

Four investigations of arising phenomena in contemporary work
settings: the cases of mindfulness practices and crowdworking
online platforms



Dissertation

zur Erlangung des akademischen Grades eines Doktors der Wirtschaftswissenschaften
an der Wirtschaftswissenschaftlichen Fakultät
der Universität Passau

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Vorgelegt: Passau, 03.02.2020

Disputation: Passau, 11.11.2020

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Acknowledgements

First and foremost, I want to deeply thank my supervisor and mentor Prof. Dr. Marina Fiedler. The ongoing extensive advice and thoughtful discussions that happened during my journey writing this thesis were extremely valuable and deeply inspiring. You did not only guide my research projects but also offered an autonomous and self-determined work environment. I am very grateful for this experience. Further, I want to deeply thank my co-author and close friend Dr. Kim Strunk. Throughout my years working with you, I always enjoyed our lively debates about each project. While we did not always have the same opinion, the quality of each paper strongly benefited from lively debates in the office or pub. There were so many fun days and evenings during these years. I also thank Prof. Dr. Rodrigo Isidor for the continuous support, inspiring talks, and for being the second examiner of my dissertation. My special thanks also go to Prof. Dr. Markus Diller for taking over the responsibilities of the chairperson of my examining committee. Moreover, I want to acknowledge my great colleagues and friends who made this journey unforgettable. First, I thank the entire chair team: Dr. Marcell Allscher, Dr. Franz Strich, Dr. Anna-Raissa Seidler, Anne-Sophie Mayer and Ulrike Ammer who were not only great team members but also exceptional lovely people and friends. Further, I want to express thanks to all the amazing people I met in Passau. Just to mention some of them, I want to especially thank Gloria Kinateder, Dr. Torben Stoffer, Dr. Katharina Werner, Verena Komander, and Dr. Angelika Schmied. You all made my time in Passau so exceptional and so enjoyable.

Finally, I want to thank my family and partner. Without your continuous support this thesis would not have been possible. First, I want to express my deepest gratitude to my partner Dr. Gisela Ernst. Your lovely and supportive attitude helped me to overcome even the most difficult times. Our beautiful times in Passau and Vienna repeatedly gave me the power to deal with all difficulties. Also, your wise and thoughtful comments gave me entirely new perspectives about my own assumptions. Thank you for being extremely patient with me even, when I was not having the best mood or when I was absentminded. You have enriched my life so much. Far more than I can express in words! Finally, I want to thank my parents Veronika Ihl and Dr. Günter Ihl. By offering me the best possible access to excellent education, untiring support throughout my whole life and the freedom to find my own way, you paved the way for this thesis. Your unquestioning love and care are invaluable for me.

Abstract

New arising phenomena in the occupational realm strongly shape contemporary work settings. These developments heavily affect how individuals work within and beyond organizational boundaries. Two phenomena associated with the changing nature of work have been especially prevalent in work settings and intensively discussed in public debates. First, organizations started to introduce mindfulness practices to their workforce. Rooted in spirituality and formerly used in clinical therapy, mindfulness is applied as a human resource development practice to train employees and managers to cope with the increased work intensification. Second, digitization and the importance of individualization opened up the path for work settings beyond organizational boundaries on crowdworking online platforms. On these online platforms, workers process tasks independently and remotely. Research just started to address the implications and meaning of mindfulness practices in organizations and the rise of crowdworking platforms. Several questions remain unanswered. This dissertation addresses unanswered but pressing questions related to these two phenomena shaping contemporary work settings. Structured in four essays the first two essays address the application and meaning of mindfulness practices. The first essay analyzes the meaning and interpretations of these new practices within organizations. The second essay takes contextual factors of the organizational environment into account and investigates their relevance for the successful implementation of mindfulness practices. The second two essays are dedicated to work attitudes and behavior on crowdworking online platform. Essay three captures individuals' motivation for working on such platforms and their effects for workers' work performance. The last essay deals with the role of professional crowdworking online communities in the work experience and assesses the effects of social support in these communities on occupational identification, work meaningfulness and finally on work engagement. Each essay in this dissertation generates new insights on arising phenomena in contemporary work settings. They address several timely yet unanswered research questions for these rising phenomena and thereby offer a deeper and more nuanced understanding of the role mindfulness practices and crowdworking online platforms play in the context of the future of work.

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Introduction

Megatrends rising in western societies heavily affect organizations and individuals' working lives (Hyland et al., 2015; Swart and Kinnie, 2019). Developments such as digitization and individualization hold major implications for the way people work in contemporary settings within and beyond organizational boundaries (Heaphy et al., 2018; Spreitzer et al., 2017). Employees are facing fast changing demands and increasing work intensification due to the rapid introduction of a multiplicity of digital technological applications in their daily work routines (Lee et al., 2016). At the same time technological advances have also enabled new distinct forms for remote work beyond organizational boundaries, meeting the rising desire of people to individualize their own working experiences (Brawley, 2017; Deng et al., 2016).

Study context and research aim of the dissertation

Driven by these megatrends, new phenomena have emerged in contemporary work settings within and beyond organizations. Two developments have been especially prevalent in the latest discussion related to the changing nature of work: First, organizations increasingly apply *mindfulness practices* in training their employees and managers through contemplative exercises (Glomb et al., 2011; Good et al., 2016; Hyland et al., 2015). Mindfulness practices have become popular in the last few years as innovative programs for training managers and employees. Recently, mindfulness practices are applied in various organizations such as Google, SAP, or Microsoft. The practices are designed as training exercises that aim to foster individuals' state of mindfulness, which is characterized by a non-judgmental present moment awareness (Kabat-Zinn, 2003; Sutcliffe et al., 2016). Participants are advised and trained in how to be more mindful in their daily work routines, specifically to cope with intensified demands at work and with increasing cognitive and emotional work load arising from the growing trend toward digitization (Allen et al., 2015). First empirical studies support the salutary effects of mindfulness practices in dealing with stress arising from work intensification (Brown and Ryan, 2003; Glomb et al., 2011; Good et al., 2016; Hülshager et al., 2015).

The second prevalent phenomenon in contemporary work settings which is driven by increasing digitization, as well as by the increasing importance of individualization of work, are remote work arrangements outside organizational boundaries on *crowdworking online platforms* (Duggan et al., 2019; Kuhn, 2016). These platforms enable individuals

(crowdworkers) to act as micro-entrepreneurs offering them high flexibility and autonomy in how, where, and when to work (Kuhn, 2016; Kuhn and Maleki, 2017). Requesters (e.g. organizations) outsource discrete short-term tasks such as picture categorization or short text corrections on these platforms. Crowdworkers can work on these tasks for financial rewards and have the freedom to work on several tasks from different requesters at any time and from any place (Saxton et al., 2013). They do not establish any employment relationship with requesters or the platforms. Thus, crowdworking online platforms offer an emerging boundaryless work setting for individuals acting independently of an employing organization, with fast, easy, and flexible access to work that can be done remotely (Deng et al., 2016; Swart and Kinnie, 2019).

Research has just started to explore the arising phenomena of the application of mindfulness practices in organizations and the implications of crowdworking online platforms (Hülshager, 2015; Islam et al., 2017; Schroeder et al., 2019; Spreitzer et al., 2017). Current studies on these advances leave several questions unanswered. The overall research aim of this thesis is to shed light on different unexplored aspects of the two phenomena. The emergence of mindfulness practices, as well as the rise of crowdworking online platforms, hold promising implications for work activities within and beyond organizational frontiers in contemporary work (Hülshager; 2015; Hyland et al., 2015; Spreitzer et al., 2017; Swart and Kinnie, 2019). Especially, the implications for organizational and individual working lives aligned with contextual influences are largely unexplored in organizational literature. Nonetheless, the alignment of these perspectives is central to understand these phenomena and their meaning for the future of work. Therefore, this dissertation analyses both developments and their meaning for people working in and beyond organizations. The essays in this dissertation consider the specific contextual factors that accompany the rise of mindfulness practices within organizations and working on crowdworking platforms established as alternative work opportunities. Thus, this dissertation adds insights on these phenomena in a theoretically and methodically rigorous manner. It advances our theoretical and practical understanding of mindfulness practices and crowdworking online platforms. Also, it develops and broadens theories on working in contemporary work settings in nuanced ways. Due to the increasing importance of these developments in a number of fields, researchers and practitioners can benefit from these in-depth analyses. Overall, this dissertation addresses timely questions, and it offers theoretical and practical contributions regarding two

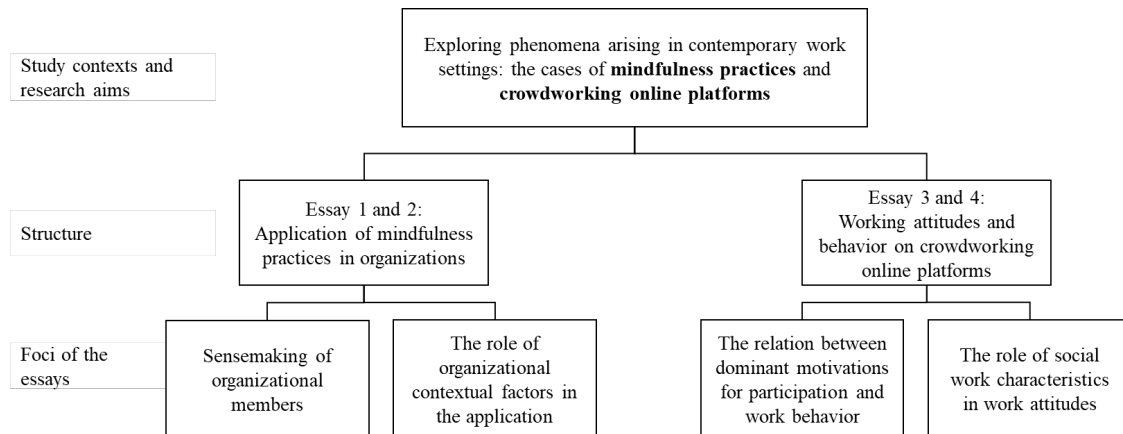
phenomena that extensively shape working lives in many organizations and of people acting as micro-entrepreneurs on online platforms (Hyland; 2015; Kuhn and Maleki, 2017).

The dissertation is structured in the form of four essays, each dedicated to different viewpoints on the two phenomena of interest. The first two essays are related to mindfulness practices in the organizational context. They address the unanswered, but pressing question as to how people make sense of the practices in their organizational working lives. Together with my co-authors, I took a multi-level perspective on the subjective nature of these practices growing into organizational lives, and I considered the associated outcomes. In the next essay, I investigated and analyzed which contextual factors of the organizational environment foster or hinder the successful introduction of mindfulness practices. Both aspects are currently blackspots in research, which need further elaboration to understand the meaning and scope of the mindfulness-movement, and to gain insight regarding how the practices can best be used.

The second two essays are dedicated to crowdworking online platforms. We took a detailed and nuanced perspective in looking at individuals' motivation to participate on these platforms, as well as investigating work characteristics in this environment and their implications for work attitudes and behavior. The two essays address the particularity of the digitized and remote work arrangements beyond boundaries of a traditional organization (Kuhn, 2016; Kuhn and Maleki, 2017). Essay three focuses on what mainly motivates individuals participating in crowdwork, reflecting on the implications these motivations have on their performance. The fourth essay focuses on the often-overlooked role of professional online communities constituting a central social work characteristic, and at their value for individuals' work engagement (Bush and Balven, 2018; Wood et al., 2018). These different foci add central insights to research on individual behavior in the specific contextual circumstances of crowdworking platforms, which are so far unexplored in research, but of high importance given the new possibilities technology has opened up. Figure 1 summarizes the different foci of the four essays in this thesis and summarizes the overall research aim.

Figure 1

Study contexts, research aims, structure, and foci of this dissertation



This dissertation is structured as follows: First, I will give an overview on the four essays in this dissertation. Next, I will provide an overall discussion of the essays’ findings and their contributions to our understanding of these phenomena and contemporary ways of working within and beyond organizational boundaries. Following this overall discussion, the essays will be presented.

Summary of the four essays in this dissertation

The first essay in this thesis focuses on the phenomenon of the application of mindfulness practices in organizations and is entitled “*Interpretations of mindfulness practices in organizations*”¹. Mindfulness practices are increasingly introduced in many organizations in the western business world such as in the banking, automotive, strategy consultancy and software development industries (Sutcliffe et al., 2016). Nonetheless, this movement is not entirely straightforward (Islam et al., 2017; Zaidman et al., 2009). Mindfulness and the incorporated meditation exercises have their roots in Buddhist tradition which understood the concept in terms of spiritual exercises (Kabat-Zinn, 2003). They were adapted and formally used in clinical psychological trials to help individuals to cope with some cases of serious mental and physical illness (Baer, 2003). Organizations now use it as a workplace intervention for employees and managers (Good et al., 2016). This raises a question as to why mindfulness practices formerly used in clinical trials and rooted in spiritual practices seem such an attractive tool to organizations. Research acknowledges that mindfulness practices may have significant effects on reducing stress (Brown and Ryan, 2003), but so far it is unclear how

¹ This study was a joint research project. The paper is co-authored by Kim Simon Strunk and Marina Fiedler. A slightly adapted form of this essay is currently under review in the journal “Organization”.

organizations and their members make sense of these and what outcomes they associate with them. To answer this question, we need to investigate how organizational members interpret mindfulness practices in their organizational environment. Understanding these interpretations from different organizational viewpoints (organizational, group, and individual) is of central importance for critical organizational research to capture the potential beneficial effects, scope, and meaning of mindfulness (Hülshager, 2015; Rupprecht et al., 2018). We address this research gap by drawing on the literature on organizational cognition and sensemaking (Gioia and Chittipeddi, 1991; Walsh, 1995), asking the following question: *How are mindfulness practices interpreted and what are the associated outcomes when such practices are applied in an organizational context?*

To analyze this question, we conducted a comprehensive qualitative study. We interviewed 31 key informants for the application of mindfulness practices in the organizational context. The informants included managers, who were key figures responsible for the application and introduction. Employees who participated in the practices and mindfulness consultancies who have extensive experience in applying the practices in various different organizations were included into the sample. Further, we conducted an in-depth case study with an IT-consultancy firm that introduces mindfulness practices. Our findings show that the interpretations of mindfulness practices in terms of subjective content, associated benefits, and underlying logic varied depending on the organizational viewpoint. On the organizational level, mindfulness practices gain meaning as a general human resource development tool that fosters employees' productivity, resulting in increased organizational performance. The collective group-level interpretation emphasizes the social character and benefits of mindfulness practices. Mindfulness exercises in groups foster the development and strengthen social competencies that manifest in better social relationships. On the individual level, mindfulness practices are seen less as work-related, but more as a multifaceted tool also incorporating spiritual elements for self-actualization and general life enhancement. Thus, individual participants perceived mindfulness as enabling them to flourish personally in work-related and non-work-related aspects.

These findings offer several contributions to organizational literature on mindfulness practices. First, we contribute to organizational scholarship by clarifying the meaning and scope of these practices as they move into organizations. Second, we add to the complexity of the introduction of mindfulness in organizations by analyzing different levels' interpretations and the associated benefits. Third, we contribute to the critical

debate on the nature of mindfulness practices at work and situate the interpretations in organizations in relation to the history of mindfulness. Last, we offer practical implications for the application and design of mindfulness practices in the organizational context.

The second essay, titled “*Mindfulness practices: A contextual perspective on employee acceptance*,” focuses on employees’ reactions to the introduction of mindfulness practices and enhances the insights on mindfulness with a contextual perspective. Mindfulness practices, overall, are perceived positively in organizational settings and the anticipated beneficial effects are supported by empirical studies (Brown and Ryan, 2003; Good et al., 2016). Nonetheless, employees in some organizations are still reluctant to accept the practices and refuse to participate in them (Islam et al., 2017). This is problematic since employees’ acceptance of and reactions to the practices are crucial for mindfulness practices to deliver the positive outcomes. Employee acceptance of organizational practices is largely shaped by the organizational context which surrounds their application (Nishii et al., 2008). This makes contextual factors especially critical for the success of newly introduced organizational practices (Nishii, and Wright, 2008). Still, we do not have studies on the contextual influences that co-determine the acceptance of mindfulness practices yet. This study is the first to address these relationships. It closes a major research gap, as the influence of contextual factors on employee acceptance can eventually determine whether mindfulness practices are able to produce the desired outcomes when they are introduced in organizations. Accordingly, I formulated and investigated the following research question: *Which contextual factors shape the acceptance of mindfulness practices in the workplace?*

Building on a contextual perspective on employee responses to human resource management (HRM) practices, I conducted a qualitative study based on 39 interviews with key informants in and across organizations. The results show that the employee’s micro context (e.g. direct work and team-related factors) and the organizational meso context (e.g. factors related to the organization-wide context) affect employee acceptance. Both contextual dimensions play a critical role when employees evaluate their participation in these practices. I offer the following contributions with this study: First, I show which factors are relevant to employees’ responses to mindfulness practices. Further, I develop a theoretical model that postulates how these factors affect employee acceptance, which can be transferred beyond the context of mindfulness practices to other innovative organizational practices and management tools. Second, I support the current

discussion that contextual perspectives (Guest, 2017; Nielsen et al., 2012) are highly important in the use of innovative HR practices in that they shape employee responses (Nishii and Wright, 2008). Third, I add to the critical discussion about the universalistic perspective on mindfulness producing benefits in organizations detached from contextual dimensions (Hafenbrack, 2017). Last, I push the existing theoretical approaches of organizational sensemaking by arguing for more multi-level empirical research, when theorizing on the connection between contextual dimensions and the application of mindfulness practices in the organizational context.

