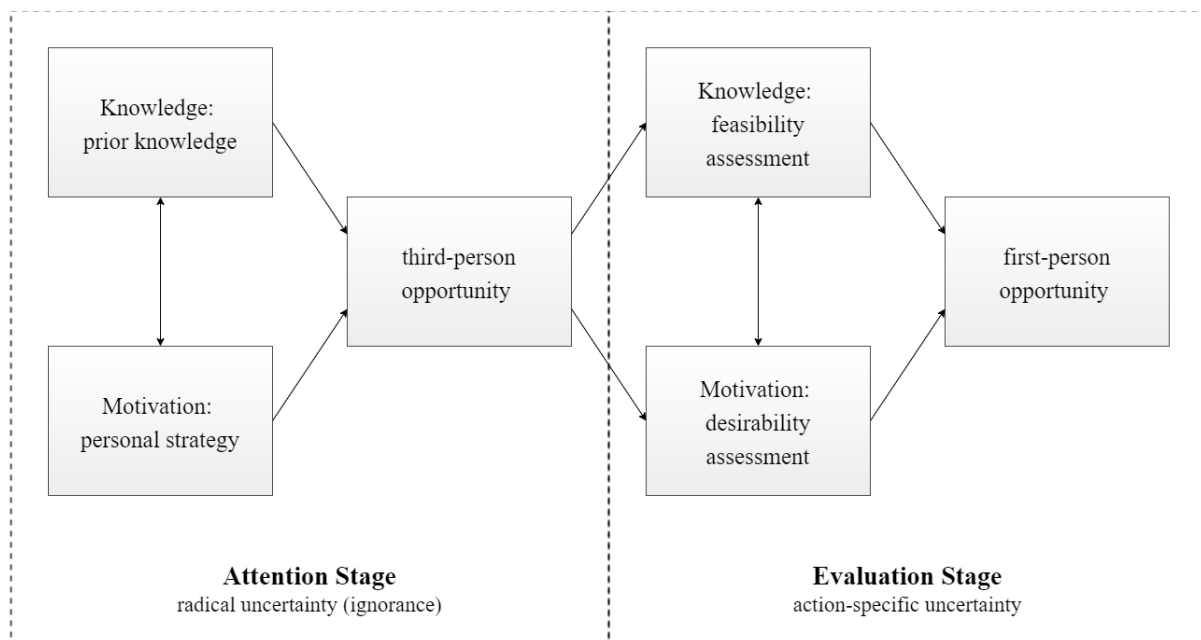


Figure 5: The Action Framework (adapted from McMullen and Shepherd, 2006)

The question how opportunities emerge has received reasonable amounts of academic attention. Prevalent are two internally consistent theories. The ‘discovery theory’ explains the rising of

opportunities exogenously from a disruption of the competitive equilibrium and changes in the environment. According to that theory, as explored among others by Shane (2003), Venkataraman (2003) and McMullen and Shepherd (2006), opportunities exist as real and objective phenomena independent of the perceptions and actions of entrepreneurs, just waiting to be discovered and exploited (Alvarez and Barney, 2007, p. 13).

In contrast ‘creation theory’ as labeled such by Alvarez and Barney (2007), building on thoughts from Gartner (1985), Sarasvathy (2001), Schumpeter (1934) and others, argues that entrepreneurial opportunities *“are created, endogenously, by the actions, reactions, and enactment of entrepreneurs exploring ways to produce new products or services”* (p. 15).

Both theories are internally consistent, but to a great extent contradictory. The assumptions only uncover practical implications when linked to specific entrepreneurial actions, widely considered relevant for opportunity pursuit. Some actions are considered superior in one context than the other. The presuppositions of entrepreneurs in which context they are operating in are manifested in their actions and determine the effectiveness of their activities.

Alvarez and Barney (2007) summarized seven areas of activity generally considered crucial for all types of entrepreneurs seeking to form and exploit opportunities, whether operating in a discovery or creation context. Table 6 comprises the essence of effective practices depending on the nature of the operating context.

	Discovery Context	Creation Context
Leadership	based on expertise and (perhaps) experience	based on charisma
Decision Making	risk-based data collection tools, risk-based decision-making tools, importance of opportunity costs	iterative, inductive, incremental decision making, use of biases and heuristics, importance of affordable loss
Recruitment	specific human capital recruited broadly	general and flexible human capital recruited from preexisting social network
Strategy	relatively complete and unchanging	emergent and changing
Finance	external capital sources: banks and venture capital firms	‘bootstrapping’ and ‘friends, families, and fools’
Marketing	changes in marketing mix may be how new opportunities manifest themselves	marketing mix may fundamentally change as a result of new opportunities that emerge
Sustaining Competitive Advantage	speed, secrecy, and erecting barriers to entry may sustain advantages	tacit learning in path dependent process may sustain advantages

Table 6: Effective Entrepreneurial Actions in Discovery and Creation Contexts (adapted from Alvarez and Barney, 2007)

2.2.2.2 Entrepreneurial Decision-Making: Causation and Effectuation

Uncertainty, associated with entrepreneurial behavior, complicates predictions and planning. Entrepreneurial actions, therefore, require distinguished forms of decision-making (Alvarez and Barney, 2005, p. 777).

In her doctoral thesis, Sarasvathy (1998) studied the question of which action principles guided successful entrepreneurs in founding their companies. She developed research designs with which she was able to observe their inner decision-making processes. In this way, she was able to extract mental models which underlie their entrepreneurial decisions. The results of her research were initially astonishing. Almost all of the founders studied did not adhere to the methods of classical management in the founding phase of their companies. The founders did not initially have a clear business idea, nor did they pursue particularly well-thought-out business plans. Rather, their business ideas developed in a longer process. An innovative business idea crystallized out of a vague idea only through the interaction of their own possibilities with the potential of new, often rather coincidentally found, partners and their ideas, coupled back to the wishes of potential customers. In the course of her research, Sarasvathy came to the conclusion that the mental models of experienced entrepreneurs are fundamentally different from those of classical management.

Based on these findings the term ‘effectuation’ emerged as a logic of entrepreneurial expertise, an entrepreneurial process that is an inverse of the classical causal process (Sarasvathy and Simon, 2000). Sarasvathy (2001) specifies that causal processes *"take a particular effect as given and focus on selecting between means to create that effect"* while defining that *"effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means"* (p. 245).

The contrast between the two processes can be pinpointed along four major dimensions structured in table 7.

	Causation... (linear logic)	Effectuation... (cyclical logic)
(1)	predicting the future	controlling the future
	...tries to predict the future as accurately as possible to avoid unexpected contingencies.	...sees contingencies as opportunities that should be leveraged rather than avoided.
(2)	pursuing a specific goal	using available resources
	...starts with the definition of a predefined goal (what I should do).	...starts with the means at hand including the entrepreneur's identity (who I am), knowledge (what I know),

		and networks (who I know) and considers all possible effects.
(3)	targeting maximum profit	controlled risk-taking
	...focuses on maximizing expected returns.	...focuses on minimizing risk by considering the maximum affordable loss.
(4)	analyzing competitors	building strategic alliances
	...analyzes the market and focuses on competition.	...aims at establishing pre-commitments with potential partners, with a focus on building alliances.

Table 7: Contrasting Causation and Effectuation (own work, based on Sarasvathy, 2001)

It becomes clear that the circular logic of effectuation is diametrically different from the causal linear logic of the classical management method. Chandler et al. (2011) conclude that causation suggests planned strategy approaches, whereas effectuation incorporates flexibility and experimentation. Effectuation has been suggested as strategic decision making logic, which can address the uncertainty in entrepreneurial actions (p. 385). The benefits of this approach include the organization being able to provide what the market demands in a cost-effective and timely manner (Sarasvathy, 2001, p. 250). In his book Faschingbauer (2017) gives an overview of the circumstances that determine which method is appropriate in respective contexts. Causation is ideally suited for situations, in stable surroundings, in which the aim is to achieve predefined goals, usually in optimizing and improving processes or products. Effectuation, instead, plays to its strengths, in dynamic, uncertain environments, when no clear goals have yet been defined and when development and innovation are targeted (pp. 36-39).

Studies have acknowledged that causation and effectuation are not mutually exclusive alternatives (Chandler et al., 2011; Kerr and Coviello, 2020), and the application of both leads to better performance of entrepreneurial ventures (Smolka et al., 2018, p. 597). In this domain, Sarasvathy (2008) states that the causation approach ensures that the venture stays focused and predicts what is predictable, while the effectuation counterpart allows a flexible response to changes in the operations environment. She emphasizes that effectuation and causation are constantly balanced in entrepreneurial action, and the same person can employ both logics interchangeably depending on circumstantial uncertainty.

Many factors influence the tendency of using either effectuation or causation logic. On a personal level, Sarasvathy (2008) claims that experienced entrepreneurs are more likely to use effectuation than inexperienced entrepreneurs.

On an environmental level, team dynamics (Tryba and Fletcher, 2019), organizational culture and structure (Henninger et al., 2020), investors (Frese et al., 2019), and national culture (Laskovaia et al., 2017) can influence preferences for effectuation or causation. Hubner et al. (2021) combine those factors and argue for ecosystem-specific influence mechanisms (p. 4).

2.2.2.3 Innovation Creation: Valuable Novelty Theory

As can be perceived from the preceding explanations, innovation is one of the fundamental characteristics of entrepreneurship. Innovation is a concept with many definitions, used in many different contexts. Baregheh et al. (2009) state: *“Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, services or processes, in order to advance, compete and differentiate themselves successfully in their marketplace”* (p. 1334).

Like Baregheh et al. (2009), Stauffer (2015a) aims to grasp the essence of innovation but his interest in the matter exceeds the terminology. He proposes the ‘Valuable Novelty Theory’ which aims to explain the above-mentioned ‘multi-stage process’ of innovation and to measure and compare innovativeness across a variety of activities, disciplines, and contexts. Therefore, he introduces two complementary patterns, the ‘Innovation Cycle’ and the ‘Status Quo Cycle’.

The name of the theory is derived from his definition of innovation: *“[I]nnovation [is] Valuable Novelty, and innovativeness [is] the capacity to produce Valuable Novelty”* (Stauffer, 2015a, p. 169). Hence, he attributes, based on Scott (2012), two main characteristics to innovation - there must be something new, at least to some context or application and there needs to be some discernible impact or value created.

To illustrate the process of innovation he contrasts two possible process cycles. The ‘Innovation Cycle’ designates the pattern which drives innovation, capable of adopting new inputs and creating novel outputs. The ‘Status Quo Cycle’ is a proactive process that maintains itself despite the dynamic forces it may encounter, providing stability and continuity, instead. Both cycles have a symbiotic relationship in which both are sustained. Instead of complementing each other, they compete, which may create tension. Which pattern is followed is discretionary and a matter of degree.

The theory is composed of four key mechanisms which drive each process: idea, action, reality, and feedback. In the ‘Innovation Cycle’, the ‘Idea Phase’ generates diverse new possibilities. The ‘Action Phase’ explores and acts. The ‘Reality Phase’ feels the consequences of those actions, and the ‘Feedback Phase’ captures, processes, and utilizes lessons learned. These outcomes provide the foundation for generating more ideas and therefore the cycle continues.

The ‘Idea Phase’ of the ‘Status Quo Cycle’, instead of generating new possibilities, reproduces those existing. Its ‘Action Phase’ doesn’t explore and experiment with new options, it applies existing practices and mechanisms. In the ‘Reality Phase,’ it seeks to validate what has occurred and to eliminate anomalies, instead of testing new possibilities. Contrary to discovering what new possibilities work, the ‘Feedback Phase’ of this pattern serves to restore and reinforce what is already working. To clarify these mechanisms, both cycles are illustrated in figure 6.

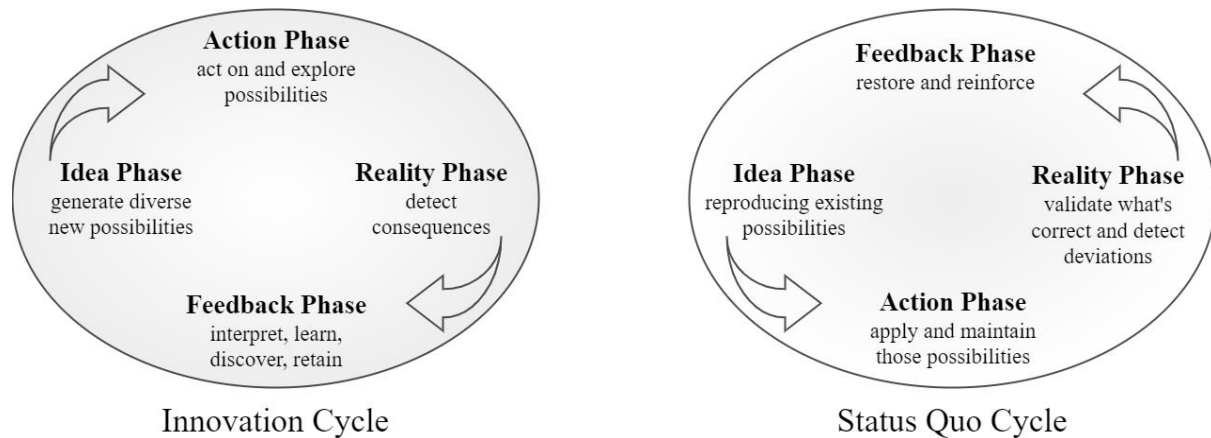


Figure 6: Status Quo and Innovation Cycles (adapted from Stauffer, 2015a)

Both patterns can be described as cyclical, self-reinforcing feedback loops. Although they share some commonalities, there are some major distinctions to be made: While the ‘Status Quo Cycle’ is an internally oriented, closed feedback system, its counterpart is externally oriented and open to feedback. The cycles apply Sarasvathy’s (2001) causation and effectuation logics. Adopting effectuation, the ‘Innovation Cycle’ is fuelled by the success or failure of the outcomes it generates. Propelled by the need to maintain the status quo, its twin follows a string of linear causal relationships.

Both processes are highly dependent on each other. Stauffer (2015a) succinctly summarizes: *“The ‘Innovation Cycle’ effectively tests and retests the viability of the systems that the ‘Status Quo Cycle’ maintains. The ‘Innovation Cycle’ then relies on the ‘Status Quo Cycle’ mechanisms to preserve beneficial changes that the ‘Innovation Cycle’ generates”* (p. 181).

To explain how this theory may be applied, Stauffer (2015b) draws on Dweck’s (2006) conceptualization of mindset. He describes both cycles as ‘implicit theories’, defined as not necessarily conscious assumptions or beliefs, and titles them ‘implicit theories to innovativeness’ (pp. 236-237).

One’s mindset determines the preference for one or the other cycle. Because the ‘Innovation Cycle’ and the ‘Status Quo Cycle’ mirror each other, they pose a series of tradeoffs. Figure 7 illustrates these choices. These alternatives are no opposites, nor mutually exclusive, but rather meaningful choices, which provide insight on pattern preferences.

Mindset	Idea Phase	Action Phase	Reality Phase	Feedback Phase
Trade-Off Between	Generating Possibilities	Executing Possibilities	Experiencing Reality	Processing Feedback
Iterative Thinking	Imagine	Explore	Challenge	Discover
Linear Thinking	Know	Apply	Validate	Reinforce

Figure 7: Choice Spectrums (adapted from Stauffer, 2015)

As mindsets according to Dweck (2012) manifest in thoughts, beliefs, and behaviors (p. 615), the presented ‘Theory of Valuable Novelty’ is an indicator for the mindset someone holds.

Although the author draws explicitly on Dweck’s mindset definition, it has to be mentioned how close his model comes to Gollwitzer and Bayer’s (1990) ‘Theory of Action Phases’. Whilst, as designated above, Gollwitzer and Bayer, label the cognitive processes, specific for each phase as mindset, Stauffer (2015b) specifies: *“In the way they are used here, the terms mindset, mental model, mental maps, implicit theory and paradigm are largely interchangeable. However, I treat them as a hierarchy, one in which individual mental models (or implicit theories) combine to create an overall mindset (or personal paradigm). In this way, mindset describes following the ‘Innovation or Status Quo Cycles’ and mental models describe the more specific phases or other components of those cycles”* (p. 237).

Stauffer’s research is considered relevant to this study as it combines mindset theory with innovation, as identified crucial for entrepreneurship. It also illustrates the intersections and divergent use of terms and concepts and presents an excellent transition to the following analysis of EM.

2.3 Entrepreneurial Mindset

After laying a foundation, exploring mindset and entrepreneurship separately, this study aims to unravel the entrepreneurial mindset (EM). While the conferred discussions on mindset

provide a sense of the nature of EM, the details on entrepreneurship specify its environment and influences.

Ireland et al. (2003) promoted EM as a critical characteristic for leaders to create sustained value for the future through the way in which EM can drive one's "*ability to rapidly sense, act, and mobilize, even under uncertain conditions*" (McGrath and MacMillan, 2000, p. 15). Gradually emerging as a concept in the field of entrepreneurship, EM plays a significant role in the process of nurturing entrepreneurial skills and capabilities. Few scholars, however, have clearly defined EM or provided insights into its underlying attributes, qualities, and effects. So, the question remains as to what EM is and how people tap into it.

Drawing on relevant literature, the origins and developments on the topic from the perspectives of personality and cognitive psychology are explored, followed by a multifaceted analysis of EM through the lens of French's (2016) FoM framework. The structure is based on the divergent definitions of mindset as a cognitive process, a cognitive filter or a belief system. Kuratko et al. (2020) extend the conceptualisation, which has so far been reduced to the cognitive aspect, by the dimensions of feelings and behaviors.

2.3.1 Developments from Personality and Cognitive Psychology

The approach to explain entrepreneurship on a personal level shifted considerably over time, coming from two very different viewpoints. Firstly, following differential psychology, entrepreneurs were assumed to have special traits which explain their ability to identify and pursue opportunities. Research on the topic, although, led to weak, unconvincing results (Gartner, 1989; Shaver and Scott, 1991).

Thus, personality traits add value to better understand entrepreneurial behavior, however, while affecting entrepreneurship, they should only be considered as an essential element of a multi-dimensional theory of variables, processes and the environment (Zhao and Seibert, 2006).

Mitchell et al. (2000) challenged the focus on entrepreneurial personality and developed an interest in cognitive sciences in pursuit of a better understanding of the EM concept. They explore the idea of entrepreneurial cognition, which they define as the knowledge structures that are used to make assessments, judgments or decisions involving opportunity evaluation, venture creation and growth. Later, Fayolle (2012) proposed a connection between individuals' state of mind and their behaviors, by his definition, EM is a specific state of mind which orientates human conduct towards entrepreneurial activities and outcomes.

Similarly, Baron (2004) suggests the ‘cognitive perspective’ to be a valuable tool for both researchers and practitioners to understand the process of entrepreneurship and aid entrepreneurs in their efforts to create successful ventures respectively. He identified a reduced perception of risk, predictions by prospect theory, and a greater susceptibility to certain cognitive biases such as an optimistic bias, affect infusion, planning fallacy or the illusion of control as the reasons why certain people pursue entrepreneurship. As logic for opportunity recognition, he proposes a more proficient pattern recognition, signal detection, regulatory focus and entrepreneurial alertness, while attributing counterfactual thinking and a reduced susceptibility to biases such as sunk costs to the question of entrepreneurial success.

Summarizing the developments of both areas, personality traits play a significant role in the process of comprehending entrepreneurship but demand other variables to be included into the explanation. The cognitive perspective, hence, presents an appropriate further approach. Mathisen and Arnulf (2013) conclude that mindsets, for instance EM, are not given, they evolve over time and are influenced by an individual’s interaction with the environment (p. 132).

2.3.2 Entrepreneurial Mindset Conceptualizations according to the FoM Framework

2.3.2.1 Entrepreneurial Mindset as a Cognitive Process

The cognitive psychology’s conceptualization of mindset, e.g. by Gollwitzer’s (1990) theory of action phases, stipulates mindsets as task-facilitating cognitive processes. For entrepreneurs it is crucial to cue cognitive processes that are most relevant for tasks and situations related to entrepreneurship such as acting under uncertainty, opportunity recognition, learning from failure or innovation. Stauffer’s (2015a) ‘Innovation Cycle’ and Sarasvathy’s (2001) effectuation logic can be considered such approaches to EM.

Explicitly, two competing mindsets of entrepreneurship are proposed by the Norwegian researchers Mathisen and Arnulf (2013). Drawing on the theory of action phases, they “*chose to identify the various phases with two distinctly different measures of mindsets called ‘elaborating’ (deliberating and planning) and ‘implementing’ (acting and evaluating) mindsets*” (p. 134). They stress that, akin to in their perception all mindsets, they are likely to be automated and run without awareness but are concerned with distinctly different phases of the entrepreneurial process. The elaborating mindset is associated with the goal-setting phase in entrepreneurship and evaluating the desirability and feasibility of opportunities. Thus, the researchers acknowledge this mindset as “*an important first step toward becoming an entrepreneur*” however they argue that “*at some point, action is more important than thoughts*” (p. 135). On the

other hand, they recognize the implemental mindset as determined and action oriented. Automated goal-directed behavior, exceeding mere intentions to act is a criterion for this mindset.

The characterizing open-mindedness and the decisive closed-mindedness of elaborating and implementing mindsets respectively are somewhat contradicting as achieving a goal is both dependent on the motivation of why the goal was initially chosen and the ability to shield the goal from competing tendencies for action. While implementing mindsets are conducive to action, elaborating mindsets may induce more cognitive activity and doubt, increasing the threshold between intention and action (p. 132). Mathisen and Arnulf's (2013) study conducted on 242 business school students shows a significant correlation between an implemental mindset and entrepreneurial behavior. Their analysis even shows that activating the elaborating EM might disturb the positive relationship between implemental EM and entrepreneurial actions. They explain this by the impacts of the mindsets on decisiveness and doubt. Therefore, they state that not all EM's are beneficial to entrepreneurial success.

Another set of Norwegian scholars Lynch and Corbett (2021) disagrees with the contradiction within the mindset model (Mathisen and Arnulf, 2013) and suggest the interdependency of both mindsets and their cyclical correlation. They expand the model by clarifying that EM should instead of being viewed as a fixed, linear perspective, rather be understood as a continuous switching between the two orientations. Drawing on Gollwitzer et al.'s (1990) mindset concept, Lynch and Corbett (2021) define EM as: "*[t]he sum total of cognitive processes; that lead to an individual's willingness to take action under uncertainty, make errors, learn from failures and shift that learning to specific goals to best solve entrepreneurial tasks*" (p. 8). In their conceptual paper they highlight three major propositions. Firstly, they assume that elaborative and implementive mindsets are equally necessary for long-term entrepreneurial success and that the lack of one of them would result in a negative impact. However, the emphasis might shift between them. Secondly, drawing on the effectuation school of thought (Sarasvathy, 2001) and its principle to take action, learning from it and iterating on opportunities, they presume that once action results in undesired outcomes entrepreneurs will shift from the implemental to the elaborating mindset to create new alternatives for moving forward. During this process entrepreneurs reevaluate and reshape their opportunities while engaging with their environment. In this way, mindsets both influence and are influenced by the individual's entrepreneurial activities (Lynch and Corbett, 2021, p. 15).

Figure 8 shows the resulting 'learning cycles'. As the name suggests, forming the last proposition, the shifts between the mindsets triggers learning and is assimilated as cumulative knowledge in the cognition of the entrepreneur. The "*cumulative*" (Lynch and Corbett, 2021,

p. 12) or “*tacit*” (Mathisen and Arnulf, 2013, p. 139) knowledge, here presented as manifestation of the mindsets, is considered a part of mindset in both belief system and cognitive filter conceptualizations, explored in the subsequent chapters.

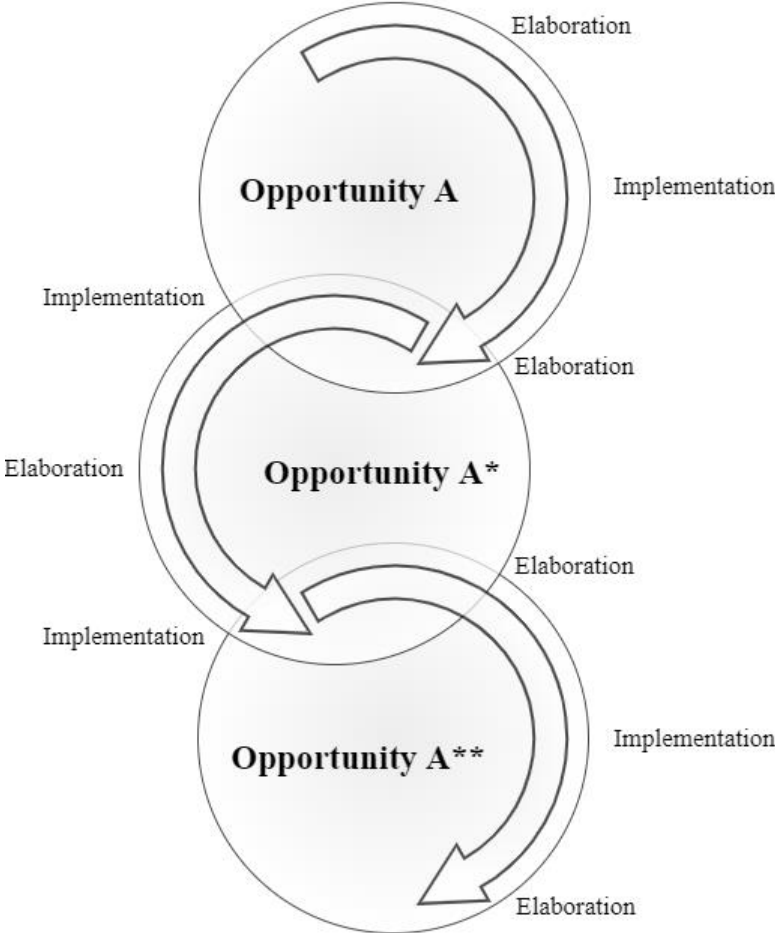


Figure 8: Cycles of Learning within the Entrepreneurial Mindset (adapted from Lynch and Corbett, 2021)

To illustrate practical implications of their EM concept, Lynch and Corbett (2021) introduce the ‘matrix of entrepreneurial mindsets’ as seen in table 8 (p. 14). It suitably connects a practical factor to the comprehensive theoretical conceptualization which is representative for the process view of EM.

	High Implementation	Low Implementation
High Elaborative	<p>start-up rate: high</p> <p>learning through experimentation</p>	<p>start-up rate: low</p> <p>learns through abstract conceptualization, thinking and planning</p> <p>over thinker - paralysis through analysis</p>

	<p>role: serial entrepreneurs, likely to be lead founder or only founder</p>	<p>possibly fear of failure affects “just doing it”</p> <p>role: likely to need a co-founder with a strong implementation orientation</p>
Low Elaborative	<p>start-up rate: high and multiple</p> <p>learning through concrete experience and small failure</p> <p>role: likely to need a co-founder to pace him/her, elaborate better early on</p>	<p>start-up rate: unlikely</p> <p>learns through observing and working with others</p> <p>low active thinking and elaboration</p> <p>lack of action, little implementation</p> <p>role: likely to be a team member but not a founder</p>

Table 8: The Matrix of Entrepreneurial Mindsets (adapted from Lynch and Corbett, 2021)

As scholars have embraced the notion that dynamic sensemaking is central to success in an entrepreneurial environment (Ireland et al., 2003), the referenced shifts between mindsets directs the attention to another process relevant to entrepreneurship explored by Haynie and Shepherd (2007): cognitive adaptability, enabled by metacognition. While cognition relates to knowledge or heuristics, metacognition is concerned with higher-order cognitive processes such as reflection about one’s thinking processes and the flexibility to use different strategies to solve tasks depending on the situation. This compensating effect created by metacognition is especially important for entrepreneurs acting in uncertain and challenging environments (Haynie and Shepherd, 2007, p. 708).

The researcher’s core assumption is that metacognitive awareness represents a bridge to cognitive adaptability and is based on one’s perceiving and assigning meaning to the environment in the context of one’s goal orientation. Drawing on metacognitive knowledge and experience one can “*generate multiple, alternative frameworks focused on interpreting, planning, and implementing goals to ‘manage’ a changing environment*” (p. 697). Metacognitive control is exercised by choosing a particular framework, subsequently some cognitive (e.g. comprehension) or behavioral (e.g. action) outcome is elicited. Constant monitoring and evaluation serve to inform subsequent generation and selection of decision frameworks. Figure 9 visualizes the conceptual process model, which is considered as part of the cognitive filter view of EM in the following chapter.

Metacognitive Model of Cognitive Adaptability

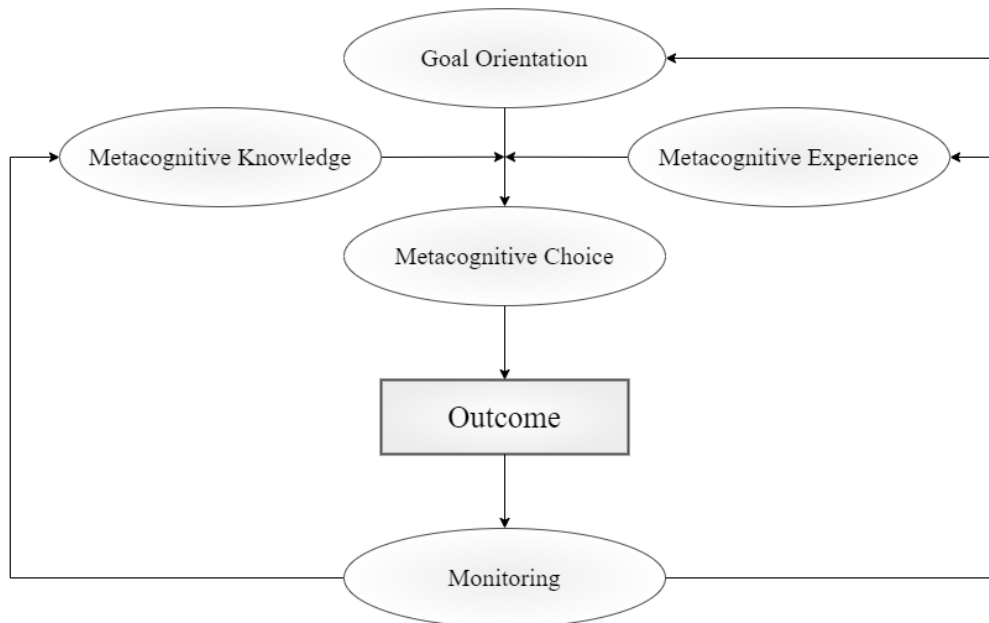


Figure 9: Conceptual Process Model of Cognitive Adaptability (adapted from Haynie and Shepherd, 2007)

In conclusion, EM in its conceptualization of cognitive psychology is the “*sum total of cognitive processes*” (Lynch and Corbett, 2021, p. 8) beneficial for entrepreneurship and the “*ability to adapt thinking processes to changing context and task demands*” (Haynie and Shepherd, 2007, p. 9).

2.3.2.2 Entrepreneurial Mindset as a Cognitive Filter

Recalling Rhinesmith’s (1992) conceptualization of mindsets, they are: “*a predisposition to see the world in a particular way [...] a filter through which we look at the world [...] a predisposition to perceive and reason in certain ways [...] a means of simplifying the environment and bringing to each new experience or event a pre-established frame of reference for understanding it*” (p. 63). As previously identified, this definition is representative for the social psychology and organizational development stream. Analyzing EM literature for the characteristics of this notion of mindset is more ambiguous compared to the cognitive process view as its boundaries are blurry. The point at issue is, which elements are evaluated as part of mindset and which as its manifestations.

Naumann (2017) conducted a systematic literature review of 33 papers which she identified as most relevant to the topic of EM through a multi-step selection process. Her conclusion to the

state of the art is that the current EM is based on a cognitive perspective and tries to disclose why entrepreneurs decide and act in a certain way. From a textual analysis, a list of EM attributes and their associated qualities emerged which can be viewed in table 9.

Attribute	Associated Qualities
Cognitive Tuning and Goal Orientation	<ul style="list-style-type: none"> • thinking is tuned to the mindset at work • ensure high effectiveness to solve a task at hand • differentiates between cautious and eager goal setting and goal-striving
Heuristic-based Decision Logic	<ul style="list-style-type: none"> • fast decision-making based on heuristics and biases • effective and efficient under high complexity and uncertainty
Alertness	<ul style="list-style-type: none"> • sudden insights of value • attentiveness
Prior Knowledge	<ul style="list-style-type: none"> • abstract knowledge to combine and use existing but disparate resources • influenced by experience, education and knowledge
Social Interaction	<ul style="list-style-type: none"> • access to disparate information across the own social network
Meta-Cognition	<ul style="list-style-type: none"> • reflection about own thinking process • flexibility to use different strategies to solve a task dependent on the situation
Cognitive Adaptability	<ul style="list-style-type: none"> • depends on meta-cognitive experience and knowledge and can be improved by developing meta-cognition • facilitates efficiency • being flexible and self-regulating in uncertain situations

Table 9: Attributes and Associated Qualities influencing Entrepreneurial Mindset (adapted from Naumann, 2017)

Attributes are defined as innate characteristics which shape EM, together they form the overall EM concept. According to her, “*associated qualities are the exhibited human behaviors of these attributes*” (p. 160). Among others she is drawing on the previously explored research of Gollwitzer (1990) and Mathisen and Arnulf (2013), on the congruence of cognitive processes and mindset, on Baron (2004) on knowledge, social interactions and biases, on Ireland et al. (2003) on the meaning of alertness and finally also on Haynie and Shepherd’s (2007) emphasis on the relevancy of metacognition. She incorporates all of those apparently divergent and contradicting elements into her EM conceptualization.