The third essay addresses the second focus of this dissertation as it is related to crowdworking online platforms. In this essay which is entitled “*The influence of utilitarian and hedonic motivation on success in crowdwork*”² we answer the research question on how dominant motivations affect crowdworkers’ performance. Recently scholars have revealed the dominant motivations of crowdworkers for participating in crowdworking activities (Deng and Joshi, 2016). Crowdwork is centrally used as a source in generating income (e.g. utilitarian motivation) (Deng et al., 2016). Further, workers participate in crowdwork due to the enjoyment of using their spare time productively in conducting tasks giving them a joyful experience (e.g. hedonic motivation) (Brabham, 2010; Kaufmann et al., 2011). Despite revealing the dominant motivations for participating in crowdwork, research to date stops short of explaining the effects of these motivations on crowdworkers’ performance. However, the latter is critical, as revealing the effects on performance builds an important bridge between individual motivations and work behavior. A positive connection is proposed in organizational settings (Cerasoli et al., 2014), but still unexplored in the alternative work setting of crowdwork that lies beyond organizational boundaries. This paper addresses this research gap by answering the following research question: *How does utilitarian and hedonic motivation influence success in crowdwork task completion?*

To answer our research question, we conducted a quantitative two-waves online survey with 181 crowdworkers on their motivations for participating in crowdworking. We matched this survey data with the actual performance records of each worker. Our findings show that people who have a high degree of utilitarian motivation show a higher rate of successfully completed tasks. We also found that the degree of hedonic motivation

² This study was a joint research project done in collaboration with Kim Simon Strunk and Marina Fiedler. A slightly adapted form of this essay was accepted at the 39th International Conference on Information Systems and published in the conference proceedings.

significantly negatively affects peoples' performance. As the degree of hedonic motivation increases, the rate of successfully completed tasks decreases. This finding contradicts motivational theory, which postulates a positive relationship between hedonic motivation and performance (Cerasoli et al., 2014). Therefore, we conducted a qualitative post hoc analysis to better understand this finding. Based on the analysis of 42 crowdworkers' statements, which we gathered via the crowdwork platform and open forum discussions, we built an integrated model for the relationship between hedonic motivation and workers' success rate. We found that people with a high degree of hedonic motivation have higher expectations concerning joyful tasks attributes, are less responsive to sanction and incentive mechanisms, and identify less with their success in doing crowdwork. These aspects lead to a higher number of task abandonments and a higher degree of negligence in task processing, which lowers their success rate.

We offer several contributions to literature and theories on working behavior in crowdwork. First, we show that utilitarian motivation indeed has a positive effect on crowdworkers' performance. Second, we found a negative relationship between hedonic motivation and performance. This contradicts motivational theory developed for organizational settings (Cerasoli et al., 2014). Thus, organizational theories might not be transferable to a non-binding and highly self-determined work setting that does not have formal organizational structures. Third, we develop a comprehensive model for understanding the negative relationship between hedonic motivation and measurable performance, thus offering a new research agenda. Overall, the negative effect of hedonic motivation and the underlying mechanisms we found, call for a careful re-conception when transferring theories from the organizational context to the virtual context of crowdwork. Last, we theorize about the implications our findings on crowdwork can have for disrupting traditional organizational work arrangements (Spreitzer et al., 2017).

The fourth essay of this dissertation, entitled "*Let's rock these gigs together! The mediated effects of social support in professional online communities on work engagement in crowdwork*,"³ addresses the role of professional online communities contributing to the work engagement of crowdworkers. Understanding what engages crowdworkers in their work activities, is central to evaluating how best to use online platforms for outsourcing tasks (Bush and Balven, 2018). Engaged workers are likely to

³ This study was a joint research project together with Kim Simon Strunk and Marina Fiedler. A slightly adapted form of this essay is currently under review in the journal "The International Journal of Human Resource Management".

produce faster and more accurate outcomes on the requested tasks (Bush and Balven, 2018; Rich et al., 2010). Therefore, conceptual work in the field of HRM focuses on developing new work design frameworks explaining the effects of work characteristics on work engagement (Bush and Balven, 2018; Schroeder et al., 2019). We know from organizational settings that, as a social characteristic of work, social support provided by peers and supervisors is crucial in engaging employees (Hüffmeier and Hertel, 2011). Social support enhances the experienced meaningfulness of work (Kahn, 1990; May et al., 2004) and creates a sense of identification with the organization (Wiesenfeld et al., 2001). Nonetheless, on crowdworking online platforms requesters and platforms do not provide such social support (Kost et al., 2018), which has potentially negative effects on work engagement. Even so, crowdworkers receive social support from other crowdworkers in professional online communities external to certain platforms (Wood et al., 2018). Despite the theoretical importance of professional online communities for explaining working behavior, there are still no studies on the potential effects of these professional online communities regarding work engagement of crowdworkers. Therefore, we raise the following research question: *(How) Does social support in professional crowdwork online communities foster workers' engagement in doing crowdwork?*

We develop a conceptual model in which we postulate that affective and instrumental social support in professional online communities enhances experienced meaningfulness of doing crowdwork and creates a sense of occupational identification among workers, which in turn affect their work engagement. The findings of our two-wave quantitative survey show that affective social support fosters a sense of occupational identification and experienced meaningfulness of doing crowdwork and affects work engagement. We found no support for the proposed relationships between instrumental social support, the mediators, and work engagement. With these findings, we offer vital and nuanced contributions to current literature and theories on work design in crowdwork (Schroeder et al., 2019). We present the first study that shows that social support from professional online communities does affect work engagement, contributing to the relevance of social work characteristics in shaping crowdworkers' attitudes. Further, by postulating and testing the mediators of experienced meaningfulness and occupational identification, we show the mechanisms through which professional community affective social support affects crowdwork engagement. Additionally, we discuss the transferability of our findings to other types of emerging work settings in the platform-mediated gig economy.

Finally, we spell out practical implications which suggest that the design and use of crowdworking platforms should actively consider these external communities as a valuable work design characteristic in platform mediated remote gig work.

Overall discussion

Each essay in this dissertation generates new insights on arising phenomena in contemporary work settings within and beyond organizational boundaries. They address several unanswered but pressing research questions for the two commonly documented cases of mindfulness practices in organizations and online crowdworking platforms. The first two essays take a detailed look at how people provide meaning to mindfulness practices on multiple levels, and they answer questions about the role of contextual factors when introducing such practices. The second set of essays answers central questions in the field of working gainfully on crowdworking online platforms. They reveal the implications of different motivations for workers' performance, and the role professional online communities as social work characteristics play in work engagement. The first two essays are especially valuable in understanding why mindfulness practices are such an attractive tool to organizations, and how organizational contextual factors support or hinder the successful application. The second two essays, shed light on the relation between motivations and work performance, and they clarify the role of professional online communities for individuals' work attitudes. Conducted with theoretical and methodological rigor, this dissertation contributes to the current discussion in scientific and practical communities, advances theory, and offers practical advice related to the two common phenomena progressively arising in present work settings.

First, concerning mindfulness practices, we learned about the meaning of the practices and the associated outcomes on multiple levels in organizations, and about the important role of the context. Mindfulness practices are perceived as positive across organizational levels. Nonetheless, depending on the level of analysis (organizational, group, or individual level) different interpretations and associated benefits are attributed to the practices. As organizational members see mindfulness producing benefits for organizations as a whole (such as organizational productivity), for groups (e.g. improvement of social interaction), or for individuals (self-actualization), it is more than just a stress reduction practice in the organizational application (Hülsheger et al., 2013). Thus, mindfulness practices are a multifaceted tool with several meanings and implications for all levels of organizational application. This broadens the current

perspective of mindfulness practices that mainly emphasizes the individual benefits of stress reduction (Hülshager et al., 2015). Still, even if mindfulness practices are perceived as positive across the organizational levels with multiple associated benefits, research and managers need to account for the contextual factors of the organizational environment. These factors strongly support or hinder employee acceptance and thus the successful application of the concept. Without employee acceptance, employees' positive attitudes, and their willingness to participate in the practices, mindfulness practices are unable to deliver any of the associated benefits (Nishii et al., 2018). The two aspects of the individual micro context, as well as organizational meso factors, shape the benefits and reduce the drawbacks of the practices, thus contributing to employees' willingness to participate. If employees experience that the organizational environment offers them a demanding but supportive, safe environment, they will be more likely to accept the practices. This supportive and safe environment needs to be anchored in the micro context, but also in the meso context through organizational policies and practices.

Thus, conceptualizations of and theories on mindfulness practices need to account for the multifaceted nature of mindfulness and for different outcomes that depend on the different levels of analysis. Additionally, as we see it, theories should not only focus on the effects of these practices (which seems to be a dominant paradigm in the current stream of research (Sutcliffe et al., 2016)); for a more realistic theory development they should also anticipate how critical antecedents drive employees' responses to the introduction of mindfulness practices. Managers need to be aware of these practices, and should evaluate the fit between mindfulness practices and the organizational environment. This needs to be the first step before deciding to introduce such training programs to their workforce. In sum, mindfulness practice can produce manifold benefits ranging from organizational to individual outcomes, and they need to be more broadly conceptualized than simply as a primary stress reduction tool. Still, contextual factors of micro and meso contexts heavily affect employees' responses and thus the realization of these benefits. Thus, in order to develop nuanced and credible theories, it is indispensable to account for the multifaceted nature of the new practices and include contextual influences on acceptance as requirement for the postulated beneficial outcomes.

Second, the findings of the second set of essays have important implications for how to theorize about working behavior and crowdworking platforms. Both essays show findings that can be explained by the specific characteristics that working on crowdworking online platforms provides for individuals. These essays' findings

necessitate a reconsideration and adaption of organizational theories to account for the new work setting that does not have formal organizational structures. We found that the motivations for participating in crowdworking have significant effects on performance. Our perception is that in the loose, self-determined, and digital work environment that lies outside of organizational boundaries and has a short-term task design, different underlying mechanisms mediate the relationship between hedonic motivation and performance, creating the negative effect we evidenced. The explanation for this negative relationship can be found in the crowdwork context. Individuals with a high degree of hedonic motivation tend to show less professional behavior. This leads to a higher degree of negligence and abandonment in task processing than otherwise. Workers have no formalized employment relationship with the other parties (Duggan et al., 2019) and do not have to fear long-term consequences of performing poorly. Their work behavior reflects the goal of hedonic experiences, which are less driven by delivering professional and accurate outcomes than with more serious motivation. In the last essay, we conducted an adaption to assess this by re-evaluating the role of social support on work engagement. Many studies have neglected this aspect (Brawley and Pury, 2016). Online professional communities that function as a source of social support, have been neither persistent, nor relevant in organizational theories, as individuals have direct personal relations to supervisors and coworkers (Ashford et al., 2018). Simply applying existing theories to the new context would miss central aspects that are specifically present in online labor platforms. We see that online communities often act as substitutes in compensating for the lack of social support that parties such as requesters and platforms, withhold.

In sum, the findings of the second two essays show that digital crowdworking creates a new work setting that affects theoretical relationships. It constitutes a new work environment creating different underlying mechanisms and involves different actors who operate complementary to the specific task arrangements. This calls for adaptations and new development of theories (particularly of work design and theories concentrating on social relationships at work) explaining work attitudes and behaviors. Just applying organizational theories without considering the need for thoughtful adaptations, holds the risk of leading to a patchy understanding of working behavior. We need to question underlying assumptions that are well suited to organizational work, but do not fit the digital work environment beyond organizational boundaries missing supportive organizational structures. These findings also hold implications for organizations who wish to use crowdworking online platforms to outsource short discrete tasks. They need

to be aware of the implication this work environment has for individual work behavior. Managers need to consider the implications of the altered work environment when they think about the suitability of these platforms for outsourcing. Requesters should analyze which platforms might offer advantageous work environments that will contribute to productive work behavior of individuals. In this way, requesters can optimize the opportunity that workers offer them to achieve timeous and accurate outcomes, especially as multiple platforms with different work environments are available.

To conclude, this dissertation has addressed central unanswered questions, with theoretical and methodological rigor. Doing so, it generates new insights that advance theory and supports practice in relation to the emerging phenomena of mindfulness practices and the use of crowdworking online platforms. The findings and their implications contribute to a more thoughtful consideration of emerging advances in contemporary work environments. The essays create more awareness for the application of innovative practices within organizations. Further, the findings offer guiding principles for how to design crowdworking online platforms in the future, ensuring that they fully meet the potential necessary for a long-lasting work alternative. It can be assumed that mindfulness practices and crowdworking online platforms will be even more commonly used in the future to keep up with megatrends of digitization and individualization of work. Due to the high likelihood of the persistence and increasing attractiveness of mindfulness practices and crowdworking online platforms for both organizations and individuals, the theoretical and empirical insights developed in this dissertation should certainly benefit the current discussion among scholars and practitioners. The essays cautiously anticipate the meaning and implications, of the phenomena in the organizational setting and for working lives beyond organizational boundaries. Thus, they create a nuanced awareness and appreciation of the application, use, and design of organizational practices and digital work environments.

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Interpretations of mindfulness practices in organizations

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This study explores the interpretations of mindfulness practices and their entailed outcomes in organizations. Rooted in spiritual practices and applied in clinical psychology, mindfulness practices are now increasingly being introduced in organizations. Despite scientific results that mindfulness practices are promising interventions for reducing employees' stress, our understanding of interpretations of mindfulness practices and their associated outcomes in organizational practice, remains underdeveloped. Organizational research lacks a detailed understanding of how an organization's members interpret mindfulness practices, and which outcomes they associate with them. This dearth of research on how to interpret mindfulness in organizational practices prohibits us from fully understanding their multiple facets in organizations. Building on the perspective of organizations as interpretive systems, we examine how organizational members interpret mindfulness practices on the organizational, group, and individual levels. Our qualitative study based on 31 interviews with key informants and an in-depth case study, reveals that versatile mindfulness interpretations exist, emphasizing a broad spectrum of outcomes ranging from individual to overarching, organization-wide benefits. We found, that at an organizational level, mindfulness practices are interpreted as a generalizable human resource development tool, aimed at boosting organizational performance. At a group level, mindfulness practices are interpreted as means to enhance group efficiency via improved personal relationships. Finally, at an individual level, mindfulness practices are interpreted as a tool for self-actualization. These findings contribute to organizational literature by empowering scholars to clarify the meaning, scope and versatility of mindfulness in organizations. Further, the findings help to situate the understanding of mindfulness in organizations in relation to its history.

Keywords: mindfulness practices, interpretations in organizations, associated outcomes, individual level, group level, organizational level, multi-level analysis

Introduction

Mindfulness practices entailing meditative exercises are increasingly applied in organizations in western societies (Sutcliffe et al., 2016). Nonetheless, the explanation for the development toward an organizational application of mindfulness practices seems not to be entirely straightforward (Zaidman et al., 2009). Spiritual mindfulness exercises are at the heart of eastern Buddhist traditions (Brown et al., 2007; Carrette and King, 2004). This understanding of the practices has changed, as it has gained a secular application in western societies, as a tool in clinical therapeutic settings (Baer, 2003). Specifically, mindfulness practices moved toward becoming a therapeutic tool to support individuals dealing with mental illness (Baer, 2003). In contrast, organizations apply mindfulness in the form of workplace interventions that contain contemplative and meditative elements in training employees and leaders in their organizational context (Good et al., 2016). The number of organizations attempting to introduce mindfulness, is steadily growing (Islam et al., 2017). Journalists have even framed the increasing application of these kinds of practices as a mindfulness revolution in the organizational context (Purser and Loy, 2013).

Despite the exceptional popularity of mindfulness practices in western organizational contexts, a crucial aspect of this movement stays underrepresented in organizational literature (Islam et al., 2017; Rupprecht et al., 2018). Although organizational scholarship acknowledges that mindfulness practices in the workplace could be used as systematic interventions helping to reduce stress (Allen et al., 2015; Hülshager et al., 2015), research falls short in explaining how mindfulness practices are interpreted in organizations, and which outcomes are associated with it in organizational practice. The diverse applications (from a spiritual to an organizational tool) offer an important hint that mindfulness practices have been subject to changing interpretations and outcomes, depending on the field of application (Stanley, 2012). However, it is an open question how organizations interpret mindfulness practices and which outcomes they associate with the practice on an individual and interpersonal level. The lack of understanding interpretations to date has withheld us from fully capturing the meaning, scope, and versatility of mindfulness practices in organizations (Hülshager, 2015; Islam et al., 2017; Rupprecht et al., 2018; Stanley, 2012), which exposes a major research gap. Consequently, in this first study, we raise the following research question:

How are mindfulness practices interpreted and what are the associated outcomes when such practices are applied in an organizational context?

To analyze this question, we conducted a comprehensive qualitative inductive study. We performed 31 interviews with mindfulness consultants and with key informants from multiple organizations. Further, to get a comprehensive perspective on interpretations of mindfulness practices, we used an in-depth case study on a German IT consultancy firm. We reveal that members of the range of organizations have arrived at varying interpretations of mindfulness practices. The interpretations vary regarding particular aspects, depending on whether organizational members made sense of the practices referring to the organization, to groups of employees, or to individuals. Organizational members interpret mindfulness practices differently when they make sense of it on an organizational level (i.e. as a part of sensemaking that refers to the entire organization) (Walsh, 1995), on a group level (i.e. as a part of sensemaking in the direct social work environment), and on an individual level (i.e. as a part of sensemaking that refers to personal circumstances) (Maitlis, 2005). In sum, our findings reveal that on the overarching organizational level, mindfulness becomes meaningful through understanding it as a general human resource development tool. This interpretation has the associated benefit of enhancing the entire organization's productivity. Our key informants proposed that mindfulness practices are tools to strengthen individuals' personal resources, which contributes to organizational success. On the group level, the social character of mindfulness as a group exercise is emphasized as helpful in developing and strengthening positive personal relationships. The assumption then is that mindfulness has an infectious character that consolidates improved relationships among colleagues. In contrast to the collective levels, interpretations on the individual level give meaning to mindfulness as a multifaceted tool for self-actualization and general life enhancement that enables individuals to flourish personally.

Overall, these findings have an important merit for addressing several contemporary issues raised in studying mindfulness practices in organizations. First, as mindfulness practices are interpreted positively and associated with beneficial outcomes on each level, from the individual to the organizational, we contribute to understanding the meaning, scope, and versatility mindfulness practices can have in the organizational context. Second, by using the analytical approach of interpretations on different levels this study helps us to understand the multilayered rationale behind the development of mindfulness growing in organizations. Third, we contribute to understanding how mindfulness practices moved into the realm of organizations within the history of mindfulness. Acknowledging and understanding the divergent interpretations across the

organizational, group and individual levels in an organization helps to refine the concept of mindfulness practices in organizations by revealing the three distinct types of interpretation.

This paper is organized as follows: First, we give a short overview of the history of mindfulness and its interpretations in eastern spiritual practices and clinical applications. Second, we address the perspective on mindfulness in organizational research. Next, we present our research design and coding process, and subsequently, we provide our results, illustrating the interpretations of mindfulness practices at every level, emphasizing the entailed outcomes and core assumptions. Last, we discuss our findings and what they contribute to organizational research. To conclude, we provide limitations and potential avenues for future research.

Mindfulness practices moving to organizational contexts

Mindfulness meditation and how it is conceptualized, has a long history as spiritual practice in eastern societies (Gethin, 2011), and is centrally rooted in Buddhist practices. Mindfulness meditation practices are spiritual individualistic approaches, associated with pursuing contemplative exercises (Kabat-Zinn, 2003; Purser and Loy, 2013). From this perspective, mindfulness meditation is a “psycho-spiritual development” (Purser and Loy, 2013: 4), which aims to understand, actively perceive, and finally eliminate the roots of suffering in life. They incorporate mechanisms to identify and understand dominant roots of suffering, and consist of contemplation about current external and internal life situations and produce deep-seated changes in emotional and cognitive states (Purser and Milillo, 2015). These changes are directed toward creating attention to, awareness of, and consciousness in the present moment (Dreyfus, 2011). This in turn, leads to a sustainable change in behavior and psychological states, which entail acceptance and the non-judgmental perception of life situations (Dreyfus, 2011; Glomb et al., 2011; Purser and Milillo, 2015). In all, these definitions summarize mindfulness meditation as a spiritual tool, which is directed toward active changes in cognition, emotions, and behavior, and which leads to significant, deep-seated, and sustainable enhancement of psychological states, thus reducing negative life experiences (Glomb et al., 2011).

Mindfulness has gained attention in clinical psychological therapies in western societies. Mindfulness practices are introduced as a supportive tool in medical treatments of physical and mental illnesses (Baer, 2003; Creswell, 2017), decoupling meditation from its spiritual roots and offering a secular application (Brown et al., 2007). The goal

is to achieve a higher state of attention and awareness. Individuals strive to direct their perceptions to present moment stimuli and accept those stimuli without trying to control or judge them (Glomb et al., 2011). Mindfulness practices are intended to help patients to cope with health deficits, and are widely standardized tools across multiple therapies (Baer, 2003). Mindfulness meditation is introduced in programs conducted over several weeks, mostly ranging between six and twelve weeks, with weekly group sessions and additional independent exercises as homework (Bohlmeijer et al., 2010; Grossman et al., 2004; Hofmann et al., 2010). The most prominent examples of these programs are mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT). The programs contribute to treating mental conditions such as anxiety and depression (Biegel et al., 2009; Carmody and Baer, 2008; Kimbrough et al., 2010; Moore and Malinowski, 2009), and help patients to cope psychologically with severe physical illnesses, such as cancer (Carlson and Garland, 2005) or chronic pain (Rosenzweig et al., 2010).

Currently, organizations increasingly apply mindfulness practices in an occupational context. They direct mindfulness practices, such as (adapted) MBSR and MBCT programs, at a general audience of employees and managers (Fries, 2009; Sutcliffe et al., 2016). These practices are introduced in organizations as structured and systematic interventions aimed at increasing mindful states to affect individual workplace functioning (Hyland et al., 2015; Jamieson and Tuckey, 2017). Nonetheless, an analysis of the benefits in the organizational context shows mixed results, depending on the outcome variable. The most reported outcomes of mindfulness practices in organizations are health and psychological well-being (Hülshager et al., 2013; Hülshager et al., 2015). Concerning individual stress and strain levels, several studies have concluded that by fostering a psychological state of being aware of the present moment, mindfulness practices are a promising tool to help employees to cope with stressful events (Hülshager et al., 2015). Studies that focus on other work-related and organizational outcomes such as engagement, work satisfaction, and performance, are rare and often show no significant relationships (Allen et al., 2015; Hyland et al., 2015; Jamieson and Tuckey, 2017).

Mindfulness practices and their multilayered interpretations in organizations

To understand mindfulness practices and to fully capture the meaning, scope, and versatility of mindfulness moving into the business context (Hülshager, 2015; Rupperecht et al., 2018), we conceptualized the different interpretations as individual and

interpersonal forms of cognition⁴ (Daft and Weick, 1984; Walsh, 1995). Based on existing literature, we refer to organizations as interpretive systems (Taylor and Robichaud, 2004), in which members interpret emerging information and practices in their context (Daft and Weick, 1984; Islam, 2015; Maitlis, 2005; Walsh, 1995). As organizational settings are complex, organizations are influenced by individual and interpersonal cognition (Daft and Weick, 1984; Harrington et al., 2015). Thus, interpretations can differ across individuals and groups within an organization (Dutton and Jackson, 1987; Mervis and Rosch, 1981). Such an analytical approach helps us to understand and clarify what organizational members associate with mindfulness practices and which outcomes they have observed. This is a well-known theoretical approach for understanding changes or practices introduced in organizations (Thomas et al., 1993).

Interpretations typically follow people's evaluations and decisions (Hargie et al., 2010; Hayes and Walsham, 2000) and influence which ideas and actions are perceived as promising, legitimate, and adequate (Dutton and Dukerich, 1991; Hahn et al., 2014). Thereby interpretations serve as preconceptions that determine the appropriate actions, preceding reactions, emotions, and behavior (Allard-Poesi, 2005; Dutton and Dukerich, 1991). However, interpretations in organizations can exist on individual and on collective levels, in the form of group-level and organizational-level interpretations (Islam, 2015; Walsh, 1995). Thereby, multilayered interpretations provide us valuable insight on the meaning, scope and versatility of an organizational phenomenon.

In organizational circumstances it is likely that role players grasp mindfulness neither purely as a spiritual tool for personal enlightenment according to the Buddhist approach to meditation (Purser and Milillo, 2015), nor as a clinical tool for health benefits according to a western application (Baer, 2003). These two applications do not emphasize outcomes directly related to an occupational context (Islam et al., 2017). Thus, neither the spiritual Buddhist perspective, nor the secular clinical understanding seems to adequately reflect the sensemaking of mindfulness practices in business organizations (Islam et al., 2017).

While this theoretical lens emerged during our analysis, our first conceptual thoughts postulate that mindfulness practices as organizational phenomena, are varyingly

⁴ This conceptualization emerged during our iterative coding process and aided us in structuring, analyzing, and explaining the divergent interpretations. In this section, we want to foreshadow the emergent framework of our findings to succinctly introduce a rather complex notion.

influenced by individual and collective kinds of cognition (Stanley, 2012). Thus, as mindfulness is interpreted differently, divergent perceptions of its meaning, legitimate content, and expected outcomes arise. As these cognitive blueprints are enacted individually as well as collectively in organizations, they shape the framing and application of mindfulness practices. In sum, empirically, previous research has not fully accounted for the multilayered phenomenon of mindfulness practices in organizations. With our lens that focuses on interpretations, we comprehensively integrate the subjective nature of mindfulness in our analysis.

Data collection and analysis

To understand the multiple interpretations of mindfulness practices in organizations and the entailed outcomes, we engaged in extensive literature and web searches, conducted semi-structured face-to-face and telephone interviews with key informants, as well as doing an on-site case study. To begin to grasp the interpretations of mindfulness practices in organizations, we conducted an extensive web search to identify corporate mindfulness programs. We focused our web search on key words such as “mindfulness,” “mindfulness practices,” and a broader range of related key words such as “attention training,” “awareness training,” or “mindful health program.” We identified a broad range of organizations varying in size, industry, and location to gain a holistic picture that would avoid imposing initial restrictions on organizations. We then screened the companies’ secondary data on the use of mindfulness practices from sources varying from public information such as media releases and data on company websites to internal information such as presentations during mindfulness training. We identified and approached key informants, who could provide us with insight on why, how, and for which purpose the organizations introduced mindfulness practices. The corresponding face-to-face and telephone interviews supported our observation of mindfulness being an ambiguous and divergent phenomenon.

Additionally, as many organizations relied on externally recruited trainers and consultants to introduce mindfulness practices, we identified such trainers and consultants. The consultancies, to some extent, collaborated with a number of the identified organizations. Nonetheless, we also included consultancies with a different client focus to get a wider and possibly more representative set of interpretations. The criteria for selecting consultants were extensive experience in the organizational application of mindfulness practices, a broad spectrum of references, and relevance of the

content of practices they offered. The practices varied a great deal, from being (adapted) versions of MBSR and MBCT, to shorter versions in the form of leadership seminars.

To gain a deeper understanding of how mindfulness is interpreted in organizations across an organizational, a group, and an individual level, we had the opportunity of conducting a detailed case study in which we accompanied and observed the implementation of mindfulness practices (Gioia and Thomas, 1996) in a German IT-consultancy firm. At the time, the company was introducing mindfulness practices as part of a systemic approach, offering these practices to all levels of employees. In various on-site visits before, during, and after the intervention, we were able to directly observe and even participate in the provided training. We observed and discussed how the management communicated the practices and gained information on their associated scope and benefits in interviews, personal meetings, and informal email discussions. In this way, the company revealed its internal communication and the planning processes involving the HR-department, the managers, and the external trainer. Additionally, the company provided us with internal memos and emails that demonstrated how they communicated the practices to their employees. They strongly emphasized the connection between individual well-being and organizational performance.

Further, we participated in mindfulness training, an adopted form of the MBSR-program offered to small groups of company members. This gave us insight in not only the content of the training, but also the interaction among participants. We gained a direct informal perspective on the individual and group interpretations of the practice. Gathering such insights is recognized as an important approach to understanding sensemaking in organizations (Thomas et al., 1993; Zaidman et al., 2009). Simultaneous to our observations, we engaged in informal meetings, conversations, and discussions with managers, the trainer, and the other participants. Following the case study approach, we again conducted semi-structured interviews with members of the three groups. An overview of the step by step timeline is given in the appendix.

In sum, our data consisted of interviews with 31 informants across the various groups. Interviews lasted between 21 and 94 minutes, with a mean of 45 minutes per interview. We interviewed 18 managers and company representatives, mostly from large multinational companies. They represent a wide range of employment functions, such as leading management positions (responsibility for up to 9000 people), expert positions in human resources, and global corporate health management, as well as a chief mindfulness

officer and a global ombudsman driving the introduction of mindfulness. Additionally, we conducted corporate interviews with leading managers and managing directors in medium-sized firms with mindfulness programs. We conducted nine interviews with mindfulness consultants and four with participants in a corporate mindfulness training program. To ensure accurate translation, quotations used in this manuscript were translated to English and back to German. Figure 1 offers a detailed overview of the data collection process and its use in the study.

Figure 1

Data collection and utilization

<u>Web research and secondary company data</u>	<u>Semi-structured interviews</u>	<u>Case-study approach (between 2016 and 2018)</u>
<p>Aims: Identifying relevant key informants for the analysis</p> <ul style="list-style-type: none"> • Identification of relevant organizations approaching mindfulness practices • Gathering first insights on the processes of mindfulness implementations in organizations • Identifying relevant consultancies introducing mindfulness practices to organizations • Identifying key informants <p>Data sources:</p> <ul style="list-style-type: none"> • Extensive open web research • Articles in press • Company documents such as press releases <p>Selection criteria: Extensive experience in the application of mindfulness practices in organizations</p>	<p>Aims: Qualitative inductive identification of interpretations in organizations</p> <ul style="list-style-type: none"> • Gathering a multi-perspective understanding about interpretations in organizations • Revealing dimensions of interpretations (content, associated benefits, and underlying logic) • Differentiating interpretations between organizational, group, and individual level <p>Data sources: In total 31 interviews with key informants</p> <ul style="list-style-type: none"> • 18 interviews with key informants from 9 different organizations with direct responsibility for the introduction of mindfulness practices • 9 interviews with mindfulness consultancies with extensive experience in introducing mindfulness to organizations • 4 Interviews with active participants of a eight week mindfulness program 	<p>Aims: Exploring the processes of approaching to mindfulness first hand</p> <ul style="list-style-type: none"> • Gathering an picture about the expectations associated with mindfulness • Understanding the scope and meaning of mindfulness practices • Getting first hand impressions of the communication about mindfulness practices on a managerial and employee level <p>Data sources:</p> <ul style="list-style-type: none"> • Observations through various onsite visits • Participation in managerial team meetings • Internal company documents • Participating in an internal MBSR course

Following Flick (2018), we used a semi-structured interview guide, which allowed us to take a broad approach to the research phenomenon. Central questions for getting the interviews underway were, e.g.:

- What is the rationale for applying mindfulness in an organizational context?
- How are mindfulness practices introduced in (your) organization(s)?
- What are the outcomes of the practices for (your) organization(s) or individuals?
- Why are mindfulness practices able to produce these outcomes?

During the interview process, we learned about the aspects and questions which are central to revealing interpretations and associated benefits. Therefore, we continuously adapted the interview guideline to the context of the specific organization and to the type of interview partner (organizational representative, employee, or consultant; for a detailed explanation of the key questions, see appendix A4). We reacted to our interview partners' answers and enriched their key explanations about mindfulness practices, rather than following a strict template. This required a certain degree of flexibility during interviews, but then allowed us to emphasize emergent topics and to benefit extensively from the subjective experiences of our respondents.

Our three-step coding process consisted of open coding, selective coding, and theoretical coding, while we constantly contrasted emerging codes and categories with the data and the literature (Flick, 2018; Gioia et al., 2013). Three researchers conducted the open coding and the selective coding separately. After the open coding, we looked at the relationships between the first codes to summarize them as first-order concepts. This process resulted in various first-order concepts relating to organizational members' interpretive assumptions. We combined the clustered first-order concepts that shared a perspective and related them to one, creating second-order categories that we labeled at a higher abstraction level (Gioia et al., 2013). After the first round, the researchers discussed potential differences in their codings and reconciled them. Finally, we conducted theoretical coding, looking for relationships that would determine our final categories. The theoretical coding was done collaboratively, to assess the final categories' validity, thus leading to interpretative elements.

Findings: Interpretations of mindfulness practices in organizations

In our data, we found specific interpretations of mindfulness practices and the entailed positive outcomes on each level of our analysis (organizational, group, and individual). Organizational members, depending on the level of analysis, hold an understanding of the practice that constitutes the subjective/perceived nature of mindfulness practices. We labeled this aspect of the interpretations "content." Further, we found associated positive outcomes of mindfulness practices on each level. These aspects were coded with the label "associated benefits." Finally, we identified a dimension concerned with how to achieve

these goals, which we labeled “underlying logic.” In the following sections, we present the findings in these terms for each level of our analysis.

Organizational-level interpretations

We found specific interpretations of mindfulness practices at the organizational level – a finding that gives a clear picture of the subjective nature of the practice from a managerial viewpoint.