Figure 10 sketches the interrelationships of the attributes. She explains it as follows: “*Five attributes refer to cognitive processes which have a direct effect on the exhibited human behavior and can be observed from the outside. These five will be referred to as core attributes of EM. The other two require higher levels of self-awareness and are more hidden. They are less*

exhibited in behavior and therefore harder to recognize from the outside. These two will be referred to as meta-cognitive attributes of EM” (Naumann, 2017, p. 160). The feedback and learning loop indicated between metacognitive and core attributes of EM results in a continuous advancement of the EM itself.

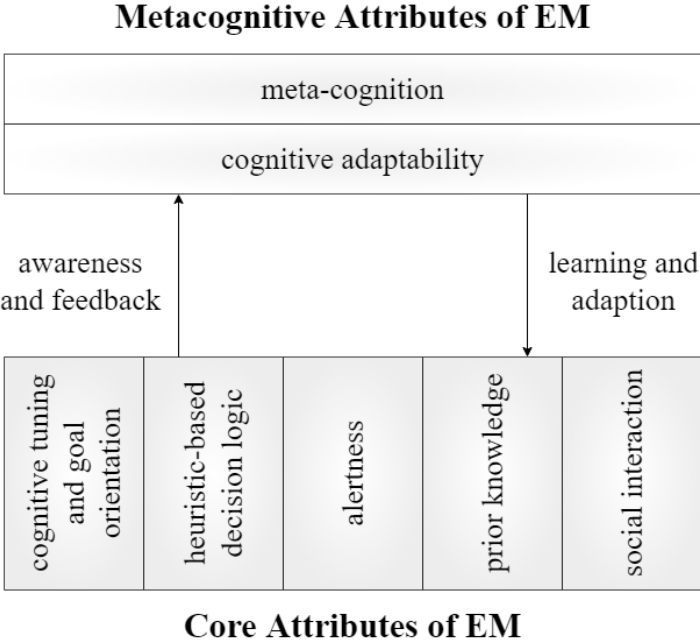


Figure 10: Interrelationships of Entrepreneurial Mindset Attributes (adapted from Naumann, 2017)

It is argued that the interaction of the attributes of EM presented here, as cognitive processes, corresponds more to the conceptualization of a cognitive filter that is influenced and evolved by the individual processes.

Likewise, it is reasoned that Davis et al.'s (2015) efforts to measure mindset result in a conceptualization of EM that is congruent to a cognitive filter. It is noticeable, however, that their notion of mindset does not draw purely on cognitive psychology. Half of the elements of the Entrepreneurship Mindset Profile (EMP), they call traits and thus draw on differential psychology. They explain that entrepreneurial intention depends on personality, whereas success revolves around what they call skills, areas that are generally more malleable (p. 24). They placed specific focus on the reliability and validity of the measuring tool and evolved it over several versions. Table 10 summarizes the 14 mindset scales, identified by the researchers.

Traits		Skills	
Independence	the desire to work with a high degree of independence	Future Focus	the ability to think beyond the immediate situation and plan for the future
Preference for a Limited Structure	a preference for tasks and situations with little formal structure	Idea Generation	the ability to generate multiple and novel ideas and to find multiple approaches for achieving goals
Nonconformity	a preference for acting in unique ways, an interest in being perceived as unique	Execution	the ability to turn ideas into actionable plans, the ability to implement ideas well
Risk Acceptance	a willingness to pursue an idea or a desired goal even when the probability of succeeding is low	Self-confidence	a general belief in one's ability to leverage skills and talents to achieve important goals
Action Orientation	a tendency to show initiative, make decisions quickly, and feel impatient for results	Optimism	the ability to maintain a generally positive attitude about various aspects of one's life and the world
Passion	a tendency to experience one's work as exciting and enjoyable rather than tedious and draining	Persistence	the ability to bounce back quickly from disappointment and to remain persistent in the face of setbacks
Need to Achieve	the desire to achieve at a high level	Interpersonal Sensitivity	a high level of sensitivity to and concern for the well-being of those with whom one works

Table 10: EMP Mindset Scales (adapted from Davis et al., 2015)

Aware of the incongruencies of the mindset concept, the south-african researcher Comarmond (2017), pursued a shared understanding and measurement of EM. Based on an extensive literature review, he draws substantially on Davis et al. (2015) but also on explorations of Dweck (2006), Sarasvathy (2001), Stauffer (2015) and others.

After careful analysis he proposes the following definition: “*entrepreneurial mindset relates to how one's thinking or state of mind (conscious or subconscious), or the lens through which they see the world influences their propensity to engage in entrepreneurial activities and outcomes*” (p. 16). He emphasizes that this ‘lens’ or cognitive filter is influenced by several factors which relate to knowledge, experience, self-belief, personality, values, attitudes and beliefs. Following these dimensions, he pinpointed 11 core characteristics of EM which are summarized in table 11.

Emerging Characteristics of Entrepreneurial Mindset from Literature
1. Lifelong learning and openness to change
2. Engagement in a complex and uncertain world

3. Creative and innovative approaches to problem solving
4. Belief and confidence in one's own capacity and competency to be entrepreneurial
5. Desire, motivation and intention to practice entrepreneurship and behave entrepreneurially
6. Taking initiative and personal responsibility for actions
7. A pursuit of goal-attainment through personal mastery and value-creation
8. Recognising opportunities
9. Grit and perseverance in the face of challenges
10. Taking risks that lead to learning, growth and value
11. A belief on one's ability to influence

Table 11: Emerging Characteristics of Entrepreneurial Mindset from Literature (own work, based on Commarmond, 2017)

In collaboration with Shaver (Shaver and Commarmond, 2019; Shaver et al., 2019) he conducted a pilot study with 400 respondents in 2017 and a validity study with 2350 randomly selected respondents and 1000 individuals from lists of national entrepreneurs in 2019. Starting from 76 separate descriptors of entrepreneurial characteristics, identified in the literature review (appendix 2), pilot and validity study reduced and condensed the characteristics into nine dimensions which are now part of their MindCette Entrepreneurial Test (MCET): confidence, diligence, entrepreneurial desire, innovation, leadership, motives, permanence, resilience, and self-control.

The scholars argue that their measure serves to identify whether an individual possesses entrepreneurial capability or not, which they deem useful for entrepreneurs themselves, but they emphasize primarily the opportunity for investors to assess the potential success of probable portfolio companies (Shaver et al., 2019, p. 20). The MCET is subject to continuing study and improvement.

Recapitulating the diverse views of EM, assimilating with the social psychology conceptualization of mindset, a “*way of thinking about business that focuses on and captures benefits of uncertainty*” (Ireland et al., 2003, p. 968) captures well the nature of EM in this stream. The EM cognitive filter evolves over time through experience, it is typified by a diverse array of characteristics associated with entrepreneurs.

2.3.2.3 Entrepreneurial Mindset as a Belief System

Positive psychology conceptualizes mindsets as inherent individual or collective beliefs or views of reality. They are also referred to as “*implicit theories*” (Dweck, 2012, p. 615) as they can guide behavior and create meaning systems without being stated explicitly. According to Dweck (2006), “*mindsets frame the running account that’s taking place in people’s heads. They guide the whole interpretation process*” (p. 215). As previously discussed, her research on growth and fixed mindsets is focused on people’s beliefs in human potential to develop traits and abilities.

Billingsley et al. (2021) applied her framework to the domain of entrepreneurship. They assessed whether mindsets are continuous or categorical in nature and if “*a single construct underlie[s] the mindsets most relevant to entrepreneurship, suggesting a core ‘growth mindset in entrepreneurship (GME)’*, or *[if there] are [...] multiple mindset constructs*” (p. 2), they also tested its correlation to personality traits. Their findings from a sample of 264 entrepreneurs and 330 non-entrepreneurs revealed evidence consistent with a continuous latent structure of mindsets (p. 5). They also concluded the existence of a unidimensional GME. They uncovered that the construct underlies five distinct mindset measures which are closely related to entrepreneurship: mindsets of leadership, mindsets of creativity, mindsets of people, mindsets of intelligence and mindsets of entrepreneurial ability (p. 6). This construct was proven to positively correlate to conscientiousness and openness but not consistently correlated with extraversion, agreeableness or neuroticism. Resilience and need for achievement were also found to be significantly positively related to the GME, while a significant and unexpected negative correlation with risk-taking was uncovered (p. 8). They try to explain this unrelatedness with risk-taking, in their perspective elemental to entrepreneurship, by stating: “*Perhaps growth mindsets encourage seeking challenges related to learning and development in specific contexts but do not foster a general inclination towards danger and adventure*” (p. 11).

Based on the research a growth mindset is understood as a stanchion to an EM. The underlying belief in the ability to develop and grow follows through all aspects crucial for entrepreneurship as understood by the researchers. A growth mindset therefore is considered the basis of EM in the positive psychology’s conceptualization.

This perspective aligns well with Yeager’s and Dweck’s (2012) observation that growth mindsets foster greater willingness to take on challenges to pursue achievements even in the face of obstacles and to persist in pursuit of one’s goals. Chen et al. (2020) present research on the concept of strategic mindset. While growth mindsets are goal directed in nature, strategic mindset ensures a change of strategies if the desired outcome is not achieved. This adaptability can

be seen as a practical manifestation of the openness and opportunity-focused perspective of the growth mindset (Dweck, 2006). Being strategic comprises more than just having metacognitive skills, it is the orientation towards putting them into action that is imperative (Chen et al., 2020, p. 14071). It is argued that a strategic mindset is a pivotal extension to a growth mindset in entrepreneurship as it links the belief and orientation towards development to strategic adaptability which is invaluable in the face of uncertainty.

It can be established that following the positive psychology notion of mindset, EM is congruent with an overall growth mindset. It is a belief system which is characterized by its inclination to constant improvement and adaptability to uncertain circumstances.

2.3.3 Entrepreneurial Mindset beyond Cognition

French's (2016) FoM framework and his division of the mindset into three streams refers exclusively to the cognitive perspective of mindset. He does not explicitly articulate how he places emotions and behavior within the framework, but it is assumed that he recognises them as manifestations rather than part of the concept of 'mindset'.

Author	Definition	Focus	Mindset Concept
McGrath and MacMillan (2000, p. 15)	“ability to sense, act, and mobilize under uncertain conditions”	feelings, cognition, behavior, uncertainty	cognitive filter, behavior
Ireland et al. (2003, p. 968)	“way of thinking about business that focuses on and captures benefits of uncertainty”	cognition, uncertainty	cognitive filter
Mitchell et al. (2000, p. 97)	“entrepreneurial cognitions are the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation, venture creation, and growth”	cognition, opportunity	cognitive process, cognitive filter
Haynie and Shepherd (2007, p. 9)	“ability to adapt thinking processes to changing context and task demands”	cognition, adaptability, uncertainty	cognitive processes
Shepherd et al. (2010, p. 62)	“ability and willingness of individuals to rapidly sense, act, and mobilize in response to a judgemental decision under uncertainty about a possible opportunity for gain.”	feelings, cognition behavior, uncertainty, opportunity	cognitive filter, behavior, feelings
Baron (2014, p. 55)	“think, reason, make decisions, plan and set goals in a relatively unique way”	cognition, behavior, uniqueness	cognitive filter, belief system, behavior
Davis et al. (2016, p. 22)	“constellation of motives, skills and thought processes that distinguish entrepreneurs from non-	cognition, differentiation	cognitive processes, cognitive filter

	entrepreneurs and that contribute to entrepreneurial success”		
McMullen and Kier (2016, p. 664)	“ability to identify and exploit opportunities without regard to the resources currently under their control”	cognition, behavior, opportunity, uncertainty	cognitive filter, behavior
Commarmond (2017, p. 16)	“entrepreneurial mindset relates to how one’s thinking or state of mind (conscious or subconscious), or the lens through which they see the world influences their propensity to engage in entrepreneurial activities and outcomes”	cognition, behavior	cognitive filter, behavior
Kuratko et al. (2020, p. 2, 8)	“the true source of innovation and entrepreneurship is an ability and perspective that resides within each one of us, something we refer to as the entrepreneurial mindset” “propose a unified view of what constitutes the entrepreneurial mindset—thoughts, action, and feelings.”	cognition, behavior, feelings, innovation	cognitive filter, behavior, feelings
Lynch and Corbett (2021, p. 8)	“the sum total of cognitive processes; that lead to an individual’s willingness to take action under uncertainty, make errors, learn from failures and shift that learning to specific goals to best solve entrepreneurial tasks”	cognition, behavior, uncertainty, learning	cognitive processes, feelings, behavior

Table 12: Entrepreneurial Mindset Definitions (own work)

In entrepreneurship however, due to the action focus of the subject, numerous scholars add a behavior aspect to their definitions of EM, visible in table 12, such as McMullen and Kier (2016) who state that EM is the *“ability to identify and exploit opportunities without regard to the resources currently under their control”* (p. 664) which is well aligned with Stevenson’s and Jarillo’s (1990, p. 23) behavioral notion to entrepreneurship.

Prior research on mindset, regardless of its abundant number of facets, though stayed true to a clear focus on cognition. Kuratko et al. (2020) counter this with a new perspective on EM. They present what they call a *“fuller and more replete understanding of the entrepreneurial mindset”* (p. 8) incorporating the ‘triad of EM’ (figure 11) which is composed of the three dimensions cognition, behavior and emotions.

Their elaborations on cognition are closely aligned with research presented so far. They draw, among others, on Mitchell et al. (2000), Baron (2004), Haynie and Shepherd (2009) and Davis et al. (2016) yet are not differentiating between psychology streams.

They integrate a behavioral aspect into their concept of EM to suggest that the EM entails a way to behave and act. As also hitherto highlighted in the chapters on entrepreneurship, Kuratko

et al. (2020) recognize the related importance of action. They in detail analyze the aspects of opportunity creation as well as entrepreneurial action.

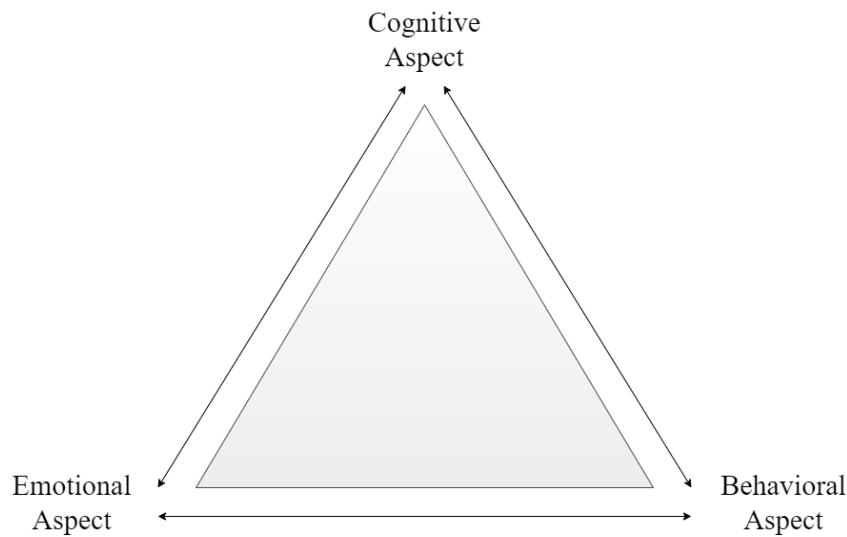


Figure 11: The Triad of Entrepreneurial Mindset (adapted from Kuratko et al., 2020)

Moreover, they pay attention to feelings experienced by entrepreneurs and conclude their explicit affiliation into the conceptualization of EM, whereas research discussed in previous chapters, if at all, mentions them on a side note. While popular media discusses emotions related to mindset in a frequent manner, there is relatively few academic research on the topic. Kuratko et al. (2020) draw on Fodor and Pintea (2017) explaining the ‘dispositional affect’ which refers to the capability to feel a range of emotions like enthusiasm or pleasurable engagement but also distress and nervousness. Contrary to the positive notion of ‘entrepreneurial drive’ Kuratko et al. (2020, p. 6) identified three potentially destructive aspects: risk, stress and ego. Being confronted with financial, career, family and social as well as psychic risk, many entrepreneurs experience high levels of stress. An inflated ego can result in extreme needs of control, an obsession with success and overconfidence in their abilities.

The ‘triad of entrepreneurial mindset’ forms a very integrative approach to EM. The main contribution of Kuratko et al. (2020) is their understanding of the interaction of cognition with emotion and behaviors. While acknowledging the mind as enabler and facilitator of both emotions and behaviors, they emphasize the direct influence of emotions and behavior on one another as well as on the mind. They recommend that “[due to] the delicate nature of the entrepreneurial mindset [...] individuals who strive to embrace this mindset as a means to live their life to its potential, need to guard against placing themselves in situations where one (or more)

of these aspects is threatened or put under strain” (p. 8). They argue that there is a reciprocal, self-reinforcing cycle between all three dimensions.

2.4 Cultivating an Entrepreneurial Mindset

Promoting entrepreneurship has many levers. Generally, it can be distinguished between external and internal influencing factors. External factors are concerned with the entrepreneurial ecosystem and support delivered on economic, institutional or individual levels, among others in the form of public policies, societal and organizational culture as well as financial support schemes.

Turning inwards, two broad categories are driving entrepreneurial intentions, motivations, success and abilities. The ‘nature factor’, commonly referred to as traits, proves however a rather weak correlation with entrepreneurial activity (Gartner, 1989; Shaver and Scott, 1991). While still influencing entrepreneurial actions, principally entrepreneurial intention as argued by Davis et al. (2015, p. 4), to a certain extent, the ‘nurture factor’, which is referred to as mindset in the scope of this research paper is proposed as the main set screw.

While the following chapter is devoted exclusively to these malleable internal factors and its implications, the influence of the ecosystem and especially the learning environment on learnability and development success should not be underestimated.

Cognitions, emotions and behaviors are elemental for entrepreneurial success and therefore heralded as areas of effect. It is inconsequential whether these factors are conceptualized as inherent dimensions or as manifestations of mindset. Nevertheless, when aiming at developing EM, its conception is substantial.

Applied to their respective scopes, all conceptions share the notion that mindset impacts or involves behavior which shapes individuals and with them their companies, communities, and cultures. Scholars from all psychology streams identify the potential of understanding mindsets and developing them individually or collectively towards a desired end.

However, whilst the desire to influence mindset is inherent to all definitions, the most suitable delivery of the intervention requires tailoring to the respective conception. Simply because, *“the differences between the sum total of cognitive processes for completion of a particular task, a cognitive filter, and common beliefs are not only immense but also likely irreconcilable”* (French, 2016, p. 684). Despite the fact that emotions and behaviors are not included in French's (2016) framework, these factors are similarly unique and therefore hold specific implications

for intervention. A closer look at the scopes of the mindset theories assists the analysis of those differences and the development of implications for effective mindset cultivation.

2.4.1 Cognitions as Area of Effect

2.4.1.1 Implications for Interventions on Cognitive Processes

Cognitive psychology suggests that intentional usage of an implemental mindset may improve persistence in the face of difficulties, task completion, closing attitude-behavior gaps (Brandstätter et al., 2015), confidence (Hügelschäfer and Achtziger, 2014), and increasing risk tolerance (Keller and Gollwitzer, 2017). The deliberative mindset on the other hand is posed to increase open-mindedness, impartiality, objectiveness and therefore fosters fairness, creativity, and innovation (Gollwitzer and Bayer, 1999, pp. 405-406). Such optimizations indeed seem advantageous for individuals and the organizations they are working for.

According to cognitive psychology, mindsets are cognitive processes. In that sense, the key for mindset alterations is the individual and the individual's ability to choose the most suitable process for task completion although this selection is for the most part done unconsciously.

The inertia of mindsets (Gollwitzer, 2012, p. 530) presented previously bears potential for mindset intervention. As another set of researchers in the stream, Xu and Wyer (2011) established: “[Mindset] is evidenced by the effect of performing a cognitive or motor activity on the likelihood of performing a similar behavior in a subsequent unrelated situation” (p. 921).

Translating this into practical implications, once a mindset is activated, subsequent tasks are influenced by the same cognitive procedure. Illustrating this principle through the example of goal-pursuit, the deliberative mindset, activated during the predecisional phase, features open-mindedness and the objective and impartial assessment of options. The characteristic benefits of the deliberative mental process will persist shortly after the gathering and evaluation of opportunities. Subsequent tasks, if requiring the same cognitive procedures will benefit from the already activated mindset.

Keller et al. (2020) recommend ‘mindset inductions’, activating the desired mindset through pondering on unresolved personal concerns or projects of high personal importance to achieve a strong ‘mindset effect’/activation as mindset intervention (pp. 81-82).

2.4.1.2 Implications for Interventions on Cognitive Filters

The specification of mindset as a cognitive filter originating in social psychology and organizational development, argues for substantial benefits of understanding mindsets for individual and collective information processing, decision-making, and human interaction. The key to effective mindset implementation in this stream is the “*cognitive filter that enables accurate and effective interpretation of all available stimuli*” (French, 2016, p. 685).

Presented as the path to success is the recognition, development, and usage of the most effective cognitive filter for the respective situation.

This may be a global mindset, enabling accurate interpretation of global complexity and cultural diversity in the face of globalization, or an abundance mindset, as identified, facilitating human interaction and leadership. The understanding of mindset gives insight into effective behaviors and therefore enables intervention.

Driggers (2019) suggests the awareness of the current mindset as a starting point. The visualization of the desired mindset manifested in thoughts, values, and behaviors, may be followed by the analysis and comparison of current thoughts, conversations, and actions (p. 56). She also mentions that time and effort are crucial for mindset transformations (p. 56). While Driggers follows an experience domain, Gupta and Govindarajan (2002) base their recommendations on cognitive psychology and organization theories regarding the development of knowledge (Eden, 1992; Mitchell, 1986; Walsh and Charalambides, 1990).

They argue that mindsets are ever-evolving paradigms and that the speed by which a certain mindset can be developed depends on four factors. Using the example of global mindset, they propose curiosity and commitment to the subject as the first, an explicit and self-conscious articulation of current mindsets as the second, exposure to the matter as the third, and a disciplined attempt to develop an integrated perspective on the topic as the last factor (pp. 120-124).

They explore those and claim various practical strategies for mindset cultivation: articulation of personal beliefs, conducting comparative analyses of how different people or companies appear to interpret the same reality, facilitating learning around the subject through formal education and on-the-job experience, definition, and cultivation of personal and organizational core values and nurturing of interpersonal and social ties. These methods can further be tailored to the desired mindset transformation (p. 121-124).

Certain cognitive filters serve certain contexts more than others. Hence individually as well as collectively it is favorable to align mindsets with personal and communal values as behavior and culture are influenced. To be emphasized is the keyword mindset ‘cultivation’ and its nature

as a “*ceaseless journey*” (Gupta and Govindarajan, 2002, p. 120) involving reasonable amounts of effort.

2.4.1.3 Implications for Interventions on Belief Systems

Positive psychology draws on the definition of mindsets as an inherent belief system or worldview. Effective understanding of mindsets bears potential benefits to individuals, organizations, and communities in a vast amount of areas such as entrepreneurship, education, ethics, efforts of peace, sustainability, business success, and many others (French, 2016, p. 686).

Identifying, developing, and shaping beliefs are announced to be the key to success. Beliefs or sets of beliefs about identity or human nature influence the individual or group who holds them toward an outcome or state. A sustainability mindset, for illustration, will generally shape an individual into sustainable action. This logic may be applied to all the areas named above.

Individual or collective worldview transformation is created through developmental and educational programs that attempt to influence its aspects. Depending on the exact matter and the desired end there is compound research on potential strategies for mindset interventions (Brooks et al., 2012; Dweck, 2006, 2012; Issa and Pick, 2010).

Paunesku et al. (2015) explore development possibilities on fixed and growth mindsets in a large-scale study, validating the efficacy of academic mindset interventions previously demonstrated by proof-of-concept interventions. With the intention to help students persist in challenging moments and raise overall academic achievement, brief ‘growth mindset’ and ‘sense of purpose interventions’ were delivered to high school students via online modules. As predicted by the researchers, the interventions proved most effective for poorly performing students and increased the average rate at which students performed satisfactorily in core courses by 6.4 percentage points (pp. 7-8).

The interventions targeted the students’ core beliefs about education: ‘Can I learn and grow my intelligence?’ (growth mindset) and ‘Why should I learn?’ (sense of purpose). They did not simply teach the idea of growth mindset but also included exercises to mediate the importance and ownership of the concept (Dweck and Yeager, 2019, p. 487). By doing so they change responses to challenges, foster resilience, and initiate positive recursive cycles that increase success over time (Garcia and Cohen, 2012; Yeager and Walton, 2011).

This study is exemplary for a successful educational mindset transformation program and may similarly be set up for distinct mindset intervention initiatives. However, in their journal article ‘Mindsets: A view from two eras’ Dweck and Yeager (2019), state that: “*interventions that are*

easy to deliver (i.e., by taking students to the computer lab to do a survey) are not necessarily easy to develop” (p. 488). This major learning from the era of replications and field experiments in mindset research shall not be neglected.

2.4.2 Emotions as Area of Effect

Various studies prove a connection between emotions and entrepreneurial outcomes (Brundin and Gustafson, 2013; Foo, 2011; Markowska et al., 2015). Kuratko et al. (2020) hence incorporate an emotion dimension into their conception of mindset and argue that it bears a substantial lever in mindset cultivation.

Brundin and Gustafson (2013) support this view by explaining that understanding the role of one’s emotions on behavior will improve the quality of one’s decision making. Their study on entrepreneurship revealed that self-confidence, challenge and hope increase the propensity to continue investments, as do rising levels of perceived uncertainty. However very high levels of uncertainty decrease this propensity, as do embarrassment and strain. Foo (2011) confirms the effect of emotions on opportunity evaluation. In his studies, participants induced with anger or happiness scored lower in risk perception, than those induced with fear and hope. While the first emotions are associated with outcome certainty and control, the latter are linked to uncertainty and a lack of control. Markowska et al. (2015) argue that significant emotional experience influences entrepreneurial motivation and identity.

It can thus be established that effective emotion management aids in setting oneself up for entrepreneurial success.

Stress is an emotion associated with entrepreneurial environments. Crum et al. (2017) extended the knowledge of research in this area. They figured that a ‘stress-is-enhancing’ belief produced a stronger positive physiological effect than a ‘stress-is-debilitating’ mindset. Attentional bias towards positive stimuli and cognitive adaptability were further advanced when the stress was evaluated as a challenge, not as a threat. Hence, enhancing one’s wiring towards an optimistic outlook on stress will aid emotional and physiological response. Significant contributions were made by Boyd and Gumpert (1983) concerning uncertainty. They present a range of stress-reduction techniques which include acknowledging its existence, facing neglected personal needs and developing coping mechanisms.

King and dela Rosa (2019) introduce implicit theories to emotion. Their domain follows Dweck’s (2006) theory of fixed and growth mindsets. A fixed emotion mindset, the belief that emotions are non-controllable was found to be detrimental for well-being. It is positively

correlated to negative emotions, anxiety and depression, while being negatively related with life satisfaction. These effects are partly mediated by cognitive reappraisal.

It can be concluded that cultivating a growth emotion mindset, believing in the malleability of emotions, as well as the admittance and acceptance of both positive and negative emotions to oneself and the practice of coping mechanisms are implications for an improved setup of the feelings dimension of mindset.

2.4.3 Behaviors as Area of Effect

Apart from emotions, behaviors are conjointly heralded as dimension of EM (Kuratko et al., 2020). Bird and Schjoedt (2009) underline the integration into the concept: “[t]houghts, intentions, motivations, learning, intelligence without action does not create economic value” (p. 327).

Thus the cultivation of EM requires fostering entrepreneurial behavior, such as opportunity pursuit and innovation as described in chapter 2.2.2. The Theory of Planned Behavior seems most fitting, as it was found to predict consistent results on behavioral intentions (Krueger et al., 2000, pp. 415-416). Figure 12 recapitulates Ajzen’s (1991) theory, illustrating the antecedents to entrepreneurial intention described as attitudes, subjective norms and perceived behavioral control.

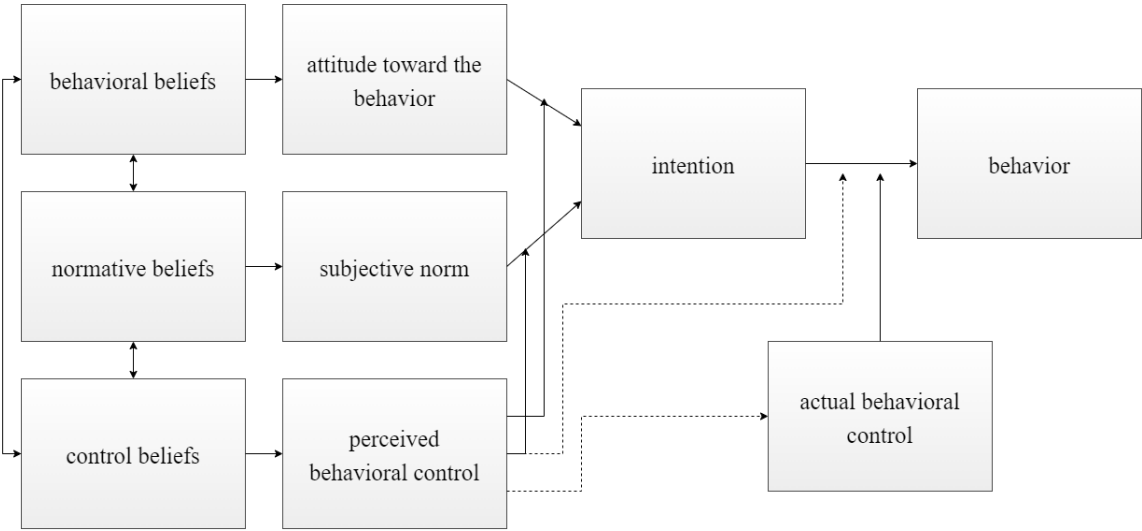


Figure 12: Theory of Planned Behavior (adapted from Ajzen, 1991)

This leads to the conclusion that to influence entrepreneurial behavior, suitable behavioral, normative and control beliefs need to be induced.

Alike beliefs influencing behavior, certain cognitive processes are action oriented. The induction of an implemental mindset, presented as such in chapter 2.1.2 is emphasized in this context.

Habits beneficial to entrepreneurship may also form opportunities for intervention in the behavioral dimension of mindset. Humphrey (1951) demonstrates that for participants of reaction studies, tasks gradually disappear from their consciousness. They forget the original tasks and prescribed actions are automatically activated by the appearance of stimuli. This effect of automatization, based on prior experience can be used in favor of desired behaviors, however this strategy needs to be taken with caution in situations of high uncertainty (p. 126).

Furthermore, practicing a wide range of skills, as entrepreneurial work is multifaceted, may improve entrepreneurial performance (Lazear, 2005).

In summary, aligning one's cognitive processes and beliefs to action, using automatization in one's favor and streamlining one's skills for wide ranging entrepreneurial tasks are implications for the behavior domain of EM.

Returning to the question, whether mindset can be developed, Gupta and Govindarajan (2002) offer a comprehensive summary: *"Mindsets evolve through a process of interaction between people and the environment. Our current mindsets shape our interpretations of the world around us, in turn, these interpretations affect whether or not our mindsets change or remain unaltered. Unless this iterative process allows for new learning, it is easy to get trapped in one's own mental web. A powerful way to reduce the likelihood of this entrapment is to cultivate self-consciousness about one's mindset"* (p. 121).

The indication of the relevance of awareness of one's own mindset holds true for all mindset conceptualizations, as it bears a significant impact on its potential to be developed.

Essential for mindset theory implementation at an organizational level is the creation of education and development programs that efficiently influence processes, filters, or beliefs, as well as emotions and behaviors of targeted mindsets respectively.

French (2016) concludes the implications of the divergent conceptualizations of mindset thoroughly: *"Finally, attention and clarification concerning the conceptualization of a specified mindset has the potential to assist in the creation of more efficient training and, thereby,*

increased potential to effectively develop a mindset within an individual or organizational context” (p. 687).

Eventually, as according to Kuratko et al. (2020) cognitions, emotions and behaviors are dependent on each other in a reciprocal, self-reinforcing cycle, it is argued that in order to achieve major mindset transformations, assorted interventions tackling all three dimensions individually, taking the implications, elaborated in this chapter into account, are required.

3 Empirical Study

3.1 Research Method

3.1.1 Research Design

This thesis aims to offer a comprehensive overview of concepts of mindset, entrepreneurship, and EM and develop recommendations for practical implications on the cultivation of EM. Following a thoroughly conducted analysis, the key objective of this thesis is to provide insight that goes beyond the theoretical conceptualizations.

Qualitative research is employed to ascertain a subjective understanding of complex circumstances that are influenced by, or influential to, the matter of the research (Ritchie and Lewis, 2003; Kruse, 2007). Despite mature existing research on entrepreneurship, the missing congruency of conceptualizations in the mindset realm proves the nascent nature of the subject. The ambiguity and broad definitions of theory spark interest in the predominant understanding and usage of the concepts in practice. Therefore, interdisciplinary views are collected.

In-depth interviews “[...] offer detailed investigation on personal perspectives” (Ritchie and Lewis, 2003, p. 4). A combination of structured and unstructured in-depth interview methods, called semi-structured interviews (Saunders, Lewis, and Thornhill, 2009) is applied. The moderate structure this approach provides is crucial in designing the research for comparability and repeatability. Nevertheless, flexibility is fundamental to allow interviewees the freedom to tailor responses to their personal experiences.

Expert interviews (Meuser and Nagel, 2009) are a specific type of qualitative interview where the interviewee plays the role of an expert and does not represent him or herself as a private person. Founders and entrepreneurship facilitators, as further specified in the following, are considered experts for the purpose of this research as they hold practical knowledge and experience that is not accessible to anyone in the field of study.

3.1.2 Expert Selection Process

When examining EM, the most critical concern is who qualifies as part of the target group. As mentioned previously, the qualitative study aims to illuminate the topic from interdisciplinary perspectives to broaden the scope of insight and form a far-reaching understanding of interactions, circumstances, and influences.