Content on the organizational level: mindfulness practices as a generalizable human resource development tool

On the organizational level the participants interpret mindfulness practices as an effective generalizable tool for supporting employees in matters other than their personal needs. Similar to other tools such as “corporate health programs” (Health Management; Interviewee 3) or “seminars for leadership development” (Head of Human Resource Development; Interviewee 17), mindfulness practices are a valuable method toward developments that benefits all employees alike. A senior expert responsible for applying these practices noted that mindfulness practices are a means of developing organizational functioning:

[with mindfulness programs] organizations always pursue the goal of increasing productivity and effectiveness, and of improving their market position. (Senior Expert, Learning and Organizational Development; Interviewee 4)

An organization in the banking industry stressed new heights in the assumption about the generalizability of the suitability of the practices. A short version of mindfulness practice and contemplative exercises was introduced as mandatory training to all employees and leaders.

We introduced [...] two-day seminars, which were called ‘Mindful Cooperative Culture’. [...] we asked all organizational members that work at least part time, to participate. (Director, Organizational Development; Interviewee 13)

Organizations understand the use of mindfulness practices as an integral part of managing their employees, so that practices such as MBSR programs have become an integral part of HR development tools, e.g. in burnout prevention. Companies integrate the practice into a broader HR concept directed toward activating employees’ potential.

I think [...] we have to say that health programs [which include mindfulness practices] are a holistic topic across all company sites around the globe. We give a clear message. It is clearly a very important aspect of leading the organization. (Health Manager; Interviewee 20)

In evaluating the programs, organizations and especially HR departments, use similar methods to those used in assessing other training offers. Mindfulness practices are evaluated on the dimensions of perceived costs to the employee (e.g. time and effort) and perceived benefits (e.g. feedback on work-related measures). The HR department captures a general picture based on employees' input, and thus evaluates the practice in cost-benefit terms, which reflects an understanding of mindfulness practices as a general HR tool.

Employees come to the training sessions and get introduced to mindfulness. Two weeks later they attend the second module. If someone from the HR department asks for their evaluation, they answer "Wow, it was totally exhausting [...] and totally new. But it really helped me in the last two months." (Mindfulness Consultant; Interviewee 27)

Overall, mindfulness practices are an additional tool in the organizational toolbox, aiming for better business results via the improvement of employees' personal resources. These practices are assumed to generate generalizable benefits for all employees, and have a fixed place in the general offering of HR practices.

Associated benefits at the organizational level: boosting organizational effectiveness and productivity in demanding times

Following the idea of a human resource investment, organizations have begun to investigate business-related goals for mindfulness practices. This interpretation assumes that mindfulness practices improve organizational productivity by developing employees' cognitive and emotional resources. Mindfulness improves employees' ability to deal with dynamic conditions in work environments; it reduces stress and improves cognitive flexibility, as well as resilience. This development, brought on by mindfulness practices, leads to organizational effectiveness in work-related and organization-related business issues. One mindfulness consultant who has implemented a program in several organizations, stated:

[Mindfulness] creates a team culture and then an organizational culture, providing a good image and fostering sustainability, thereby contributing to efficiency and effectiveness. (Mindfulness Consultant; Interviewee 25)

Mindfulness practices should help to deliver business-related benefits. Highlighting the business-related benefits in the form of productivity enhancement helps to achieve the benefits managers associate with practicing mindfulness. Even if mindfulness has a spiritual or psychosocial background, organizations tend to pay less attention to the spiritual heritage, and rather to stress business benefits clearly.

[...] if there were to be a study that confirms eighty percent of the participants [...] increased their sales after doing eight weeks of MBSR interventions [...] it would be convincing [to organizations]. (Mindfulness Consultant; Interviewee 26)

Organizations often introduce mindfulness practices during change processes or demanding phases, such as during mergers or downsizing. Especially in challenging situations, mindfulness practices are introduced to motivate employees and enhance productivity. Organizational members responsible for the practice, prioritize it and try to distribute it qualitatively and quantitatively throughout the organization, to better tackle the demanding circumstances. A leading financial service provider supported this practice as follows:

I would have appreciated a more intensive approach [to mindfulness practices], because I think we need [...] to continue to motivate employees and keep them productive [...] even if times have been hard. (Head of HR Development; Interviewee 17)

Even when factors such as employee well-being and a better working climate were mentioned as benefits in managerial interpretations, they were presented as a positive byproduct of the major benefit of organizational productivity and effectiveness. An HR manager in the banking sector emphasized that mindfulness programs were clearly directed toward enhancing business-related outcomes.

[...] it is not just social romanticism. It is an uncompromising productivity factor with various facets. (Director, Organizational Development; Interviewee 13)

Concerning associated outcomes, the data showed that organizations seek to strengthen employees' personal resources in order to increase organizational performance. Organizations align individual employee concerns with economic objectives to achieve business success.

Underlying logic on the organizational level: participants as a valuable resource

Organizations using mindfulness practices draw attention to employee-centered motivations associated with better organizational functioning; these include "putting employees in focus" (Managing Director; Interviewee 6) and "appreciating employees" (Managing Director; Interviewee 8). Organizations understand the relevance of individuals' development for organizational success. Employees are a very valuable resource to support an organization's goals, and therefore, they need to be kept strong. Mindfulness practices are an employee-centered way of strengthening this valuable resource, and thus indirectly also of increasing measurable business outcomes:

Ultimately, everyone just does it [applying mindfulness] for corporate efficiency. Of course, the ultimate goal of a business is to make money for the shareholders and to secure jobs. Nevertheless, I can do this one way or the other. (Senior Expert, Learning and Organizational Development; Interviewee 4)

Mindfulness practices offer a way of achieving organizational outcomes by focusing on employees' valuable personal resources. Therefore, mindfulness practices focus on developing employees for the higher benefit of organizational development. One consultant describes a situation in which he discussed the use of mindfulness practices in the organization with a manager. The manager told him that employees are a valuable resource that has to be used effectively if the company is to be successful in the long-run.

He understood that it is not only about numbers, data, and facts. What we have to learn, is that in the long run organizations can only be successful if all resources that we have available in the company, have the same high priority. If companies only focus on profit or shareholder value, nothing will improve in the long-run. (Mindfulness Consultant; Interviewee 30)

An HR manager in the banking sector sees the practices as tools to capture the full potential locked up in the workforce.

If you transfer it [into organizations] the question is: "How I can reveal the full potential of a human being? (Director, Organizational Development; Interviewee 13)

In sum, organizational members at the organizational level interpret mindfulness practices as a popular tool in the organizational toolbox to increase the organization's efficiency via better employee functioning (e.g. viewing employees as resources). The underlying logic reflects developing employees as human resources that contribute to the company's performance and success. These interpretations introduce the practices for business-related outcomes, and utilize mindfulness as a meaningful human resource development tool. We were surprised at how directly this interpretation was directed toward business interests. None of the elements of interpretation accounted for the fact that mindfulness practices were not designed for business purposes, and none recognized that organizations are in fact applying a tool developed for spiritual growth or clinical therapies. Instead, the benefits to the overall organization were stressed, raising the associated benefits beyond employee functioning, giving them a broader organizational scope.

Group-level interpretations

We also analyzed the data focusing on the group level. Employees relied on their direct work environment to give their interpretations on this level. We found that group-level

interpretations differ from organizational-level interpretations, and they emphasize different aspects.

Content on the group level: mindfulness practices as group exercises

On the group level, mindfulness contributes to a mutually supportive development process. People focus on measurable team benefits when they introduce mindfulness to colleagues. In doing so, group members focus on measurable benefits such as team productivity and efficiency, and they link mindfulness practices to work-related results. As one interviewee puts it, groups often emphasize the “business context,” conducting mindfulness as a group business practice. This context is especially important for team leaders to understand. They attribute meaning to the practice in their daily team interactions and functioning. One consultant found that the group interpretation is clearly driven by the perspective that these practices are a work-related tool for better group functioning.

For team leaders [...] mindfulness has nothing to do with becoming calm; rather it is a medium toward awakening, to becoming more lucid, more productive; to work better for the company. Yes, it is not a spare time activity [...]. (Mindfulness Consultant; Interviewee 29)

Mindfulness practices are designed as a team development tool that is best applied in small groups of employees, to achieve the desired group outcomes. In an Austrian bank the HR department created an open accessible room for all employees. Teams could use it for meditation or other contemplative exercises. The rationale for this offer was that mindfulness practices are important group exercises, with benefits that multiply among team members when mindfulness is done as a group exercise.

We provide a special offer. We provide a room in the office space, which can be autonomously used by the colleagues to come together and conduct mindfulness practices or other meditative exercises in groups. (Senior Expert, Learning and Organizational Development; Interviewee 4)

One product manager emphasized the content of a group exercise as having multiple benefits for teams, referring to mindfulness practices being promoted in team sessions.

[...] we thought, oh wow, this would be a great thing to conduct [mindfulness practices] in the team [...]. There was also this woman, who appreciated [...] that the practices are benefiting the entire management-team. It is a great idea to process these practices as a team exercise. (International Product Manager; Interviewee 5)

Executing mindfulness in groups, requires strong mutual trust and understanding within the group. The necessity of mutual support and openness within groups is justified in terms of team development benefits.

One needs to take care of identification and meaningfulness via feedback, conversations, and small common daily rituals among colleagues [...] maybe even more extensive rituals [...] once a week, in which there is a serious exchange of experiences about the practices. (Mindfulness Consultant; Interviewee 31)

Associated benefits on the group level: achieving better group functioning via individual improvement

Through mindfulness practices, employees experience improvement in the functioning of the groups they belong to. They benefit from mindfulness concerning reduced interpersonal conflict, more intense cooperative behavior, improved social skills, and more respectful interaction. Interviewees mentioned benefits that mindfulness produces, including:

Mindfulness is a wonderful tool to help team members find each other, to help them cooperate [...] and to foster their empathy, which they apply to improve their work and to work together as an entity. (Mindfulness Consultant; Interviewee 23)

Along with team development ambitions, individual development plays a key role in achieving these ambitions. The individual's development through mindfulness, by being dispersed throughout groups, has a cumulative effect so that all individuals are exposed to the effects.

[...] Individuals benefit [from mindfulness practices], thus the team benefits, and thus the organization benefits. (Head of HR Development; Interviewee 17)

Interviewees saw the practices as a helpful tool associated with enhancing the social aspect of team functioning. One consultant mentioned the extensive benefits of a group exercise conducted before team meetings, for developing an open mind and for creating productive discussions.

If you meditate together for a short while before every meeting [...], only about two minutes, it helps to push some kind of 'mental reset.' Then you can enter the meeting with an open mind. I think that really makes a difference. Everything else will follow by itself; (Mindfulness Consultant; Interviewee 27)

This perspective was supported by the HR director of the IT consulting firm. He appreciated that mindfulness practices help team members to stay focused and achieve better results in discussions:

[...] one can start with a meditation exercise to better concentrate on the team meeting [...] and eventually you can better reflect on what to do, what you want

to achieve in the upcoming hour, what the goal is. (Executive Partner (HR); Interviewee 7)

Mindfulness on the group level is beneficial for several outcomes associated with understanding each other through the development of empathy, and constructively dealing with criticism and conflict. Group members can develop their own characters, which will have positive spillover effects on their social interaction with others.

Mindfulness is about emotional intelligence [...]. Sure, we train character and integrity. We develop positive relationships, communication, how to deal with conflict, and how to collaborate. (Director: Global Mindfulness Practices; Interviewee 1)

The aspect of conflict and collaboration among team members and leaders is an especially central matter in considering the benefits associated with the group level practices.

We train the group [...] in the form of teamwork, team collaboration, and how to deal with resistance and conflict. (HR Director; Interviewee 19)

By enhancing emotional intelligence, creating constructive conflict solutions, and developing a higher awareness of communication, mindfulness practices build sustainable positive relationships. This manifests in a better team culture and team spirit, which in turn motivates team members to better achieve synergy effects among themselves.

In the end, if people live in a team culture of which they say it's good and it's fun and they feel part of it, this creates a whole new level of motivation and synergy. (Mindfulness Consultant; Interviewee 25)

Underlying logic on the group level: the importance of consensus in interpretations

Achieving shared goals and consensus about content derives from the logic of multiple alignments of cognitive frames: on a group level, promoters inform their colleagues and supervisors about mindfulness practices, and seek their support in shaping the social environment in the workplace. Building mindfulness communities helps to align understanding of the practice, which is foundational to achieving group outcomes:

[...] and, in parallel, we try to establish sort of a community, mindfulness in [the company], where people and interested parties are invited and are free to ask: 'hey, what are you guys doing, and does it help?' [This is] to provide access and to integrate new people, to regularly exchange experiences and encounters regarding mindfulness. (Employee, Participant in Mindfulness Training; Interviewee 12)

Employees utilize their personal connections in small groups to inspire others and spread mindfulness that will enhance the work ethic. Colleagues are encouraged to try out the suggested practices so that mindfulness promoters can gain support for team training. If there is an ongoing collective demand, managers are more likely to approve this kind of training. Support from groups was highlighted by an informant who had a positive experience during the training application. It is important to generate a general positive response among early mindfulness supporters after their initial training, in order to raise support for follow-up training.

[...] I need people who say 'I believe in it. I am convinced. And I will show you that it works.' (Director: *Global Mindfulness Practices*; Interviewee 1)

A second way of gaining consensus is to see mindfulness as part of the organizational culture. A representative of an IT-consultancy firm stressed that the company always aims toward a culture of attention, awareness, and mindful communication among team members. This improves our understanding of the nature and benefits of mindfulness practices amongst team members.

Two or three years ago when the topic of mindfulness in organizations gained attention in Germany, I wouldn't have had any idea of how to understand these aspects as mindfulness. We just live that. It is part of our culture. And some say: 'Okay, what is so new about this? We do this every day.' (Executive Partner (HR); Interviewee 17)

In sum, relating to the group-level interpretations, mindfulness practices are best conducted in groups to capture the nature of a group development tool that can increase work productivity via improved interaction (e.g. conflict reduction). Mindfulness practices strengthen individuals by reducing interpersonal conflict and enhancing work relationships. The underlying logic is that individuals have to align their interpretations of mindfulness practices to ensure that mindfulness can create group benefits.

Individual-level interpretations

The individual-level interpretations differ considerably from the organizational-level and group-level ones. They provide a consistent picture of the interpretations of mindfulness practices of individuals who have experienced such practices before.

Content on the individual level: mindfulness as a self-actualization tool

Spirituality, ideology, and general improvement in life circumstances are key attributes of mindfulness practices in the individual-level interpretations. Mindfulness practices reflect a spiritual and ideological component that is already present in individuals' private

lives, and can now be integrated in their work environment. The practices offer opportunities for continuous self-actualization that is embedded in an organization's environment. Self-actualization is associated with several components of life; people's working lives form one such component, although this is not a primary focus in traditional self-actualization practices.

They are not only interested in making ends meet and accumulating know-how, but regarding Maslow's hierarchy of needs, they had a glimpse of self-actualization. So, what is my purpose in life? (Mindfulness Consultant; Interviewee 25)

Individuals in organizations enrich mindfulness exercises with Eastern spiritual approaches. Since mindfulness practices in organizational contexts often have spiritual components, they combine Eastern approaches and Western conceptualizations. This spiritual component is fundamental in the individual's understanding of mindfulness practices and it enriches the practice for self-enhancement:

[...] I fairly often experience in [...] MBSR interventions that people think, 'I want to continue' [MBSR in the workplace], and the answer is delivered by spiritual traditions. (Managing Director; Interviewee 8)

[...] maybe mindfulness worked better for me, because I am a spiritual person. [...] I think mindfulness is better for people who are spiritual. (Employee, Participant in Mindfulness Training; Interviewee 10)

So, in the individual interpretation, mindfulness practices are understood in less secular terms than on the organizational or group level. On this level the practices are person-centered, and the interest in the practice often comes from experiences with spiritual practices outside the occupational context.

Associated benefits on the individual level: experiencing improvement of life circumstances

Individuals experience an improved ability to handle negative life events, are able to reduce stress and frustration, and cope with increased demands. They also achieve a more positive perspective in life, paying increased attention to positive situations and increasing their overall self-reflection:

[And it is about...] how we can change our brain [...], our perceptions through positive mental habits. It's about learning. What is really important to me? How can I learn to recognize my own frustration or dissatisfaction? What makes me dissatisfied? Is it really caused by externalities, or by my reaction to them? (Director: Global Mindfulness Practices; Interviewee 1)

One employee provided us with an example that was completely detached from work-related aspects. She mentioned that conducting mindfulness at work helped her to better cope with powerlessness in her daily life situations, such as dealing with waiting times.

After the training I realized that I perceive waiting times in a totally different way. [...] They become a time zone in which I can conduct a meditation. I now welcome these [waiting times] while I am riding on the train or waiting at the doctor's office. It offered me relaxation rather than to succumb to my feeling of powerlessness in the situation. (Employee, Participant in Mindfulness Training; Interviewee 9)

Another example of the general life enhancing benefits of mindfulness practices is related to family issues. One participant's explanation helped us to understand that mindfulness practices in the organizational context have spill-over effects on private situations, which then can reciprocally affect work-related behavior.

[...] we often got the feedback that there is more harmony in the family. [The participants] have better relationships with their children, because they apply the practices at home. We train mindful listening [in the company programs]. Then [the participants] apply this in interaction with their children, and suddenly they realize, it works. They experience less stress at home, and of course this has effects on their work. (Global ombudsman and internal systemic coach; Interviewee 2)

Overall, mindfulness offers a more positive way of processing information on current circumstances, which results in a life situation considered as emotionally fulfilling. Since these goals rarely relate to work issues, the implicit goals mirror the content individuals have assigned, since it supports a spiritual experience rather than work-related training.

Underlying logic on the individual level: mindfulness practices are central in achieving continuous personal improvement

The development of emotional and cognitive abilities that help one to cope with difficulties and respond positively to changes in life, is central to mindfulness. Thus, mindfulness practices must provide the freedom to find ways of developing and strengthening personal resources. Only if this opportunity is salient, individuals build assumptions concerning the content of self-actualization and the practice's suitability to their goal achievement.

[We want everyone] to consciously say: This is what I can deliver, this is what I want to deliver, and I enjoy delivering it. But that's it. Stop! (Director: Global Mindfulness Practices; Interviewee 1)

One executive mentioned the use of mindfulness practices as an opportunity to offer a program that supports employees in their personal development beyond work-related

issues. He stressed how the training offered something relevant to a holistic, life changing improvement for individuals.

[...] I think that if an employee who is interested [...] in living more mindfully, and really wants to break out of routines, says 'Yes, I only have one life and I want to improve this life and use my time more mindfully,' [...] it is crucial to offer that opportunity. (Executive Partner (Operations); Interviewee 6)

Introspection on personal situations, building on the assumption that these circumstances can continuously be shaped and influenced, is a requirement for mindfulness to be effective. Concerning the relationship between self-actualization and mindfulness, a participant said:

[...] it's also always a personal attitude, because yoga, mindfulness, and the slow movement are topics that require you to deal with yourself. You have to self-reflect. (Employee, Participant in Mindfulness Training; Interviewee 12)

Individuals' interpretations focus on personal life and don't necessarily incorporate work-related issues. The work-related associations derived from their interpretations are only subsequent benefits of general wellbeing. The underlying logic (self-enhancing personal development) focuses on ideological components that support broader life circumstances than only the workplace.

Overall, every level has its own interpretations of mindfulness practices in terms of content, implicit goals, and underlying logic. Table 1 summarizes the findings on these interpretations. All levels hold a different understanding of what mindfulness is and what associated benefits the practice can have. Every level finds significant benefits in the practices. These vary from a positive impact on the entire organization, to benefits in work-related interactions on the group level, and personal benefits on the individual level that are partly detached from work issues.

Table 1

Interpretations at the organizational, group, and individual level.

Elements of interpretations	Interpretation level		
	Organizational	Group	Individual
Content	Generalizable human resource development tool	Group exercise	Self-actualization tool
Associated benefits	Improve organizational effectiveness and productivity	Improve group functioning via individual development	Self-centered re-evaluation of life
Underlying logic	Align individual and economic objectives based on a resource perspective	Infectious work enhancement and finding consensus	Possibility of continuous personal improvement

Discussion

Our study explores the interpretations of mindfulness practices by organizational members at an organizational, a group, and an individual level. We revealed how the participants understand mindfulness practices and associated outcomes on each level. In making sense of mindfulness practices, it is clear that the concept has always been subject to changing understandings, depending on the field of application (Stanley, 2012). Our exploratory study shows an important merit of understanding mindfulness practices in organizations in western organizations. As former understandings and applications of the practices, at a first glance, seem not to be entirely suitable to the business context (due to originating in spirituality and clinical therapies), our study reveals how the meaning of mindfulness practices and the associated outcomes are cognitively adapted to suit the occupational environment.

Contributions to organizational scholarship

We found that on each level of analysis organizational members hold a specific interpretation of the practice, which entails associated benefits. With these findings, our study offers an important merit for organizational literature to reflect on moving mindfulness practices into organizations, in three ways. First, we clarify the meaning and scope mindfulness practices have in an organizational application. Second, our findings

overall support the versatility organizations attach to the practices. Third, considering the history of mindfulness, we disclose how mindfulness practices have moved to organizations by offering an update of different conceptualizations of the practices in organizational literature.

Understanding the meaning, scope, and versatility of mindfulness practices in organizations

First, we contribute to the understanding of the meaning and scope of mindfulness being moved into organizational contexts. As interpretations are central to shaping the subjective reality, offering an important antecedent of evaluations (Hargie et al., 2010; Hayes and Walsham, 2000) and of what is felt to be legitimate (Hahn et al., 2014), our study offers insight into why organizations seem to find mindfulness such an attractive tool. Revealing interpretations on the different levels helps us to grasp the full meaning organizations attribute to mindfulness practices. We found that organizations attribute a meaningful and positive understanding of the concept and its benefits across all levels. These benefits range from a personal perspective (e.g. self-actualization and life enhancement), through benefits on the interpersonal level (e.g. positive relationships among colleagues), to a broader scope of effectiveness and productivity on the organizational level. This shows the broad scope and meaning of mindfulness practices in organizations, as the participants' interpretations and associated outcomes offer a positive picture of the practices on different levels. Therefore, the practice is perceived as a valuable tool on all organizational levels. Different to former applications, the benefits of mindfulness beyond the personal level are strongly emphasized. Positive outcomes accumulate on a group level, fostering a strong positive perspective on relationships and positive interaction among team members. The benefits of mindfulness are reported to spread beyond this scope, to bring overall organizational development. Through the benefits to individuals, which accumulate to groups, mindfulness practices enable organizational outcomes and the enhancement of the entire social organizational entity. This reveals the high importance and potential the organization's members attribute to the application of mindfulness practices. Further, mindfulness practices are associated with developing positive outcomes rather than reducing negative ones. This contrasts with the historic circumstance in which mindfulness was primarily directed toward coping with negative stimuli such as suffering (Sharf, 2015), and mental health challenges (Baer, 2003). Also, organizational literature focused mainly on reducing stress and strain (Jamieson and Tuckey, 2017). Contrary to this perspective, we have found that

mindfulness is interpreted as a tool to improve positive situations beyond merely reducing negative perceptions. Overall, we found that mindfulness is an important tool in providing benefits that range from personal development, through personal interaction, to organizational functioning. Further, in organizations mindfulness shifts the focus from preventing negative feelings to creating positive perceptions and behavior. In sum, mindfulness practices show a broad positive scope of effects in organizations.

Second, with our systematic approach in capturing interpretations on the organizational, group, and individual level, we contribute to the multiplicity of intents regarding the application, and thus the versatility of mindfulness practices (Islam et al., 2017; Kabat-Zinn, 2003). The study shows that mindfulness practices in the organizational context are versatile and multilayered as a phenomenon that ranges from the personal to the organizational level. Recent studies have concluded that understandings of mindfulness practices in organizations are multidimensional, since opposing intentions are present (Hülsheger, 2015; Hyland, 2015; Islam et al., 2017). This variance in interpretations depends on which level of analysis we have in focus. On one level, interpretational elements are broadly consistent; however, across the different levels, the interpretations vary drastically. Thus, we could conclude that the interpretation of mindfulness is a multilevel phenomenon. We perceive mindfulness as a phenomenon in the making, with organizations enacting divergent interpretations, creating a broad and highly versatile range for potential application. Thereby we provide a deeper understanding of the versatile adaptations, expectations, and corresponding benefits of mindfulness in organizations. The multiplicity of interpretations offers an important contribution to understanding the opposing intents recent studies have put forward, thereby broadening theory on the subjectivity of mindfulness (Islam et al., 2017). Our study broadens this perspective by giving more relational and contextual perspectives.

The history of mindfulness: situating mindfulness practices in organizations

Third, our findings offer the opportunity of situating the understanding of mindfulness practices and their associated outcomes in organizations in relation to the history of applying mindfulness. Each level of our multi-level approach shows differences, but also some similarities, to former conceptualizations and uses of mindfulness practices. The interpretations on the different levels show a comprehensive reevaluating of the practice, partly diverging from spiritual or clinical understandings and benefits. The *organizational-level interpretations* direct mindfulness practices toward work-related outcomes, and pursue these outcomes via staff development. This understanding as a

general human resource development tool associated with beneficial outcomes on the broader organizational scope, shifts the perspective of mindfulness from its former direction to personal development, to a broader kind of development. It contrasts the spiritual perspective as it is interpreted secularly, to achieving measurable organizational outcomes. The practices' interpretations shift from a psychological spiritual experience (Purser and Milillo, 2015) to an instrumental role in enhancing productivity and effectiveness of the entire organizational entity. Beyond its divergence from the spiritual understanding, this perspective differs from clinical applications in not being associated with reducing personal deficits (Chiesa and Serretti, 2010), but rather more positively, with enhancement and improvement. Therefore, the organizational-level interpretations offer an entirely different understanding and associated outcomes, offering a secular picture with a broader scope in relation to its spiritual roots and a more positive interpretation in comparison to mindfulness in clinics.

This secularization is also evident in the group-level interpretations. *The group-level interpretations* are concerned with work-related issues, yet they incorporate the associated benefits of interpersonal growth and positive relationships among colleagues. Compared to clinical applications we find some similarity concerning individual flourishing. Nonetheless, mindfulness practices in organizations have merits that go beyond these individual benefits. Mindfulness creates positive social relationships in the workplace, which fosters a positive working environment, helping group members in functioning at work and increasing their well-being in the work environment. Therefore, the group-level interpretations show some similarity to former applications. Especially, the underlying mechanisms of individual flourishing seem to be in line with spiritual and clinical approaches. But the ultimate outcome at this level (developing positive relationships for work functioning) raises mindfulness above an individual perspective, clearly attributing a positive social component rooted in a secular understanding.

Individual-level interpretations show similarities to spiritual and clinical approaches. Individuals perceive the practices as generally life enhancing and self-actualizing. Mindfulness helps them to cope with difficulties in their lives and develop a more positive perspective on personal life circumstances. Even if not situated in a clinical setting, the practices show similar effects for dealing with difficulties in life circumstances. This can partly be compared to the enhancement of personal resources in former (non-)clinical applications (Chiesa and Serretti, 2009). Additionally, individuals infer a spiritual component to the practice, which helps them to reduce negative experiences. This shows

a strong parallel to the psychological spiritual approach rooted in Buddhist traditions (Dreyfus, 2011). Overall, we found aspects of meaning attributed to the practice which strongly diverge from spiritually and clinical understandings and benefits. On the individual-level we found that interpretations do not entirely change the nature of the practice, but rather constitute a combination of spiritual and secular life enhancement.

Practical implications

Our findings have important implications for the practical application of mindfulness for managers, groups, and individual employees. First, even if mindfulness practices, at a first glance, seem odd for organizational members, we found that once introduced, the benefits were perceived throughout the entire organization. Therefore, organizations should be open-minded to this form of personnel development. Offering these practices to employees and leaders could produce significant benefits, ranging from the individual to the organizational level.

Second, when applying mindfulness in the organizational context, managers need to be aware of the multiplicity of interpretations and associated outcomes. The variance across levels is relevant for how the training programs are communicated when they are offered to the workforce. HR and other managers should stress the benefits associated with the practice for each level. Consultants need to highlight the beneficial effects on the organizational level when introducing the practices to top managers and leaders. To motivate groups or team members, a focus on the interpersonal benefits is most promising. For individuals, a more general approach to how mindfulness can act as a supportive tool in certain life circumstances would be the most favorable approach.

Third, the design of the training should be adapted according to the audience. If organizations aim for outcomes on all three levels, the training should be designed as a group exercise incorporating a secular perspective on interpersonal relationships, and can be enriched with spiritual components for certain individuals who have more spiritual associations with the practice.

Limitations and future research

Owing to our study's exploratory nature, we acknowledge limitations. First, the interpretations and entailed outcomes are products of perceptions. One has to recognize that the beneficial effects on each level are perceived by the organizational members, rather than measured. Therefore, the organizational level (such as organizational effectiveness) and group level effects (such as positive relationships) of mindfulness

practices need quantitative elaboration to offer a more neutral picture of the practices' real effects.

Second, most of our interviewees came from Central European companies. Thus, our sample is not culturally diverse; the same applies for the consultants we interviewed. Despite their extensive experience in numerous organizations, most of the consultants' clients were located in Germany and Austria. We would recommend that researchers replicate this study in Anglo-American countries, as well as in India and the Far East, where mindfulness originated. Cross-cultural comparisons of interpretations would offer new insights. Since organizations in our sample were mainly in the IT, pharmaceutical, and banking industries, our results might not be transferable to other industries that could be physically more labor-intensive.

In general, beyond the scope of mindfulness practices, we call for a broader theoretical approach to analyzing organizational cognition concerning a variety of organizational phenomena, i.e. one that considers the multiplicity of interpretations. Simultaneously looking at interpretations extant on different levels, would offer a valuable lens for the organizational cognition field.

In conclusion, this study introduces the understanding of interpretations of mindfulness practices in organizations. It pays attention to the question of how organizational members interpret mindfulness practices, and which outcomes they associate with the practices on the organizational, group, and individual level. It offers an innovative research agenda for understanding mindfulness in organizations, and provides valuable insights for critical discussion of the meaning and scope of the movement of mindfulness into the western business context.

To dig deeper into the application of mindfulness practices in organizations, the next essay is a follow-up to this one in the sense that it covers the same theme of mindfulness in organizational context, reporting specifically on employee acceptance of mindfulness practices introduced in the companies where they work.

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Appendix

Figure A1

Research process timeline

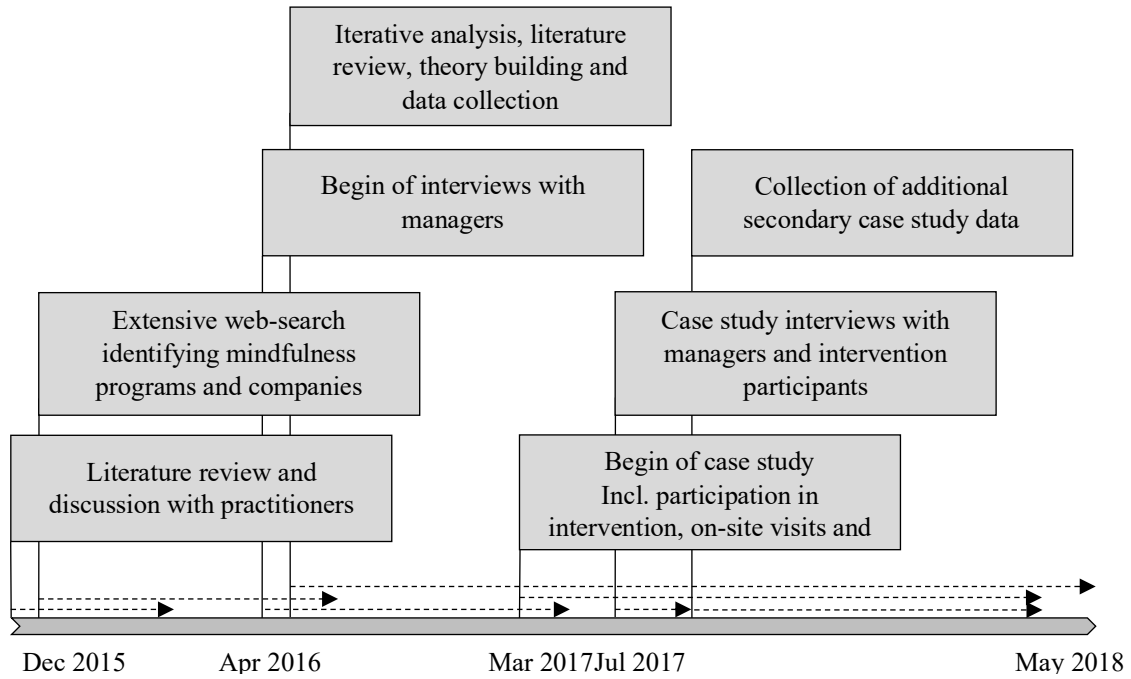


Table A1

Companies' backgrounds

Company no.	No. of employees	Company's industry sector	Application of mindfulness practices
1	87,800	IT sector	<ul style="list-style-type: none"> ➤ Adapted versions of MBSR courses ➤ Global voluntary programs for all employees and managers ➤ Development of internal employees to trainers/consultants
2	7,700	IT sector	<ul style="list-style-type: none"> ➤ Various courses ranging from physical approaches (such as yoga) to contemplative exercises (such as meditation focused on awareness) ➤ Integration of courses into broader health management programs ➤ Recruitment and selection of external trainers/consultancies
3	94,000	Pharmaceuticals	<ul style="list-style-type: none"> ➤ Mediation-focused attention and awareness exercises ➤ Additional integration of an app-based self-guided online tool for meditation ➤ Voluntary programs for all employees on the local campuses ➤ Recruitment of external trainers/consultancies
4	300	IT sector	<ul style="list-style-type: none"> ➤ Voluntary MBSR courses ➤ Voluntary programs for all employees and managers in weekly group sessions
5	742	Banking	<ul style="list-style-type: none"> ➤ Mandatory meditation seminar for all employees and managers guided by the CEO ➤ Voluntary weekly group workshops ➤ Foundation of a spin-off organization focused on providing advice in mindfulness use ➤ Development of internal trainers and recruitment and selection of external trainers/consultancies
6	140,000	Insurance and investment	<ul style="list-style-type: none"> ➤ Various courses adapted from MBSR and MBCT applications ➤ Integrated in health management