A differentiation is made between entrepreneurs in the role of experts, focusing on their self-perception and practical experience, and entrepreneurship facilitators (coaches, consultants, and educators) in the role of supportive authorities in the entrepreneurial ecosystem. To a large extent, these can be described as internal and external outlooks on the subject matter. Although the subject area is tapped from these two different groups of interviewees, these are not in strict comparison, but serve to bring out different facets and ensure richness and depth of the results.

The sampling of entrepreneurs follows closely the definition established in the theoretical foundations of the thesis. Crucial is the individuals' self-conception as entrepreneurs. Additional criteria consulted in the selection process was a current entrepreneurial activity. The second group, designated as 'entrepreneurship facilitators', bears significant heterogeneity compared to the first group. All interviewees in the widest sense belong to the specified entrepreneurship ecosystem. They however hold profoundly diverse positions and functions. Table 13 summarizes the experiences of the interlocutors. It is noticeable that several interview partners in the second group are, apart from their expert role, also founders. For the purpose of the research, they were explicitly placed in the role of the outside facilitator. Nevertheless, their personal experience is of course particularly formative, and it can be assumed that this influenced their theoretical proficiency.

	Sample Group	Position	Organization	Work Experience	Country
E.1	Entrepreneur	Co-Founder	IoT and Space Startup	4 years	Germany
E.2	Entrepreneur	Founder	Sustainability Software, Human Rights Startup	14 years	Portugal
E.3	Entrepreneur	Business Development Manager	Educational Institution	2 years	Germany
F.1	Facilitator	Entrepreneurship Educator, Personal Development Coach	Coaching, Innovation Hub	17 years	Portugal
F.2	Facilitator	Lecturer Leadership and Innovation, Organizational Development Coach	University, Organizational Development Consultancy	41 years	United States

F.3	Facilitator	Founder, Lecturer Entrepreneurship and Innovation	University, Educational Institution	15 years	Germany
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Table 13: Interview Partner Overview (own work)

While E.3 is expected to give valuable insight into innovation structures and EM in a corporate context, E.1 and E.2 are experienced in the venture creation environment. This variety aspires to broaden the concept understanding to manifold settings.

According to Merkens (2013) the ‘snowball method’ is suitable for qualitative research and thus was used in this study. This means that interview partners suggest further candidates and the network of potential interviewees expands (p. 288).

Contact was made by e-mail and anonymous, face-to-face, or video interviews of about half an hour were requested. All have given their written consent to the use of the interview material for the purpose of this thesis.

As shown in table 13, the individuals come from different countries. Due to the scope of the work, no distinction is made at the country level. It is expected that the cultural framework, which is Western for all, is fairly consistent. The more significant issue is the linguistic differences in the translations of concepts. Age and gender are deliberately neglected in this study. Instead, the years of relevant work experience are used as a key figure and considered a more select indicator of expertise.

3.1.3 Data Selection Process

According to Kruse (2007), to precisely identify which data to select the research interest needs to be clearly justified and all research questions reviewed. The interview guidelines were structured on the basis of the research questions and formulated with great care. The order of the open-answer questions was occasionally adjusted, depending on the length and content of the responses. The guidelines can be found in the appendices 3 and 4.

While the architecture of the guidelines is the same for both expert groups the content differs. The wording of the questions asked to the entrepreneurs required higher attention to detail as their answers are more prone to be affected by social desirability.

However, two principals were given particular attention in the development of both guides. The assumption of hidden knowledge (Hayek, 1991; Nohl, 2012) and the principle of openness (Gläser and Laudel, 2010).

Hayek (1991) points out that: *"the knowledge that the individual consciously uses [is] only a small part of the knowledge that contributes to the success of his actions at any given time"* (p. 32). Nohl (2012) emphasizes that the knowledge of the interviewees, especially when it is action-guiding, is often atheoretical knowledge that first must be explicated by the researchers. Open questions that stimulate narratives and descriptions serve to elicit this implicit knowledge. The principle of openness is especially highlighted in qualitative studies. The principle demands *"that the empirical research process must be open to unexpected information. [...] It requires researchers not to hastily classify observed facts into known categories from prior theoretical knowledge"* (Gläser and Laudel, 2010, p.30).

3.1.4 Data Analysis

Kruse (2007) considers a content analysis a suitable method to evaluate expert interviews. The interviews were recorded and transcribed. There are several methods for this process. The decision fell upon a verbatim transcription. Conversational pauses and non-verbal behavior, such as hesitation sounds, are hardly relevant for answering the research questions.

The analysis of the interview data is based on the 'focused interview analysis' by Kuckartz and Rädiker (2020). The systematic analysis consists of six steps.

Step 1: Preparation, organization and exploration of data

Step 2: From the guideline to the category system

Step 3: Coding the interviews

Step 4: Further development of the category system and in-depth coding

Step 5: Data analysis

Step 6: Report writing and analysis process documentation

The first step encompassed reading and paraphrasing of sequences for better understanding. The guideline structure was used to derive the first categories, which were created as base in MAXQDA. Simultaneously, codes were assigned to the interviews. The process of coding did not follow theoretically derived codes but remained on a practical level in order to attempt inductive qualitative research. Moreover, the interviews were then compared and clustered

according to the subcodes derived in a second round of coding. The frequencies and scopes of statements were taken into account, and the interrelationships and influences of different categories on each other were analyzed. All categories and codes are summarized in figure 13.

Observations on the corresponding codes were drafted with regard to the target groups. Practical implications and recommendations were developed based on the thorough aggregation of findings from the interdisciplinary internal and external perspectives.

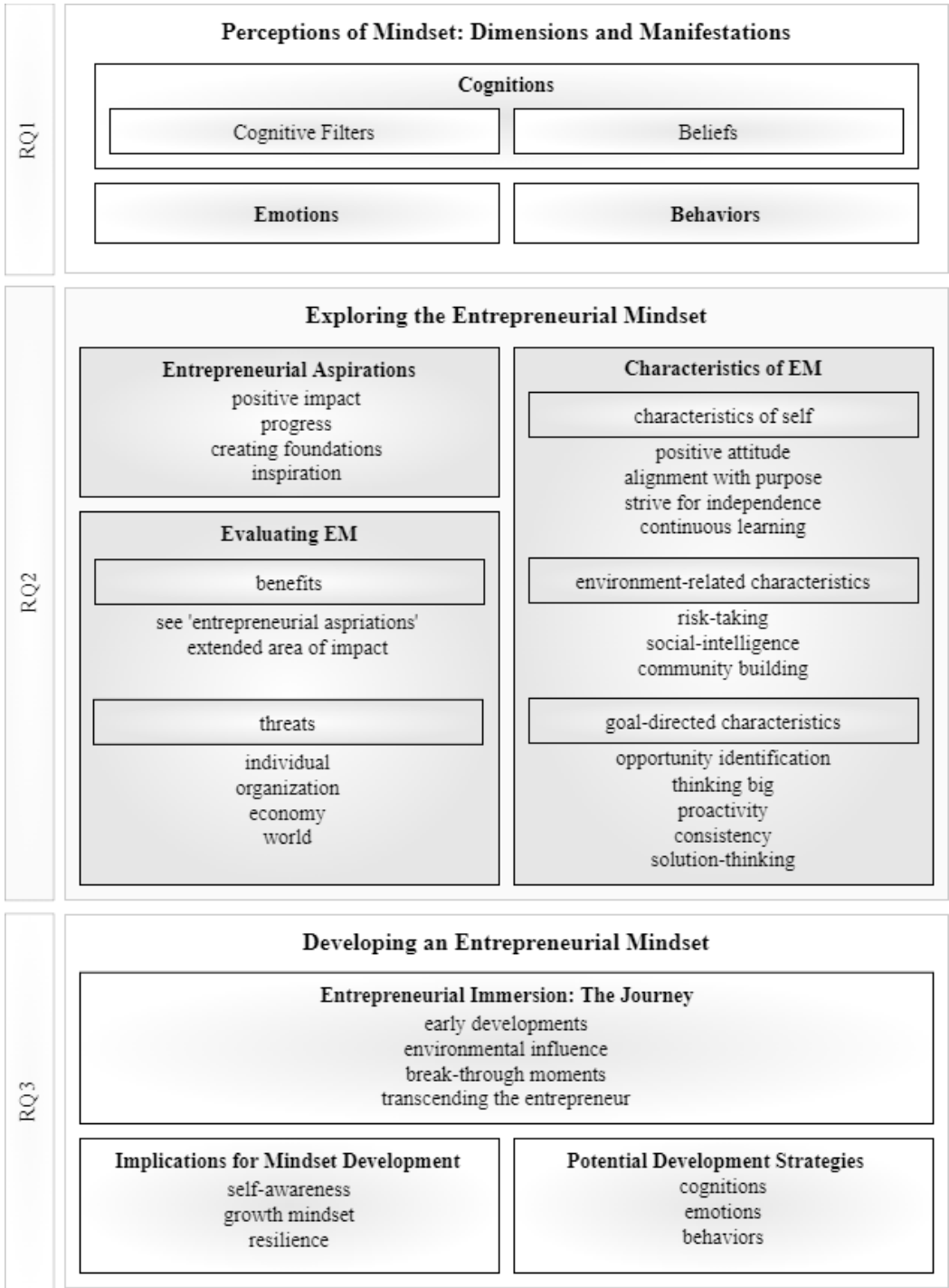


Figure 13: Overview of Codes and Subcodes derived from the Empirical Analysis (own work)

3.2. Study Results

3.2.1 Perceptions of Mindset: Dimensions and Manifestations

Following the implication that has emerged from literature, that the term ‘mindset’ is used in divergent and inconsistent ways in common language as well as in academic research, an effort was made to capture the interviewees’ conceptualizations of mindset. The understanding of the concept forms the ground for the investigation and has an impact on the individual’s entire sense-making around the topic. Therefore, it is heralded as crucial for all further empirical analysis.

3.2.1.1 Mindset as a Cognitive Concept

A cognitive aspect of mindset has been mentioned by all interviewees. However only three of them interpret it as a purely mental concept and even among those, significant differences can be detected.

Not surprising was the response of F.2, who was selected as an expert because of her relevant contributions to the development of the research field of leadership mindsets in her doctoral thesis.

“In my field, we think of mindset as your personality, your learned way of reading the world. And how you create a mental map of navigating the world. So it's sort of a combination of multiple factors, characteristics you're born with and once you acquire moving through your life, so culture, [...] the field that you go in. [It] gives you a framework for interpreting the world.” (F.2, ll. 51-56)

As an experienced professor and founder of an organizational development consultancy, she represents the social psychology stream presented in chapter 2.1.1 and conceptualizes mindset as a cognitive filter. Her explicit distinction between innate and learned factors is striking.

Noticeably different, E.1 explains her understanding as follows:

“Mindset, the set of mind. I mean the state where your mind is in. Your mind, your thoughts, your beliefs, your values, and also the way you think. I think this is it for me, the whole mindset of, you know, thinking about certain things differently, [...], because we're all unique.” (ll. 57-60)

E.1, a founder of an IOT company without explicit academic or professional experience in the mindset domain, emphasizes thoughts, beliefs and values as part of her concept. She further suggests mindset as a point of differentiation and uniqueness. E.3's sense-making seems similar to that of E.1. The business student, member of START, a student initiative for entrepreneurship

and podcast host, asks many rhetorical questions and then tries to answer them herself with further questions. It is concluded that she herself does not have a unified, coherent idea of her conceptualization. Aspects, however, are *“how you think of the world”* (l. 101), *“why the world and society works a certain way and why people are maybe more successful than others”* (ll. 102-103). She also explicitly draws on the concepts of fixed and growth mindsets, as explained in chapter 2.1.2 and elaborates on the resulting differences of approaching problems. From the remarks from E.1 and E.3 it can be concluded that their perception of mindset is located somewhere in between the conceptualizations of a cognitive filter and a belief system.

F.2, E.1 and E.3 share the notion that mindset is cognitive, shaped by experience and therefore differentiates individuals.

3.2.1.2 Incorporating Emotions into the Mindset Concept

F.1 is an entrepreneur and founder herself, passionately leading and supporting innovation projects, her main profession is coaching executives. Certified as a mindset coach, she was chosen to share her expertise. She defines:

“So mindset is for me the way you manage your thoughts and feelings or emotions. [...] I think it's the value[s] that we have, too. What do we believe?” (ll. 85-102)

She stresses the meaning of emotions in mindset and how it, alongside them changes from day to day. She highlights the importance to *“accept all the range”* (l. 107) and balance and heralds this process *“mind setting”* (l. 110).

Essential to her understanding of mindset is the ability and need to influence and manage it proactively. It can be concluded that feelings for her are the decisive dimension that determine and shift its characteristics.

3.2.1.3 Mindset as an Approach to Behavior

E.2 and E.3 differ from the others in their conception of mindset, seeing behavior as an essential part of it. E.3, the founder of an avant-garde university and experienced professor in the subjects of innovation and entrepreneurship, specifies:

“I know it's a bit of a blurry concept, but it's the way how you personally do things and believe in things, but also the way how you approach things and your attitude towards them.” (ll. 37-39)

Cognition and behavior seem to be the ruling domains of his conceptualization. E.2, an purpose and impact driven tech entrepreneur and lecturer adds:

“Mindset? It's an art of questioning and implementing. [...] because if you are just a guy or girl who asks without any solution, you're not an entrepreneur. You are a philosopher.” (ll. 150-153)

She mentions behavior as part of mindset in relation to her professional area and emphasizes it as crucial. Both, E.2 and E.3 understand mindset as bringing one's 'inner life' to reality by the collaboration of cognition, emotion and behavior.

No clear pattern could be discerned that the understanding of mindset of entrepreneurs (E.1-E.3) differs from that of facilitators (F.1-F.3). Rather, all have their own individual conceptualization, which may be informed by academic literature (E.3, F.2 and F.3), by commercial articles and personal development books (E.1, F.1), or predominantly by personal experience (E.2). What is striking is that definitions of mindset are either narrower or broader. Either a definition contains only the single dimension of cognition, or is expanded to include the dimensions of emotions and behavior. It is argued that all three 'dimensions' are important, are they now recognized as a dimension, or only perceived as areas of impact.

3.2.2 Exploring the Entrepreneurial Mindset

EM is tapped from an inner and outer perspective. The reasons and motivations, as well as circumstances of EM are first explored, followed by a categorization of the numerous components mentioned by the interviewees, which ultimately form twelve characteristics of EM. Subsequently, EM is examined from all angles, mapping its benefits and potential threats.

3.2.2.1 Entrepreneurial Aspirations

The benefits recognized by the interviewees, concerning entrepreneurship, provide them with a strong sense of purpose. Referring to the theory of planned behavior, recapitulated in chapter 2.4.3, behavior is driven by intention, which is influenced by attitudes, subjective norms and perceived behavioral control. E.1, E.2 and E.3, interviewed in their roles as entrepreneurs disclosed their beliefs around entrepreneurship, which reflect their entrepreneurial intentions.

“I mean, with entrepreneurship comes innovation and as we are a fast forward driven society you know, technology is evolving [...]. When you want to have impact, a positive impact, it's good for the community, it's good for nature. I mean entrepreneurs are the people with the

companies who are taking care of society, employing people so that everyone can live a normal life. And in so many ways influence the world.” (E.1, ll. 178-184)

E.1 is driven by her will to create impact, she perceives her role as crucial for society and nature. E.2’s sense of importance is even more pronounced: *“without entrepreneurship you have poverty, you have lack of energy. You have, you do not have a world to be.”* (ll. 179-180). She understands entrepreneurship as the *“[b]roader perspective and art of creating foundations and the extra mile in the society”* (l. 285). Similarly F.3 summarizes his perspective on entrepreneurs and their importance to society:

“[P]rogress. So society benefits because there's entrepreneurs, and intrapreneurs, they're the ones that are making sure that we all progress, [...] that we're doing better, that we're healthier.” (ll. 126-128)

E.1, E.2 and F.3 describe their perceived impact on a societal or even global level, while E.3 focuses on the impact of entrepreneurs on individuals. She emphasizes inspiration as a tool of entrepreneurs and describes them as individuals *“who will take others, who take the spirit and who say, okay, we can do this and we can reach our goals by just inspiring others, by listening to others, by motivating others and showing how [it] can be done”* (ll. 273-275). This illustrates her self-perception and attitude towards entrepreneurship.

The answers reveal the beliefs and attitudes on their contexts and circumstances on which the mindsets of the interviewees are based. It is posited that these aspirations are fuelling EM.

3.2.2.2 Characteristics of an Entrepreneurial Mindset

The conceptualizations of mindsets revealed its dimensions, as individually perceived by the interviewees. While the group of entrepreneurs (E.1, E.2 and E.3) were questioned on their perception of their own mindset, the entrepreneurship facilitators (F.1, F.2 and F.3) were asked to explore mindset aspects crucial for entrepreneurship. This distinction seeks to screen EM from different perspectives. All respondents were also asked about the difference between the mindsets of entrepreneurs and non-entrepreneurs, which aided the majority of the interviewees to further mark down the concept. The analysis of the interview material revealed twelve categories. These categories can be split into characteristics of the self, goal-directed characteristics and environment-related characteristics as illustrated in figure 14.

Characteristics of Entrepreneurial Mindset

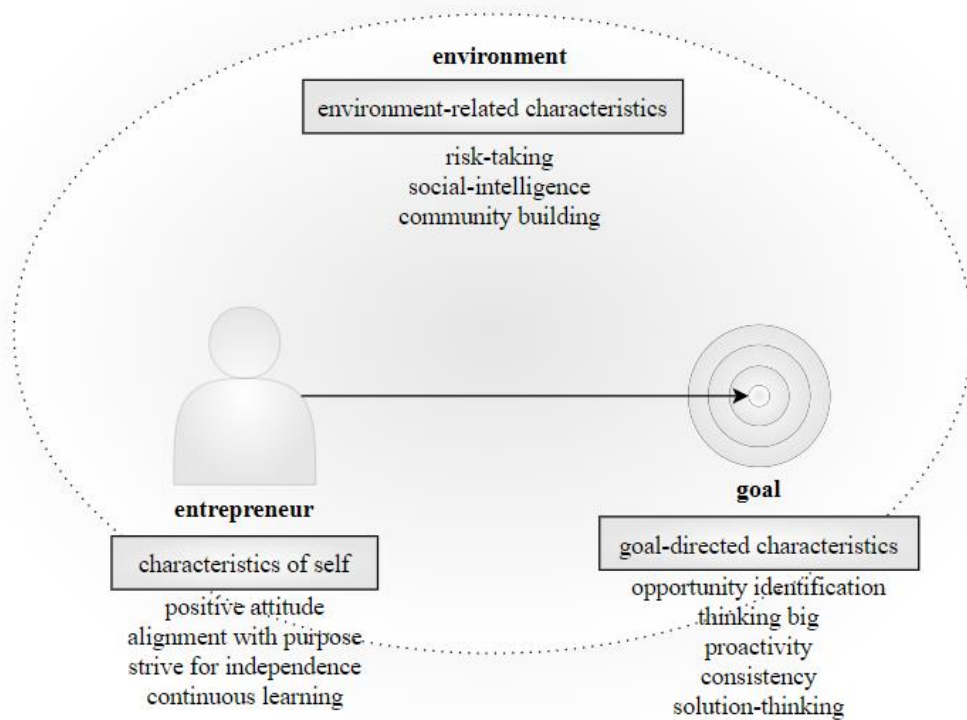


Figure 14: Characteristics of EM derived from the Empirical Analysis (own illustration)

Positive Attitude:

All interviewees agree that a positive outlook on the world either shapes their own mindset (E.1, E.2 and E.3) or is believed to be essential to entrepreneurial success (F.1, F.2 and F.3). They make use of different terms and therefore express positivity in different shapes and intensities. Striking is the supportive attitude with which all respondents have upon request consented immediately to the interviews and all communication has been perceived as consistently positive by the interviewer. Not a single interviewee refused or canceled.

When asked about her mindset, E.1 promptly replied “*really positive*” (l. 69) and on investigating which are the five most crucial mindset aspects of being an entrepreneur, F.3 answered:

“To me, the first one is the, this really positive attitude of believing in a bright future, is that having a long-term vision, that things will eventually work out.” (ll. 97-98)

Few sentences earlier he labeled it “*long-term optimism*” (l. 18). F.2 agrees:

“One is to be an optimist, very hard, because you are confronted with relentless barriers, challenges and struggles when you start a company and you have to have this ability to see what's possible, this kind of optimism.” (ll. 25-27)

The others do not mention positivity per se, however they take a step further and describe entrepreneurship as “*passion*” (E.1, l. 158; E.3, l. 62; F.1, l. 290 and F.2, l. 38) and “*love*” (E.1, l. 158; E.2, l. 46 and F.1, l. 290). F.2 further contemplates the importance and role of the strong emotion:

“And I think you have to have passion, which obviously comes from optimism and a vision and energy, and you have to have this passion to be able to help other people align around you to help you manifest that vision.” (ll. 38-40)

F.1 concludes:

“last but not least really allow yourself to be aligned with the most strong motivation that you can allow you to have, and the really keep your mind, your thoughts and your emotions aligned on the purpose of what you are doing and do it with all the strength, all the energy, all the all the passion, all the love, all the intention and intensity that you probably might have, or find that you will have, if you are really aligned with your purpose.” (ll. 287-292)

Her advice emphasizes the origin and fuel of entrepreneurial passion, considered as relevant by both, entrepreneurs and facilitators.

Alignment with Purpose:

“So, Jesus, [...] I think I'm someone that is quite aligned with my dreams.” (E.2, l. 8)

“So the mindset of an entrepreneur would be, would be someone that really has a purpose to impact in something that is bigger than himself and find a way to have that impact [...] in the people that will be around him or in the, the results of what he's doing for the society, through the idea of the project or the company that he has, but with a purpose bigger than him.” (F.1, ll. 258-263)

Highlighted, not only by E.2 and F.1 as one of the most critical characteristics, purpose and the alignment with values prove to be part of an EM. When telling her story of becoming an entrepreneur E.3 explains: *“[It] got for me, more and more like purpose-driven and not as much anymore as okay where can I just work in order to get money?”* (ll. 60-61). She continues: *“I think what is really important is this skill of reflecting and with reflecting. I mean, who are you as a person?”* (ll. 72-73). She underlined reflection and getting to know herself better as crucial for her entrepreneurial activity. F.1 adds:

“So knowing yourself, knowing what are your goals, what is your purpose or what you really want to do, helps a lot in the way of you becoming an entrepreneur without knowing you are an entrepreneur, you know, because everything starts to get together and fit together. And the

alignment with the something that you do without effort you just deliver and you feel yourself so comfortable doing it, that somehow things start to happen.” (ll. 61-66)

She reasons self-knowledge to be the base and prerequisite of purpose and postulates that alignment benefits entrepreneurship by decreasing the perceived effort of action.

E.2 further comments that she wouldn't be able to act as entrepreneur for certain companies “[b]ecause I think I wouldn't be aligned with the culture, with the core values” (ll. 252-255).

E.1 even extends her sense of purpose to her entire generation: “as we're coming from generation Z, we also like to leave impact and really do something positive.” (ll. 162-163). She tells that every year in January she is taking stock of her values to make sure to embody her purpose.

“I defined myself five values where I'm really acting on. It's independence, it's loyalty, it's love, family and success.” (E.1, ll. 69-71)

Strive for Independence:

Not only E.1 states “independence” (l. 70) to be her number one value to act on, furthermore she transfers it to entrepreneurs in general and sees “being really independent” (ll. 161) as a differential factor to non-entrepreneurs, who she assumes to have a stronger need for guidance from supervisors.

“Then all of the entrepreneurs, they have this principle of wanting to stay in control. They love freedom. [...] So they have the strong locus of control and the wish and the will to actually shape.” (F.3, ll. 49-54)

F.3 identifies the need to control and freedom as entrepreneurial characteristics, which can be considered to be the reasons for their strive for independence. E.3 specifies that she “wanted to create [her] own financial freedom” (ll. 52-53). She explained that she wanted to be independent from her parents, since she was very young.

It can be argued that independence and the will to control are characteristic for EM, it's however striking that this tendency was only mentioned by German interviewees, therefore it is up for discussion, if this might be rather a cultural characteristic.

Continuous Learning:

“Sponge, sponge. I think I'm a sponge.” (l. 176)

E.2 describes herself as a person, absorbing every experience and using it to improve. She tells how she worked on her mindset and achieved to convert even negative experiences into learning.

“That's the beauty of it when you transform every single message and knowledge into learning. And I think I'm a sponge because of that, because I do not assume nowadays that you are destroying me. I assume that you are helping me.” (E.2, ll. 182-185)

Likewise, E.1 states: *“I think, really entrepreneurial is the drive to learn”* (ll. 14-15). She specifies why she believes founders prioritize learning:

“I would say entrepreneurs or founders are more committed, you know, because it's your own baby. When they're really passionate about their work, they love to learn.” (ll. 157-158)

E.2 and F.3 agree with her by recognizing *“optimization”* (E.2, l. 44) and *“constantly do[ing] things better, to constantly improve”* (F.3, l. 98) as part of EM. E.3 is concerned with the dynamics of learning and explains Dweck's theory of fixed and growth mindsets as presented in chapter 2.1.2. She describes her mindset:

“I would say, yeah, it's definitely more on the growth side [...] I do believe that you can learn anything you want to learn.” (ll. 133-137)

F.1, highlighting the significance of learning *“along all the way”* (l. 74), expands those perspectives, by focusing on the interaction and learning opportunities in one's surrounding. She mentions communication skills and the interaction with others as an omnipresent possibility to evolve (ll. 282-287). Furthermore, she stresses acting under uncertainty and taking risks as prospects.

“And the courage to do steps somehow, or sometimes that you are not sure you are going to be successful because having the opportunity to take risks, it's also opportunity to learn and to do sometimes things in a good way, sometimes things in a bad way, but the way you can learn and you can develop and grow.” (ll. 71-79)

The belief to be able to, the drive to learn, as well as actually learning and engaging in constant optimization are considered as essential to EM as five of six respondents paid much attention to this ability and behavior. Demonstrating high levels of reflection F.1 concludes:

“[A]s much as we can learn about ourselves and about the world around ourselves, you, you probably would be dealing with you and the others in a better way.” (ll. 54-55)

This statement shows how strongly the characteristics of the self are connected to the environment-related characteristics. The following parts describe how entrepreneurs interact with their surroundings.

Risk-taking:

After all, F.1 mentions an uncertain environment and risk-taking as opportunities for learning with which entrepreneurs should engage, risk seems to be an ambiguous characteristic and only partially associated with EM.

While three of the respondents do not mention risk-taking at all, only E.2 states explicitly: *“An entrepreneur is the one that assumes the risks and implements, in my opinion.”* (l. 155).

F.3 tempers this statement and draws on the difference of causation and effectuation theories as summarized in chapter 2.2.2 and rather emphasizes how entrepreneurs minimize risk.

“[Y]ou wouldn't think of, this is what I can gain in the future, but you rather think this is what I can potentially lose, rather think of the affordable loss.” (ll. 48-49)

Social Intelligence:

As mentioned by F.1 as an opportunity to learn (ll. 282-287), certain characteristics in interacting with others are seen to be typical of or beneficial for entrepreneurs. F.3 introduces the term *“social intelligence”* (l. 101) which is proposed as capturing well the following multifaceted thoughts of the other interviewees.

“So you cannot be an entrepreneur if you do not understand what is mingling, because you need to create empathy, you need to create, you need to be empathetic to understand what people are needing and what they are needing that they do not know.” (E.2, ll. 311-313)

E.2 describes empathy as a prerequisite of entrepreneurship. E.3 agrees with her and ties it specifically to leadership.

“I think in order to be a leader and in the end, it's also really important to also understand the other people around you.” (ll. 81-82) *“I do think that entrepreneurship has a lot to do with psychology in the end and people aspects and leadership capabilities and qualities.”* (ll. 310-311)

E.2 adds: *“I think people follow because they believe, because they trust, they rely on.”* (ll. 168-169) She emphasizes how important integrity is to her and that she creates trust by always aiming to keep what she promised.

“And if I don't deliver, I will apologize and I will create a solution. I do not run away from things.” (ll. 170-171)

F.3 reapplies this, pinpointing that entrepreneurs need to *“lead and attract”* (l. 22). Later in the interview he specifies: *“actually being able to lead the way, being able to talk to others, inspire others and form a joint way of doing things”* (ll. 101-103). E.3 agrees, reporting that she herself feels inspired by surrounding herself with other entrepreneurs (l. 77).

Social intelligence, as argued, is scrutinized as the ‘people skill’ that allows entrepreneurs to interact effectively with players in their ecosystem. Further it is required for community building.

Community Building:

“There's this quote that you are the average of the five people that surround you. And I completely agree that this is the truth.” (E.3, ll. 176-177)

E.3 during the whole interview mentioned the importance of community, of learning from and supporting each other. She recommends to acquire self-awareness and:

“You can then find people who are contrary to you, to you and to your skillset. That can support you in reaching your goals and your vision. And I generally do not believe that anything can be done just with yourself. You always need other people to support you, to listen to you, to challenge also your ideas and thoughts you have, because. You're human. You're not always right. You make mistakes and you need to have that exchange with others. [...] So I would say that reflection part and one key skill I always see is [...] that culture part in really being involved with others and then laying a strong focus on also how they work and what's important to them in order to be and perform best as a team.” (ll. 86-93)

While E.3 examines ways for effective collaboration, E.2 (l. 160), F.1 (l. 226) and F.3 (l. 22) focus on the skill of building teams and helping them to grow.

“I [...] was willing to help others in their needs and helping my team to grow with me and to learn from me [...] to achieve a better understanding of the needs of the persons and to do something good for them.” (F.1, ll. 226-227)

E.2, E.3, F.1 and F.2 emphasize the energy exchange during interaction with others. They regard the importance of limiting *“energy-drainers”* (E.2, l. 204; E.3, l. 181; F.1, l. 23) and that energy enables *“to help other people align around you to help you manifest [your] vision.”* (F.2, ll. 39-40).

Simultaneously to giving support to others, F.1 demands: *“ask questions, ask for mentorship, ask for consultancy, ask for friends to give you perceptions, opinions and whatever that can help you to have a better horizon”* (ll. 284-286).

Based on these explorations, it is established that building communities and giving and receiving support is part of EM. E.1 summarizes this characteristic well by referring to it as *“community-based action”* (l. 173) and gives the example of the Berlin startup ecosystem.

“[T]he scene in Berlin, the Berlin startup scene is actually pretty small and it's always compared to a village. And when you're a founder, I think you stick under a small community kind of. So we always try to think about how we can help or influence other people positively or how we can connect people to another person so that everyone is benefiting from it.” (ll. 130-134)

F.2 calls this collaboration and lack of rivalry *“abundance”* (l. 152). She considers it pivotal for EM.

Opportunity Identification:

Four out of six participants agree that discovering or creating opportunities characterizes an EM. While F.2 heralds entrepreneurs to be *“idea people”* (l. 141), E.1 says about herself: *“I love to create new things”* (l. 12), later she adds she sees *“opportunities everywhere”* (l. 14). She explains this notion of hers by stating: *“I would say, my mindset is pretty open-minded all cause I was traveling so many, so many cultures”* (ll. 74-75).

F.3 highlights the relevance of this skill, exceeding the realm of entrepreneurship: *“So I think anybody needs the, the capability of being able to [...] discover opportunities.”* (ll. 110-111), his strategy is to *“question the status quo constantly”* (l. 23).

E.3 explains how opportunity creation and innovation are also relevant for intrapreneurs:

“Innovating within a system that has already been there, which you did not build up, maybe from scratch, but are constantly contributing in terms of making it more successful, finding new ways of innovation.” (ll. 41-43)

Well aligned with the community building characteristic E.1 emphasizes that the ability to identify opportunities should not be limited to self-purpose.

“Always when I'm having a conversation with a person, I try to understand him or her, and also like to create opportunities [for them, and] also like to, to support them.” (ll. 127-128)

Thinking Big:

The frequency with which the term ‘vision’ is used by all interviewees is striking. Its relevance seems to exceed the focus on opportunity by far, it is assumed that this is because of the emotional value of thinking big. It is also strongly related to the previously discussed characteristics of optimism, learning and social interaction.

F.1 underlines the ability to think big to differentiate entrepreneurs and non-entrepreneurs (l. 268). E.2 describes entrepreneurs as “visionary” (l. 156).

“[Y]ou can have different kinds of entrepreneurs. If you ask me, the one that I am nowadays, my mindset is I, I think I would be the one that visions, you know, I’m visual. I know the roads. I know the path, the path to go, and my team follows.” (E.2, ll. 157-160)

E.3 elaborates the importance of team members not only as followers, but proclaims they “*can support you in reaching your goals and your vision*” (ll. 86-87). F.1 (l. 286) and F.2 (ll. 38-40) agree.

F.3 and F.2 explain that the vision needs to be “*long-term*” (F.3, l. 97) and “*mutable*” (F.2, l. 29). F.2 explains the dynamics behind it:

“If you have a vision that’s too concrete, you won’t be able to shift the new information coming in. So you have to have this vision for what you want to have happened, that you hold lightly.” (ll. 29-31)

F.3 complains that an entrepreneur cannot “*just have a vision*” (l. 21) but needs to “*execute*” (l. 21). F.2 complements his view and explicates:

“[A]n entrepreneur’s challenge is to take that visionary, creative energy and create an organization that embodies that energy and can carry it forward.” (F.2, 159-161)

Proactivity:

“You need that doer-character, the maker-mindset.” (F.3, ll. 20-21)

F.1 points out that once an entrepreneur has a vision, action can be taken by “*start[ing] to set goals [and] milestones*” (l. 70).

E.3 debates that for her oftentimes “*emotions are triggering a certain action*” (l. 135). The other entrepreneurs share anecdotes which are congruent with E.3’s observation.