Table A1

Companies' backgrounds (continued)

Company no.	No. of employees	Company's industry sector	Application of mindfulness Practices
7	112,000	Chemical sector	<ul style="list-style-type: none"> ➤ Various courses ranging from physical approaches (such as yoga) to contemplative exercises (such as pure meditation) ➤ Foundation of a local sport center ➤ Integrated into broader health management programs ➤ Recruitment and selection of external trainers/consultancies
8	50,000	Banking	<ul style="list-style-type: none"> ➤ MBSR group courses ➤ Decentralized nation-wide courses for single employees and teams ➤ Recruitment and selection of external trainers/consultancies
9	348,000	Engineering and industrial manufacturing	<ul style="list-style-type: none"> ➤ Meditation exercises focused on attention and awareness ➤ Remote continuation in the daily work routines separate from guided trainings ➤ Directed towards employees and managers in administrative areas

Table A2

Information on organizational representatives

Interviewee no.	Interviewee's function in the organization	Interviewee's function in the application of mindfulness
1	Director: Global Mindfulness Practices	<ul style="list-style-type: none"> ➤ Key responsible manager for mindfulness practices ➤ Initiator and promoter of mindfulness ➤ Sharing of personal meditation experience with the workforce
2	Global Ombudsman and systemic coach	<ul style="list-style-type: none"> ➤ Responsible for mindfulness-based mediation ➤ Mindfulness trainer and promoter ➤ Shared personal meditation experience with the workforce
3	HR Management – Health Management	<ul style="list-style-type: none"> ➤ Responsible for the integrating mindfulness practices in health management programs ➤ Responsible for training designs, trainer selection, and evaluation
4	Senior Expert, Learning and Organizational Development	<ul style="list-style-type: none"> ➤ Responsible for the implementation process ➤ Responsible for the communication of the introduction of mindfulness practices (top-down and bottom-up)
5	International Product Manager	<ul style="list-style-type: none"> ➤ Supporting the implementation and communication process ➤ Shared personal meditation experience with the workforce
6	Executive Partner (Operations)	<ul style="list-style-type: none"> ➤ Advice function in the introduction process of mindfulness practices ➤ Interface between HR department and operations
7	Executive Partner (HR)	<ul style="list-style-type: none"> ➤ Responsible for the implementation process ➤ Responsible for training selection and evaluation ➤ Responsible for communicating the introduction of mindfulness practices (top-down and bottom-up)
8	Managing Director and Founder	<ul style="list-style-type: none"> ➤ Key responsible managers for mindfulness practices ➤ Mindfulness initiator and promoter ➤ Promoter

Table A2

Information on organizational representatives (continued)

Interviewee no.	Interviewee's function in the organization	Interviewee's function in the application of mindfulness
9	Employee with operative and administrative duties	➤ Participant in weekly mindfulness group MBSR interventions
10	Employee with operative and administrative duties	➤ Participant in weekly mindfulness group MBSR interventions
11	Employee with operative and administrative duties	➤ Participant in weekly mindfulness group MBSR interventions
12	Employee with operative and administrative duties	➤ Participant in weekly mindfulness group MBSR interventions
13	Director, Organizational Development	<ul style="list-style-type: none"> ➤ Key responsible manager for mindfulness practices ➤ Responsible for communicating the introduction of mindfulness practices (top-down and bottom-up) ➤ Shared personal meditation experience with the workforce
14	Head of Unit, Human Resources	<ul style="list-style-type: none"> ➤ Responsible for screening training requirements of the workforce and planning training offerings ➤ Responsible for the implementation of the cooperate health management program
15	Managing Director, Head of Employee Assistance	<ul style="list-style-type: none"> ➤ Responsible for screening training requirements of the workforce and planning training/support offerings ➤ Responsible for training selection, design, and evaluation
16	Fitness and Health, Head of Prevention and Training in Operations	<ul style="list-style-type: none"> ➤ Advisory function in the introduction process of mindfulness practices ➤ Interface between planning for employee development requirements and operations
17	Head of HR Development	<ul style="list-style-type: none"> ➤ Responsible for the implementation process ➤ Responsible for communicating the introduction of mindfulness practices (top-down and bottom-up)
18	Head of Personnel Department	<ul style="list-style-type: none"> ➤ Responsible for screening training requirements ➤ Responsible for the implementation of the corporate health management program

Table A2

Information on organizational representatives (continued)

Interviewee no.	Interviewee's function in the organization	Interviewee's function in the application of mindfulness
19	HR Director	➤ Responsible for all employee development activities including mindfulness practices
20	Health management	➤ Responsible for integrating mindfulness practices in health management programs
21	Engineer	➤ Communicating scope and meaning of mindfulness practices to team members
22	Chief Executive, Ireland	➤ Responsible for the implementation process in the Irish branch offices

Table A3

Background of mindfulness consultants

Interviewee no.	Position and experience	Trainings types offered in occupational contexts	Focus of clients
23	Consultant, Founder (> 10 years)	<ul style="list-style-type: none"> ➤ Tailored corporate cooperate mindfulness programs based on Cooperate mindfulness-based training programs (CMBT) and adapted forms of MBSR ➤ Leadership seminars and retreats ➤ Mindful Day Workshops ➤ Integration of attendance trainings and webinar content 	Healthcare and pharmaceuticals
24	Consultant, Founder (> 5 years)	<ul style="list-style-type: none"> ➤ Adapted form of MBSR ➤ Meditative group exercises focused on attention and awareness 	IT sector and banking
25	Consultant, Founder (> 10 years)	<ul style="list-style-type: none"> ➤ Adapted form of MBSR ➤ Meditative group exercises focused on attention and awareness 	Various industry sectors
26	Consultant, Founder (> 12 years)	<ul style="list-style-type: none"> ➤ Individual meditative retreats based on MBSR ➤ Integration of guided sessions with supplemental material for remote exercises 	Various industry sectors
27	Consultant, Founder (> 30 years)	<ul style="list-style-type: none"> ➤ Adapted versions of MBCT and MBSR in groups or one-by-one ➤ Mindful leadership and trainings for high performance teams ➤ Integration of attendance trainings and webinar content 	Various industry sectors
28	Consultant, Founder (> 10 years)	<ul style="list-style-type: none"> ➤ Leadership development ➤ Self-management focus, team-management focus, and change-management focus ➤ Various interventions transferred from clinical therapies (MBSR and MBCT) ➤ Focus on methods used in neurobehavioral research and practice 	Various industry sectors

Table A3

Background of mindfulness consultants (continued)

Interviewee no.	Position and experience	Training types offered in occupational contexts	Focus of clients
29	Consultant, Founder (> 10 years)	<ul style="list-style-type: none"> ➤ Attendance meditative group workshops ➤ Online MBSR courses 	Healthcare
30	Consultant (> 30 years)	<ul style="list-style-type: none"> ➤ MBSR courses ➤ Individual and group sessions ➤ Integration of guided sessions with supplemental material for remote exercises 	Various industry sectors
31	Consultant, Founder (> 15 years)	<ul style="list-style-type: none"> ➤ MBCT courses ➤ Leadership development ➤ Self-management focus, team-management focus, and change-management focus 	Various industry sectors

Table A4

Key questions asked in the interviews relating to interpretations of ‘mindfulness’

Organizational Representatives	Participating Employees	Mindfulness Consultancies
How do you introduce mindfulness practices in the company?	In which types of training did you participate?	How do you help organizations to approach to these practices?
What is the rationale for applying mindfulness?	Why did you choose mindfulness rather than any of the other courses on offer?	What do organizational members associate with the practice when first introduced to it?
What are the outcomes you experience for individual employees/groups of employees, and/or the entire organization with the mindfulness practices?	What are the outcomes you experience for individual employees/groups of employees, and/or the entire organization with the mindfulness practices?	What are the outcomes you experience for individual employees/groups of employees and/or the entire organization with the mindfulness practices?

Mindfulness practices: A contextual perspective on employee acceptance

Andreas Ihl

Mindfulness practices in the organizational context are innovative programs to develop and strengthen employees' personal resources. These training programs include contemplative exercises that enhance individual resources for dealing with demanding work conditions. Despite the large number of studies that support the beneficial effects of mindfulness practices, employees often find it difficult to accept these practices. Since acceptance of HR practices is shaped by contextual dimensions of employees' environments and its crucial role for the effective use of HR practices, we need to understand which contextual factors shape the acceptance of these practices. To date, it is unclear which factors contribute to and how they eventually determine that employees accept mindfulness practices. This study addresses the issue of employee acceptance, using a qualitative approach. The findings show that acceptance is shaped by the employees' micro context in terms of employee demands for cognitive resources, employee demands for social competencies, and tolerance of individual deficits among peers and supervisors. Further, organization-wide meso factors (e.g., the HR-department's prioritization of personal development and the organization's encouragement of bottom-up programs) affect the acceptance of mindfulness practices. I offer a model to illustrate how context and the acceptance of mindfulness practices are connected and thus how contextual factors shape the acceptance of mindfulness practices. This study contributes to and answers the recent call for contextual studies on responses to (innovative) HR practices.

Keywords: mindfulness practices, employee acceptance, context, contextual perspective

Introduction

Owing to the high relevance of employees' personal resources in continuously changing work environments, organizations are increasingly offering human resource development (HRD) practices to develop and strengthen the necessary resources and to support employees in the demands of their daily work. Mindfulness practices are innovative and promising practices devised to strengthen personal resources, offering employees the opportunity to learn how to encounter stressful events and how to increase their well-

being at work (Good et al., 2016).

Mindfulness practices incorporate different forms of meditation and contemplative exercises conducted in small groups of employees (Hafenbrack, 2017; Reb and Atkins, 2015). They are designed as long-term exercises that require continuous participation in guided training sessions often conducted over several weeks (Kabat-Zinn, 2003; Langer and Moldoveanu, 2000). A number of authors have suggested that these practices have outstanding outcomes for individuals' cognitive, emotional, and social resources, such as increased cognitive capacity and flexibility (Colzato et al., 2012; Good et al., 2016; Roeser et al., 2013) and resilience (Eberth and Sedlmeier, 2012; Robertson et al., 2015; Sedlmeier et al., 2012). Nonetheless, many individuals are reluctant to accept and participate mindfulness practices in the organizational context (Islam et al., 2017). The absence of acceptance is critical, as for achieving positive outcomes, employees need to make sense and accept the mindfulness practices introduced in their specific occupational contexts. Based on employees' sensemaking (Weick et al., 2005), they develop positive or negative attitudes towards innovative HR practices and on that basis accept or reject them. This process is largely shaped by contextual factors of the organizational environment of employees in their workplaces (Stirpe et al., 2013).

So far, it is unclear which organizational contextual dimensions shape the acceptance of mindfulness practices. No studies have addressed this particular issue yet. This represents a major research gap, since contextual dimensions strongly impact employee acceptance of HR practices and thus also their effective uses and the achievement of desired outcomes (Nishii et al., 2008). Employees' work contexts incorporate elements of the internal organizational environment, offering a frame for their perceptions, decisions, and actions concerning work activities (Johns, 2006, 2017). Thus, contextual dimensions are essential for employees' sensemaking and therefore their acceptance or rejection of HR practices (Guest, 2011). Earlier work has highlighted that the acceptance of HR practices, which is shaped by contextual dimensions, is a key aspect for achieving favorable outcomes (Guest, 2011). In contrast, when rejected, HR practices will not deliver favored outcomes and can even produce unintended negative consequences (Nishii et al., 2008). Due to such high relevance of contextual factors for employee acceptance, this paper explores the variance of acceptance of mindfulness practices across organizational contexts and raises the following research question:

Which contextual factors shape the acceptance of mindfulness practices in the workplace?

Based on a sensemaking perspective (Islam, 2015; Weick, 2010) this study uses an inductive qualitative approach to identify the contextual factors and mechanisms that shape the acceptance of mindfulness practices. The study shows that the *employee's micro context* (in terms of employee demands for cognitive resources, employee demands for social competencies, and tolerance of individual deficits among peers' and supervisors) and the *organizational meso context* (in terms of the HR-department prioritizing personal development and the organization encouraging bottom-up programs) play a critical role when applying innovative mindfulness practices as they shape employee acceptance of said practices.

With these findings, I contribute to the literature on employees' responses to innovative HRD practices in several ways: First, this paper shows that contextual factors shape the acceptance of innovative HRD practices and that these factors are highly specific to the nature of the proposed development program. This calls for more studies analyzing the interplay between practice characteristics and contextual factors that influence employees' behavior. Second, I respond to calls by Guest (2011, 2017), Kowalski and Loretto (2017), and Nielsen and Miraglia (2017) for more contextual research on human resource management (HRM) and the effective usage of HRD practices. This study supports this call, particularly regarding mindfulness, as contextual factors provide important conditions for the realization of employee benefits. Further, I support the authors' concerns about the universal relationship between the offer of mindfulness practices and inevitably positive employee development (Hafenbrack, 2017). Last, owing to the fact that both contextual levels (employee's micro context and organizational meso context) shape employee acceptance, we, in line with the findings, emphasize the importance of further multi-level empirical studies for theory development on the effective usage of HRD practices in a given individual and organizational context.

The remainder of this paper is organized as follows: First, it provides an overview of mindfulness practices. This is followed by the relevance of contextual dimensions for HR practices' acceptance. It then presents the data collection and analysis. Next, I analyze how contextual dimensions shape the acceptance of mindfulness practices. It closes with a discussion, limitations, suggestions for future research, and a conclusion.

Mindfulness practices

Mindfulness practices are an innovative avenue for employee development (Reb and Atkins, 2015). By offering contemplative exercises, this practice ‘cultivates mindfulness, a state of consciousness in which people have present awareness and non-judgmental acceptance of internal and external experience’ (Hafenbrack, 2017: 118), developing individual cognitive and social resources (Sutcliffe et al., 2016). Previously applied in clinical therapy (Baer, 2003), mindfulness practices are being transferred to the workplace (Glomb et al., 2011) and are designed as ongoing long-term meditative (self-) guided exercises (Hyland et al., 2015). They incorporate contemplative elements such as body and breath awareness, and build on meditation conducted in group sessions.

If carefully conducted, mindfulness practices increase important work-related and non-work-related individual resources (Glomb et al., 2011). The practices strengthen cognition and positive attitudes, and also reduce negative experiences at work (Good et al., 2016; Sutcliffe et al., 2016). Examples of their beneficial effects include the enhancement of work capacity (Mrazek et al., 2013), recovery (Hülshager et al., 2015), cognitive flexibility and capacity (Smallwood and Schooler, 2015), reflective and self-regulated behaviors (Brown and Ryan, 2003), attention to external occasions, and opportunities (Brown et al., 2007; Brown and Ryan, 2003). Further, mindfulness practices can reduce negative aspects such as emotional exhaustion (Hülshager et al., 2018), as well as perceptions of stress, fatigue, and distraction at work (Hülshager et al., 2013; Hülshager et al., 2015; Hülshager et al., 2018).

However, to achieve these outcomes employees need to conduct mindfulness practices carefully and participate in trainings which have been designed based on long-term programs used in clinical psychology (e.g. mindfulness-based stress reduction conducted over six to eight weeks) (Kabat-Zinn, 2003). Beneficial outcomes depend on continuous, often weekly, participation in guided training sessions. Additionally, participants are encouraged to integrate (self-) guided meditative exercises into their daily routines (Hafenbrack, 2017). Individuals should be willing to put effort into self-reflecting on their emotions and present situation, and to analyze their reactions to given situations (Hülshager et al., 2018). Thus, they require continuous and serious participation in guided training sessions and commitment for integrating exercises into the workplace by autonomously practicing meditation and awareness (Kabat-Zinn, 2003). The need for this commitment for achieving positive outcomes, makes the analysis of antecedents of employee acceptance especially critical, as without positive attitudes and participation

mindfulness practices will not be able to produce benefits (Hafenbrack, 2017).

Contextual perspectives on the acceptance of HR practices

Employee acceptance is a central concept in employees' responses to the introduction of HR practices. Such acceptance is defined as developing positive attitudes towards an HR practice (Guest, 1987; Stirpe et al., 2013). Besides positive attitudes, participation by actively choosing a given practice from other options is a crucial aspect of employee acceptance of HRD practices (Kossek, 1989). In spite of the recorded beneficial effects, employee acceptance varies drastically across organizational contexts (Hülshager, 2015). To understand this phenomenon, we take a contextual perspective, looking for the contextual factors that influence employee acceptance. Based on their sensemaking, employees develop attitudes to specific events and choose specific actions (Walsh, 1995). This process leads to the development of positive or negative attitudes to HR practices (Guerci and Carollo, 2016; Kossek, 1989; Mirfakhar et al., 2018).

As by definition sensemaking is influenced by environmental cues (Gioia and Chittipeddi, 1991), HR practices' acceptance depends on the interplay between the meaning attributed to the practice and the surrounding organizational context (Skålén et al., 2005). Johns (2006: 386) describes context as 'situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables.' Depending on an HR practice's characteristics, different contextual dimensions offer relevant environmental cues that are used for sensemaking and that shape employee acceptance. Contextual factors such as individual situational circumstances, organization-wide characteristics, and institutional factors external to the organization strongly impact on sensemaking and thus also on the rejection or acceptance of innovative HR practices (Dello Russo et al., 2018). Therefore, the variance in acceptance or rejection is largely shaped by contextual dimensions of the organizational environment and their congruence with an HR practice's characteristics (Mirfakhar et al., 2018).

However, so far it is unclear which contextual factors offer relevant environmental cues for the acceptance of mindfulness practices. Due to the promising nature of mindfulness practices but at the same time strong variance of acceptance across organizational settings, we need to reveal which contextual dimensions affect their acceptance. To get a comprehensive picture, we also need to explore the underlying mechanisms between contextual dimensions and the acceptance or rejection of

mindfulness practices.

Method

Data collection

To address the role of the context in the acceptance of mindfulness practices in organizations, I used a qualitative inductive approach based on multiple perspectives of key informants. This approach is based on interview data from 39 informants who had experience with mindfulness practices in the business context. I used theoretical sampling to identify key informants in this area, and found three key actors: first, organizational members responsible for the application and evaluation of mindfulness practices in organizations (such as HR-managers); second, organizational members to whom the practice is offered, and who can voluntarily participate in it; third, mindfulness consultancies who have introduced the practice into organizations. These three groups' perspectives were relevant to deepen the understanding of these practices and to build a sound theoretical sample. This was done by gathering data with an in-depth and cross-organizational perspective. The interviews were conducted via personal face-to-face conversations and via telephone. The interviews held in German, were recorded and transcribed; they varied between 20 and 180 minutes in length. I gathered the data between 2016 and 2018. The topic of the semi-structured conversations was the implementation of mindfulness practices and enablers concerning employee acceptance. Most organizational representatives at the managerial level were associated with organizations in sectors with a high degree of cognitively demanding work (such as banking, IT, insurance, and chemistry). I talked to 18 people at the managerial level who carried responsibility for introducing mindfulness practices. I also consulted 11 employees and managers who participated in the practices, to reveal their evaluations of the practices in their contexts. Further, I interviewed 10 mindfulness consultancies who had introduced the practice across various organizational contexts (for detailed information on interviewees please see Appendix).

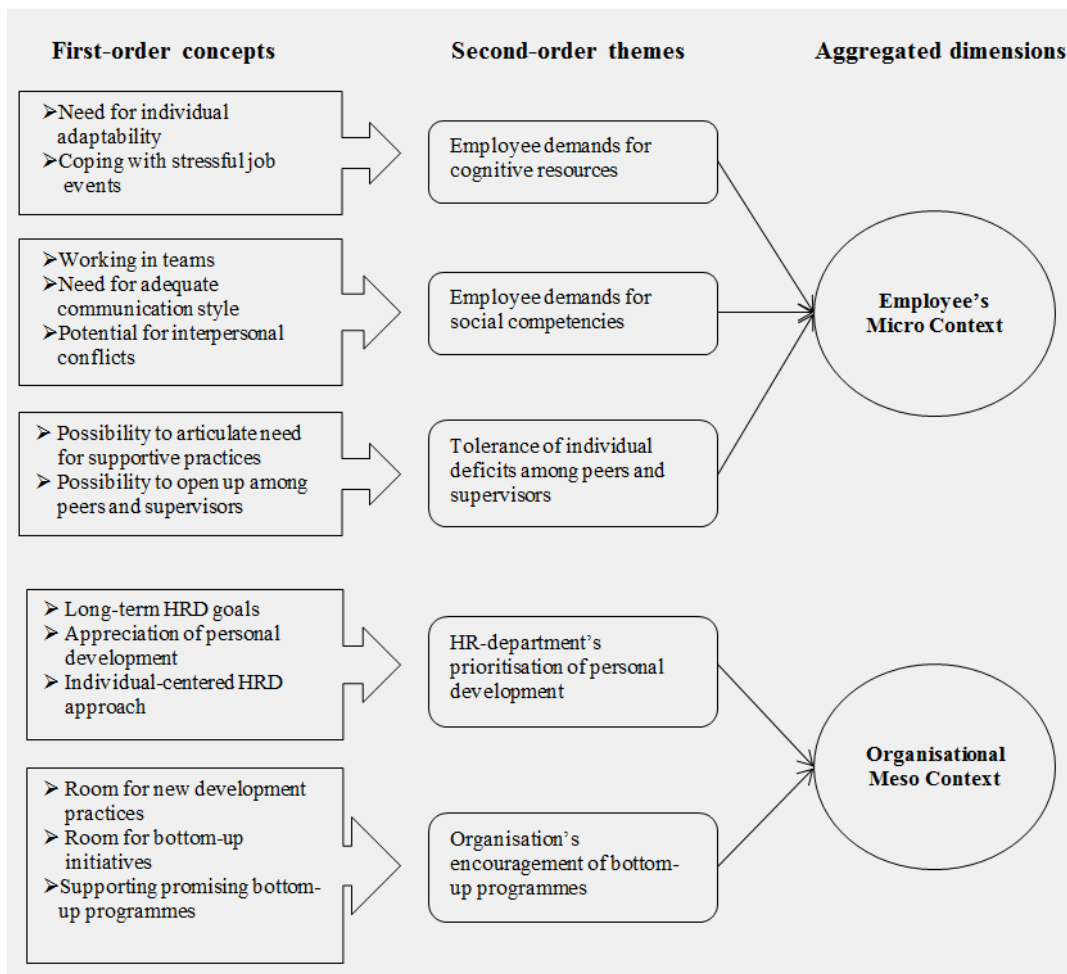
Data analysis

To identify the relevant categories and their relationships, an iterative grounded theory approach was used (Gioia et al., 2013). Starting with an initial coding process, I filtered relevant statements from the key informants without paraphrasing and without theoretically labelling them. I then began to re-evaluate and reflect on the statements, screening them for underlying concepts. Thus, I gathered first summarizing statements as first-order concepts. I contrasted these concepts with the initial interview statements, to

ensure adequate interpretations (Pratt, 2008). Next, I analyzed the first-order concepts for similarities and differences, to further summarize them into second-order themes. I again compared these second-order themes with interviewees' statements, adjusting them where necessary. Last, I looked for further similarities and differences between second-order themes, to build aggregated dimensions. These processes revealed the underlying data structure relevant to the research question (Gioia et al., 2013). After the coding procedure and identification of relevant categories and their interrelationships, I discussed the findings with three other researchers knowledgeable of the data, and adjusted categories and relationships where necessary. Additionally, an independent expert group of five additional researchers who were not involved in the coding procedure, evaluated the final categories. Figure 1 summarizes the data structure disclosed through the coding process, starting with first-order contextual factors on the left and aggregated dimensions on the right.

Figure 1

Data structure



Findings

The data coding resulted in two aggregated dimensions of contextual factors that shape the acceptance of mindfulness practices by employees. The first dimension refers to the immediate environment employees deal with – *employee's micro context*. The second contextual aggregated dimension in the link between context and acceptance are elements of *the organizational meso context*. The latter contextual factors refer to the organization-wide work environment and mediate aspects of individual employees' context. Both contextual dimensions, the *employee's micro context* and the *organizational meso context*, incorporate prominent factors that shape mindfulness practices' acceptance.⁵

Employee's micro context

When organizational members spoke about mindfulness practices' acceptance in their work lives, they mentioned that these practices must fit their immediate working context. Even if interested in these practices and contemplation, they would only accept them if their aims fit their work demands. In the following paragraphs, I distinguish between demands for cognitive resources and demands for social competencies. Further, the acceptance of these practices depends on the social context between employees, their peers and their supervisors.

Employee demands for cognitive resources

Mindfulness practices must offer significant value for dealing with employees' daily work requirements and must help them to develop the necessary resources. Since mindfulness practices in organizations are designed as a toolset to support cognitive resources in demanding times, employees that experience the need for adaptability indicate a higher suitability for the practice in their occupational environment. Under conditions that require high cognitive adaptability employees often favored training programs that support cognitive resources above ones designed for job-related competency development.

This is definitely a program that's oriented towards personal employee development. We get strong positive feedback. Employees say: 'It's great that you're doing this for us, as it's not just about learning a new software package.' (director, IT company)

In our business are big changes like digitalization [...]. Everything is very chaotic. And now we have something that can help us all to better deal with it [...]. In an organizational reconstruction, it is higgledy-piggledy

⁵ Examples from interviews were translated from German into English. To ensure readability, the translation was done analogous to the original narratives rather than verbatim.

[...]. We have to counteract this with such a topic [...]. I understand it [as tool] to strengthen resilience. (head, HR department, bank)

Most organizations that offer their members mindfulness practices and that experience high acceptance are in cognitively demanding industries with work environments that are perceived as stressful. This is reflected in the narratives of several consultancies that have introduced these practices across various organizations. When introducing these practices, they emphasize the potential benefits of the development of cognitive resources for coping with stressful events. If employees associate their work context with high stress levels, they experience the potential benefits of mindfulness exercises and develop positive attitudes to these practices. For instance, one consultant introduces mindfulness practices as a workshop for developing cognitive resources rather than highlighting the contemplative elements, so as to facilitate acceptance.

It is my mission to encourage people to try mindfulness. This is why I try to hook them with something else, not with mindfulness, but with strictly scientific facts. Most employees have high cognitive demands, and this is how I create openness to mindfulness. (mindfulness consultant 3)

The contextual influences of cognitive work demand (concerning adaptability and stressful events) can even turn initial negative attitudes to mindfulness practices into positive ones. Since mindfulness practices were not designed for business application, many employees initially experience the use of these practices as unsuitable in their work environments, and initially don't accept them. Nonetheless, contextual cognitive demands lead to serious consideration of mindfulness practices as a helpful toolset, and have the potential to turn initial skepticism into acceptance. Especially one consultant, who emphasized the development of resources for cognitively demanding work environments when introducing mindfulness to organizations, experienced a shift from initial rejection of these practices to acceptance when people faced demanding circumstances.

It is of course hard to transfer aspects into the business world that originate from other areas, especially if you don't convince people with hard facts. Simply arguing that this is good for them is always difficult. If you argue that there is something cognitively happening and it is increasing cognitive capacities, this is a useful way to convince them. (mindfulness consultant 3)

On the other hand, employee acceptance is much lower if the work context is characterized by low cognitive demands. For instance, if the contextual work demands are shaped by psychological elements such as on production sites, mindfulness practices are less accepted, since the practices' benefits are not clear to employees.

Well, I think there is location-dependent interest. Of course, this interest may be different in a production location than in an office location. (health manager, engineering company)

In short, it seems that contextual factors concerning cognitive work demands largely shape the acceptance or rejection of mindfulness practices. If employees experience a high demand for cognitive resources, they are more likely to expect and experience benefits from mindfulness. This makes mindfulness practices a suitable toolset and fosters acceptance and participation among employees. Thus, employee demands for cognitive resources positively shape mindfulness practices' acceptance by reinforcing the suitability of practicing mindfulness in their work context.

Employee demands for social competencies

Work contexts are often characterized by personal and occupational interdependencies between employees, their peers, and supervisors. Effective collaboration and functioning among team members is a critical success factor in these work environments. This context requires social resources concerning open and factual communication among team members. Under such contextual demands, mindfulness practices are again perceived as suitable by employees.

For whom are mindfulness practices suitable? I would say they are suitable for everyone who is interested in extending the repertoire, the skills of emotional intelligence. (mindfulness consultant 5)

By fostering awareness in the present moment, these practices help to build a productive and supportive communication culture. Mindfulness practices can improve communication in teams and members' ability to listen, to respond adequately to suggestions and concerns, and to develop better solutions to specific problems. Thus, mindfulness practices are well accepted, since they promise to help build the communication style required for productive and goal-oriented work behavior.

I heard about mindfulness and thought, great, that's about how I can get along with coworkers interpersonally, how I can get along with them, how I can work well with them (employee, IT company 1).

Working in teams can also lead to interpersonal conflict. Mindfulness practices are assumed to build empathy, to help one to control his/her own emotions, and to be aware of team members' emotions. These are crucial social competencies, which employees require in team-related work contexts, to deal with situations that involve conflict. Such competence offers them the ability to cope with tough interpersonal situations and to solve interpersonal conflict adequately and professionally.

A key factor of mindfulness is dealing with groups. That a manager can say, in team meetings, 'Well, how are we talking to one another at the moment' or 'I don't want you to talk to one another like this,' or 'What's your point? Do you have any issues? Why are you snapping at this colleague? Where is the anger coming from?' (mindfulness consultant 5)

In short, if employees experience high demands for social competencies in communication and conflict management in their work environment, mindfulness practices are a promising and suitable toolset to develop these resources. This shapes the practices' acceptance among employees and managers.

Tolerance of individual deficits among peers and supervisors

Employees often have concerns about negative social ramifications if they participate in mindfulness practices. They fear that acceptance can be interpreted as disclosing weakness, since practices are based on approaches that are used in clinical settings to overcome mental weakness. For instance, in some contexts, employees feel it isn't possible to articulate the need for a supportive program, because it might come across as a weakness to participate in training for coping with personal vulnerability in the workplace. Even if they use mindfulness-based practices in their private lives, they are generally a no-go in the organizational context.

There are also people who practice mindfulness in their private lives, but are shy or are afraid to admit that they practice it, because it's often interpreted as a weakness in the company. (mindfulness consultant 10)

Further, mindfulness practices are conducted in group sessions and require some comfort with talking about individual vulnerability and to participate in contemplation with peers and supervisors. This seems unusual to many employees and would lead to rejection of the practices if they experience low tolerance among their colleagues and the supervisors of these exercises. They have the feeling that open communication of vulnerability and needs during an exercise can have negative spillover effects on their daily work relationships. Further, it seems too private for them to talk about deeply personal experiences in front of other organizational members.

Many people are saying: 'Yes, I'd like to try it, but in a safe environment, only in a small and selected group.' (mindfulness consultant 2)

Nonetheless, the social context helps one to overcome these fears. It is possible for employees to openly communicate that they want a development program that helps them to cope with tough situations. In this social context, speaking freely about current

demands and the need for individual support is tolerated and sometimes even appreciated by peers and supervisors.

I can always talk to a colleague if I think they will give me helpful feedback. That's totally legitimate and open, and it is lived here. Especially if I'm working on a project or if I'm considered for a new project, I think 'What should I know for it? Is it useful to undergo additional training for it?' (employee, IT company 3)

Under these circumstances, team members tolerate different approaches to improvement. Since personal development in the work context strongly depends on individual needs, every team member is open to different ways of improving peers, based on their individual needs. While some employees choose job-related training, others choose mindfulness practices. In this environment, they don't have to fear feeling awkward owing to choosing an innovative development program and revealing their vulnerability. Peers don't judge a specific type of development program; instead, they evaluate it based on their own demands, respecting the different needs and ways of developing among their peers and supervisors.

A really important aspect is this openness. It sounds banal, but it's not. It is true openness to differences between people. (mindfulness consultant 1)

These special circumstances, such as opening up during training sessions, require tolerance that is lived among employees throughout the organization. For instance, people are more likely to open up during training when they also have personal and open communication during all team interactions. In this context, employees feel safe to open up during mindfulness practices, and develop positive attitudes to them, because appreciation and openness about current shortcomings is reflected in all interactions between organizational members. One CEO mentioned that acceptance of mindfulness practices in the organization is high because they already appreciate tolerant and mindful interactions among all employees as part of the organizational culture.

Mindfulness is an attitude rather than a technology that is implemented. It's about how you cope with one another, the attitudes of people among one another. It's a cultural aspect and it's definitely a part of [company name omitted]. Introducing it as a training offering was just the next step. (managing director, IT company)

Overall, employees need to experience high *tolerance of individual deficits among peers and supervisors* in order to be ready to open up during training sessions and to experience these practices as useful. If they fear negative social ramifications such as being perceived as weak or being socially excluded, they will not see these practices as

practicable in their context and thus won't accept them. Therefore, tolerance of individual deficits among peers and supervisors positively shapes mindfulness practices' acceptance by preventing fears of negative social ramifications.

Organizational meso context

Besides the employee's micro context, organization-wide contextual factors also shape the acceptance of mindfulness practices. Thus, I will now examine the findings in terms of HR-department's prioritization of personal development and organizational encouragement of bottom-up programs.