“I think it’s just the drive, that I love to create new things and like developing projects by myself and also deciding the way I want to move on and include different partners and being really, really proactive.” (E.1, ll. 12-14)

Whilst E.3 and E.1 are talking about positive drivers such as purpose (E.3, l. 60), energy (E.3, l. 49) and passion (E.1, 12), E.2, apart from being driven by knowing “*who am I*” (l. 13), she exposes:

“Fear for me is a drive. I love it. When I'm afraid it's because I'm out of my comfort zone.” (E.2, l. 137)

She explains further how her ability to deal with fear helps her in demonstrating proactivity:

“I can express my fears. You know, I, I sit, I, I share with my clients something like this, I do not know how to handle it, but I will find a way, I say I do not know, and I'm not afraid of it. You know, I don't expect to know everything.” (ll. 95-98)

It can be concluded that an action-orientation and an “*inner drive*” (E.1, l. 4) can be considered part of EM.

Consistency:

“So you really need to have a big vision and to really persist and be persistent to, to achieve that vision.” (F.3, ll. 19-20)

E.2 claims that “*mandatory for you to become an entrepreneur is the fact of you having consistency*” (ll. 257-258). The other respondents contribute to how this resistance in the face of difficulties is sparked and sustained.

“You always have to have an inner drive and you also need to have a high level of self motivation.” (E.1, ll. 40-41)

F.1 agrees that motivation and being purpose-driven, facilitate consistency (l. 288). F.2 emphasizes “*physical*”, “*mental*” and “*energetic stamina*” (ll. 34-36) as prerequisites for entrepreneurship. Her clarification is backed by F.3’s statement:

“[B]ut then on the other hand, you also need resilience. So you'll be criticized a lot. There'll be many things that go wrong, when you create something new people don't believe in it because they have never seen it. And then you need to be the one that believes in it that never loses trust in the things. And that's why you need to be mentally strong. You need a strong and resilient, resilient, mindset.” (ll. 23-27)

Stamina and resilience against criticism, are further aided by the ability to “*know exactly your boundaries and your limits*” (E.2, l. 66). The respondents recommend shielding oneself from

“toxic people” (E.2, l. 203) and “energy drainers” (E.3, ll. 180-181). E.1 further suggests managing one’s surroundings.

“[It’s] the atmosphere and the environment when you surround yourself with motivated people. I think this is the really right combination with a portion of learning, which pushes you into the direction.” (E.1, ll. 48-50)

Five of six respondents consider EM to incorporate a resistance to giving up, F.2 is the only one who does not mention anything comparable. She does not consider entrepreneurs as acting towards stability, she mentions several times during the interview how important employees without an EM are to create constancy.

“Often the non-entrepreneur is one who says, okay, you idea people, I will go make this happen. I’m going to set up the policies, the procedures, the manuals, I’m going to come in everyday. Make sure this work gets done.” (F.2, ll. 140-143)

Solution-thinking:

“Oh, Solving problems. You know what I mean? It’s only about that for me. Entrepreneurship - I see a problem and I would say three words. Problem solver, second optimization, third efficiency.” (E.2, ll. 42-44)

E.1 confirms she is “always seeing solutions” (ll. 73-74) and that she considers her mindset to “create” (l. 217) them. E.3 and F.1 are in unison and add that they aim to contribute to “societal problems” (E.3, l. 59) and improve and add value not only for their own benefit, but for the benefit of organizations and their teams (F.1, ll. 214-215). F.1 specifies:

“[I]f you’re not finding ways of changing other’s lives, you’re not doing the first step of becoming an entrepreneur and it can be in simple things in life. It doesn’t have to be going to Mars tomorrow. [...] It doesn’t have to be huge. It can be simple things in daily life.” (ll. 352-355)

Based on the findings, EM is acknowledged to be concerned with finding solutions and solving problems. The interviewees propose strategies to do so. A general curiosity (E.3, l. 49; F.1, l. 52) for oneself and others is deemed to be one condition. Being critical, “so questioning things, experimenting” (F.3, l. 62) is seen as important. E.2 affirms aptly: “you need to try a lot of things” (l. 307).

3.2.2.3 Evaluating Entrepreneurial Mindset: Benefits and Threats

The interviews revealed twelve categories of characteristics of EM. Yet, impacts of EM have not been disclosed in detail. Henceforth those influences, positive and negative are explored.

Benefits:

EM is understood as the ‘toolbox’ of entrepreneurs. It comprises, depending on the underlying mindset definition, cognition, emotions and behaviors that drive entrepreneurship. Thus, the aspects named as entrepreneurial aspirations as well as the characteristics of EM, give extensive insight into its benefits. It is worth mentioning that EM is not bound to venture creation. E.2 (l. 142), F.1 (l. 213) and F.2 (ll. 182-193) emphasize that entrepreneurial thinking and acting can also be beneficial to employees “*because it's what pushes things forward*” (F.2, ll. 184-185). F.3 takes it a step further and claims:

“I think entrepreneurial mindset is, is, is absolutely not just for entrepreneurs. It's anyone's need in the 21st century to shape his or her environment. [...] Literally everybody needs it.” (ll. 109-112)

Threats:

Although EM has so far been portrayed and is mostly perceived as consistently positive, it should be noted that it is not without its dangers. F.2 precisely articulates, talking about entrepreneurs: “*there's a risk without and with having them*” (l. 199). The threats identified from the interview material can be classified into four levels: threats to the individual, threats on an organizational level and threats concerning an entire economy or even the whole world. Table 14 compiles potential complications.

Individual	
addiction	E.3 discusses that one can become addicted to EM (l. 117) and describes that “ <i>putting your business above everything else</i> ” (l. 120) bears issues.
over-identification	<i>“I was talking last year to one of my coaches and he was asking me who I am. Cause I always describe myself, you know, like being really in business and he was saying to me, but [name], you're more than business. [...] I think as most entrepreneurs I have asked, I am so deep into that topic, that they only identify themselves over the business. And I think this could also be really negative, when maybe your business is not running so quickly or going down because then you're totally lost because it just takes your passion away, and who you are.”</i> (E.1, ll. 189-198)
overconfidence	F.3 mentions the danger of overestimating one's capabilities. He insists: “ <i>if you're too, too eager doing things. If you cannot let loose, if you're overconfident always comes with the problem that you believe everything is going in the good way, but then you're blind to potentially failing.</i> ” (ll. 118-120)
frustration	F.1 is worried that EM might “ <i>trap</i> ” (l. 308) individuals, as some might underestimate the challenges (ll. 324-337). According to her perspective, “ <i>not all the people have the mindset to be entrepreneurs and the, sometimes those want to become entrepreneurs as well. And it can become frustrating not only for the world but also for them, because we have a lot of people that think that working for others is not</i>

	<i>good, working for the community is not good working for whatever only being an entrepreneur is the thing now.” (ll. 304-308)</i>
overcharge	F.2 notes that EM might lead to overwhelm. She states: <i>“The entrepreneurial mindset is terrifying to non entrepreneurs. It often can feel too crazy, too visionary. It’s not organized. Oh my God. It’s too high energy. Right. So that’s the first thing they might have a reaction to. Oh my God.” (ll. 178-180)</i>
arrogance	E.3 is concerned with an EM that makes <i>“people feel anxious about themselves, by making them feel [they’re] less valuable maybe because [they’re] not at that stage yet. That’s for me, the, like the worst thing that an entrepreneur slash leader can do” (ll. 300-302)</i> . She reasons with the differing background of people and that by EM, people from a <i>“fixed environment” (l. 282)</i> might be seen as <i>“shit” (l. 285)</i> . She recommends to always meet at eye level (l. 288) and foster an EM that is empathetic and <i>“people-oriented” (l. 284)</i> .
Organization	
chaos	F.2 emphasizes that a balance should be established between entrepreneurs and non-entrepreneurs. She reasons: <i>“If all you have is entrepreneurs in an organization, you have chaos. Often the non-entrepreneur is the one who says, okay, you idea people, I will go make this happen. I’m going to set up the policies, the procedures, the manuals, I’m going to come in everyday. Make sure this work gets done, where the entrepreneurs are there running around like crazy.” (ll. 140-143)</i>
outgrown	<i>“To a certain extent here’s the challenge, the mindset that got a company going is not necessarily the mindset you want a hundred percent for sustaining a company. Referring to the entrepreneurial mindset you want to keep going without you no longer need, right? What habits and mindsets does a mature firm not need?” (F.2, ll. 254-256)</i> F.2 sensibly remarks that mindsets should grow and evolve during a company’s lifecycle.
Economy	
imbalance	E.2 explains the role of EM, paying attention to an entire economy. <i>“We have three sectors in the economy. We have the private sector, the nonprofit sector and the public sector. [...] And those sectors are critical for balancing out our communal life in many ways. [...] So in the private sector entrepreneurs tend to be predominantly represented, because there’s so much room to move quickly and be creative and get things done. Now in the non-profit sector, you see a little bit of it, but not always as much, except once in a while there’s a non-profit that’s very entrepreneurial and the entrepreneur has decided I want a non-profit structure, because I’m completely mission-driven and I’m not here for the money. In the public sector you find entrepreneurs, people who are thinking about new revenue, et cetera, but you don’t want it to be the dominant thinking because it’s not usually a 100, 200 year view and we need our public sector leaders and employees thinking about wanting fairness. We want efficiency in spending tax dollars. We want them to lower the impact on what, you know, communal goods, air, water, public space. So you need less of it there, but a little bit. [...]”</i> <i>I think understanding the mandate of the public sector and what’s required in relation to the taxpayers is very important. And that means that the entrepreneurial mindset has to be, has to be tempered there. Otherwise it’d be too risky.” (ll. 200-223)</i>
World	
shortsightedness	E.2 shares her perspective and underlines that for her EM is <i>“not about entrepreneurship. It’s about the human, who is behind” (ll. 290-291)</i> . She denounces every EM that is directed towards self-purpose: <i>“Everything that is not in order for common ground and common good. If people do not think about the</i>

	<p><i>ecology, the system itself. If you just think about your little bubble, I think that's really dangerous. If you do not leave yourself to observe what you are doing to the community, to the world, to your society, to the country that you are based in, it's an issue.</i>” (Il. 295-298)</p>
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Table 14: Threats of EM derived from the Empirical Analysis (own work)

It can be concluded that the threats posed by EM are as multifaceted as its characteristics. The rule of thumb that can be derived is that balance must always be maintained, may that be on an individual, organizational, economical or global level.

“There's up and downsides to every mindset. And having the right amount in the right setting is what you look for.” (F.2, Il. 225-226)

3.2.3 Developing an Entrepreneurial Mindset

The interviewees’ conceptions of EM, its dimensions, characteristics, circumstances and impacts have been investigated so far. The following chapters aim to illustrate different forms of EM development. First natural, mostly subconscious development is explored, thereafter conditions for mindset development are identified and potential development strategies are made concrete.

3.2.3.1 Entrepreneurial Immersion

Early Developments:

All entrepreneurs (E.1, E.2 and E.3) tell that they have started to act entrepreneurially fairly early between the ages of 13 and 14. While E.1 started a blog (l. 26), E.2 (l. 121) sold sweets to coffee shops in her hometown, E.3 (l. 12) started hosting her own podcast.

The German entrepreneurs attribute their behavior to certain personality aspects. E.1 reveals her *“drive to learn”* (l. 15), her willingness to *“do something on [her] own”* (l. 27) and her open-mindedness (l. 74). E.3 speaks about her natural curiosity (l. 49) and her need for independence from her parents that she names *“financial freedom”* (l. 52).

E.2, who is from Portugal, is aware of cultural differences and lets shine through that in her opinion, Portuguese culture is not necessarily the most entrepreneurial.

“One of the things that are real, that I realize is you're always taking accountability for things that you haven't done. It's almost that we are submissive. We undermine ourselves and I. I still

cannot understand the reason why for it still, and yet, but I truly believe that it is related to the fact that we are a religious country.” (ll. 68-72)

What is sincerely interesting is the fact that she does not seem to attribute her entrepreneurialism to any of her personality attributes. Instead she describes herself as “*so insecure in, in so many things*” (l. 83), what from an outside perspective cannot be confirmed. However, she emphasizes her upbringing: “*I’ve been brought up in a family where having critical thinking was mandatory*” (ll. 117-118). Empathy (l. 120) and setting boundaries (l. 54) are other skills she attributes to her nurturing.

Environmental Influence:

E.1’s and E.3’s entrepreneurial intentions were to a large extent influenced by family and friends who inspired and supported them. E.1 mentions that her uncle is an entrepreneur as well, what sparked her interest (l. 24). She also talks about “*digital nomads*” (l. 30) who impressed her. Further she stresses the influence of the entrepreneurial ecosystem:

“And then I moved to Berlin in 2018 and in Berlin the startup scene is so big and the atmosphere is so pulsating that I was just deciding: Hey, that’s, that’s the right time to really become this and to really create a startup and bring it to market.” (ll. 33-35)

E.3 emphasizes receiving energy and inspiration from the members of the student initiative for entrepreneurship she joined (l.160). Also she mentions her coworkers and the culture of the company she is working for as an intrapreneur as being supportive (l. 167).

E.2 talks about her husband and her home being the “*safe place*” (l. 84) where she can speak up and be vulnerable.

Break-through Moments:

All three entrepreneurs have been traveling after school. While E.1 (l. 29) and E.2 (l. 139) went backpacking, experienced many different cultures and nurtured their open-mindedness, E.3 did an internship in Florence to try out brand management (l. 155). All of them describe this time of experimentation and trying out new things as transformative and a chance of getting to know themselves better.

E.3 outlines the process of finding her purpose. She states that “*stepping out of her comfort zone meeting more new people on a regular basis*” (l. 158-159) transformed her mindset. She

claims that she was infected with the drive to “*change something*” (l. 162) and “*do the extra mile*” (l. 164) and became more “*purpose-driven*” (l. 60). E.1 (l. 96), F.1 (l. 230) and E.2 (l. 306) also highlight the transformative force of getting to know oneself and practicing self-awareness.

E.2 (l. 142) and F.1 (l. 213) both experienced the realization that they have been operating as entrepreneurs much before they called themselves that. Once they understood, they were acting entrepreneurially already within existing systems, they built the confidence to start their own businesses.

E.1, E.2 and E.3 explain they had to face personal limiting beliefs and overcome barriers to fully tap into their EM.

“I always believe my parents because I didn't go to university and they always were saying okay, to go to university, to do a bachelor, master and then doctor, it's like the way, the way to do. The way how we should live life.” (l. 106-109)

E.1 shared her belief about her future professional life and that she was able to overcome it by engaging with other entrepreneurs. E.3 experienced shyness in school and decided to change her behavior as she herself was not satisfied with it (ll. 202-214). She changed by the courage of stepping out of her comfort zone and the positive experience, that she “*didn't die from this*” (l. 225).

E.2 needed to overcome many insecurities and went to drama school to learn how to speak in front of an audience (l. 227), learned to “*negotiate with the sharks that you'll find in life*” (l. 55), earned her beloved nickname “*ice queen*” (l. 59) and how to set boundaries (l. 66). She shares an early experience that she made, which helped her to never again fear failure.

“So, you know, and, and I remember this for me was a breaking point. I remember the fact that I was just with this little box with six [brazilian sweets], and I went to a lot of cafes[...] and all of them, except one, told me no. [...] And so I arrived at home and I told my grandma: everyone told me no, just one said yes to me when she was like, yes, [name] and what? You have the yes, so celebrate, and that for me was a breaking point. You know, Hannah, because for me it was the, the relevance the importance of you embracing every single little step. I've never been afraid of being an entrepreneur because I've never been afraid of failing.” (ll. 126-135)

Transcending the Entrepreneur:

F.2 is the most advanced in her entrepreneurial journey, due to her age, she is confronted with other questions than becoming entrepreneurial:

“The entrepreneurial question of founder-led organizations, one of the critical junctures is how does an entrepreneur create an organization that transcends them? And then they're able to

leave. [...] And so that's just something to think about because that mindset of many entrepreneurs, of course, in startups, they're not necessarily thinking about that, but very soon, I got to start thinking about, have I built the structures and the culture to sustain what's happening?" (ll. 241-148)

This thought concludes aptly that EM can exceed and transcend entrepreneurs. They can aim to instill it into their company's culture and create the environment to transpass it to their partners and employees.

3.2.3.2 Implications for Mindset Development

While the previous chapter discussed the early, mostly unconscious development of EM, the question remains whether mindset can be influenced by conscious interventions. All interviewees unanimously confirm. E.1 answers: *"I would sign that a hundred percent"* (l. 85). F.3 agrees, he thinks *"it can be developed very far"* (l. 69). F.1 goes a bit further and claims conscious mindset governance to be a necessity.

"And every, every time we, every day we wake up, we have this opportunity to choose to manage our mindset." (F.1, ll. 112-113)

F.2 admits that mindset can be developed, however she recognizes some conditions.

"How far can it be and what conditions are necessary for it to be developed? [...] I am an optimist, I think it's possible in the world to, for people to change quite a bit." (F.2, ll. 77-79)

Table 15 encapsulates the conditions for mindset development derived from the interviews.

Self-Awareness
<p>All interview partners agree self-awareness to be the most essential prerequisite. They assume that self-knowledge decides on the success of mindset intervention efforts. F.3 states that mindset development <i>"has to with self-reflection before many other things"</i> (ll. 83-84).</p> <p>E.1 (ll. 85-99) and E.3 (l. 91-93) advertise reflecting on who they are and who they want to be as part of EM. E.2 declares that self-awareness, who she is, her purpose and emotions related to it, were the most important drivers to make her live the life of her <i>"dreams"</i> (l. 8) now (ll. 11-18).</p> <p>F.2 mentions that good leaders know <i>"in any given moment where their mindset is what's influencing it. And very clear on the paradigms they bring into any setting"</i> (ll. 62-65). She recommends:</p> <p><i>"So the first thing will be to know where you are with self-awareness if you haven't started that journey, that would be something I would recommend right away. It is journaling, meditation for some people."</i> (ll. 103-105)</p>

<p>F.1 is specifying aspects that entrepreneurs should explore about themselves. In her perspective, without self-knowledge and knowing one's calling, EM cannot further be developed.</p> <p><i>"I would say that personally, you have to get to know yourself as well as you can know yourself. And that means that you have to know your strengths, your talents, what you really know how to do and what you really are able to do. But also what are your vulnerabilities, your fears, your strategies of sabotaging yourself and as well as you get to know you in a global way as a person and the person means you have thoughts, you have feelings and you relate to yourself with all around you."</i> (ll. 45-50)</p>	
Growth Mindset	Resilience
<p>It is argued that another condition to developing a mindset is the belief that change is possible and the willingness to evolve and learn.</p> <p>E.1 highlights her "inner drive" (l. 47) and that she loves to learn. E.2 describes herself as a "sponge" (l. 183) absorbing every experience, positive or negative, and transforming it into learning.</p> <p>F.1 illustrates the willingness and courage to learn as prerequisites for evolving. As a coach she experiences that in herself and her clients.</p> <p><i>"[We should be] able and available to learn in all the journey because we are always learning and somehow we, we, we have these biases or we have to study in a certain period of time of our lives and then we have to work. No, we have to learn all along the way. So that is the other key factor. I'm always learning."</i> (F1, ll. 72-75)</p> <p>E.3 (l. 118) and F.3 (l. 69) introduce the concept of a 'growth mindset', a belief of one's ability to expand and grow. They reason this to be essential for developing a mindset in general. E.3 explains its dynamics:</p> <p><i>"You often see if people are like having a problem and they're having a fixed mindset, they get stuck, you know, they're like, okay, no, we cannot fix this. And but if you're [a] growth mindset, you're thinking about, okay, what can possible solutions be? [...] So you think rationally. [...] What are concrete steps I can take in order to solve this?"</i> (E.3, ll. 116-122)</p>	<p>It is concluded that confidence and energy to evolve, even in the face of criticism and negativity condition the development of mindset. E.2 notes:</p> <p><i>"[E]nvy, prejudice, judgemental minds, you will have a lot. The thing is how you handle them, how you handle them, you know, how you handle with the people that share that kind of emotions with you."</i> (ll. 201-203)</p> <p>F.2 mentions "physical", "mental" and "energetic stamina" as preconditions to becoming an entrepreneur (ll. 34-36). It is argued that this holds true for developing EM as well. E.1 (ll. 48-50) and E.3 (ll. 180-181) agree on the need for managing and shielding one's environment from energy drainers.</p> <p>F.1 and F.3 emphasize the persistence of EM in the face of failure, they recommend to develop resilience when aiming to become an entrepreneur.</p> <p><i>"So, and, even if you go down, you have to have the ability and the strength to stand up again."</i> (F.1, ll. 334-335) <i>"And then you need to be the one that believes in it that never loses trust in the things. And that's why you need to be mentally strong. You need a strong and resilient, resilient, mindset."</i> (F.3, ll. 25-27)</p>

Table 15: Conditions of Mindset Development derived from the Empirical Analysis (own work)

While the conditions summarized in the table predominantly apply to mindset in general, several of the interview participants mention previous knowledge of entrepreneurship as particularly helpful when aiming to develop EM.

"This is not a requirement of an entrepreneur and it can actually get in the way sometimes. But the knowledge of how, how organizations work, knowledge of finance, marketing, operations, and knowing how organizations as entities need to function and operate can be very helpful for an entrepreneur, particularly when they make the transition from startup to success." (F.2, ll. 153-157)

F.1 heralds it as one step in the process of EM cultivation, following self-awareness and the alignment with one’s purpose. She sees the need for executing this previously acquired knowledge:

“And after that [...] you can start to put strategy finance developments, growth in all the equations. [...] And there, then you can start to set goals, set milestones.” (ll. 68-70)

As the preconditions and tools are clarified, F.2 raises the question of the benefits of influencing mindset and expresses caution:

“Now, I also believe that sometimes that change is not necessary or can be damaging. We all have a different purpose. [...] If you change somebody too much, you might lose the gift they bring to the world because every strength we have also has a dark side, but if you eliminate the dark, you might eliminate the strength as well. Well the first question is, can you? Yes. Should you? Hmm.” (F.2, ll. 77-84)

3.2.3.3 Potential Development Strategies

Recapitulating the sentiments of the experts, either illuminating the topic from their inner perspective or observing it from the outside, it can be presumed that mindset is malleable in its nature. It is to consider that there are some prerequisites which should be met prior to engaging in mindset interventions. EM, alike other mindsets, is multifaceted in its characteristics which can give guidance in determining desired results for interventions.

“Now, depending on what mindset you're starting at and the mindset you want to go to. There's different practices, exercises, and ways to start to change.” (F.2, ll. 109-111)

Table 16 summarizes all the strategies that the interviewees have used themselves (E.1, E.2 and E.3), or have shared as advice (F.1, F.2 and F.3). The list is structured according to the impact areas of cognition, emotion and behavior and provides possible insights into ways to cultivate mindset.

Cognitions	
practice self-awareness	Self-awareness is identified as a prerequisite of mindset development by all interview partners. This is reasoned by the ability to analyze one’s motive to change: <i>“we want to have self-awareness enough to know that this behavior, the way I'm seeing the world is getting in the way”</i> (F.2, ll. 89-90). It is argued that knowing why and and knowing what to aim for facilitates change (F.1, ll. 191-195; F.3, ll. 79-81).

	<p>The interviewees argue for “digestion” (E.2, ll. 214-218) of one’s own thoughts and feelings, as well as “reflection” (E.1, l. 96; E.3, ll. 71-75; F.2, l. 106; F.3, ll. 83-85) of one’s identity, beliefs and purpose.</p> <p>They think about questions such as: “<i>Who am I? What am I doing here? Am I proving something to someone? Am I trying to be successful? Am I trying to be validated by the public audience? What I, what am I, what am I looking for?</i>” (E.2, ll. 215-217) or “<i>I mean, who are you as a person? So, and with who are you as a person? I mean, what are your strengths? What do you need in order to actually be able to perform best? And so, and what environment and what people do you need for that?</i>” (E.3, ll. 73-75). They propose several concrete strategies to tackle those questions. E.1 is used to recap every single month by writing down “[w]hat is working, what is not working” (l. 97) as well as defining and updating values to guide her decision-making (ll. 69-71). F.2 suggests journaling and meditation as effective self-awareness practices, she also shares that running half-marathons brings her into the “<i>meditative state</i>” (ll. 103-107).</p> <p>Another possibility to learn about oneself is seen in the interaction with others. E.1 (l. 88-93) and F.1 (l. 284) recommend getting a mentor, while F.2 (ll. 95-97) proposes therapy or counseling. However, they also regard friends or family without professional consulting experience as helpful for opening up new perspectives (E.1, ll. 90-93; F.1, ll. 285-288; E.3, l. 165, E.2, l. 118, F.3, l. 141) and experiencing “<i>click moments</i>” (E.1, l. 98).</p> <p>It can be concluded that there are many strategies available for increasing one’s self-knowledge, these can be clustered in inner analysis and input from the outside.</p>
<p>understand one’s conditioning</p>	<p>Closely related is the comprehension and analysis of one’s conditioning. F.1 illustrates this point by explaining: “<i>So as I was saying, every single moment we are having thoughts and we are feeling emotions and that’s happens since we are conceived and the way the, the, the world around us interacts with us and speaks with us and the way we hear what’s happening around us and it’s, it starts with our parents and then our brothers, our sisters, our friends, Our teachers in school, our colleagues, our boyfriends, or girlfriends our husbands or sons or whatever, everybody that is around us have an impact on the way we accept the truth. So, if you have just an example, if you have a mother or a father that always says you can’t do anything right, you are not going to succeed. If you don’t study there you will be no one. And if you grow up with these sentences in your hand, in your head every day you will start to be convinced that you are nobody and you will not succeed, and you are not able to do things.</i>” (ll. 118-127)</p> <p>Critical thinking (E.2, ll. 118-120) and bringing beliefs to consciousness and rationalizing them (F.1, ll. 145-146), are strategies suggested for learning to control one’s conditioning.</p> <p>Two entrepreneurs shared their limiting beliefs and how they overcame them. E.1 experienced conditioning, concerning her career, she adopted the belief from her parents that going to university was normal and the only possibility to succeed. Meeting entrepreneurial driven founders bent her reality and she understood: “<i>that you have so many opportunities out there and, nothing is the norm</i>” (ll. 107-117). E.2 was afraid of failure and her grandma helped her in overcoming that fear (ll. 130-135) she also shared that she often feels very insecure and “<i>not enough</i>”, she says she is struggling with “<i>imposter syndrome</i>” and that her husband is supporting her in challenging herself to overcome her fears (ll. 226-242).</p> <p>Recapitulating, understanding where limiting beliefs are coming from helps in rationalizing them and being aware of them aids in changing them.</p>
<p>master one’s mind</p>	<p>Managing and balancing one’s thoughts, beliefs and emotions is heralded as crucial (F.1, ll. 111-113). Identifying one’s purpose and values is seen as an opportunity for inner guidance (E.3, ll. 60-61; F.1, ll.61-66; E.1, ll. 69-71, 162-163).</p> <p>Furthermore, constant learning, also from negative experience is ought to be essential for a positive mindset, management of fear and constant self-growth (E.2, ll. 177-185).</p> <p>F.1 introduces a powerful tool for belief change used in coaching: “<i>So we use NLP, neuro-linguistic programming as a tool with a lot of techniques that help people to go deep in the convictions and the beliefs that they just left to install in their inner selves. And we try to destroy those beliefs that are limiting them. And we build new beliefs, positive ones that allow them to grow and that allow them to open their mind to new truth, new realities for them to try to do things with believes that will allow them to be succeeded and</i></p>

	<p>to let them believe that they are good enough or that they really can do things in a better way” (Il. 149-155).</p> <p>Overall, balance and guidance of one’s mind, together with suitable strategies are suggested as tools for mastering one’s mind.</p>
Emotions	
manage one’s environment	<p>Managing one’s environment is recognized by the majority of interviewees as an opportunity to positively influence mindset cultivation.</p> <p>A key word that comes up in this context is inspiration. F.3 claims: <i>“If people want to change their mindset, they need to be inspired”</i> (Il. 82-83). He recognizes role-models as sparking reflection and therefore leading to higher levels of self-awareness (Il. 79-84).</p> <p>A general strive for a positive environment and getting rid of <i>“energy-drainers”</i> is recommended (E.2, l. 204; E.3, l. 181; F.1, l. 23).</p> <p>This, according to the interview partners, is achieved by enforcing positive, energetic, supportive relationships (E.3, ll. 76-87; E.1 130-134; F.1, ll. 284-286) and networking (F.3, ll. 140-141) and at the same time by limiting negative influence by for example <i>“toxic people”</i> (E.2, l. 203) by setting boundaries (E.2, ll. 65-67).</p>
govern one’s emotions	<p>The ability to balance one’s emotions is mentioned as influencing mindset development positively. Being empathetic (E.2, ll. 311-313) is claimed to be as important as practicing self-love (E.2, ll. 219).</p> <p>F.1 explains the necessity of governing one’s emotions: <i>“And if we don't have the ability to manage our thoughts and the way we feel about both emotions or both a state of mind, the positive one and the negative one. If we are not able to manage this, we will not develop a good mindset. And a good mindset doesn't have to always be like oh, we are excited and we are in an euphoric way and we are best and we are always positive. The good mindset is to know that there will be positive thoughts and positive emotions, but there will also be negative thoughts and negative emotions. So the balance between the range it's a good mindset and accepting one and the others in ways that you can manage in a manner that will help you. You will, you can use your mindset and your emotions in a benefit to, to you or to the process or to the things that you have in your hands”</i> (Il. 92-100).</p>
Behaviors	
experimentation	<p>Experimenting and trying new things is emphasized by several respondents. It is proposed as increasing confidence, self-empowerment and the sense for self-efficacy. F.3 explains the interrelationships: <i>“And then by experimenting, gaining that self-empowerment and the self-efficacy that you're actually able and capable of changing things. So it's, it's literally learning by doing, and that's what I believe is most important when it's about changing your mindset is giving the environment to actually test out, do small things”</i> (Il. 85-89).</p> <p>The travel experiences the entrepreneurs (E.1, l. 29; E.2, l. 139; E.3, l. 155) shared are congruent with the statement above.</p> <p>E.2 points out why experimentation is an essential part of mindset cultivation: <i>“[Y]ou need to know the reason why of your existence and you know, in order for you to have that, you need to try a lot of things. So every single experience from the day that you are born until the end of life, it's mandatory for you to be aware of a whole perspective.”</i> (Il. 306-309). She further stresses: <i>“I think allowing kids, youngsters to try and to have multidisciplinary subjects in university and school, should be mandatory”</i> (Il. 309-311).</p>

<p>leaving comfort zone</p>	<p>E.2, E.3 and F.2 contributed to this strategy. E.2 told that she joined drama school to overcome her fear of speaking in front of an audience. Still feeling uncomfortable with the situation, she decided <i>“in order to reinvent myself, I say yes to all the invites that people do to me”</i> (ll. 241-242).</p> <p>E.3 shared she was experiencing shyness in school, however she decided to change her behavior upside down, because it was not satisfying her and she even discovered how much she likes to present in front of class (ll. 196-219).</p> <p>F.2 admitted she had control issues when she was younger: <i>“I felt like I was trying to have too much control. So counseling, she, she said: go to a restaurant and I want you to ask the waiter what's good here. What's the best dish on the menu? And whatever the waiter says, you have to order. Those kinds of exercises start to get us in touch with our anxiety, with why we have to, why we're not adventurous, why we're not trying things”</i> (ll. 116-120).</p> <p>E.3 aptly summarizes: <i>“[I] just got the understanding of my comfort zone. It's comfortable, but a comfort zone is not going to bring you anywhere. And still today, I sometimes consciously try to pull myself out of my comfort zone and maybe meet new people online, visit some kind of random online event or something. And then, you know, once you are actually seeing that this works and it's not as horrible as you imagined it also gets kind of fun, you know, doing that with yourself, like challenging yourself then seeing, okay. I didn't die from this”</i> (ll. 219-225).</p> <p>It can be concluded that changing behavior, facing one’s fears or simply doing something uncomfortable is considered to have great effects on mindset by the interviewees. Several of them shared experiences where they were surprised by better outcomes than they had expected, which helped them to transform their attitudes, beliefs and feelings.</p>
<p>creating an action plan</p>	<p>E.3 (l. 272-275) and F.1 emphasize the power of vision and goal setting.</p> <p>F.1 shares her experience as a coach and explains the dynamics of setting goals: <i>“And they, as they don't set goals, they are always with this feeling that they are not achieving what is supposed to achieve, because they don't know what is what they want to achieve. So they are always unsatisfied, frustrated, not realized, not well with themselves because they really don't know if they have already achieved something that is important for them. So setting goals and formulating goals for personal life, professional life, love life whatever in your life that is important for you”</i> (ll. 159-164).</p> <p>She also stresses how surprised she was by the amount of people in her coaching sessions who never had set any goals before. <i>“And it's really a life-changer for a lot of people. If they set a goal and they do an action plan to achieve the goal, they are more self-aware”</i> (ll. 170-171).</p> <p>She recommends, apart from setting goals to concretely define strategies and action steps how to reach them: <i>“set goals, set milestones and really have a vision of who you want to be, doing what and with who as well”</i> (ll. 70-71).</p> <p>In short, she advocates for creating detailed strategies for action, which ought to lead to change.</p>

Table 16: Potential Mindset Development Strategies derived from the Empirical Analysis (own work)

It is interesting to see how entrepreneurs approach their challenges and what methods entrepreneurship facilitators recommend to their students and clients. Of course, the interviews only scratch the surface, but the table provides inspiration for practical implications and valuable insights for further research.

4 Discussion and Practical Implications

Following the detailed analyses of theoretical and practical perspectives on EM, this chapter aims at answering the research questions by aligning both prospects. As presumed, the empirical study enriches the theoretical knowledge base by exploring circumstances, conditions, influences and impacts on the topic.

RQ1: What is a mindset and how does it manifest?

Tackling the first research question, theory and practice provide successive findings. While in common language mindset possesses a vast array of definitions, scholarly research is grouped in three distinctive streams conceptualizing mindset either as a cognitive process, a cognitive filter or as a belief system.

Emotions and behaviors were only identified as dimensions in the pursuit of EM, they however are, after careful consideration, also designated as possible dimensions of mindset in general.

Empirically, distinct definitions arose from every interviewee, yet a classification into the theoretically derived categories is possible. An effort was made to map all definitions, both theoretical and empirical. The main debate is as to which elements are inherent to the concept of mindset and which are merely its manifestations.

Greatly simplified, it can be summarized that the cognitive, social and positive psychology streams, consider the mind as the guiding authority. Its cognitive processes, beliefs and filters affect and control feelings and behavior. From this perspective, emotions and actions are therefore manifestations of mindset as illustrated in figure 15.

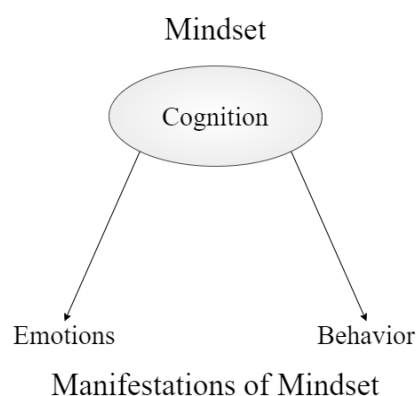


Figure 15: Entrepreneurial Mindset from a Cognitive Psychology Perspective (own illustration, based on French, 2016)

As described in chapter 2.3.3, Kuratko et al. (2020) and other representatives of the behavioral psychology stream contrast this with a more inclusive conceptualization of mindset that includes cognition, emotions, as well as behavior. In their conception, each of these three components can guide the others. As shown in figure 16, all three are incorporated in the mindset term.

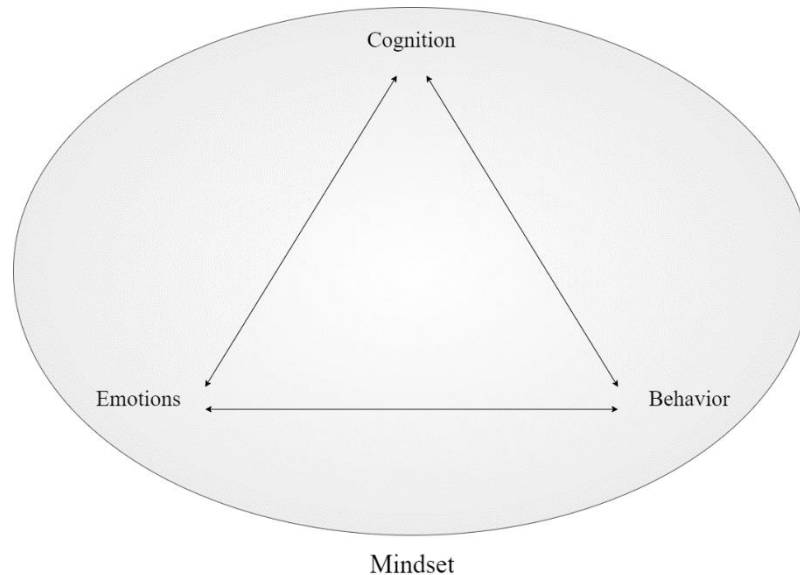


Figure 16: Entrepreneurial Mindset from a Behavioral Psychology Perspective (own illustration, based on Kuratko et al., 2020)

However, based on the conducted literature review and empirical insights it is argued that both illustrations are limited and are not embracing the full range of mindset concepts found in theory and practice. Figure 17 visualizes the proposed conceptual map of mindset definitions.

It is based on the assumption which emerged from the literature analysis that the main difference between mindset concepts lies in the question which elements (cognition [processes, filters, beliefs], behaviors, feelings) are deemed inherent to mindset and which are reckoned to be its manifestations. The proposed 'layers of mindset' attempt to grasp the term in all its complexity. Cognitive processes at the heart of the map contemplate the most narrow mindset definition. Moving to the edges of the outermost circle, all elements are included into the concept, which represents the conceptualization proposed by Kuratko et al. (2020).

Layers of Mindset Conceptualizations

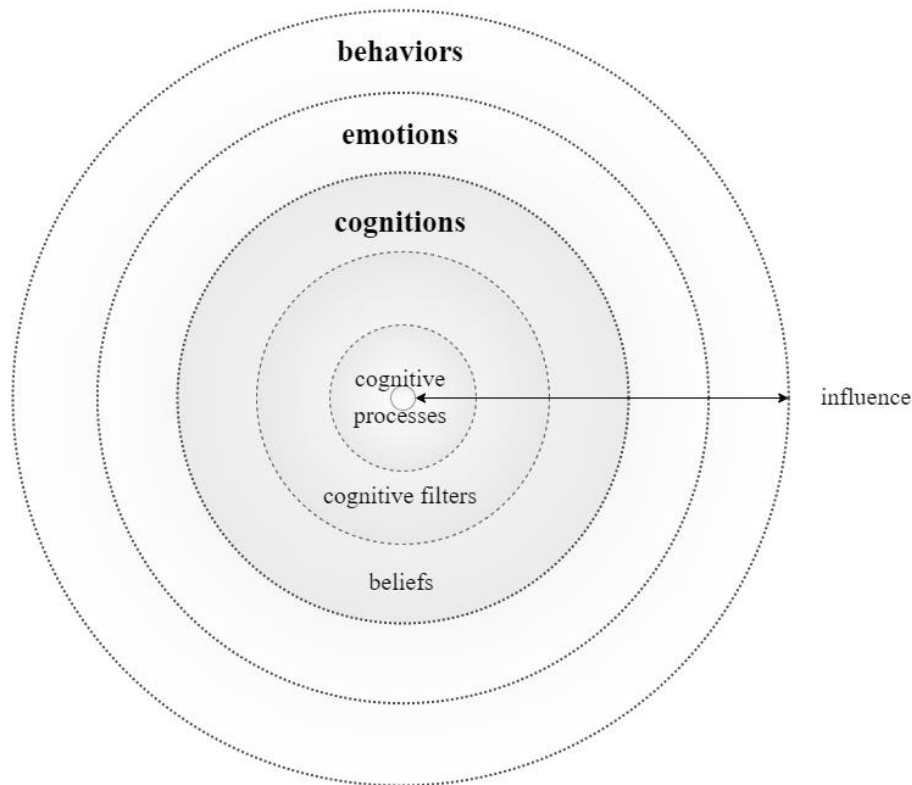
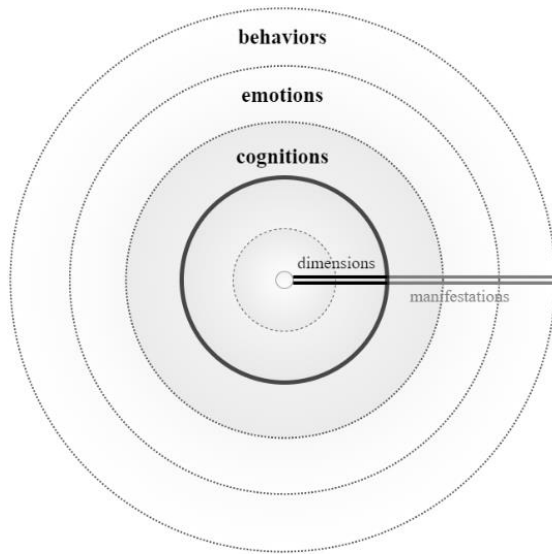


Figure 17: Conceptual Map - The Layers of Mindset (own illustration)

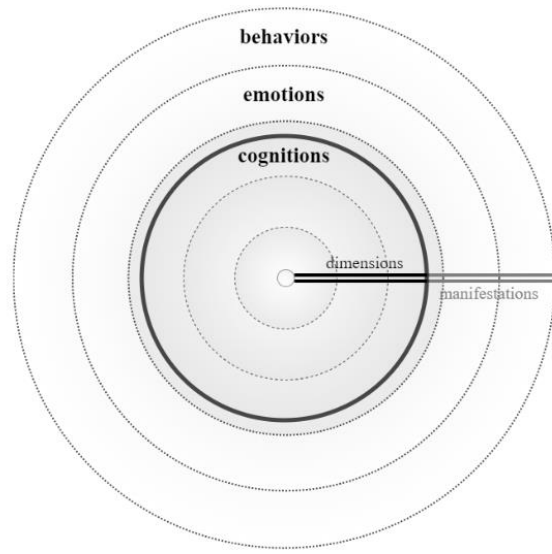
All diverse mindset definitions suggested by literature and the interview partners can be pinpointed in this ‘layer-framework’, they lie either on or somewhere in between the lines, as illustrated exemplarily in figure 18.

The visual separators between the elements are not boundaries but merely auxiliary lines. The transition between them is smooth and actually describes a continuum rather than individual layers. The position of definitions in this model are described as thickened circles, as visible in figure 18. All elements located towards the center of these circles are part of the definition, thus designated as dimensions, whereas everything located outside the circles, describing the definition at stake, is understood as its manifestations or areas of effect.

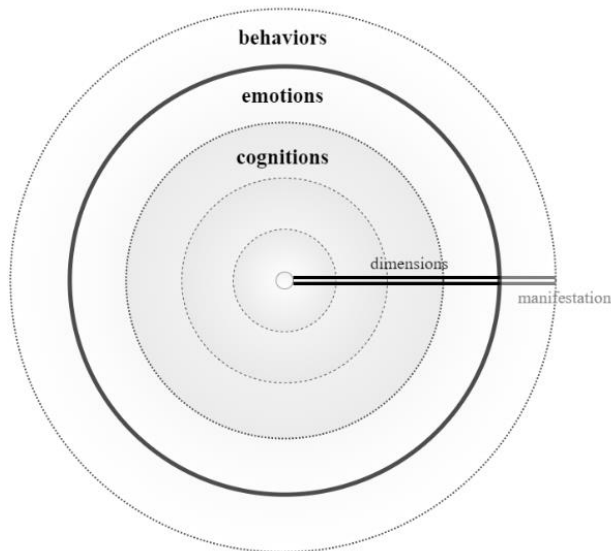
This model is meant to grasp the fluid underlying nature of the divergent conceptualizations, which evolve and change with context. Not seldomly is the term mindset used covering various different meanings within only one research paper (Lynch and Corbett, 2021; Davis et al., 2015; Dweck, 2006; Naumann, 2017), which is denounced as “*conceptual porousness*” and “*stems from inadequate attention to theoretical and conceptual boundaries*” (French, 2016, p. 682). The following practical implications arise from the discussion around the nature of mindset.



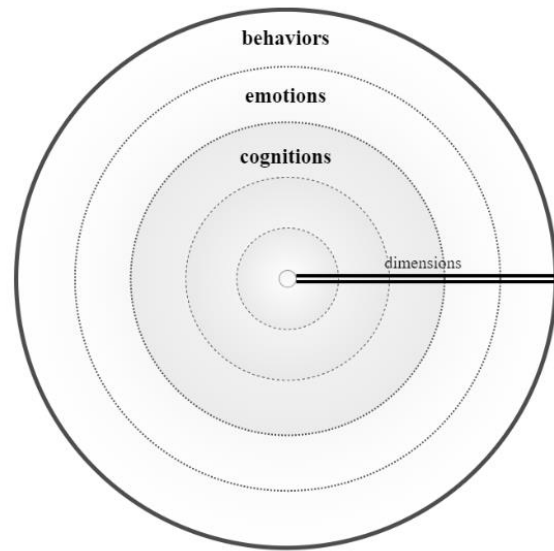
F.2's mindset conceptualization:
a cognitive filter



E.1's and E.3's mindset conceptualizations:
anywhere between a cognitive filter and a belief system



F.1's mindset conceptualization:
incorporating emotions



E.2 and F.3's mindset conceptualizations:
an approach to behavior

Figure 18: The Layers of Mindset applied to Mindset Definitions of Interviewees (own illustration)

Implication 1: Mindfulness regarding the conceptualization of mindset is required in both theory and practice. As there not (yet) exists a consensus on its definition, French's (2016) position concerning the necessity to locate one's interpretation of the construct within literature (p. 682) is confirmed and emphasized. When aiming for mindset intervention, the underlying understanding needs to be articulated with trenchant accuracy.

Implication 2: Although all elements of mindset discussed are equally meaningful, depending on the conceptualization, the construct bears greater or minor significance, due to the differences in the area of influence, the narrower the definition, the smaller the influence, the wider the definition, the greater the influence.

RQ2: What is an entrepreneurial mindset and what are its dimensions?

Attempting to answer the second research question, EM is understood as the mindset most suitable for entrepreneurial contexts, generally typified by high levels of uncertainty and concerned with innovation creation and opportunity pursuit. The nature of EM is dependent on the respective conceptualization of mindset, as designated previously.

Academic literature, as well as findings from the interview analysis support the same architecture for EM, as occupied by mindset in general, consistent of cognitions, emotions and behaviors as dimensions or areas of effect, which leads to the third implication.

Implication 3: The definition of an EM is highly dependent on the underlying understanding of entrepreneurship. The latent mindset conceptualization determines which of the elements cognition, emotion and behavior are considered as dimensions of EM or its areas of effect. EM is described by a set of characteristics, in the following examined as typical for entrepreneurship.

In order to differentiate EM, literature offers a vast array of characteristics, brought together by measuring or conceptual analysis, mostly derived from task requirements of entrepreneurial processes, as explored in the chapter on entrepreneurship (2.2). Table 17 maps the occurrence of characteristics in theory and practice. Following the same approach as applied to the interview data, the characteristics are classified into three categories: characteristics of self, environment related and goal-directed characteristics.

	Characteristics	Theoretical Appearance	Concurrence in Empirics
self related	positive attitude , optimism, passion	2.3.1, 2.3.2.2, 2.3.3	E.1, E.2, E.3, F.1, F.2, F.3
	diligence, conscientiousness	2.3.2.2	
	independence	2.3.2.2	E.1, E.3, F.3
	openness to experience, open-mindedness	2.3.2.1, 2.3.2.3	E.1, E.2, E.3
	self-confidence	2.3.2.2	E.2
	self-efficacy, control	2.3.1, 2.3.2.2, 2.3.3	F.2
	need to achieve	2.3.2.2, 2.3.2.3	
	non-conformity	2.3.2.2	

	dynamic sensemaking, meta-cognition, cognitive adaptability	2.3.2.1, 2.3.2.2, 2.3.2.3	
	intelligence, entrepreneurial ability, prior knowledge	2.3.2.1, 2.3.2.2, 2.3.2.3	F.1, F.2
	creativity, innovation, idea-generation	2.3.2.1, 2.3.2.2, 2.3.2.3	E.3
	lifelong learning , learning from failure	2.3.2.1, 2.3.2.2, 2.3.2.3	E.1, E.2, E.3, F.1, F.3
	alignment with purpose		E.1, E.2, E.3, F.1
environment related	acceptance of uncertainty	2.3.2.1, 2.3.2.2	
	risk acceptance	2.3.1, 2.3.2.2, 2.3.3	E.2, F.1, F.3
	stress	2.3.3	F.1
	alertness, signal detection, pattern recognition	2.3.1, 2.3.2.2	
	social interaction, community building	2.3.2.2	E.1, E.2, E.3, F.1, F.2
	interpersonal sensitivity, social-intelligence , leadership	2.3.2.2, 2.3.2.3	E.2, E.3, F.1, F.3
goal-directed	heuristic-based decision-logic, automatization	2.3.2.2	
	motivation	2.3.2.2	
	future focus	2.3.2.2	E.1, E.2, F.3
	opportunity recognition and pursuit	2.3.2, 2.3.2.1, 2.3.2.2	E.1, E.3, F.2, F.3
	value creation	2.3.2.2	E.2
	problem solving, solution-thinking	2.3.1, 2.3.2.2	E.1, E.2, E.3, F.1, F.3
	initiative taking, proactivity , action-orientation, execution	2.3.2.1, 2.3.2.2	E.1, E.2, E.3, F.1, F.3
	persistence, grit, perseverance, resilience, constancy	2.3.2.3	E.1, E.2, E.3, F.1, F.2, F.3
	thinking big		E.2, E.3, F.1, F.2, F.3

Table 17: Theoretical and empirical concurrence of EM characteristics (own work)

It is striking that the interviews added two characteristics, which were entirely neglected in theory: alignment with purpose and thinking big. These were both emphasized strongly by four and five interview partners. Eight of the characteristics, named in theory, were not mentioned explicitly by respondents, however, the focus was applied to the five most crucial characteristics for an EM, thus it can be assumed that those may have come up with a deepened focus on them.

The empirical analysis revives literature findings by incorporating the interrelationships of these characteristics and an EM's potential positive and negative impacts. As pinpointed by the interviewees and analyzed in chapter 3.2.2, an EM might pose threats, thus the subsequent implication is imperative for researchers and practitioners.

Implication 4: Although mostly perceived as consistently advantageous, potential threats of an EM on individual, organizational, economical or systems levels have emerged from the expert interviews. Regardless of how beneficial an EM seems to entrepreneurship, innovation in corporations, personal situations of uncertainty, challenges in society, etc., its applicability has to be assessed on a case-by-case basis.

RQ3: Can an EM be developed? What are the implications for its development?

Although dictionaries suggest the opposite, the third research question is confirmed by theoretical and empirical voices. Whilst the potential for development is taken as fact, several implications apply.

Cognitions, emotions and behaviors are identified as areas of development in academic literature. Furthermore, distinct implications apply for cognitive processes, cognitive filters and beliefs. The choice of interventions is thus dependent on the underlying EM definition.

The analysis of the interview material pinpoints self-awareness, a growth mindset and resilience as conditions for mindset cultivation, whilst in academic literature they are, if so, mentioned merely as aspects of an EM. The interviewees' remarks on how they became entrepreneurs, testify the subconscious development of EM, which is attributed to personal inclinations, environmental influences and break-through moments. While formative experience thus is proven to develop EM to a certain extent, it is argued that a greater transformation can be achieved through intentional development strategies. From the empirical research, overall, four recommendations emerged that facilitate mindset cultivation.

First, acquiring knowledge about possible mindset development strategies by reading personal development books (E.1, ll. 85-86), getting a mentor (E.1, ll. 88; F.1, ll. 284) or going to counseling or coaching (F.2, ll. 95-96) helps to extend one's abilities and flexibility to react to and manage one's environment and inner life.

Secondly, *“find out, what do you want to change and why you want to change”* (F.3, ll. 79-80). *“[K]nowing why you are not comfortable with something or knowing why you're not happy with something will help a lot in changing your mindset”* (F.1, ll. 193-195). This will aid in sticking to an action plan and *“somehow things start to happen”* (F.1, ll. 65-66).

The third point is to identify *“what mindset you're starting at and the mindset you want to go to”* (F.2, l. 109). This gives direction.

Finally, it is crucial to understand the complexity of mindset and that thoughts, feelings and actions influence and reinforce each other. *“[S]omehow the action that you take on your mindset, how you want to change your mindset and then these actions that you take kind of re-shape your mindset again”* (E.1, 140-142). Therefore, learning how to manage and balance all three dimensions or areas of effect is essential for mindset cultivation and wellbeing in the long run (F.1, 102-113).

It is questioned whether mindset can be developed as such. Instead, it is suggested that the dimensions should be developed individually. While interventions should specifically target a particular dimension, it must still be noted that both theory and practice support that cognitions, emotions, and behaviors are interconnected through a reciprocal feedback loop and influence each other. Four general implications for the compilation of mindset development programs can be explicated.

Implication 5: Aiming for mindset transformation, an integrative approach, tackling all three areas of effect seems most promising. Interventions are suggested, which target change in individual mindset dimensions. A curriculum, including an array of mutually reinforcing interventions on cognitions, emotions and behaviors, depending on the chosen mindset concept, is proposed.

Implication 6: Mindset cultivation is highly individual. Initially the presented conditions, self-awareness, a growth mindset and resilience need to be established, along with pondering on the currently embodied mindset, the desired goal and the purpose of change. Once ingrained, as mindset is goal-oriented, meta-cognitive awareness and cognitive adaptability aid in choosing conscious and subconscious development strategies which function for the individual.

Implication 7: The characteristics of a mindset, e.g. risk-tolerance, proactivity or solution-thinking for an EM, provide guidance for the desired end of a mindset intervention and thus are an essential element of the curriculum.

Implication 8: Theory and empirics suggest that in order to achieve palpable mindset change, sufficient time and effort ought to be invested in its cultivation.

Building upon the task requirements explored in chapter 2.2 and the nature of mindset scrutinized in chapters 2.1, 2.3 and 2.4 and all insights gained from the empirical analysis, Figure 19 proposes a structure of a curriculum for EM cultivation. It forms a foundation for practical application of the findings and implications, compiled by theoretical and empirical perspectives.

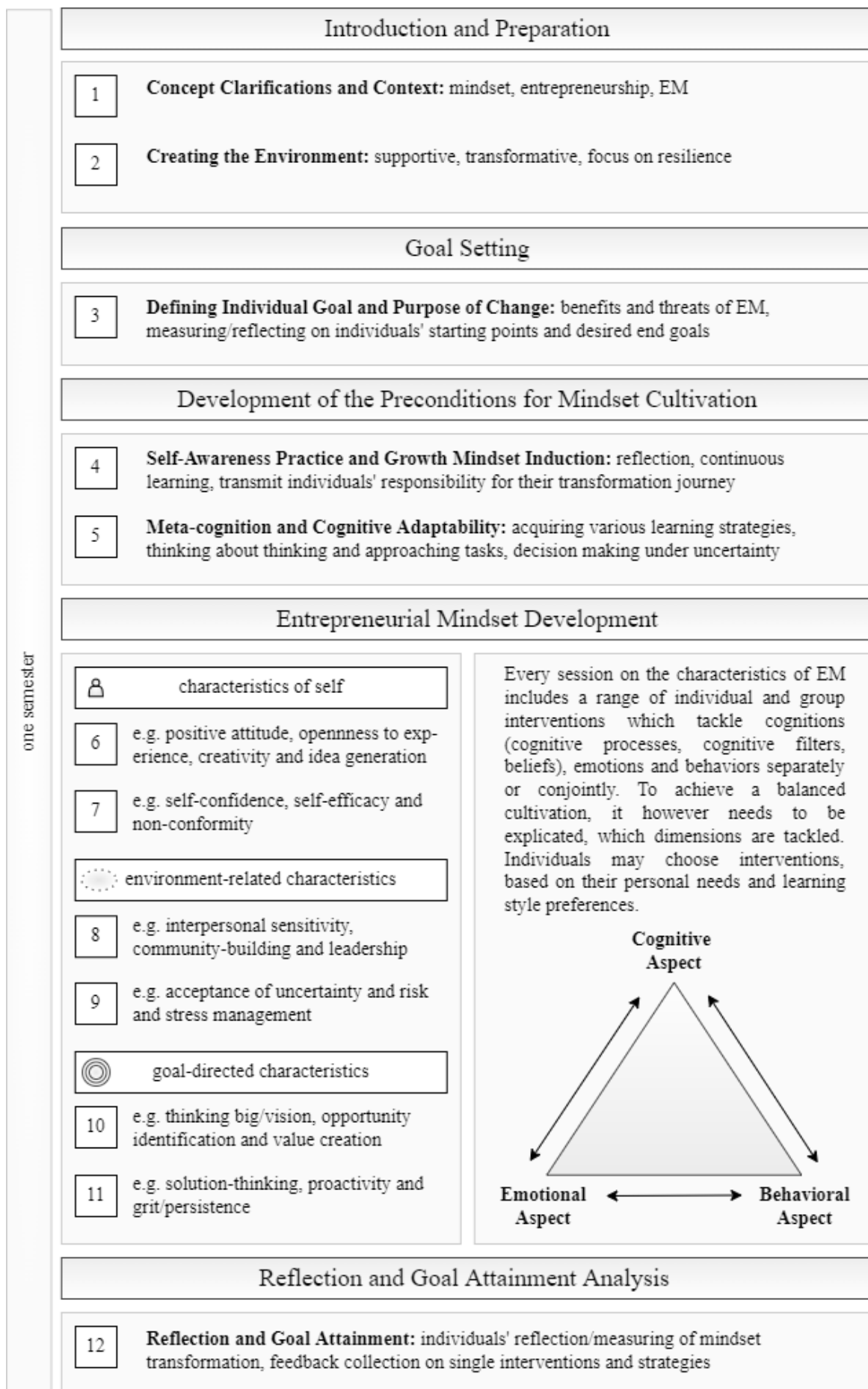


Figure 19: Possible Curriculum Structure for an EM Cultivation Program (own illustration)

5 Limitations and Future Research

Some research outcomes were restricted and posed limitations. Overall, this is a field of research that has not yet been sufficiently explored, thus further investigation is needed.

The divergent conceptualizations of mindset and EM, result in a lack of comparability of the constructs and pose limits to their practical application. It would be interesting to explore if the proposed 'layers of mindset' framework, which attempts to grasp the versatile nature of the concept, withstands further empirical testing and whether it also applies to other mindsets, such as a sustainability or a social entrepreneurship mindset.

Although this work contributes to the presentation of the status quo, which is not uniform but multifaceted, and its implications, it is limited to a Western perspective.

The literature used for the analysis is primarily English-language, and predominantly from American and European schools of thought. Moreover, even though slight cultural differences were recognized and addressed, among countries, all interview partners have a western background. It must be noted that in both German and Portuguese there is no literal translation for 'mindset'. Due to the language barrier, terms are used that only partially capture the concept, such as 'way of thinking' or 'mentality'. Padua (2021), defining mindset as a "*way of thinking that influences action*", explains: "*[i]f culture is the toolbox, a mindset is a way to use the tools or, the 'applicative' dimension of a culture. A mindset is conditioned by a culture: different cultures usually bring different mindsets*" (p. 48). Considering this, exploring EM against the background of other cultures might lead to valuable further insights as the GEM's (2013) results show that entrepreneurship is not culturally bound but a global phenomenon.

Much effort was put into sampling to represent a wide range of professional experience, interdisciplinarity and internationality in order to achieve richness and depth of the empirical results. Nevertheless, trade-offs in other variables must not be neglected.

Five out of six interviewees are female, except for the strikingly short interview time of the only male respondent, no concise difference in answers is visible. The salience is attributed to individual communication style, as time spans for the others also vary considerably.

All interview partners live in metropolitan areas. Thereupon, the appearance of EM, as well as its contexts and influences in rural surroundings require further investigation, as experts suggest that environment critically affects mindset development.

Another limitation arises from the selection of data. Whereas in theory the concepts of mindset and EM were largely considered to stand alone, the empirical data added contexts, backgrounds

and influences. Overlaps with other concepts were found. The correlation and interplay between EM and, for instance, entrepreneurial intentions, personality, and skills, spark further interest.

Additionally, the implications that have emerged over the course of this work provide a foundation for an evidence-based framework for individual and collective mindset cultivation. Further research and practical evidence are required to put the thesis to the test and to fill the curriculum with concrete interventions. The strategies suggested by the experts can serve as inspiration.

Finally, empiricism suggests a transformation of EM during a venture's life cycle, as it indicates possible threats. Both domains deserve further academic investigation.

6 Conclusion

This work aimed at establishing recommendations for the cultivation of an entrepreneurial mindset (EM). A combined approach of theoretical study and qualitative research was used to clarify the current scientific status quo on EM, to test how well it fits the reported reality of the study sample and to identify implications for its development. Existing literature on mindset and entrepreneurship was collected, representing the nature and context of EM. The combination of both was applied to the question of EM development.

The literature review offered an overview over the current theoretical knowledge base. The analysis resulted in the finding that concepts in the research field are vague and indistinct. The 'fuzziness of mindsets' framework (FoM) classifies mindset research into three streams: cognitive, social and positive psychology, which define mindset as cognitive process, cognitive filter and belief system respectively. For illustration purposes explanatory mindset pairs, representative for each of the streams were explored.

The research on entrepreneurship is focused on its behavioral notion, as entrepreneurship is assumed not to be bound to venture creation contexts. Entrepreneurial processes, explicating task requirements for entrepreneurs, are of high interest.

Research on EM was clustered according to the cognitive FoM framework. However, it appeared to go beyond cognition. Emotions and behavior were added as dimensions, followed by a synopsis of implications on the cultivation of EM, resulting from the divergent definitions of mindset and its areas of effect.

The empirical analysis added internal and external interdisciplinary perspectives on the topic and extended the theoretical findings by the circumstances, influences and impacts on EM, as

hoped for. Moreover, it aided in describing its subconscious development and identifying conditions and concrete strategies for EM cultivation.

Research outcomes from both theory and field study were analyzed in concurrence. To answer RQ1, the FoM framework was merged with the dimensions of emotions and behavior and the 'layers of mindset conceptualizations' were proposed. It suggests being able to map any definition of mindset, based on the assumption which emerged from research, that mindset concepts essentially differ by which of the elements (cognition, emotions, behavior) they include as dimensions into the conceptualization, and which they describe as its areas of effect or manifestations.

RQ2 is answered by the means of RQ1, concerning its dimensions. An occurrence analysis of an EM's characteristics demonstrates its differentiation. Characteristics of self, environment-related and goal-directed characteristics are identified, closely related to the task requirements of entrepreneurship as emerged from theory.

Finally, RQ3 was unanimously confirmed by theory and practice. Theoretical implications, derived from the divergent definitions of EM and expert recommendations on the preconditions of EM cultivation and suggested concrete development strategies were merged, proposing a potential curriculum structure for EM cultivation programs.

In total eight practical implications relevant for both researchers and practitioners were formulated. Overall, this work contributed in analyzing the state-of-the-art EM conceptualization, its dynamics and presenting recommendations for its cultivation. An important next step in EM research would be to focus on concrete interventions tackling an EM's dimensions. These evidence-based techniques for EM development would then contribute largely to entrepreneurship education, which in consequence could empower entire ecosystems.

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Appendices

Appendix 1: Summary of Entrepreneurship Definitions (adapted from Kouakou et al., 2019)

Author	Definition	Key Words
Cantillon (1755)	An entrepreneur is described as an individual who purchases raw material at a known price and sells it at an unknown amount.	risk
Say (1800s)	An entrepreneur shifts economic resources out of an area of lower and into an area of higher productivity and greater yield.	create value
Schumpeter (1942)	The function of an entrepreneur is to reform or revolutionize the patterns of productivity [...] by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry and so on.	change agent or innovator creative destruction
McClelland (1961)	An entrepreneur is a person with higher achievement and an energetic, moderate risk taker.	high achiever risk
Shapero (1975)	An entrepreneur takes initiative, organizes some social and economic mechanisms and accepts risks of failure.	initiative taker organizer
Kirzner (1978)	An entrepreneur is recognized and acts upon a market opportunity. The entrepreneur is essentially an arbitrageur.	arbitrageur opportunity
Stevenson (1983)	The pursuit of opportunity without regard to resources currently controlled.	resourcefulness uncertainty
Carland et al. (1984)	The entrepreneur is characterized principally by innovative behavior and will employ strategic management practices in the business.	strategic thinking
Kao and Stevenson (1985)	The entrepreneur is an attempt to create value through recognition of business opportunities.	value creation opportunity
Drucker (1985)	An entrepreneur always pursuits for change, responds to it and exploits it as an opportunity	opportunity
Low and McMillan (1988)	Entrepreneurship is the creation of new organizations.	venture creation
Gartner (1988)	Entrepreneurship is a purposeful activity to initiate, maintain and aggrandize a profit-oriented business.	profit
Hirsch and Peters (1989)	Entrepreneurship is the process of creating something different with the value by devoting the necessary time and effort, assuming the accompanying financial, psychological and social risks, and receiving the resulting rewards of monetary and personal satisfaction.	innovation value added risk profit
Lumpkin and Dess (1996)	Entrepreneurship is the creation of a new enterprise.	venture creation
Shane and Venkataraman (2000)	Discovering, evaluation and exploitation of an opportunity.	entrepreneurship as a process

Davidsson (2004)	The phenomenon of entrepreneurship really consists of new entry.	new market entry
Mohanty (2005)	Entrepreneurship is defined as the purposeful activity of an individual or a group of associated individuals undertake to initiate, maintain or earn profit by production and distribution of economic goods and services.	initiative taker profit maker
Sarasvathy (2005)	Entrepreneurial thinking differs from managerial thinking and strategic thinking.	effectuation
Timmons and Spinelli (2008)	Entrepreneurship is a way of thinking, reasoning and acting that is opportunity obsessed, holistic in approach and leadership balanced.	leader persistent committed

Appendix 2: Emerging Characteristics of EM (adapted from Commarmond, 2017)

Ability to exploit contingencies (1)	Independence (2)
Achievement orientation (1)	Initiative (2)
Action orientation (2)	Innovation (2)
Adaptability (2)	Insane hunger to succeed (1)
Ambition (2)	Internal locus of control (4)
Antagonism (1)	Interpersonal sensitivity (1)
Autonomy (1)	Iterative (1)
Benefiting others (1)	Learns from criticism (1)
Calculated risk-taking (1)	Malleable behavior (1)
Conscientiousness (2)	Mastery-oriented (3)
Consistent passion and interest (1)	Mediational judgment (1)
Context of relevance: More dynamic, nonlinear, and ecological (1)	Motivation (3)
Contextual goal-orientation (1)	Nature of the unknown: Focus on the controllable aspects of an unpredictable future (1)
Creativity and imagination (3)	Need for achievement (3)
Curiosity (1)	Need for empowerment (1)
Dealing with uncertainty(1)	Neuroticism (1)
Decision Making: Decisions made by what one is willing to risk (1)	Nonconformity (1)
Decision Making: Explores what else could be possible with given means (1)	Open to collaborate and partner (1)

Decision Making: Focused on the process and adaptable learning journey (1)	Open to feedback (1)
Desire to influence others (3)	Open to experiences
Determination (2)	Opportunity recognition (2)
Dynamism and complexity (1)	Optimism (1)
Effectual (1)	Passionate (2)
Effort-oriented (2)	Passion for entrepreneurship (1)
Embrace challenges (1)	Persistence (4)
Entrepreneurial identity aspiration (1)	Planning ahead (1)
Entrepreneurial intention (1)	Preference for a limited structure (1)
Entrepreneurial motivation (1)	Probabilistic (1)
Entrepreneurial self-efficacy (3)	Recognize Patterns and Linkages (1)
Extraversion (1)	Reflective (1)
Feeling of empowerment (1)	Resilience (1)
Finds lessons and inspiration in the success of others (1)	Resourcefulness (2)
Flexibility (2)	Responds rather than reacts (1)
Future-focused (1)	Risk-orientation (4)
General self-efficacy (3)	Self-belief and self-confidence related (6)
Goal-oriented (1)	Tenacious (1)
Goals set for learning sake (1)	Tolerance for failure (3)
Idea generation (1)	Underlying logic: To the extent, we can control the future, we do not need to predict it (1)

Appendix 3: Semi-Structured Interview Guideline (Entrepreneurs)

RQ	Key Question	Contextual Aspects	Probing Questions
	Introduction:		
	1. <i>Who are you and what do you do? Please introduce yourself shortly.</i>	self-perception	<i>How many years of experience do you have?</i>
	Entrepreneurship:		
2	2. <i>What makes you an entrepreneur?</i>	role as entrepreneur self-perception	<i>Which skills, talents, personal traits, experiences, values, habits, etc.</i>
2	3. <i>How did you become an entrepreneur?</i>	personal development experience beliefs about entrepreneurship	<i>Have you always been an entrepreneur?</i>
	Mindset:		
1	4. <i>What do you understand under the term mindset? What does 'mindset' mean to you?</i>	mindset conceptualization	<i>Is there any book, resource that shapes your view?</i>
1, 2	5. <i>How would you describe your mindset?</i>	personal mindset entrepreneurial mindset	
1,2	6. <i>How does your mindset influence you in your daily life?</i>	influence of mindset	
3	7. <i>How did your mindset or aspects of it develop over time?</i>	beliefs about mindset mindset development	
3	8. <i>Were you conscious of this development or even aimed for the change?</i>	beliefs about mindset mindset development strategies	<i>Evaluate the strategies you used.</i>
	Entrepreneurial Mindset:		
2	9. <i>How does the mindset of an entrepreneur differ from non-entrepreneurs?</i>	entrepreneurial mindset dimensions	<i>What are the most important aspects in your opinion?</i>
	Benefit for Self and Community		
	10. <i>How far do you think entrepreneurship benefits organizations and communities?</i>	benefit of entrepreneurship purpose	<i>What is your purpose?</i>
	11. <i>Do you think an entrepreneurial mindset can also have negative impacts?</i>		
	Conclusion		
	12. <i>Is there anything else you would like to share with me on the topic?</i>	open aspects	

Appendix 4: Semi-Structured Interview Guideline (Facilitators)

RQ	Key Question	Contextual Aspects	Probing Questions
	Introduction:		
	1. <i>Who are you and what do you do? Please introduce yourself shortly.</i>	self-perception	<i>How many years of experience do you have?</i>
	Entrepreneurship:		
2	2. <i>What, in your experience, on a personal level, makes a good entrepreneur?</i>	beliefs about entrepreneurship	<i>Which qualities, personal aspects, etc.?</i>
	Mindset:		
1	3. <i>What do you understand under the term mindset? What does 'mindset' mean to you?</i>	mindset conceptualization	<i>Is there any book, resource that shapes your view?</i>
3	4. <i>How far can mindset be developed and changed?</i>	beliefs about mindset mindset development	<i>Are there any prerequisites for mindset change?</i>
3	5. <i>What advice would you give someone who wants to change his/her mindset?</i>	beliefs about mindset mindset development strategies	<i>Evaluate strategies.</i>
	Entrepreneurial Mindset:		
2	6. <i>How does the mindset of an entrepreneur differ from non-entrepreneurs?</i>	entrepreneurial mindset dimensions	<i>Please describe the entrepreneurial mindset.</i>
2	7. <i>According to your experience, which 5 mindset aspects would you identify as the most crucial for entrepreneurial success?</i>	dimensions	<i>Name theory dimensions and evaluate them.</i>
	Benefit for Self and Community		
	8. <i>How could EM benefit individuals who are no entrepreneurs?</i>	benefit of an entrepreneurial mindset	
	9. <i>Do communities / society benefit from people with EM or is there also a potential threat?</i>	impact on society	
	Conclusion		
	10. <i>Is there anything else you would like to share with me on the topic?</i>	open aspects	

Appendix 5: Transcript of E.1

Information about the Interview

Date: 01/06/2022

Means of Communication: Zoom

Duration: 00:17:05

Language: English

Interviewer: Hannah Boehm

Transcriber: Hannah Boehm

Information about the Interviewee

Country: Germany

Experience in the Field: 4 years

Highest Level of Education: A-levels

Type: Entrepreneur

Remarks in brackets serve the purpose of anonymisation and clarification.

1 **Interviewer:** Thank you. Thank you for being part of my interview. So I'm conducting research
2 on the topic of entrepreneurship and mindset, and I'm really interested in your personal percep-
3 tion and opinion on that topic. So, just relax and answer my questions please. **Introduce your-**
4 **self shortly. Who are you and what do you do?**

5
6 **E.1:** So my name is [name]. I'm 24 years old from Berlin and I am co-founder of an IOT com-
7 pany, an internet of things company. We're located in Germany, Finland and Spain.

8
9 **Interviewer:** Okay. Wonderful. Thank you. So you said you're a co-founder. **What do you**
10 **think makes you an entrepreneur?**

11
12 **E.1:** I think it's just the drive, that I love to create new things and like developing projects by
13 myself and also deciding the way I want to move on and include different partners and being
14 really, really proactive and seeing opportunities everywhere. I think, really entrepreneurial is
15 the drive to learn. This is what I'm seeing in myself.

16
17 **Interviewer:** Yeah. I totally agree. That's beautiful. **So how did you become an entrepre-**
18 **neur?** I mean, you're saying you're an entrepreneur now. **How did you get there?**

19
20 **E.1:** I think I started quite young. I mean, I actually started in my childhood when I was 14
21 years old. So there were blogs, for example, really modern. I really liked this and I always liked
22 to work on my own projects. So at fourteen years old, my entrepreneurial drive just started out.

23
24 Also, because I knew that in my family, my uncle is an entrepreneur and we're just developing
25 all the projects and could decide. And he was traveling a lot. So this is what I saw from my
26 family. But also when I started my blog, you know, I could write texts, build up partnerships
27 and so on. And, so I always knew that I really wanted to do something on my own.

28

29 And, then when, after my A-levels, in 2016, I was traveling the world for two years. And I also
30 saw so many people, as digital nomads traveling around. This was another time of planting the
31 seed.

32
33 And then I moved to Berlin in 2018 and in Berlin the startup scene is so big and the atmosphere
34 is so pulsating that I was just deciding: Hey, that's, that's the right time to really become this
35 and to really create a startup and bring it to market.

36
37 **Interviewer:** It's actually really interesting. So you're basically saying, this came out of yourself
38 and the experiences you had, that were nurturing it, isn't it?

39
40 **E.1:** Definitely, definitely. I think it's a combination of course. You always have to have an
41 inner drive and you also need to have a high level of self motivation. I think this is what really
42 differentiates it from normal people or employees because they always need some person who's
43 mentoring them or who's, you know, standing over them and showing them around. I mean, as
44 children, we learn that when we were in class and we had a teacher, in university we have a
45 professor, so we always actually have one person over you, above you.

46
47 But I mean, when you have this inner drive by yourself and you don't need a person to show
48 you the way. Additionally, I with the atmosphere and the environment when you surround your-
49 self with motivated people. I think this is the really right combination with a portion of learning,
50 which pushes you into the direction.

51
52 **Interviewer:** Yeah. Yeah. Thank you. This gives me a big introduction into what you think
53 about entrepreneurship and that's wonderful. I think we share a lot of opinions on that. So now
54 looking into the other topic that I'm researching, which is mindset. **Can you maybe explain to
55 me what you understand, under the term mindset, what does it mean to you?**

56
57 **E.1:** Mindset, the set of mind. I mean the state where your mind is in. Your mind, your thoughts,
58 your beliefs, your values, and also the way you think. I think this is it for me, the whole mindset
59 of, you know, thinking about certain things differently, maybe as other people, because we're
60 all unique.

61
62 **Interviewer:** So this is for you the belief system in the end that controls...

63
64 **E.1:** Totally, where you are actually based.

65
66 **Interviewer:** Thank you for that explanation. **So, how would you describe your own mind-
67 set?**

68
69 **E.1:** Really positive and really proactive. I mean like, it's a belief system, like values and I
70 defined myself five values where I'm really acting on. It's independence, it's loyalty, it's love,
71 family and success.

72
73 So this is where my actions are based on, and paired with continuous learning and always seeing
74 solutions and opportunities. And also really being open-minded. I would say, my mindset is
75 pretty open-minded all cause I was traveling so many, so many cultures.

76
77 So, I'm always asking myself, is this the norm? Or could, could it be different? And this is, I
78 think this also fits with the entrepreneurial mindset because you always say, okay, could we
79 change it in a more positive and effective way? Does this answer your question?

80

81 **Interviewer:** Yeah, it totally answers my question. **So, you seem to be conscious of your**
82 **mindset and do you think that you developed your mindset overtime?** Are you conscious
83 of this development?
84

85 **E.1:** Totally, I would sign that a hundred percent. I remember with sixteen reading personal
86 development books which are shaping my mindset also.
87

88 And when I was in uni, I wanted to have a mentor. You know, I was just taking a third person,
89 talking through my stuff and we were meeting up or catching up like every, every two or one
90 months and seeing each other. And he was, sharing the experiences. But also then I understood
91 that also, your mentors can be your friends, your partner, or your professor who are not even
92 described as mentors, but they're giving you input. So. With these experiences from older peo-
93 ple, you know, you're shaping your mindset and I'm always doing that.
94

95 I'm sitting down every single month or at the end of the year, I did that 2021 to be ready for
96 2022. You know, just like reflecting, I think this one is really shaping your mindset. What is
97 working, what is not working or if somebody is giving you other input and you think, oh man.
98 Then you have this click moment, just like, oh, I haven't thought about that. But this could also
99 be a way to do so.
100

101 **Interviewer:** Yeah, I like that. So this explains to me very much how conscious you are, and
102 this is actually really great for this conversation right now, because this means that you can
103 reflect a lot on it. So. **Is there a certain aspect of it that you really wanted to change? You**
104 **referred to some strategies.** Are there some you can come up with right now?
105

106 **E.1:** When we are thinking about being like an employee because I always believe my parents
107 because I didn't go to university and they always were saying okay, to go to university, to do a
108 bachelor, master and then doctor, it's like the way, the way to do. The way how we should live
109 life.
110

111 And I mean, with meeting people or entrepreneurial driven founders. So this made me, of
112 course, believe that this is not, you know, the way for me, but also that there is another possi-
113 bility, for example. Or just a random example, like one of my friends was saying, okay, he's
114 living in Berlin, but he's working for an American company. So I mean, this is actually not
115 normal, but it's possible also because their pay rate is much higher.
116

117 But you know, that you have so many opportunities out there and, nothing is the norm.
118

119 **Interviewer:** Okay. So you learned a lot by acting on opportunities or things that you haven't
120 thought about before.
121

122 **E.1:** Exactly.
123

124 **Interviewer:** Cool. So this already partly answers my next question. How does your mindset
125 influence you in your daily life? Do you want to elaborate on that a little bit more?
126

127 **E.1:** Always when I'm having a conversation with a person, I try to understand him or her, and
128 also like to create opportunities, but also like to, to support them.
129

130 And Hannah, you know, the scene in Berlin, the Berlin startup scene is actually pretty small
131 and it's always compared to a village. And when you're a founder, I think you stick under a
132 small community kind of. So we always try to think about how we can help or influence other

133 people positively or how we can connect people to another person so that everyone is benefiting
134 from it.

135

136 So I think this really shaped my mindset because I'm not thinking before a conversation: Okay,
137 what should I get out of a meeting? It's just like, I'm listening to stories of other people and
138 trying to help them in a certain way. I think this is also a key aspect of the change of mindset.

139

140 **Interviewer:** So would you agree that somehow the action that you take on your mindset, how
141 you want to change your mindset and then these actions that you take kind of re-shape your
142 mindset again?

143

144 **E.1:** Definitely because you're learning out of it.

145

146 **Interviewer:** I don't know if you have heard about it, but I was reading research on Carol
147 Dweck which is one of the main authors on fixed and growth mindset differentiation. And what
148 I hear from you is that you have a really, really strong growth mindset, what's wonderful. Maybe
149 I can share some research on that with you later on.

150

151 **E.1:** Definitely really do it! Do so.

152

153 **Interviewer:** So, another question now, also on mindset: **How do you think the mindset of**
154 **an entrepreneur differs from non-entrepreneurs?** I think you started to get into this before.
155 Maybe just to talk about it more explicitly here again.

156

157 **E.1:** I would say entrepreneurs or founders are more committed, you know, because it's your
158 own baby. When they're really passionate about their work, they love to learn. They are, as I
159 said, very committed all the time. So that it's not like Monday to Friday, 8:00 AM To 5:00 PM.
160 It's like every time. But they also love what they do. Seeing opportunities, thinking about pos-
161 sibilities, but also being really independent and just love to create certain things. And I mean,
162 as we're coming from generation Z, we also like to leave impact and really do something posi-
163 tive.

164

165 You know, I would say that employees go home to have fun. I mean, just from my experiences,
166 and we are having and finding our fun at work.

167

168 **Interviewer:** I think I experienced that as well. So, from your perspective, but also from the
169 founders, you know, what do you think, are they, if you have to break it down to **five most**
170 **important aspects that differentiate the entrepreneurial mindset from the non-entrepre-**
171 **neurial mindset?**

172

173 **E.1:** Solution thinking, independence, motivation, learning, and community-based actions.

174

175 **Interviewer:** Wonderful. Thank you. **Do you think entrepreneurship benefits, not only the**
176 **people that are doing it, but also their organizations and communities?**

177

178 **E.1:** Sure. Sure. I mean, with entrepreneurship comes innovation and as we are a fast forward
179 driven society you know, technology is evolving technology or innovation. When you want to
180 have impact, a positive impact, it's good for the community, it's good for nature.

181

182 I mean entrepreneurs are the people with the companies who are taking care of society, em-
183 ploying people so that everyone can live a normal life. And in so many ways influence the
184 world.

185
186 **Interviewer:** So what is your purpose for that? It seems like you're identifying yourself very
187 much with being an entrepreneur as well as seeing that as your purpose, is that correct?
188

189 **E.1:** Well, it's totally correct. I just want to make a note of that. I was talking last year to one of
190 my coaches last year and he was asking me who I am. Cause I always describe myself, you
191 know, like being really in business and he was saying to me, but [name], you're more than
192 business.
193

194 But actually, apart from business, what are you, who are you really? Because I'm like, I think
195 as most entrepreneurs I have asked, so deep into that topic, that they only identify themselves
196 over the business. And I think this could also be really negative, when maybe your business is
197 not running so quickly or going down because then you're totally lost because it just takes your
198 passion away, and who you are. You know?
199

200 **Interviewer:** Is it, after this conversation, kind of part of your mindset to maybe not identify
201 yourself a hundred percent with your business?
202

203 **E.1:** Yeah. Yeah, totally. So then we discovered that, of course, I'm so much more. Also the
204 world, traveling experience or playing piano, or meeting up with friends, or being in love with
205 techno and goa music. You know, I do so much more than just my business. Yeah, and then
206 you're fine. I think it's only part of me.
207

208 **Interviewer:** It's actually! Yeah, it just came up in the conversation right now, but actually this
209 topic of **identification** is also very interesting, because I think it also influences a lot, our mind-
210 sets and our behaviors. I will look more into that as well. **Is there anything else you would**
211 **like to share with me on the whole topic of mindset, entrepreneurship and entrepreneurial**
212 **mindset?**
213

214 **E.1:** I think it's the higher you get, the more mentors or successful people you surround yourself
215 with and of that you're getting knowledge, the faster you are, I would say. And I think it's not
216 about the business idea itself, which pushes you. Of course, it has to be like a cool business
217 model, it's really about the people. You know, and the mindset, you have to create solutions
218 and partner up with the right people.
219

220 **Interviewer:** Well, thank you. Thank you so much for those insights. I got everything I need.

Appendix 6: Transcript of E.2

Information about the Interview

Date: 01/13/2022

Means of Communication: Zoom

Duration: 00:27:49

Language: English

Interviewer: Hannah Boehm

Transcriber: Hannah Boehm

Information about the Interviewee

Country: Portugal

Experience in the Field: 14 years

Highest Level of Education: writing her PhD

Type: Entrepreneur

Remarks in brackets serve the purpose of anonymisation and clarification.

- 1 **Interviewer:** I think I introduced that to you already, but I'm conducting interviews on the
2 topics of entrepreneurship and mindset. And I'm very grateful that you're contributing to the
3 research and really excited for your answers. And I'm really interested in your personal percep-
4 tion and opinion. So yeah, you can just answer the questions intuitively. So the first question
5 would be **who are you and what do you do? Just introduce yourself shortly, please.**
6
- 7 **E.2:** So, Jesus, I think, I think I'm someone that is quite aligned with my dreams. Do you know
8 what I mean, Hannah?
9
- 10 My husband he's here now at home. And I think one of the things that we talk about the most
11 is the fact that I truly adore the life that I have nowadays. And for me it was something that has
12 been one of my main drivers to understand who I am 'cause I think that's the main question that
13 I asked myself. Are you okay with this? Are you feeling comfortable? Is it, is it fulfilling you
14 as a human being? Not as a woman, not as a gender, so it's not about that. It's just who I am and
15 how I behave with myself. Nowadays I've been leading a startup that is a strategic consultancy
16 for sustainability. That basically translates sustainability into business. And for the first time in
17 my life, I'm launching a software as a service.
18
- 19 So I'm creating a tech for good company. And honestly, that for me has been actic. Do you
20 know? When you approached me in order to have this conversation with you I, I couldn't expect
21 and have at the same time, a better timing for it, you know, because I think entrepreneurship
22 plus technology plus female founders is a mess. Really from the bottom of my heart.
23
- 24 And I teach, I learn a lot. I teach in University Catolica mainly, Nova Sbe some. I'm doing my
25 PhD in human rights, plus ESG, access to connectivity. So basically I'm studying economics
26 and law. Personally speaking.
27

28 I'm at that stage of life that I'm now designing to conceive family. I have my husband but besides
29 him, I think we are in the, in this moment of creating the conditions for being parents. And I'm
30 a very fortunate daughter and granddaughter. And I think that's a beautiful thing nowadays.

31
32 **Interviewer:** Thank you for the introduction. Just one add on like from a professional point of
33 view, **how many years of experience do you have?**

34
35 **E.2:** Hm. Fourteen.

36
37 **Interviewer:** That's cool. That's actually a lot more than the entrepreneur I was talking to last
38 week who has three years of experience. But it's beautiful to see those different perspectives.
39 **So I would continue with the second question: What makes you an entrepreneur?**

40
41 **E.2:** Oh, Solving problems. You know what I mean? It's only about that for me. Entrepreneur-
42 ship - I see a problem and I would say three words. Problem solver, second optimization, third
43 efficiency.

44
45 So when I realized that something that is working in a subject or topic that I love, for example,
46 humanity, human kind. I have the necessity of doing something. For me, sustainability and all
47 of those ESG matters and topics are related to the fact that you can behave better. It's about that.

48
49 **Interviewer:** So, this is why you're being an entrepreneur, **but are there some skills or talents**
50 **or personal traits that aid you in that?**

51
52 **E.2:** I think. I'm going to tell you something. I don't know if it comes in the books. I'm from a
53 family where half of my family is quite streetwise and that for me was really important to ne-
54 gotiate with the sharks that you'll find in life. And I'm not afraid of being a woman and I'm okay
55 within my skin, but at the same time I have the necessity, several, yeah, in several situations to
56 speak a little bit harsher, harsh, do you know, or even more pragmatic and straightforward. And
57 in women, we are considered aggressive. And cold, so one of my nicknames has been and was
58 ice queen and I love it.

59
60 **Interviewer:** Yeah. This is interesting. This was actually something that impressed me on you
61 because I felt this like a little edginess on you as well. When I met you in person and I think
62 this is something where I'm in need as well.

63
64 **E.2:** You know what, Hannah, one of the things is not taking life too seriously, but at the same
65 time, if you know exactly your boundaries and your limits and what, and in which, and what
66 you add value to, that's not an issue. One of the things that I realize in Portugal that you do not
67 have in Germany, I think, or in the Netherlands, but here you have it. One of the things that are
68 real, that I realize is you're always taking accountability for things that you haven't done.
69 It's almost that we are submissive. We undermine ourselves and I. I still cannot understand the
70 reason why for it still, and yet, but I truly believe that it is related to the fact that we are a
71 religious country.

72
73 **Interviewer:** Yeah, this is actually interesting that you're mentioning that. It's the first time I
74 heard that from a Portuguese person, but this was something that I felt with students in Portu-
75 gal, that there was a lot more, you know, like more relying on, what are the rules. There were
76 a lot of questions. What, what are the rules? And I haven't experienced...

77
78 **E.2:** Or what is expected to get grade A or 100%, what should I do? Like what the fuck, just
79 overcome yourself, you know, overcome expectations and, and that kind of necessity of external

80 validation. It's something that I, I think we, we, we have to build better relationships with our
81 youth in order for them to feel comfortable in their skin. And we women, definitely, we need
82 to work together because I'm, I'm so insecure in, in so many things. And for me, the privilege
83 of having a safe place. I know that I'm truly blessed for it, a place where I can speak up where
84 I can be vulnerable. Where I can express my fears because in business I cannot make it. And
85 that's quite sad.

86
87 **Interviewer:** But don't you think this is also like a goal for us where we, where we should go,
88 being able to be vulnerable at that place as well?

89
90 **E.2:** Oh yeah. Yeah. The thing is, if you ask me [name], but do you believe that you should
91 behave exactly the same? That you'd behave at home with your clients? No, no, no. I'm not
92 saying that. My husband has a part of me that nobody has and that's the beauty of it. That's the
93 intimacy. That's the fact that he has been my husband and the person that we've chosen for each
94 other. Correct? The thing is what I feel. And I don't know if you agree is, I can express my
95 fears. You know, I, I sit, I, I share with my clients something like this, I do not know how to
96 handle it, but I will find a way, I say I do not know, and I'm not afraid of it. You know, I don't
97 expect to know everything.

98
99 **Interviewer:** That's, that's, that's wonderful. I always try to do that as well, because I think that
100 gives integrity as well, doesn't it?

101
102 **E.2:** And intellectual honesty.

103
104 **Interviewer:** Yeah. And in the end, it's a problem solving skill as well to say, okay, I don't
105 know now, but I will in a few days...

106
107 **E.2:** ...and I will handle, do you know?
108 One of my clients called me yesterday and I was like, don't worry. I will handle that. I under-
109 stand what you mean. I do not know the answer now, but I will find a way.

110
111 **Interviewer:** Makes sense. Makes sense to me. **So could you maybe explore a bit on how**
112 **you actually become an entrepreneur?** So when did that come up in your life?

113
114 **E.2:** One of my best friends, Hannah, she told me during this new year's eve that in her opinion,
115 I'm not Portuguese. And I was quite interested in that, you know what I mean? It's like really
116 cool. And the reason why, in my opinion, that she, she told me that was the fact that I've been
117 brought up in a family where having critical thinking was mandatory. You have to, you have to
118 question, you have to be informed and you have to pay attention to the world surrounding you.
119 So who are you? Who are they? Is there any difference between you and the others? So I think
120 from quite young, I was 13 when I started my first company. So an entrepreneurial project with
121 cakes, Brigadeiros, it's like a Brazilian chocolate cake.

122
123 **Interviewer:** I love those.

124
125 **E.2:** So, you know, and, and I remember this for me was a breaking point. I remember the fact
126 that I was just with this little box with six Brigadeiros, and I went to a lot of cafes in Carcavelos
127 because I've lived here and all of them, except one, told me no. There was one that told me,
128 okay, I was 13 years old and he told me I will sell your Brigadeiros, but let me see if they are
129 good or not, let me see if clients want to buy them. And he sold the six in one day, but I didn't
130 know that. And so I arrived at home and I told my grandma: everyone told me no, just one said
131 yes to me when she was like, yes, [name] and what? You have the yes, so celebrate, and that

132 for me was a breaking point. You know, Hannah, because for me it was the, the relevance the
133 importance of you embracing every single little step. I've never been afraid of being an entre-
134 preneur because I've never been afraid of failing.

135
136 Fear for me is a drive. I love it. When I'm afraid it's because I'm out of my comfort zone. So
137 my, my career started in a very interesting place. It was ILO at a UN agency, human trafficking.
138 And then backpacking to India, Nepal, Tibet. And afterwards I started, for the first time, my
139 own NGO to understand how to bootstrap, how to optimize resources. And nowadays I have a
140 startup. So my career was a multinational, NGO, multinational, startup, but I've always been an
141 entrepreneur even when working for others.

142
143 **Interviewer:** Yeah, this is going to be an interesting perspective as well. I will ask you a few
144 things about that, going further. So now I have an understanding of who you are and what do
145 you think about entrepreneurship. So I would like to move to the mindset topic. **So I would like**
146 **to ask you, what do you understand under the term mindset? What does mindset mean to**
147 **you?**

148
149 **E.2:** Mindset? It's an art of questioning and implementing. So you need to have the ability to
150 question, question yourself, doubt yourself and everything that you see and at the same time
151 implementation, because if you are just a guy or girl who asks without any solution, you're not
152 an entrepreneur. You are a philosopher. But you are not an entrepreneur.

153
154 An entrepreneur is the one that assumes the risks and implements, in my opinion. Risk taker,
155 problem solver, visionary. And what I'm saying is, Hannah, and this is really relevant. You can
156 have these features, traits in one single human being, or you can have different kinds of entre-
157 preneurs. If you ask me, the one that I am nowadays, my mindset is I, I think I would be the
158 one that visions, you know, I'm visual. I know the roads. I know the path, the path to go, and
159 my team follows co-create, co-built, re-define, re-design, but I'm the person who tells them we
160 are going to Brazil. We are going to Mexico, we are going to build this in Dubai. This is, this
161 is my mindset. Why? Because I have the vision, the reason why the, the uniqueness factor that
162 I've seen in that targets 2025 that they are not seeing, but they are incredibly implementing. So
163 they are entrepreneurs.

164
165 **Interviewer:** Okay. Yeah. So you're a leader basically, isn't it?

166
167 **E.2:** If you want to call it that, you know, I think people follow because they believe, because
168 they trust, they rely on. I could never promise you something that I will, that I won't deliver.
169 And if I don't deliver, I will apologize and I will create a solution. I do not run away from things.
170 You know what I mean? I give my, and my team, they work with me for around 10 years
171 already. So they know me, you know, they started with me and. They know who I am.

172
173 **Interviewer:** Yeah, I understand. **So how would you say your mindset developed over time?**

174
175 **E.2:** Sponge, sponge? I think I'm a sponge and I, I think it's about, Hannah, do, you know? I
176 remember the first meeting that I had with an investor in 2011 regarding the NGO. And he
177 destroyed me. He told me that I was done, that I was not clever, that I couldn't make it, that I
178 was going to fail. I remember those words, you know, and he was my mom's friend, so I didn't
179 cry in front of him, but I cried a lot in the car with my mom.

180
181 And nowadays he's my advisor and I'm his advisor. That's the beauty of it when you transform
182 every single message and knowledge into learning. And I think I'm a sponge because of that,

183 because I do not assume nowadays that you are destroying me. I assume that you are helping
184 me.

185
186 **Interviewer:** Yeah, because it doesn't matter what, what message you get. You, you transform
187 it in a way that it has a positive outcome for you.

188
189 **E.2:** Completely, completely. It's different, really different. It comes from my core people. So
190 like my husband, for example, my mom, my dad, if they tell me that I'm a shit. That impacts
191 me. That is really impactful in my self-esteem.

192
193 **Interviewer:** Yeah, that, that makes, makes total sense. But that fits also together a bit with the
194 picture of the ice queen you painted before saying that outside of the world, you kind of have
195 this protection and inside your circle, I think this is something that probably most people have
196 just, I think a lot of people actually get this negative impact, doesn't matter from who the mes-
197 sage comes. And this is a beautiful learning as well to develop that skill of kind of building that
198 boundary of not letting it to you.

199
200 **E.2:** Oh yeah. Yeah, because, Hannah, envy, prejudice, judgemental minds, you will have a lot.
201 The thing is how you handle them, how you handle them, you know, how you handle with the
202 people that share that kind of emotions with you. Toxic people for me is one of the things that
203 I realized, that drains my energy, drains. It's something that I do not feel comfortable around. I
204 do not want people that are always sharing life disasters, negative things in life. I don't want to.
205 When, when we are talking about the vulnerable situations, like the people that I've worked
206 with in prisons, that's a different story. But when you are surrounded by privilege, even though
207 you're always complaining. Hard to handle, oh Jesus.

208
209 **Interviewer:** I can, I can relate. Let's say that. So do you, did you ever experience a situation
210 where you thought about an area of your mindset and you said, okay, **this is an aspect of my**
211 **mind or my mindset that I would like to change.**

212
213 **E.2:** Oh yeah. I'm really, trust me. I speak a lot with myself. I digest myself. I think one of the
214 things that I do the most is to breathe and think about my, my, my, my identity. Who am I?
215 What am I doing here? Am I proving something to someone? Am I trying to be successful? Am
216 I trying to be validated by the public audience? What I, what am I, what am I looking for? And,
217 and that's digesting every single emotion has been my life since I was 14. So I think that's the
218 reason that I have self love. Because I know my boundaries and my limitations, you now.

219
220 **Interviewer:** Yeah. Makes sense to me how, how you're doing it, but do you **maybe want to**
221 **share one, one aspect where you said, okay, maybe for me it was for example, that I was**
222 **very, very shy in school and I said, I would like to change that because I feel like I'm**
223 **limiting myself with that. Do you have something like that?**

224
225 **E.2:** I always tremble and I have that imposter syndrome when I'm invited to speak publicly.
226 So I had to do theater, drama, drama, school, drama classes, in order to be comfortable in my
227 skin, enough to be on a stage. It's incredible because nowadays I speak in conferences. I teach
228 at school in university and everyone tells me [name], you are so comfortable in the stage!
229 What?! You don't even know what happens to me, how nervous I am. And I think that has been
230 a beautiful learning.

231
232 **Interviewer:** This is something I could have never told. Actually you, you're like so bright and
233 you're shining like such a super self-confident person. Yeah. That's wonderful. Also empower-
234 ing to know that you know, I can get there.

235
236 **E.2:** Yeah. I think it's, it's a mask that I have nowadays. And my husband knows every single
237 time that I'm going to speak publicly. He tells me you are, you are nervous. Do you have some-
238 thing tomorrow? He knows that I'm so insecure. It's always that I feel the imposter syndrome.
239 Do you know what I mean? I'm always feeling that I'm not enough, that I shouldn't be the one
240 chosen to be in that stage, always feeling that then. And in order to reinvent myself, I say yes
241 to all the invites that people do to me.

242
243 **Interviewer:** That's good. I mean, facing the fear!

244
245 **E.2:** Go!

246
247 **Interviewer:** I think this is the only, only way to get more comfortable, I think. I have things
248 like that as well. So what do you think, **how does the mindset of an entrepreneur differ from**
249 **the mindset of a non-entrepreneur?** I think you've started to cut on that already.

250
251 **E.2:** How can I say this? I think it's not the mindset that is first, it is the reason why of your
252 existence. If you ask me to be working in McKinsey and being an entrepreneur there, I think it
253 would be quite challenging for me, challenging really. Because I think I wouldn't be aligned
254 with the culture, with the core values and with everything that they do. So I would have a lot of
255 issues working for them, for being an entrepreneur there. But if you asked me, [name], are you
256 always thinking about your work every single day? And I think that's one of the things that is
257 mandatory for you to become an entrepreneur is the fact of you having consistency.

258
259 And something that is even more important than yourself, having a calling. You know, you,
260 you need to have a cause. And I think for me, my cause is the economy is changing, reinventing
261 how the economy works. So, as soon as I understood that, for me working is not a, it's not a
262 thing. I just enjoy it. It's a hobby. And I think that's the main difference in my opinion.

263
264 **Interviewer:** Yeah. Makes sense to me as well. I, I liked that you are super purpose-centered
265 somehow. That's, that's how I feel your answers.

266
267 **E.2:** I am. I think, sorry to interrupt, just to tell you something. I think the majority of people
268 do not have purpose. They haven't found it.

269
270 **Interviewer:** Or not thought about it, yet. Because, I believe that everyone has a purpose. It's
271 just a matter of...

272
273 **E.2:**...finding. Acknowledging.

274
275 **Interviewer:** So how, **how far do you think entrepreneurship benefits, organizations, com-**
276 **munities, and yourself?**

277
278 **E.2:** I think without entrepreneurship you have poverty, you have lack of energy. You have,
279 you do not have a world to be.

280
281 **Interviewer:** Okay. Yeah. It just to shortly say, **what do you understand under entrepre-**
282 **neurship itself, how would you define it?**

283
284 **E.2:** Broader perspective and art of creating foundations and the extra mile in the society.
285

286 **Interviewer:** Okay. Thank you. **Do you think an entrepreneurial mindset can also have**
287 **negative impacts?**

288

289 **E.2:** Of course. Do you know why? Because it's not about entrepreneurship. It's about the hu-
290 man, who is behind.

291

292 **Interviewer:** And what could negative impacts be?

293

294 **E.2:** Everything that is not in order for common ground and common good. If people do not
295 think about the ecology, the system itself. If you just think about your little bubble, I think that's
296 really dangerous. If you do not leave yourself to observe what you are doing to the community,
297 to the world, to your society, to the country that you are based in, it's an issue. My opinion.

298

299 **Interviewer:** Thank you for that perspective as well. Yeah, so we actually, in the end, I already
300 have my questions. So **I would like to ask you if you have anything on those topics, like**
301 **entrepreneurship mindset, entrepreneurial mindset, to share with me, to give me on the**
302 **way?**

303

304 **E.2:** I think one thing that we should definitely understand is the fact that for you to be an
305 entrepreneur, you need to know yourself and consequently, you need to know the reason why
306 of your existence and you know, in order for you to have that, you need to try a lot of things.
307 So every single experience from the day that you are born until the end of life, it's mandatory
308 for you to be aware of a whole perspective. And I think if you asked me, Hannah, I think al-
309 lowing kids, youngsters to try and to have multidisciplinary subjects in university and school,
310 should be mandatory. So you cannot be an entrepreneur if you do not understand what is min-
311 gling, because you need to create empathy, you need to create, you need to be empathetic to
312 understand what people are needing and what they are needing that they do not know.

313

314 **Interviewer:** Okay. Thank you for, for that perspective to the future as well, to next genera-
315 tions.

Appendix 7: Transcript of E.3

Information about the Interview

Date: 01/14/2022

Means of Communication: Zoom

Duration: 00:28:39

Language: English

Interviewer: Hannah Boehm

Transcriber: Hannah Boehm

Information about the Interviewee

Country: Germany

Experience in the Field: 2 years

Highest Level of Education: A-levels

Type: Entrepreneur

Remarks in brackets serve the purpose of anonymisation and clarification.

- 1 **Interviewer:** You know that I'm conducting interviews on the topic of entrepreneurship and
2 mindset. Yeah, I'm super happy that you're contributing to my research and I'm very excited for
3 your answers. And as I'm interested for your personal opinion and perception, you can just
4 answer intuitively. Alright. **So who are you and what do you do? Can you please introduce
5 yourself shortly?**
6
- 7 **E.3:** I'm [name], I'm 21 years old. I was born and raised in Berlin. I'm currently, I'm still stud-
8 ying, I'm doing my bachelor's in economics. And on the side I work for Tomorrow University
9 of Applied Sciences. In the marketing team and in the business development team to organize
10 events and also right now, working on collecting new partnerships and building up the biz dev
11 team with my colleague, [name], and the CEO and yeah, also I'm still hosting a podcast it's
12 called [podcast name] and it's to inspire young females to go their own way and eventually,
13 maybe build their own startup.
14
- 15 **Interviewer:** Wonderful. Thank you. **So how many years of work experience do you have?**
16
- 17 **E.3:** Well, what do you count as work experience? I think, I mean, I started engaging in student
18 initiatives, which was not, I didn't make any money with it, but I think I started when I was
19 probably like 19. So I would say maybe like two years roughly, but not as a full time.
20
- 21 **Interviewer:** But that's totally fine. It's just about experience in general that you're gathering.
22 So, what makes you an entrepreneur or an intrapreneur?
23 **E.3:** So do you mean, should I also answer whether I'm an entrepreneur or an intrapreneur or...
24
- 25 **Interviewer:** For me both are somehow the same idea. But just more explore your skills, tal-
26 ents, personal traits, experiences, values, habits, etc.
27

28 **E.3:** Yeah, so, I think, I mean, right now, especially in my work at Tomorrow University I just
29 do that to perceive how other companies are, how this particular company is set up and how
30 they're tackling different problems, different things, how they're set up as a team, how the cul-
31 ture is built and so on. And I. Yeah, I'm just super interested in, you know, how to build a team
32 and a company that eventually works and that's that can like achieve its goals and so on. Be-
33 cause at one point I also want to found my own company. So for me, it's just about. Gathering
34 experience now. And I'm just really curious also on, you know, meeting people, exchanging
35 ideas and yeah. Just finding out how others do it. It's the same with my podcast. Right. I asked
36 them, okay. How would we, how did you do it? How do you get there, where you are at now,
37 which steps to take. And I'm just super curious how to find out also all the different ways that
38 you can become an entrepreneur and while maybe also being an intrapreneur for a certain period
39 of time.

40

41 Innovating within a system that has already been there, which you did not build up, maybe from
42 scratch, but are constantly contributing in terms of making it more successful, finding new ways
43 of innovation and. Building it also. Yeah, does that answer the question?

44

45 **Interviewer:** Yeah. It totally answers my question. So do you think you've always, I consider
46 you an entrepreneur but like, **do you think you've always been an entrepreneur? Or how**
47 **did you become one?**

48

49 **E.3:** Yeah. So I think I definitely was, I always had that curiosity and like an energy driven
50 mindset, I would say in me somehow. For me, you know, it basically started because I was, I
51 think when I was 14, I actually had my, my first job I carried out of magazines. And for me,
52 that was just about like, although I was so young, I kind of wanted to create my own financial
53 freedom at the time. Right. Like 80 euros in a month. In order to, I just always wanted to do
54 something, you know, and that was kind of the first step in. Okay. What can I do in order to be
55 more free and more apart from only being financed by my parents? And that kind of just let me
56 through. Always, you know, stick taking the next step and looking at, okay, what do I actually
57 want to do?

58

59 Where am I good at? How can I also contribute like yeah. Societal problems in a way. And I
60 think. Got for me, more and more like purpose driven and not as much anymore as okay where
61 can I just work in order to get money? But for me, it's like also right now, the work that I do,
62 I'm truly passionate about solving that educational problem. And as a second part, it was nice
63 to have. Yeah. I get paid for it, which is also. I mean, probably not that much how you could
64 argue like in other jobs right now, but that has never been the focus for me on why am I actually
65 doing that. So for me, it's always rather about, okay, like what do I really want to kind of. What
66 kind of problem do I solve and what is a nice side effect? Yeah.

67

68 **Interviewer:** Thank you. So you mentioned problem-solving and the passion for the things that
69 you do and ideal financial freedom as driving you entrepreneurially, **are there other skills or**
70 **personality traits that help you in being an entrepreneur?**

71

72 **E.3:** Yeah, so I think. What I really learned is I think what is really important is this skill of
73 reflecting and with reflecting. I mean, who are you as a person? So, and with who are you as a
74 person? I mean, what are your strengths? What do you need in order to actually be able to
75 perform best? And so, and what environment and what people do you need for that?

76

77 So, for example, I'm not a person who likes to work alone 24/7. So I actually get inspired by
78 having other energetic people around me and sharing ideas. And exchanging also on new topics
79 and so on. And I think that has really helped me also throughout this job, understanding better

80 who I am and what I need to in order to perform best in my job, but also be happy as a human
81 being. Yeah, like that reflection. And then I think in order to be a leader and in the end, it's also
82 really important to also understand the other people around you. Right. So it's, it starts with
83 yourself, certainly because if you know who you are and what you're good at, and also what
84 you're not good at.

85
86 You can then find people who are contrary to you, to you and to your skillset. That can support
87 you in reaching your goals and your vision. And I generally do not believe that anything can be
88 done just with yourself. You always need other people to support you, to listen to you, to chal-
89 lenge also your ideas and thoughts you have, because. You're human. You're not always right.
90 You make mistakes and you need to have that exchange with others, I think in order to be able.
91 So I would say that reflection part and one key skill I always see is that the people, that culture
92 part in really being involved with others and then laying a strong focus on also how they work
93 and what's important to them in order to be and perform best as a team.

94
95 **Interviewer:** I love that actually. I think this community part is something that's super crucial,
96 also when looking into the future. So I, I know I've got an understanding of what you understand
97 under entrepreneurship and what that means to you and to you as an individual. **So I would like**
98 **to understand better what do you understand under the term mindset? What does mind-**
99 **set mean to you?**

100
101 **E.3:** Yeah. So I think mindset means how you think of the world in terms of how you approach
102 problems. Right? So, and not just problems, but in general, think about. Why the world and
103 society works a certain way and why people are maybe more successful than others and so on.
104 And I think they're all, maybe there were also in the second part of like fixed mindset and
105 growth mindset, but you know, I do believe that there are people who think, okay, my abilities
106 as a human are set and you know, there's one person who's super, super great in that one thing,
107 but I am like this, so I can actually not change. I'm just, it's just I'm set. And then there are other
108 people who say, okay, like if I really find this interesting enough, if I want to become better at
109 certain things, I can learn it. I can get there. And I do think there's a certain, you know, like I
110 think we have natural skills, which we should know about, and then we should put in the work
111 because then we're actually going to become better at topics that people are maybe not as good
112 in, because they don't have that natural, let's say capability to do. However, I do believe that
113 you can, you're totally flexible and learning new things, you cope with better capabilities and
114 so on. And I also think this is, that's why I already mentioned problems.

115
116 You often see if people are like having a problem and they're having a fixed mindset, they get
117 stuck, you know, they're like, okay, no, we cannot fix this. And but if you're, if you're having
118 this growth, growth mindset, you're like thinking about, okay, like what can possible solutions
119 be? And you kind of make your way through and also you don't get as triggered as maybe as
120 the other person, you know, you're, you're, you're accepting the fact and you don't get as emo-
121 tional maybe also. So you think rationally. You think then about, okay. What are concrete steps
122 I can take in order to solve this.

123
124 **Interviewer:** Thank you. And **how would you describe your personal mindset?**

125
126 **E.3:** I think, you know, It definitely leans more towards the growth mindset. However, I think
127 we have like subconscious biases, I would say where I'm probably also having a fixed mindset,
128 you know, I think like sometimes we are so set, like we can be set in a certain opinion about a
129 topic that, you know, if people are in a conversation, you kind of subconsciously think, okay,
130 now this cannot be true. Whereas actually thinking about, okay, why couldn't this be true? And
131 why is this person thinking that? And I think that also comes back to that person's skill of really

132 understanding the other person and understanding why they're thinking about a certain thing
133 like that. So I would say, yeah, it's definitely more on the growth side, but I also really try to
134 consciously be aware of when I maybe have this fixed attitude towards a certain thing, or when,
135 you know, my emotions are triggering a certain action or feeling that I have now. Yeah, I think
136 it's a mixture of both and I'm a bit probably in the middle, with some topics more than others.
137 But I think all in all, I do believe that you can learn anything you want to learn and that you can
138 also by reflecting yourself and getting to know yourself better achieve anything that you want
139 to.

140
141 **Interviewer:** You seem very reflected on the term mindset as well as about your own mindset.
142 So you described how you mindset somehow, or like how you are, right now, developing your
143 mindset consciously by thinking about blocks or emotions that are triggering you. **Can you**
144 **maybe explore more on maybe how your mindset was with fourteen years old and how**
145 **you changed or how you developed that consciously?**

146
147 **E.3:** Yeah, definitely not consciously. I mean, when I was 14, what did I do when I was 14? I
148 was probably an eighth grader, focusing mostly on school. I think, you know, one thing I have
149 always kind of tried to figure out what do I want to do? Like, what do I actually enjoy doing?
150 And I think that almost triggered me a bit, that word of passion and enjoying, because it was
151 kind of also hard for me to, to, to find out right? As a young person that I always had this
152 curiosity in like, like what is, what is out there, and what could I potentially do? I think you
153 know, when I graduated from high school, it was the first time. Okay. We like, what, what am
154 I doing now with life. And I took a gap year before I started studying and actually took time to
155 try things out. I tried brand management for four months, went to Florence, met some people
156 there.

157
158 And There I think I also, for the first time, started stepping out of my comfort zone meeting
159 more new people on a regular basis. And I think it's that mindset changed in terms of the people
160 that surrounded me, because that was also the time when I started at START this student initi-
161 ative for entrepreneurship. And all of a sudden I was surrounded by all these people who were
162 super energetic and all kind of wanted to change something. And I think that was the first time
163 where I got also introduced to, kind of the world where people thought, ok we want to go the
164 extra mile. We want to change things as they are. And I also consciously now try to surround
165 myself even more with those people that challenge me with new input, with new ideas. Yeah,
166 and also right now, for example, at work, I work really close together with [name] as we also
167 work in the same office day to day and also with that close connection you can really see also
168 how you develop as a person, if you're both having the idea of changing something and are
169 really like energetic about how you view life in the end and how you view work. And that I
170 think, yeah, it's the biggest thing that changed a perception of things by being surrounded by
171 people who share that energy.

172
173 **Interviewer:** So you're saying that, basically your main strategy, if I can say it like that, to
174 develop your mindset was surrounding yourself with the people.

175
176 **E.3:** I do. There's this quote that you are the average of the five people that surround you. And
177 I completely agree that this is the truth, I think, you know, you cannot be here. All the other
178 people around and have a completely different belief of, I mean, that sounds, I don't think, you
179 know, it's bad if someone like, for example, challenges what you're doing, because they care
180 about you and they just have a different opinion, but I mean, in terms off the energy that they
181 have, that they bring with them and also that positivity in a sense of not draining your energy
182 and actually taking from you, but rather adding to you. And I add to them and then, you know,
183 because everyone goes to these phases here and there, that's human, I think. But being there

184 when the other person may be here and you're here and you're kind of like all, there's also
185 balancing each other out and like helping each other up, when you go through maybe a phase
186 which is more difficult is super important. So yeah, I do believe it's all about the people who
187 surround you.

188
189 **Interviewer: Do you also have like some conscious strategy of how, when you say like, ah,**
190 **maybe for example,** for me it was that I, as a, in high school, I was super shy and most people
191 that I know now would not even realize that because I consciously told myself I don't want to
192 be that person anymore. I don't want to be so fearful within my peer group. And I didn't call it
193 mindset at that moment. But for me, I think it was a lot about mindset shift. Just understanding
194 my environment differently.

195
196 **E.3:** Yeah. Yeah, I think so. I actually also remember one point it was also already in high
197 school. I think where, so I, I always, I think I was really lucky in the terms of like the peer group
198 that I had because in school it was just, yeah. I was not necessarily surrounded by people who
199 would say, you know, I would fund my own business at some point, but I had all these girls at
200 that time who were like super, you know, passionate about actually getting good grades and
201 studying hard and really like working. And at one point, what I recognized is I was also super
202 shy as a younger person, by the way, like you would not recognize me at all. I wouldn't talk to
203 anyone. And basically I was not, you know, really participating in class because I was too afraid
204 of raising my arm and saying something as, at one point, I recognized that all of my peers had
205 better grades than me. It was not that I didn't maybe know an answer, but I was simply too
206 afraid to kind of take part in class.

207
208 And I think it wants to shift to ninth grade where I completely understand that I have to change
209 this in order to get a better grade. And I did. I was like, this wasn't me. Okay. I'll cut this now.
210 I'll do this. Okay. Then I built up a completely different relationship with my teachers, I would
211 say because they were realizing, ok she did something different and she's a lot more active now.
212 That was one thing in school that I started. And then also what I recognized already in school
213 that I really enjoy preparing presentations and talking in front of class, and this was always, you
214 know, I liked it, but it was kind of pushing me out of my comfort zone every time.

215
216 And I consciously, always chose this option because I knew it was, I don't know, I knew that it
217 would make me better in the sense that I can actually practice this skill when I already do this
218 in high school. And yeah, that was the, are like two examples that I can think of, which I con-
219 sciously did in high school. And then yeah, when I graduated I kind of also, yeah, just got the
220 understanding of my comfort zone. It's comfortable, but a comfort zone is not going to bring
221 you anywhere. And still today, I sometimes consciously try to pull myself out of my comfort
222 zone and maybe meet new people online, visit some kind of random online event or something.
223 And then, you know, once you are actually seeing that this works and it's not as horrible as you
224 imagined it also gets kind of fun, you know, doing that with yourself, like challenging yourself
225 then seeing, okay. I didn't die from this.

226
227 **Interviewer:** You also expand.

228
229 **E.3:** Absolutely. Absolutely. So I think as a young person, it's subconscious because you are
230 just not familiar with these things. It's rather about an understanding, like, why is this not maybe
231 working like in the sense that it's working for the others and what can I do to maybe change it?
232 And once you kind of maybe get into more understanding of why am I acting like that as a
233 human being? You kind of connect the dots and understand why you behave a certain way,
234 maybe also in the past.

235

236 **Interviewer:** Yeah. Yeah. It makes total sense to me. Actually. I experienced a lot of things
237 that you were telling me now, I can relate to so much.

238

239 **E.3:** Sometimes, you know, I really would like to see myself, like in fifth grade, because I think
240 I was super shy and I just want to grab myself and say, hey, just go for it. And yeah, but that's
241 also the nice part, right? Seeing your evolvment in things. We actually are evolving.

242

243 **Interviewer:** Definitely. **So how do you think the mindset of an entrepreneur differs from**
244 **non-entrepreneurs?**

245

246 **E.3:** Hmm. Hmm. Yeah. I mean as I said, I don't think an entrepreneur necessarily means build-
247 ing your own business. I think I would also connect an entrepreneur to the mindset that they
248 have, probably you would then refer to those people who for example don't build their own
249 company as an entrepreneur. But I wouldn't value it differently, you know, because I think
250 sometimes we tend to, maybe value people then differently, which is complete nonsense in my
251 eyes, because I think you can also achieve really a lot in an existing company, especially also
252 maybe a company that are a bit older, that do not have a big understanding of digitization, for
253 example, and you come in and change something for the better, within a set frame. I think an
254 entrepreneur or an intrapreneur are both people who, who have a growth mindset in the end,
255 who believe that they can change something for the better if they, you know, consciously know
256 what kind of problem they want to solve and where they want to add value.

257 Yeah, so I think I would basically connect both of those people types, how they see the world
258 and how they approach new things, new ideas and problems.

259

260 **Interviewer:** Interesting, interesting perspective as well. And yeah, I like that. Thank you. So.
261 **How far do you think entrepreneurship benefits, organizations and communities?**

262

263 **E.3:** Yeah. So I think if you have people in organizations or in communities who are just, who
264 are bringing in that curiosity of discovering new things, implementing new ideas. For me, that's
265 a constant process of innovating that organization or that community. And I think what you can
266 also really see is if you have those people within a community or within an organization, they
267 can also inspire others. Who are maybe not at that point yet, because they've never been in touch
268 with the person that I could add and in order to think also about themselves, so about the other
269 people and for them to also reflect, okay, how, how am I thinking? Why am I maybe thinking
270 differently than that person, who has such an entrepreneurial mindset?

271

272 And I think. Yeah. In terms of, you know, making that company organization more successful,
273 you need those people who also who have that mindset and who will take others who take the
274 spirit and who say, okay, we can do this and we can reach our goals by just inspiring others, by
275 listening to others, by motivating others and showing how that can be done.

276

277 **Interviewer:** Make, makes sense to me. **Do you also think an entrepreneurial mindset can**
278 **have negative effects or impacts.**

279

280 **E.3:** Yeah. So I think it also really depends on when two people types, right, who are completely
281 different and we have this super entrepreneurial person and maybe a person who comes out of
282 a very fixed environment.

283

284 And that's also what I mean, entrepreneurship needs to be, so people orientated, you cannot
285 come to a person and say, okay, you have a fixed mindset so you're full of shit. You know, like
286 that's not going to benefit anyone in that situation. And I think it's really about also understand-
287 ing the other person where the other person is coming from and kind of facing each other on

288 "eyehight". And which I was actually just telling this to [name] this morning. I've met the co-
289 founder this morning of Sum Up, you know, who has probably like 20 more years of experience
290 than me who has seen so many challenges that I've never seen, that I've never been in contact
291 with, and you could refer to him as probably 10 times smarter than me. However, when I met
292 him this morning, he was, you know, she was completely common. He did not, at one point
293 make me feel, not valuable enough talking to him, you know, but I think what song sometimes
294 can happen with very entrepreneurial people, they can kind of fear, those other people who are
295 not at their level yet in terms of making them feel, not confident about them, like about them-
296 selves.

297

298 So I think being entrepreneurial and being able to really speak to people on it, like really on the
299 same level. I think for me, it's also such an inspiring quality and I think you're also not really a
300 good entrepreneur if you don't have that. So if you make people feel anxious about themselves,
301 by making them feel, you're less valuable maybe because you're not at that stage yet. That's for
302 me, the, like the worst thing that an entrepreneur slash leader can do. Yeah.

303

304 **Interviewer:** I really appreciate your, your view on community, the social aspect, because this
305 gives me a really interesting insight for my research as well. And a nice perspective. So really
306 thank you for that. So I'm basically done with my questions. So I would like to ask you if **you**
307 **have anything else you would like to give me on the way or share with me in terms of**
308 **entrepreneurship, mindset or entrepreneurial mindset.**

309

310 **E.3:** No, I think I've elaborated on the most points. I do think that entrepreneurship has a lot to
311 do with psychology in the end and people aspects and leadership capabilities and qualities. But
312 I think that's really interesting also to have a look at.

313

314 **Interviewer:** Thank you so much.

Appendix 8: Transcript of F.1

Information about the Interview

Date: 01/14/2022

Means of Communication: Zoom

Duration: 00:40:03

Language: English

Interviewer: Hannah Boehm

Transcriber: Hannah Boehm

Information about the Interviewee

Country: Portugal

Experience in the Field: 17 years

Highest Level of Education: Master of Arts

Type: Facilitator

Remarks in brackets serve the purpose of anonymisation and clarification.

- 1 **Interviewer:** So you know that I'm conducting interviews on the topics of entrepreneurship and
2 mindset and yeah, I'm really happy that you're contributing to my research. And I'm interested
3 in your personal perception and opinion, so you can really just simply answer intuitively. **Just**
4 **introduce yourself shortly. Who are you and what do you do?**
5
- 6 **F.1:** Okay. Hello, Hannah. I'm really pleased to be with you in this work that you are develop-
7 ing. My name is [name]. At the moment I have different projects going on. So I have my own
8 company: training, consultancy and coaching, that is called [company name]. So in that com-
9 pany, I work in training and in personal processes with coaching and I also answer to needs of
10 the companies and who ever asks in self-development or self-improvement and I do a measure-
11 made program for the needs that I found in the askings that I have made. So that is one part of
12 my entrepreneur life.
13
- 14 Two years ago, I just embraced the international project that aims to map out all the innovation
15 entities around the world. And I'm representing that project that is called innovations of the
16 world in Portugal and for all the Portuguese language countries. So I just launched the first
17 portfolio. I mapped out all the innovation around a city in Portugal. The city is Oeiras. It's really
18 close to the university, you have been here in Portugal, so it's besides Carcavelos and we just
19 published a coffee table book "Innovate Oeiras" with around 30 personalities, and about 120
20 entities, universities, companies, startups, hubs in industrial and entrepreneurial parks in Oeiras
21 and also with the, the embracement of the council of Oeiras in all the projects. So I've been
22 having a lot of energy. I've been spending a lot of energy on this project because it allows me
23 to connect with a lot of people, but also I have to look for a lot of people to get involved with.
24 So this is the second part of the working life that I'm having or, or what I'm doing now.
25
- 26 The third part is I still have a lot of connections with the other organizations, and I do a lot of
27 roles as advisor mentor and a consultant like ONG, Spin-offs and little companies that I'm part

28 of the board or advisory boards on decisions and strategy developments. So actually at the mo-
29 ment I'm working with four organizations doing this kind of job.

30

31 So I describe myself as an entrepreneur. Because I work for myself, I have my company, but I
32 do have a lot of other activities that fulfill me and that I love to do. And I would say that the
33 common point here is that I love people and I love to connect people. I love to develop people
34 and learn from them as well at the same time. So I think I answered your question.

35

36 **Interviewer:** Yes, you definitely did. Thank you. So, next question.

37

38 **F.1:** Wait, just to add something. I also am a mother of one and the step mother of two, and I'm
39 becoming a grandmother next month. So because I'm not only the entrepreneur, I also, I am a
40 woman and mother and I have a lot of roles in the family as well. So...

41

42 **Interviewer:** Yeah, that's an incredibly important part of life. **So what do you think in your
43 experience on a personal level makes a good entrepreneur?**

44

45 **F.1:** That's a good question, actually. I would say that personally, you have to get to know
46 yourself as well as you can know yourself. And that means that you have to know your
47 strengths, your talents, what you really know how to do and what you really are able to do. But
48 also what are your vulnerabilities, your fears, your strategies of sabotaging yourself and as well
49 as you get to know you in a global way as a person and the person means you have thoughts,
50 you have feelings and you relate to yourself with a wall around you. So as much as you know
51 yourself, I would say self knowledge and also self-awareness are for me the, the big issues or
52 the key points that you have to try to know and to develop and to be curious about because we
53 don't know actually 100% of who we are and what we are able to do and what we aim to do,
54 but as much as we can learn about ourselves and about the world around ourselves, you, you
55 probably would be dealing with you and the others in a better way. So that is the first point.
56 Self knowledge and self-awareness.

57

58 And as much as you can in that same path, know what you want to deliver to the world and to
59 the universe and that you are really comfortable about. And that also gives you back feelings
60 and a sense of purpose, fulfillment and the love that you are not doing a lot of effort to do. If
61 you find that, I would say that will help a lot as well. So knowing yourself, knowing what are
62 your goals, what is your purpose or what you really want to do, helps a lot in the way of you
63 becoming an entrepreneur without knowing you are an entrepreneur, you know, because eve-
64 rything starts to get together and fit together. And the alignment with the something that you
65 do without effort you just deliver and you feel yourself so comfortable doing it, that somehow
66 things start to happen.

67

68 And after that, when you think about it, you can start to put strategy finance developments,
69 growth in all the equation and know exactly where you want to, where you want to be, how and
70 how far you want to go. And there, then you can start to set goals, set milestones and really
71 have a vision of who you want to be, doing what and with who as well. So those are the, the
72 three main or the three key factors personally, and be able and available to learn in all the
73 journey because we are always learning and somehow we, we, we have these biases or we have
74 to study in a certain period of time of our lives and then we have to work. No, we have to learn
75 all along the way. So that is the other key factor. I'm always learning. And the courage to do
76 steps somehow, or sometimes that you are not sure you are going to be successful because
77 having the opportunity to take risks, it's also opportunity to learn and to do sometimes things in
78 a good way, sometimes things in a bad way, but the way you can learn and you can develop
79 and grow.

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Interviewer: Thank you so much. I think this gives me a good overview about what you think about entrepreneurship and how to get there. **Can I ask you what you understand under the term mindset, what does mindset mean to you?**

F.1: So mindset is for me the way you manage your thoughts and feelings or emotions because we are not going to be all the days in a positive mindset. And there, there will be good days in successful days and the really motivated days and that you are able and energized to do everything, but there will be days where you are not going to believe yourself, in yourself, believe in what you are doing, believe in your competencies, believe in your values, believing all of your abilities.

And if we don't have the ability to manage our thoughts and the way we feel about both emotions or both a state of mind, the positive one and the negative one. If we are not able to manage this, we will not develop a good mindset. And a good mindset doesn't have to always be like oh, we are excited and we are in an euphoric way and we are best and we are always positive. The good mindset is to know that there will be positive thoughts and positive emotions, but there will also be negative thoughts and negative emotions. So the balance between the range it's a good mindset and accepting one and the others in ways that you can manage in a manner that will help you. You will, you can use your mindset and your emotions in a benefit to, to you or to the process or to the things that you have in your hands.

But I believe, I think it's the value that we have to, what do we believe? Are we believing that everything has to be positive or we are mostly believing that we are not able, we fear, we can't do anything. So the belief that we are fulfilling or nourishing will determine the mindset that you are able to manage as well, because we will have all the possibilities. So choosing, what do you want to believe in you or in your abilities or in your behaviors or in everything that is around you? Develops here, the possibility of you to accept all the range that we just talk, the positive and the negative thoughts and emotions and the, to learn strategies, to allow you to balance them, not keeping in any of, of the, the sides of all the range of possibilities that we have in mind setting. Because our mind is always thinking and we are always feeling something. So the way you manage your thoughts and your feelings or your emotions, it's a mindset for me. And every, every time we, every day we wake up, we have this opportunity to choose to manage our mindset.

Interviewer: So you're already starting to, to explore that a bit, **how can mindset be developed or if it can be developed or changed.** Can you maybe say a little bit more to that?

F.1: Yeah. So as I was saying, every single moment we are having thoughts and we are feeling emotions and that's happens since we are concepted and the way the, the, the world around us interacts with us and speaks with us and the way we hear what's happening around us and it's, it starts with our parents and then our brothers, our sisters, our friends, Our teachers in school, our colleagues, our boyfriends, or girlfriends our husbands or sons or whatever, everybody that is around us have an impact on the way we accept the truth. So, if you have just an example, if you have a mother or a father that always says you can't do anything right, you are not going to succeed. If you don't study there you will be no one. And if you grow up with these sentences in your hand, in your head every day you will start to be convinced that you are nobody and you will not succeed, and you are not able to do things.

So we are machines that have problems with the impact that we accept and take as the truth and then we start to see ourselves as we believe that we always heard we are. So this is just an example. So after that, you can really accept this as the truth and believe in it and start being no

132 one and not able to develop things and to do things right. But you can develop a lot of strength
133 in this kind of behavior around you. You can start. For instance try to prove that people are
134 wrong and do exactly the opposite and try to prove the best you, you can do the best you are
135 and achieve a lot of things just to prove that others are wrong.

136
137 This kind of a strategy it's unconscious when we are kids and when we are young people and
138 when we become adults somehow, and sometimes people are not aware that they are still be-
139 lieving in things that they kept hearing when they were younger. So there are a lot of strategies.
140 I use a lot of them in coaching. That allows people to start understanding why they believe in
141 things unconsciously or why they are not being successful in some achievements because they
142 have this inner belief of not being enough or not being good enough or not doing the things in
143 the successful way. And so you have to vanish these beliefs.

144
145 You have somehow to work with them on their beliefs and try to rationalize or put thoughts
146 into how many times that you really do not succeed for, for instance. And somehow people will
147 see what they heard. Had an episode or two episodes on their own, their lives. And they were
148 believing because it happened two times, but they had 100 times that they did well and they did
149 good. And they were not aware and able to see and believe that that was the other truth. So we
150 use NLP, neuro-linguistic programming as a tool with a lot of techniques that help people to go
151 deep in the convictions and the beliefs that they just left to install in their inner selves. And we
152 try to destroy those beliefs that are limiting them. And we build new beliefs, positive ones that
153 allow them to grow and that allow them to open their mind to new truth, new realities for them
154 to try to do things with believes that will allow them to be succeeded and to let them believe
155 that they are good enough or that they really can do things in a better way.

156
157 So, this is just an example in coaching. One thing that I was really surprised when I started 10
158 years ago is that somehow a lot of people are not used to establishing or formulating goals for
159 them. And they, as they don't set goals, they are always with this feeling that they are not
160 achieving what is supposed to achieve, because they don't know what is what they want to
161 achieve. So they are always unsatisfied, frustrated, not realized, not well with themselves be-
162 cause they really don't know if they have already achieved something that is important for them.
163 So setting goals and formulating goals for personal life, professional life, love life whatever in
164 your life that is important for you. It's really something that I've found that is more impactful
165 than I was expecting because usually I set goals when I was really young in my life of what I
166 want to achieve, what I want for me, what I want from my life, what I really want to do. I
167 usually say. I was used to it maybe because I started to work in a commercial area when I was
168 really young and we were used to having goals to achieve in our professional life. But I was
169 really surprised when I started doing my coaching process, that people were not used to setting
170 goals, even simple ones. And it's really a life-changer for a lot of people. If they set a goal and
171 they do an action plan to achieve the goal, they are more self aware and have more knowledge
172 if they are good, or if they are not good at achieving or not achieving the goal. So it, it was
173 really one simple matter that we use in coaching is setting goals with the clients, or even in a
174 training, we set goals for the training and we like to do a briefing, but we like to, to do a de-
175 briefing for lessons learned, and people are not used to, to do that in regular life or in in a regular
176 way.

177
178 I would say so. Working on beliefs and knowing exactly what the value or what is important
179 for your life. It's really important to work with and somehow destroy what is not benefiting you
180 and build what can allow you to grow and to be better. And then also set goals, I would say that
181 are main examples of things that you can do to change mindsets and to start working on some-
182 thing that is important for you, even if it's a project or a company or a idea that you have that
183 you want to implement, because those things will help people to be more guided.

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Interviewer: It's awesome. It's awesome. Because you're answering my questions without me having to ask them. You answered a lot of questions already. So because one question would have been, for example, **what advice would you give me if I told you, I would like to change my mind?** But you said, you said that already somehow. Or is there anything you would have liked to add?

F.1: I would, I would ask you a question: what is on your mindset now that you are not happy with that that makes you want to change it? Because we have to deal also with the things that we don't like, or that are not helping us or that we are not comfortable with and knowing why you are not comfortable with something or knowing why you're not happy with something will help a lot in changing your mindset. And for instance, establish a new goal for you to develop in something in your self-development for changing your mindset.

Interviewer: Yeah. Yeah. I can ask you that question after the interview, because it's my opinion, but my opinion on that is not important for my thesis. Just like now connecting this whole mindset topic to the topic of entrepreneurship again. **How in your experience does the mindset of an entrepreneur differ from non entrepreneurs?**

F.1: Okay. I have to confess something to you first, before I answer that question that you just made. You know I was an entrepreneur for a long time in my life without knowing I was an entrepreneur and I would say. With an example, I worked for several multinational companies in the pharma industry for 16 years. And my role was mostly in the commercial area. And somehow we had a frame of a job description of what we have to do and I was not only aware or worried or focused on what they were expecting for me to do. I was always looking for what I could have. On the things that I have to do, or to be creative about all the things that I already have to deliver and achieve better performance or better ways of doing what they were expecting for me to do. And somehow I had this need of sharing with others and helping others as well. So when [name], for instance, it's a colleague of mine you know, she just said to me, oh [name], but not only when you start your company, you were already an intrapreneur because I was not only doing what I was asked to. I was always trying to improve what was around me, not only for my benefit, but for the benefit of the team and of the company. So I always had this mindset of being an intrapreneur in the company that I worked for.

So when I started building my company before I built the coaching company, I had a gourmet shop and I started, when I came out of the pharma industry, I just opened a store and when I had the store, I had a dream to help in the store. I have wanted to have a cash desk since I was a child, I really loved those toys that I had with a cash machine and the groceries to sell to everybody in the house. And I was really passionate about the role of being on this side of the counter and talking with people, hearing their needs and trying to fulfill the needs with the groceries that I have in the store. So even when I had the store, I was not only wanting to have my little dream of having a cash machine, but I already was willing to help others in their needs and helping my team to grow with me and to learn from me and the clients and the business to achieve a better understanding of the needs of the persons and to do something good for them and being succeeded in the business at the same time.

So this purpose of being aware of doing something good and for good and helping others to look the same way started before I started to studying coaching, training and NLP and positive psychology and all the trainings that I did for my actual profession and then I just started to do coaching because after the store, I just really found out that what I really love being in this side of the counter was helping the others and making others become better. And that's why I started

235 to study coaching and doing that professionally and not selling groceries at the same time, you
236 know?

237
238 And what I will tell you is I don't see myself as an entrepreneur. I see myself as someone that
239 knows what I am, knows what I really do in a good way, knows exactly who are the ones I want
240 to deliver to what I know and what I can do, and try to know the needs that they have and
241 change that with that, if that will make myself being seen from the society as an entrepreneur,
242 because I have a company and I have a team and I work in projects and I work in several other
243 companies. I don't know if an entrepreneur is what I am, but what I can say is that I feel fulfilled.
244 I live my life from my work because I live from the money that I make in the work that I deliver.
245 And I know that I make others grow and I, I have an impact in the society as well, because if I,
246 if I help someone or a company to grow, I'm directly or indirectly doing my impact in the
247 society as well. So if that is an entrepreneur, I would say those are the ways I feel. I see myself
248 as an entrepreneur. I don't know if I answered the question you just asked me.

249
250 **Interviewer:** I think you answered more like how, how you feel about being an entrepreneur
251 or not. I think,

252
253 **F.1:** Can you repeat the question, please? Hannah, maybe I misunderstood.

254
255 **Interviewer:** So, **how does the mindset of an entrepreneur differ from the mindset of a**
256 **non entrepreneur?**

257
258 **F.1:** Okay. So yes, I just gave some elements on the way I see it. So the mindset of an entrepre-
259 neur would be, would be someone that really has a purpose to impact in something that is bigger
260 than himself and find a way to have that impact and to have a sustainable life, doing what he's
261 doing and somehow have an impact in the people that will be around him or in the, the results
262 of what he's doing for the society, through the idea of the project or the company that he has,
263 but with a purpose bigger than him, a person that is not an entrepreneur, it's like a person that
264 will only follow rules or follow demanding or do what is asked for and feel happy with the
265 doing less earning the same, someone that will be asking for the paycheck on the end of the
266 month. Eh, no matter what the results of the delivery you just gave are. So it's really someone
267 that is not worried about the impact that he has in the group for himself and for the universe
268 and the society in the world. So it's someone without vision, without goals, without aims of
269 doing something good for others and for the company or the world. And it's always following
270 and not pushing.

271
272 **Interviewer:** I think this does now answer it really well because before you were exploring it,
273 but yeah, this is now easy for me to compare as well. **So if you have to think about the five**
274 **most characteristic aspects that are important for entrepreneurial success, what would**
275 **you say?**

276
277 **F.1:** You just did this with your hand. I will tell you with my fingers as well. So have a good
278 perception of yourself and know exactly what your competence is. What's your talents? What's
279 your best version is, and also knowing what is not, so to manage and to be able to manage. So
280 have a good perception of who you are. Self-awareness and self knowledge, have a vision of
281 what you want to achieve or what you want to give to the world. So set goals and have a vision,
282 learn how to express what you want to achieve and who you are in the best way you can. So
283 communication skills, I would say, would be a key factor as well. Be able to keep learning a
284 lot, all the way in the journey. So learn, study ask questions, ask for mentorship, ask for con-
285 sultancy, ask for friends to give you perceptions opinions and whatever that can help you to
286 have a better horizon and vision and perception and learning about everything that you might

287 need for the idea that you want to implement and last but not least really allow yourself to be
288 aligned with the most strong motivation that you can allow you to have, and the really keep
289 your mind, your thoughts and your emotions aligned on the purpose of what you are doing and
290 do it with all the strength, all the energy, all the all the passion, all the love, all the intention and
291 intensity that you probably might have, or find that you will have, if you are really aligned with
292 your purpose. Okay. So these are the five top characteristics of an entrepreneur.
293

294 **Interviewer:** Yeah. Thank you. Thank you so much. So do you think, or, **how does an entre-**
295 **preneurial mindset also benefit society and communities?** Apart from the person who has
296 this mindset. Or is there **also potential threat of an entrepreneurial mindset?**
297

298 **F.1:** I think all the development of humanity is surrounded by people that were able to be en-
299 trepreneurs and somehow with their teams came up with new ideas. Or study new things, de-
300 velop new developed science, develop new things that we are now using as common things.
301 But that's some years ago, if nobody were the entrepreneur that made the difference in the world,
302 we would not have those benefits.
303

304 But the thing that I would say about not all the people have the mindset to be entrepreneurs
305 and the, sometimes those want to become entrepreneurs as well. And it can become frustrating
306 not only for the world but also for them, because we have a lot of people that think that working
307 for others is not good, working for the community is not good working for whatever only being
308 an entrepreneur is the thing now. And there is a lot of tendency nowadays to judge the options
309 and the path that people choose for their lives. And if you're not an entrepreneur, you're not in,
310 you know you're not, you're not doing the thing. So the trap that I would say not that is a trap
311 for people to become entrepreneurs, no, but be sure that, you know, this part and this part before
312 you think you can be an entrepreneur
313

314 **Interviewer:** identity and purpose, isn't it?
315

316 **F.1:** Yeah. Yeah. And ask yourself as well, not only this, but if it's really what you want for
317 your life, become an entrepreneur, because becoming an entrepreneur, it's not all roses and the
318 blue sky. You have to be tough because there are tough times because everything depends on
319 you. And there are times that you will be having fear and you will be having the negative mind-
320 set coming and the stress will be there. Just challenging you and the, you will have the, the, to
321 give up, you will be weak. And you will know you, you probably once have this, the strength,
322 the motivation, and all the passion and love there.
323

324 So it's not easy to be a snail, that has the house on the back. It's not easy to have a house on
325 your back. And when you are an entrepreneur, even if you know exactly what you are able to
326 do with your team and whatever you are doing and exactly where you are going, sometimes
327 you will fall. And the threat of all the society have these feelings of the entrepreneurs are really
328 the most benefit that the universe and the society can have of course, but it's also In the way
329 that not all the people are able to have the mindset of an entrepreneur and manage all the sub-
330 jects that we all have already touched that hearing this call, because this balance between the
331 positive and the negative, it's really a challenging thing to, to deal with all of us do that not only
332 entrepreneurs, but when you, when you are in the command of the ship. You are the, you are
333 the one that is responsible for all the consequences, all the results, all the things that will happen,
334 even the worst part. So, and , even if you go down, you have to have the ability and the strength
335 to stand up again. And to follow in a different direction or in a different project or in a different
336 goal, but you have to have that courage and be able as well. And not all of them, the people are
337 having these, these abilities to become an entrepreneur in a lot of cases.
338

339 **Interviewer:** Thank you. Thank you so much for that perspective. This is a really interesting
340 question. And I've gotten so many different answers on that. And all of them have been super
341 interesting to hear and very different actually. So I'm very glad for the answers you gave me.
342 I'm actually through with the questions that I have. **Just if you want to give me something on**
343 **the way on the topics of mindset, entrepreneurship, or entrepreneur mindset, then go**
344 **ahead.**

345
346 **F.1:** I would say that whatever you want to give to the world or to the other, think about what
347 is the way you really want to change the life of others. I don't know what you will do. I don't
348 know to who you will do. I don't know. What is your purpose for doing it? But if you find out
349 how you want to change other people's lives, you will be starting the first step of becoming an
350 entrepreneur, because if we only want to have safety, a profession, a paycheck on the end of
351 the month and the goal nine to five with a beautiful car, go to shopping, having dinner in fancy
352 restaurants and so on, that's fine. I'm not against that, but if you're not finding ways of changing
353 other's lives, you're not doing the first step of becoming an entrepreneur and it can be in simple
354 things in life. It doesn't have to be going to Mars tomorrow. Or finding space or handling several
355 needs that the world has to resolve. It doesn't have to be huge. It can be simple things in daily
356 life. If you are willing to answer that and to give that to the world, you are doing the first step
357 of having the mindset to become an entrepreneur.

358
359 **Interviewer:** Thank you so much for this closing. I will stop recording now.

Appendix 9: Transcript of F.2

Information about the Interview

Date: 01/25/2022

Means of Communication: Zoom

Duration: 00:23:35

Language: English

Interviewer: Hannah Boehm

Transcriber: Hannah Boehm

Information about the Interviewee

Country: U.S.

Experience in the Field: 41 years

Highest Level of Education: PhD

Type: Facilitator

Remarks in brackets serve the purpose of anonymisation and clarification.

1 **Interviewer:** Perfect. Okay, so I'll just start shooting the questions at you. So as you know,
2 already, I'm conducting interviews on the topics of entrepreneurship and mindset. And, thank
3 you so much for contributing to my research. That makes me really happy. Just to start off, **can**
4 **you maybe tell me a bit about who you are and what do you do? Just introduce yourself,**
5 **shortly.**

6
7 **F.2:** Yeah, sure. So I'm [name], I'm a partner at [company name]. I also teach part-time at Yale
8 university. I teach leadership and management topics there. I have a PhD in organizational sys-
9 tems. I have an MBA from Yale and my bachelor's degree is from University of California,
10 Berkeley in philosophy and science. And so my specialty is organizational development and I
11 created a leadership model called abundance leadership, which is the topic of my PhD.

12
13 **Interviewer:** Yeah. That's enough. Thank you so much. So **how many years of experience do**
14 **you have in the field?**

15
16 **F.2:** So I've been managing for 41 years. I've had my MBA for 35 years. So I've been leading
17 groups or managing organizations, leading organizations, well, actually since I was about 22,
18 because I worked in a refugee camp and I was the head of the education program there. Yeah.

19
20 **Interviewer:** So, so quite some years,

21
22 **F.2:** I gotta wear and tear on the machine.

23 **Interviewer:** So **what in your experience on a personal level makes a good entrepreneur?**
24

25 **F.2:** So I think there's a few things. One is to be an optimist, very hard, because you are con-
26 fronted with relentless barriers, challenges and struggles when you start a company and you
27 have to have this ability to see what's possible, this kind of optimism. So that's one.

28

29 Second is you have to have a vision that is mudable. If you have a vision that's too concrete,
30 you won't be able to shift the new information coming in. So you have to have this vision for
31 what you want to have happened, that you hold lightly. It's a good phrase my sister uses a vision
32 that you hold lightly.

33
34 The other thing is you have to have physical stamina. It doesn't mean if you're disabled, you
35 can't be an entrepreneur, or if you have some other physical challenges, but you have to have
36 some mental. and energetic stamina in order to, to do it.

37
38 And I think you have to have passion, which obviously comes from optimism and a vision and
39 energy, and you have to have this passion to be able to help other people align around you to
40 help you manifest that vision.

41
42 **Interviewer:** So I have another, I have some questions on a topic of mindset that you are also
43 a specialist. **What do you understand under the term mindset and what does mindset mean**
44 **to you?**

45
46 **F.2:** So ask the first part again, Hannah, what was the word? I missed one word.

47
48 **Interviewer:** What does mindset mean to you? **What do you understand under the term**
49 **mindset?**

50
51 **F.2:** The term, okay. In my field, we think of mindset as your personality, your learned way of
52 reading the world. And how you create a mental map of navigating the world. So it's sort of a
53 combination of multiple factors, characteristics you're born with once you acquire moving
54 through your life, so culture, but also, you know, a mental model is also a mindset is acquired
55 through what you learn and the field that you go in gives you a framework for interpreting the
56 world. So for example, accountants see the world a certain way. They learn to see things as
57 adding up or not adding up. And it's sort of linear. Whereas if you go talk to a quantum physicist,
58 they think of the world as things they can't see. So our training influences that mental model or
59 mindset as well. In addition, At any given moment, we're going through a series of life experi-
60 ences. We may have just had a child, or we just got married and we've just lost someone. Those
61 also affect our mindset and our mental model.

62
63 And one of the things that we look for in very good leaders is that they are self-aware about, in
64 any given moment where their mindset is what's influencing it. And very clear on the paradigms
65 they bring into any setting. So an example of this is when I teach and I'm about to start teaching
66 a course at Yale on Monday. One of the first things I do is talk about my background, my
67 political orientation, things that influenced me when I was young. And I say this to my students,
68 because I want them to know that lens, the filter, the mental model that I see the world through.
69 So you can question that, you can say, well, she, you know, she would say that because seeing
70 it through this lens, maybe there's another lens to look at. Did that, did that answer your ques-
71 tion?

72
73 **Interviewer:** Yes, it does. Thank you. **So how far do you think mindset can be changed or**
74 **developed?**

75
76 **F.2:** How far can it be? And there's two, there's a couple of questions related to that. How far
77 can it be and what conditions are necessary for it to be developed? And those are two separate
78 factors. I am an optimist, I think it's possible in the world to, for people to change quite a bit.
79 Now, I also believe that sometimes that change is not necessary or can be damaging. We all
80 have a different purpose, but we have it in our head that change is good. We don't want any

81 blanket statement, if changes are good, sometimes it's not. If you change somebody too much,
82 you might lose the gift they bring to the world because every strength we have also has a dark
83 side, but if you eliminate the dark, you might eliminate the strength as well. Well the first ques-
84 tion is, can you? Yes. Should you? Hmm.

85
86 And then, then there's the question of what conditions are necessary to change your mindset.
87 And usually that happens when we're in a situation that pushes us to need to change our mindset
88 in some way where we are experiencing extreme pain or extreme joy or there's something out
89 there that we want and we have self-awareness enough to know that this behavior, the way I'm
90 seeing the world is getting in the way. Does that answer the question?

91
92 **Interviewer:** Yes. Thank you. Can you maybe **elaborate a bit more on strategies, for exam-**
93 **ple, if I will tell you, I would like to change my mindset. So how would I do that?**

94
95 **F.2:** Yeah, first question I would ask as a coach, as an executive coach. Yeah. So are you, are
96 you in therapy? Have you been to counseling? What kind of self-awareness work have you
97 done? So I want to know what level of self-awareness you're when I'm working with you and
98 it doesn't have to be therapy, but maybe do you have a very deep meditation practice? Do you
99 journal quite a bit, et cetera? So if.... ahh I got lost to answer. Ask the question again.

100
101 **Interviewer:** So if I would ask you for advice, how could I change my mindset?

102
103 **F.2:** So the first thing will be to know where you are with self-awareness if you haven't started
104 that journey, that would be something I would recommend right away. It is journaling, medita-
105 tion for some people. I used to run a lot. I used to run half marathons and that was a very deep
106 form of self reflection for me because after the first two miles, my brain would shut down and
107 get in this almost meditative state.

108
109 Now, depending on what mindset you're starting at and the mindset you want to go to. There's
110 different practices, exercises, and ways to start to change. And I'll give you one concrete exam-
111 ple, it's a personal one. When I was younger, I felt like I needed to control everything. And you
112 know, all human beings have control issues. It's natural. It's biologically natural for us to want
113 to control our environment. And we should, we don't want chaos. We want the dishes done. We
114 want the bed made or whatever that is. It's healthy to have a certain level of control when it
115 starts to get in the way when you can't delegate or you're trying to make people behave exactly
116 like you in all spaces. That's when control is too much. So when I was younger, I felt like I was
117 trying to have too much control. So counseling, she, she said: go to a restaurant and I want you
118 to ask the waiter what's good here. What's the best dish on the menu? And whatever the waiter
119 says, you have to order. Those kinds of exercises start to get us in touch with our anxiety, with
120 why we have to, why we're not adventurous, why we're not trying things.

121
122 **Interviewer:** I think that gives me a great example for how you would do it. So now connecting
123 those topics entrepreneurship and mindset **how does the mindset of an entrepreneur differ**
124 **from non-entrepreneurs?**

125
126 **F.2:** That's a good question. And I'm only going to speak from my experience. And so one of
127 the key things I want to say, this is not based on research. So I, my dissertation didn't do research
128 on those differences because my dissertation wasn't on entrepreneurship. So I want to just be
129 cautious, you know, as a scientist, I'm always cautious of not overstating what I know, kind of.

130
131 My experience, my lived experience of the difference between entrepreneurs and non entrepre-
132 neurs, and this is not a judgment. They're just different people. And we need both in the world,

133 is that non-entrepreneurs tend to be, they measure their success differently. They measure their
134 success in a more contained way. It does, it's often less dramatic because if we think of entre-
135 preneurs, you know, artists are entrepreneurs, writers are entrepreneurs. They have that thing
136 that they want the rest of the world to engage with, but then you take somebody who goes to
137 work for the US postal service, 30 years, not necessarily an entrepreneur in that job. So they
138 tend to be more comfortable with a steady routine, with more boundaries, with more structure,
139 with less unknowns. And they are actually critical for making the company succeed. If all you
140 have is entrepreneurs in an organization, you have chaos. Often the non-entrepreneur is the one
141 who says, okay, you idea people, I will go make this happen. I'm going to set up the policies,
142 the procedures, the manuals, I'm going to come in everyday. Make sure this work gets done,
143 where the entrepreneurs are there running around like crazy. Does that answer your question?
144

145 **Interviewer:** Yeah, thank you. This gives me a good overview of how you're thinking about it.
146 I am very aware that the opinions are personal and that only a few bits can be based on science
147 somehow. Thank you. **So according to your experience, which five mindset aspects would**
148 **you identify as the most crucial for entrepreneurial success?**
149

150 **F.2:** Well, I think before, I mentioned when we started, with sort of vision, physical energy,
151 abundance, you know, optimism. I think those four really sum it up. Now here's something
152 interesting though. And I'm on the fence about this. This is not a requirement of an entrepreneur
153 and it can actually get in the way sometimes.

154 But the knowledge of how, how organizations work, knowledge of finance, marketing, opera-
155 tions, and knowing how organizations as entities need to function and operate can be very help-
156 ful for an entrepreneur, particularly when they make the transition from startup to success.
157 When that entrepreneurial energy is no longer the only driver, when the system has to duplicate
158 the entrepreneurial energy, because an entrepreneur's challenge is to take that visionary, crea-
159 tive energy and create an organization that embodies that energy and can carry it forward with-
160 out requiring entrepreneurs in every position.
161

162 **Interviewer:** Yeah. Makes, makes total sense to me. Yeah. Thank you. So we had this discus-
163 sion the last time we were talking. So there's the question, **how could an entrepreneurial**
164 **mindset benefit individuals who are not entrepreneurs or are there also potential threats**
165 **of entrepreneurial mindset?**
166

167 **F.2:** What do you mean by the last part potential threat to entrepreneurial mindset?
168

169 **Interviewer:** Is there, are there potential negative consequences of an entrepreneurial mindset?
170

171 **F.2:** So, okay. So asking for non-entrepreneur, how can the entrepreneurial mindset help them?
172

173 **Interviewer:** For example, **for individuals who are not entrepreneurs, so non-entrepre-**
174 **neurs, how does an entrepreneurial mindset or could entrepreneurial mindset benefit**
175 **them?**
176

177 **F.2:** Okay. First of all, The entrepreneurial mindset is terrifying to non entrepreneurs. It often
178 can feel too crazy, too visionary. It's not organized. Oh my God. It's too high energy. Right. So
179 that's the first thing they might have a reaction to. Oh my God. Okay. If they're the kind of
180 employee that sees the value in entrepreneurial-ism, it can be inside their organizational role
181 because you can be an internal entrepreneur. You can work at IBM. You can work at 3M. You
182 can work at Berenger and you can be different by having creative ideas inside your own job
183 and big organizations, if they have the right culture, really value that because it's what pushes
184 things forward. I'll give you a very concrete example and, Hannah, look this up to confirm, I

185 have the facts right, because this is old information and it may have changed, but the company
186 3M, they make, they make tape and other products, they make hundreds of products, but they
187 make post-it notes, 3M invented post-its. Give, I don't know if it's all employees or just they're
188 scientists. They give them a certain amount of money and a certain amount of time to just go
189 and experiment and come up with new ideas and be creative. Go on the internet and do a search
190 for 3M, 3M innovation practices. You might get a little more detail on that, but that's an example
191 of a big organization saying we want entrepreneurial creative thinkers and we're actually going
192 to give you money and give you time to do this.

193

194 **Interviewer:** Yeah, I'll look that up. Interesting. So, **do you think communities or society**
195 **benefits from people with entrepreneurial mindset or is there also a potential threat in**
196 **those people?**

197

198 **F.2:** Yeah, there's a risk without and with having them. So...
199 ...in the United States, and I think this might be true in Germany. We have three sectors in the
200 economy. We have the private sector, the nonprofit sector and the public sector. I don't know,
201 is there a non-profit sector in Germany also?

202

203 **Interviewer:** Yes.

204

205 **F.2:** And those sectors are critical for balancing out our communal life in many ways. So this
206 is a long answer to a short question, but I'm going to, I'm going to answer it shortly. So in the
207 private sector entrepreneurs tend to be predominantly represented, because there's so much
208 room to move quickly and be creative and get things done. Now in the non-profit sector, you
209 see a little bit of it, but not always as much, except once in a while there's a non-profit that's
210 very entrepreneurial and the entrepreneur has decided I want a non-profit structure, because I'm
211 completely mission-driven and I'm not here for the money.

212

213 In the public sector you find entrepreneurs, people who are thinking about new revenue, et
214 cetera, but you don't want it to be the dominant thinking because it's not usually a 100, 200 year
215 view and we need our public sector leaders and employees thinking about wanting fairness. We
216 want efficiency in spending tax dollars. We want them to lower the impact on what, you know,
217 communal goods, air, water, public space. So you need less of it there, but a little bit. So. Re-
218 publicans, typically are conservative, anti-government, they want business people running the
219 country. To me, it's one of the worst ideas possible because I think understanding the mandate
220 of the public sector and what's required in relation to the taxpayers is very important. And that
221 means that the entrepreneurial mindset has to be, has to be tempered there. Otherwise it'd be
222 too risky.

223

224 There's ups and downsides to every mindset. And having the right amount in the right setting
225 is what you look for.

226

227 **Interviewer:** Thank you so much for the insights there. I think this is very, you know, mature
228 thinking about it because I was also interviewing for example, entrepreneurs here in Berlin that
229 are only 25 years old, that don't have that overview that you can give me in your perspective.
230 What is really beautiful for me and also the US perspective is a bit different, different than the
231 one from here, Europe.

232

233 **F.2:** I wrote an article, a chapter in a book, a long time ago, now maybe 30 years ago. All about,
234 about the sectors. If I can find the book and the chapter, I'll send you a link to it.

235

236 **Interviewer:** Oh, thank you. That would be awesome. So **is there anything else on those top-**
237 **ics, like entrepreneurship mindset or entrepreneurial mindset that you would like to share**
238 **with me for my research?**
239

240 **F.2:** I think one of the... I am going to make bridges. The entrepreneurial question of founder-
241 led organizations, one of the critical junctures is how does an entrepreneur create an organiza-
242 tion that transcends them? And then they're able to leave. And [company name], my organiza-
243 tion is right in front of that question. It's been, it's starting to come very deeply for the next five
244 years. It's going through and won't have it's two founding entrepreneurs anymore. And so that's
245 just something to think about because that mindset of many entrepreneurs, of course, in startups,
246 they're not necessarily thinking about that, but very soon, it got to start thinking about, have I
247 built the structures and the culture to sustain what's happening? Yeah, that's just one thought on
248 it, but it's a tough time for me cause we're doing exactly that.
249

250 **Interviewer:** Is it kind of like transferring your own mindset into the culture of and the struc-
251 tures of the company?
252

253 **F.2:** To a certain extent here's the challenge, the mindset that got a company going is not nec-
254 essarily the mindset you want a hundred percent for sustaining a company. Referring to the
255 entrepreneurial mindset you want to keep going without you no longer need, right? What habits
256 and mindsets does a mature firm not need? It's something an entrepreneur has to think about.
257 Yeah.
258

259 **Interviewer:** Thank you so much. I think this was incredibly interesting talking to you about
260 those topics.
261

262 **F.2:** Yeah. And if you have further questions as you're writing, text me okay?
263

264 **Interviewer:** Thank you. I have to finish by the end of march.
265

266 **F.2:** Send me the final thesis.
267

268 **Interviewer:** Yes, I will. I will definitely thank you so much

Appendix 10: Transcript of F.3

Information about the Interview

Date: 02/02/2022

Means of Communication: Zoom

Duration: 00:10:04

Language: English

Interviewer: Hannah Boehm

Transcriber: Hannah Boehm

Information about the Interviewee

Country: Germany

Experience in the Field: 15 years

Highest Level of Education: PhD

Type: Facilitator

Remarks in brackets serve the purpose of anonymisation and clarification.

- 1 **Interviewer:** So, thank you very much for being part of my interviews for the bachelor thesis.
2 **Can you maybe introduce yourself shortly? Who are you and what do you do?**
3
4 **F.3:** Yeah, my name is [name]. I'm the co-founder of [university name] University of Applied
5 Sciences. And this is a venture that I started one and a half years ago together with Christian.
6 And before that I started [company name] which is an innovation platform, served quite long
7 as an assistant professor at the university and researched everything around entrepreneurship
8 and innovation.
9
10 **Interviewer:** Awesome, so how many years of experience do you have?
11
12 **F.3:** From an academia perspective, I graduated. When was it? In 2008? I think so. It should be
13 15 years by now.
14
15 **Interviewer:** Okay, amazing. Thank you. **So what in your experience on a personal level**
16 **makes a good entrepreneur?**
17
18 **F.3:** Many things. So I think optimism, that's one of the things that in the long-term optimistic
19 in the short-term, short-term pessimistic, I always say. So you really need to have a big vision
20 and to really persist and be persistent to, to achieve that vision. You need that doer-character,
21 the maker-mindset. So not, not just have a vision, but us be able to execute and of course, to
22 lead, to attract with your vision being able to build teams. But then at the same time yeah,
23 question the status quo constantly and that's some of what you need, but then on the other hand,
24 you also need resilience. So you'll be criticized a lot. There'll be many things that go wrong,
25 when you create something new people don't believe in it because they have never seen it. And
26 then you need to be the one that believes in it that never loses trust in the things. And that's why
27 you need to be mentally strong. You need a strong and resilient, resilient, mindset.
28

29 **Interviewer:** Yeah. Wonderful. Thank you. So you, you talked about mindset. **What do you**
30 **understand under the term mindset?**

31
32 **F.3:** So mindset is, to me, actually the way you approach things it's, it's literally your way of
33 doing things, but also your attitude towards things. If, if you have, for example, a very positive
34 mindset, then you have that mindset that things will be positive. Things will eventually work
35 out. And to me it's really, entrepreneurial, entrepreneurial mindset means that you're able to
36 facilitate discovery, to understand where there are gaps too, to really lead the way to really look
37 forward. And, and that's, to me, the, the term mindset, I know it's a bit of a blurry concept, but
38 it's the way how you personally do things and believe in things, but also the way how you
39 approach things and your attitude towards them.

40
41 **Interviewer:** Yeah, thank you for your definition. As you said, it is a blurry term. It's also what
42 I'm researching. So you mentioned some of it already, but for you, **what is the difference be-**
43 **tween the mindset of an entrepreneur compared to the mindset of a non-entrepreneur?**

44
45 **F.3:** So there's, there's wonderful research that I can cite and which I, which I, I'm also a big
46 fan of. So for example, one of the principles is that you're not necessarily thinking like the
47 manager. Which is, you're not thinking about a return on investment, so you wouldn't, you
48 wouldn't think of, this is what I can gain in the future, but you rather think this is what I can
49 potentially lose, rather think of the affordable loss. Then all of the entrepreneurs, they have this
50 principle of wanting to stay in control. They love freedom. So that's, that's one of the key things
51 that you want to have the things in your hand and in your control, then one of the mindset,
52 things of entrepreneurs is they are slightly overconfident. They believe that with what they have
53 at hand that maybe resources or skills they can achieve a lot and the outcome will be defined
54 by them. So they have the strong locus of control and the wish and the will to actually shape.
55 And then the manager at the end, on the other hand, if you, for example, look at, would they
56 rather buy the resources, assemble the resources to achieve a given goal, whereas the entrepre-
57 neur is rather living in the moment and working on the things as he or she wishes to.

58
59 **Interviewer:** So you're talking about Sarasvathy, isn't it?

60
61 **F.3:** Yes. Yes. And also there's another good research from Christensen when you think of the
62 innovator's DNA. So questioning things, experimenting is really good at experimenting. And
63 but I think above all, it's, it's this very positive mindset that entrepreneurs have that things will
64 eventually work.

65
66 **Interviewer:** Yeah, thank you for emphasizing that. I think that's definitely an important, im-
67 portant area. **So how far do you think mindset can be developed and changed?**

68
69 **F.3:** I'm a big fan of the growth mindset. So I think it can be developed very far. So of course,
70 I mean, you have a certain precondition that you experience during your youth, during your
71 childhood. But I, I rather believe in, you can learn anything, if you want to. And I don't believe
72 that much into it's all predisposed and all based on your DNA, but to some extent it is, of course.
73 But if you were to ask me to give it a percentage, I would say 20% is DNA. 80% is that you
74 can learn everything.

75
76 **Interviewer:** Okay. So like the 80/20 rule kind of. **So if I would tell you, I would like to**
77 **change my mindset. What advice would you give me?**

78
79 **F.3:** Well, it starts, it starts, first of all, with awareness is like, find out, what do you want to
80 change and why you want to change? So to me, to me, it's, it's really about being aware of

81 certain things and this awareness comes from inspiration, comes from role models, but that's,
82 to me, the very first thing that needs to happen. If people want to change their mindset, they
83 need to be inspired. They need to be aware of certain things. And that has to do with self-reflection
84 before many other things. And then in the second step, once you're self-reflected, once you're
85 aware, it's really about trying out, it's really about experimenting. And then by experimenting,
86 gaining that self-empowerment and the self-efficacy that you're actually able and capable of
87 changing things. So it's, it's literally learning by doing, and that's what I believe is most im-
88 portant when it's about changing your mindset is giving the environment to actually test out, do
89 small things. Go out of your comfort zone constantly and see what kind of growth you, you
90 achieved by doing that.

91
92 **Interviewer:** Okay. Yeah. So thank you for giving me some of those strategies. **So according**
93 **to your experience which five mindset aspects are the most crucial to entrepreneurial suc-**
94 **cess?**

95
96 **F.3:** The five? To me, the first one is the, this really positive attitude of believing in a bright
97 future is that having a long-term vision, that things will eventually work out. That's one of the
98 things but then also the will to constantly do things better, to constantly improve. It's, it's to me
99 also, the persistence is that you are able to actually yeah, lift things through and, and, and try to
100 really improve it. That was three, right? It's the maker mindset, experimentation is really, really
101 important then in the end, it's also I think, I think a lot about social intelligence. So actually
102 being able to lead the way, being able to talk to others, inspire others and form a joint way of
103 doing things.

104
105 **Interviewer:** Okay. Thank you. That was five. So if you could think about **how an entrepre-**
106 **neurial mindset could also benefit individuals who are no entrepreneurs, do you think**
107 **that could help them in any way?**

108
109 **F.3:** Yeah. I think entrepreneurial mindset is, is, is absolutely not just for entrepreneurs. It's
110 anyone's need in the 21st century to shape his or her environment. So I think anybody needs
111 the, the capability of being able to develop solutions, to discover opportunities. Literally eve-
112 rybody needs it. No matter if you're on a payroll for a corporation, or if you're building your
113 own venture.

114
115 **Interviewer:** And do you think there's also like a **dark side to entrepreneurial mindset?**

116
117 **F.3:** Yes. If it becomes an addiction for example, one of the things, if you're, if you're too, too
118 eager doing things. If you cannot let loose, if you're overconfident always comes with the prob-
119 lem that you believe everything is going in the good way, but then you're blind to potentially
120 failing and then like putting your business above everything else. So there's definitely danger
121 attached. Yeah.

122
123 **Interviewer:** **So in general communities or society how does, they like how does society**
124 **benefit from people with entrepreneurial mindset?**

125
126 **F.3:** The progress. So society benefits because there's entrepreneurs, and intrapreneurs, they're
127 the ones that are making sure that we all progress, that there's new technologies being devel-
128 oped, that we're doing better, that we're healthier. Just think of the pandemic, Biontech found-
129 ers. They provided us with something that wouldn't have been there without entrepreneurs. The
130 technologies we're having today are all of them being developed by the ones that are persistent
131 and bold enough to develop things like that.

132

133 **Interviewer:** Thank you. So actually this was the last of the questions that I had in specific. **Is**
134 **there anything else you would like to share with me on a topic mindset, entrepreneurship,**
135 **or entrepreneurial mindset?**

136
137 **F.3:** Yeah, I'd be, I'd be very interested in the results of your work because the big question to
138 me is how do you, how do you have a lot of entrepreneurs overall? Like, what do you need to
139 do to, to really foster the entrepreneurial mindset as a whole and, and, and with many people.
140 And I think not many people have found out. It's not, not just teaching it's, it's I think a lot with
141 network and inspiration. So I think we need way more people that are inspiring for others. But
142 I'm curious to see what you think.

143
144 **Interviewer:** Yeah. I can share my thesis with you in the end once it's, once it's done.