HR-department's prioritization of personal development

Employees often hold prejudices about mindfulness practices, owing to the contemplative aspects. They reject these practices, because they associate them with spirituality rather than with a helpful practice in in the work context.

Some employees don't like this at all, and at best consider it to be a waste of time, or at worst, as esoteric nonsense, thus disparaging and discrediting it. (managing director, IT company)

For overcoming these prejudices, the HR-department plays a key role in employees' acceptance of mindfulness. By considering the development of general individual resources as a desirable HRD goal, HR-departments have the opportunity to actively promote initiatives such as mindfulness practices. HR-departments often offer their employees two development program types: the first offering type is training job-related skills directly applicable to an employee's current competencies and abilities, while the second type is the general development of resources that benefit an employee beyond current job tasks, such as health programs. HR-departments who highly prioritize the second type of offerings and actively promote them, help employees to consider such programs seriously when they select the programs they want to join.

If there is commitment among HR-managers, it is clearly communicated that this is something we want to do for our employees, then this is definitely a great condition. (mindfulness consultant 5)

If employees realize that mindfulness practices are promoted, they are curious and try to learn more about innovative practices. Employees who previously had prejudices about contemplative exercises realize that they strengthen their resources in the organizational context. This makes contemplative exercises in the workplace less peculiar, and supports positive attitudes to these practices.

I think it's exciting that you are really supported, that you are encouraged to do something, because there won't be a change otherwise. That was different in my previous company. (employee, IT company 2)

HR-managers empower employees to try different training opportunities and encourage them to be open to different pathways in their development process. Emphasizing these different development pathways will reduce prejudice about innovative practices that are generally perceived as unusual in the business context. As one employee stated:

I arrived here and immediately it was like, woah, crazy. Here, it's possible to develop oneself, and in all possible directions. This is not only tolerated or accepted, but even promoted. I really like this! (employee, IT company 2)

Further, employees must realize that their participation in training doesn't have to generate intermediate measurable business outcomes. For instance, the pressure to create direct measurable effects by participating in these training programs could lead to a rejection of mindfulness practices, since outcomes are hardly measurable. Since mindfulness practices are aimed at long-term benefits, HR-departments should highlight these goals over short-term measurable outcomes.

Because I think you can't measure success that quickly. It's not like a client advisor will, from one day to the next, sell a hundred more building loan contracts as a result of this. I think this shouldn't be expected (head of HR-department, bank).

In short, HR-departments need to show that the pursuit of and participation in mindfulness practices is highly appreciated and beneficial. Further, they need to afford employees the freedom to choose and try different programs depending on their personal needs, which may not be immediately job-related. Employees should not feel pressure to increase direct measurable outputs through their training choices. Under such circumstances, employees will be more inclined to overcome their prejudices about mindfulness and will more readily show acceptance.

Organization's encouragement of bottom-up programs

The application of mindfulness practices is often initiated by employees rather than by managers. Individuals who have already had helpful experiences with mindfulness practices in their private life try to establish the practice in the workplace since they are convinced it will help their colleagues and the entire organization. The HR-department can support such bottom-up programs and can create a contextual environment in which

employee initiatives are appreciated and turned into systematic development offerings. A managing director understood the importance of encouraging bottom-up initiatives to find new ways of development and to create openness to these practices.

Sooner or later, I believe, organizational forms that act like our company does, will prevail. Organizational development no longer works top-down, but bottom-up. We try to find out what the needs, desires, passions and goals of our employees are. We then support them in channeling their ideas. (director, IT company)

The same director told us that a successful bottom-up process fosters acceptance in the organization, since peers can be strong promoters. For instance, they report from their private benefits that they experience as a result of these practices, provide clarity about what to expect, and inspire others to try these practices.

It wasn't easy. There has been resistance, which is why it's important to have people who say, 'I believe in it. It convinces me. And I will show you that it will work. (director, IT company)

This approach has even higher acceptance results than if the practice is only introduced at managerial level. It needs promoters from the lower hierarchical levels who show that mindfulness-based practices are not spiritual 'mumbo jumbo' (mindfulness consultant 7), but who report their beneficial effects.

It has to emerge from the broad mass so that rather than an underlying 'Eh, what kind of esoteric thing is that?' there is really a 'live and let live' attitude. (director, IT company)

In a supportive context in which the HR-department endorses such initiatives, employees are likely to organize themselves into 'mindfulness communities' (director, IT company). Such communities bring acceptance throughout an organization, reduce prejudices, and show that mindfulness practices are valuable across business units and hierarchies. Without strong admittance, bottom-up initiatives are likely to be unsuccessful in an organization and are likely to die out in the long run. An HR-manager understood her role in supporting the bottom-up initiatives for fostering acceptance.

I was really excited, because I could feel the impact for myself, and I thought it would be great to integrate this into a company such as ours. (head, HR department, bank)

The successful rise of bottom-up programs and the resulting reduction of prejudices was especially vivid in an IT organization. One employee brought in the practice based on personal experience; he won other colleagues and formed mindfulness communities. At this point, he gained the HR-department's support and is now a board member, as

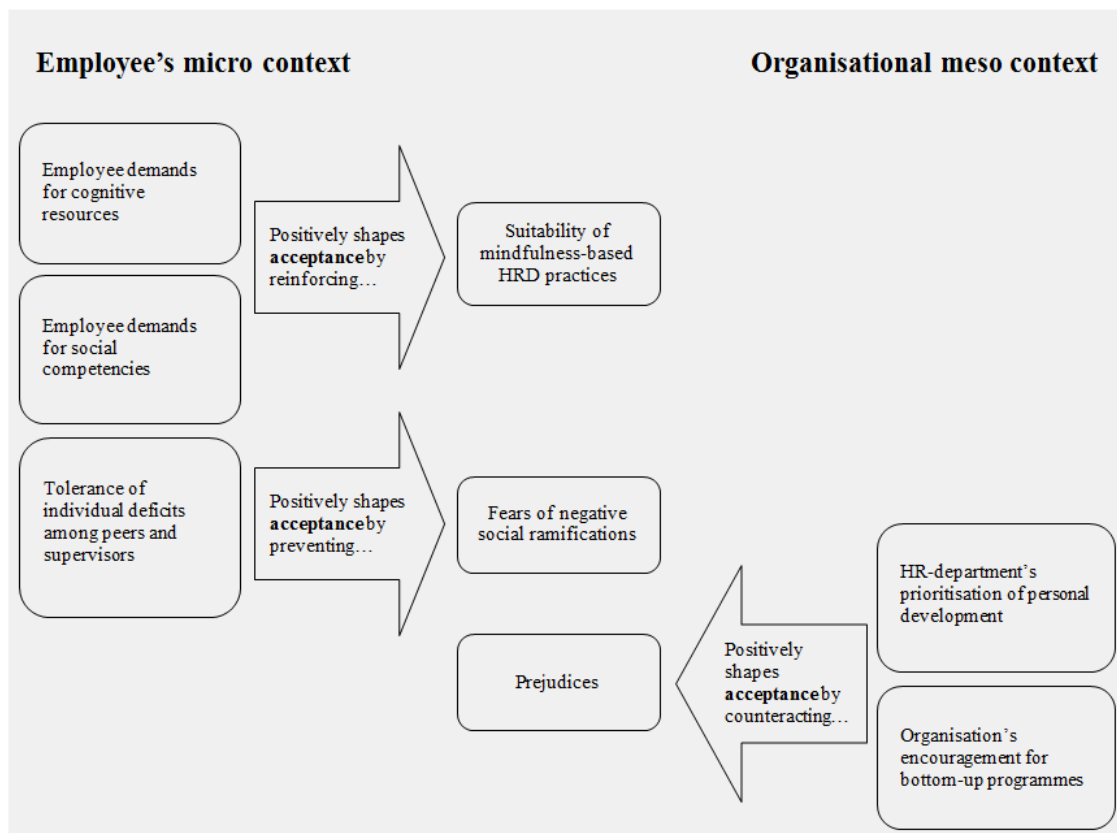
Chief Mindfulness Officer. Thus, prejudices throughout the organization were reduced, and mindfulness practices are now a key toolset in the organization's HRD offerings and are well accepted by employees.

Discussion

The analysis revealed several contextual factors that positively shape the acceptance of mindfulness practices in organizations. The analysis found contextual factors in the employee's immediate job-related and social context (employee's micro context) and in organization-wide environments (organizational meso context). Employee's micro context entail categories of employee demands for cognitive resources, employee demands for social competencies, and tolerance of individual deficits among peers and supervisors. Demands for cognitive resources and demands for social competencies make practicing mindfulness suitable, and mindfulness practices are therefore perceived as a promising toolset in the organizational context, thus shaping acceptance. Tolerance of deficits among peers and superiors prevents fears of negative ramifications, positively shaping acceptance. Further, the organization-wide meso context in terms of the HR-department's prioritization of personal development and the organization's encouragement of bottom-up programs helps to reduce prejudices about these practices and limits their peculiarity in the organizational context (Figure 2 summarizes the overall findings and the derived mechanisms that affect acceptance).

Figure 2

Contextual factors shaping the acceptance of mindfulness practices



These findings on the contextual dimensions and mechanisms have key implications for research into employees' responses to innovative HR practices and their uses for supporting and developing the workforce's personal resources. First, the findings contribute to the interplay between a specific innovative HR practice and mechanisms behind contextual influences on employees' sensemaking and acceptance (Anderson, 2017; Guest, 2011, 2017; Kowalski and Loretto, 2017; Stirpe et al., 2013). I found contextual factors, which are highly specific to mindfulness practices' characteristics. It does not seem reasonable to transfer these findings to all other types of (innovative) HR practices, since aspects such as tolerance of individual weakness and vulnerability or organization's encouragement of bottom-up programs may be irrelevant in combination with employees' sensemaking processes concerning other HR practices such as on-the-job training. This insight offers an additional valuable perspective for a more complex contextual perspective on (innovative) HR practices in combination with considerations about a practice's special characteristics. This study shows that theory and empirical studies should not overlook key and highly HR specific characteristics of a newly

introduced HR practice if they aim to better understand the contextual interplay. In line with other researchers, the contextual perspective on (innovative) HR practices is especially valuable and needs to be developed further (Ferris et al., 1998; Guest, 2011; Nielsen et al., 2012). The perspective of this study accounts for the interplay between context and practices' characteristics and offers support for even more nuanced theory development.

Second, this study shows that HRD through mindfulness should not be seen as a purely universalistic approach. Even if several studies have provided evidence of the development of cognitive, emotional, and social resources (Sutcliffe et al., 2016), these findings should be restricted to contexts in which mindfulness is accepted and employees are willing to participate in training sessions and to integrate contemplative exercises into their daily work routines. If the context does not provide a fitting frame, mindfulness practices are likely to be rejected and will fail to achieve the desired outcomes (Hyland et al., 2015). This implies that even when empirically analyzing highly promising tools for HRD, research must account for the contextual factors and resulting positive and negative employee attitudes toward mindfulness practices. Otherwise, empirical evidence of the relationship between mindfulness practices and positive development of personal resources will be stuck in a universalist approach, which has drawn strong criticism for not accounting for the complex dynamics in organizational environments which shape the relationships between HR practices and favorable outcomes (Nielsen and Miraglia, 2017). This lack of accounting for the contextual dimension is a major lapse in HR research (Guest, 2011). This study offers empirical evidence for this consideration.

Finally, I extend the limited number of inductive studies that highlight the importance of context in HR research. It shows that employees' attitudes and behaviors toward (innovative) HR practices are largely shaped by specific contextual dimensions. These dimensions are not restricted to the direct environment of employees (what I refer to as employee's micro context), but are also shaped by organization-wide meso factors. Theory needs to account for direct job and social contexts, but also to an organization-wide perspective. Behaviors in organizations and responses to HR practices should not be seen in a vacuum, but in relation to the intermediate and immediate contextual factors of the organization. This ensures a more sophisticated and more nuanced approach to HR research (Guest, 2011).

Limitations and future research

Although it has been conducted with great care, this study has limitations. First, the interview sample was restricted to interview partners in organizations in German-speaking countries. It is possible that the identified contextual factors are biased toward this cultural background. With this sample restriction, I was unable to identify macro-contextual factors that shape acceptance. I cannot exclude such factors. Future research should address this issue by analyzing contextual factors that affect the acceptance of mindfulness practices with a strong focus on macro-factors. This would enrich the micro perspective and meso perspective.

The second limitation refers to variances in training designs across organizations. Even if all mindfulness practices incorporate contemplative elements, the intensity and duration can vary across organizational applications and programs. The importance of specific contextual factors for acceptance may vary across different practice designs. Nonetheless, I argue that the contextual dimensions this study found at the micro and meso level can be applied to a broad range of mindfulness practice designs, since they share the same core of contemplative exercises. Research will need to account for variations in practices, identifying each contextual dimension's relative importance. Finally, I used a qualitative inductive approach. I recommend that future studies measure the contextual factors and that they quantitatively assess their effects on the acceptance of mindfulness practices across organizations.

To conclude, this study answered the research question *which contextual factors shape the acceptance of mindfulness practices*. The employee's micro context reinforces the suitability of practicing mindfulness at the workplace and prevents fears of negative ramifications. The organizational meso context counteracts prejudices about these practices, fostering acceptance. This study has enhanced existing research into the contextual perspective on acceptance and thus effective uses of an innovative HR practices toolset – mindfulness – by showing that the key contextual factors that shape acceptance are specific to a practice's characteristics. This calls for more qualitative studies into a variety of HR practices and the organizational context's role in their acceptance and effective use.

The following two essays shift the research focus on the second arising phenomenon in contemporary work settings under investigation in this dissertation. Both essays elaborate individuals' work behavior and attitudes on crowdworking online platforms.

Both essays also account for the particular contextual and environmental factors surrounding work experiences on these platforms and their implications of work attitudes and behavior. This second set of essays starts with an investigation individuals' performance and the role of dominant motivations for their success in working on crowdworking online platforms.

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Appendix*Table A1*

Interviewees in organizations

Interviewee no.	Interviewee's function	Company's industry sector	No. of employees
1	Director	IT sector	> 10,000
2	Global ombudsman	IT sector	> 10,000
3	HR management – Health management	IT	> 5,000
4	Senior expert, Learning and organizational development	Pharmaceuticals	> 10,000
5	International product manager	Pharmaceuticals	> 10,000
6	Managing director	IT sector	< 1,000
7	Managing director	IT sector	< 1,000
8	Managing director	IT sector	< 1,000
9	Director, organizational development	Banking	< 1,000
10	Unit head, Human resources	Insurance and investment	> 10,000
11	Managing director, Head of employee assistance	Chemical sector	>10,000
12	Fitness and health, Head of prevention and training in operations	Chemical sector	> 10,000
13	Head, HR development	Banking	> 10,000
14	Head, Personnel department	Engineering and industrial manufacturing	> 10,000
15	HR director	Engineering and industrial manufacturing	> 10,000
16	Health management	Engineering and industrial manufacturing	> 10,000
17	Engineer	Engineering and industrial manufacturing	> 10,000

Table A1

Interviewees in organizations (continued)

Interviewee no.	Interviewee's function	Company's industry sector	No. of employees
19	Employee	IT sector	< 1,000
20	Employee	IT sector	< 1,000
21	Employee	IT sector	< 1,000
22	Employee	IT sector	< 1,000
23	Employee	IT sector	< 1,000
24	Employee	IT sector	< 1,000
25	Employee	IT sector	< 1,000
26	Employee	IT sector	< 1,000
27	Employee	IT sector	< 1,000
28	Employee	IT sector	< 1,000
29	Employee	IT sector	< 1,000

Table A2

Interviewees mindfulness consultancies

Interviewee no.	Position	Focus of clients
30	Consultant, founder	Health care and pharmaceuticals
31	Consultant, founder	IT sector and banking
32	Consultant, founder	Various industry sectors
33	Consultant, founder	Various industry sectors
34	Consultant, founder	Various industry sectors
35	Consultant, founder	Various industry sectors
36	Consultant, founder	Health care
37	Consultant	Various industry sectors
38	Consultant, founder	Various industry sectors
39	Consultant, founder	Various industry sectors

The influence of utilitarian and hedonic motivation on success in crowdwork

Andreas Ihl, Kim Simon Strunk, & Marina Fiedler

An increasing number of individuals are engaging in micro-task crowdwork arrangements. Requesters provide short-term tasks on online platforms, which are processed by crowdworkers who receive payments for successfully completing tasks. Nonetheless, crowdworkers' success in task completion is under-researched. Especially, it is unclear how workers' motivation to participate in crowdwork contributes to their success. This study examines how two different kinds of motivation, utilitarian and hedonic, influence workers' performance. We conducted a quantitative study based on a questionnaire and non-survey behavioral success data. We found that utilitarian motivation has a positive effect on success, while hedonic motivation negatively influences success. Owing to this counter-intuitive finding on hedonic motivation, we conducted a qualitative post hoc study, collecting narratives from 42 crowdworkers concerning this relationship between hedonic motivation and relatively poor performance. We found that hedonic motivation leads to counter-productive behavior which lowers the success rate. We offer contributions to IS literature and to the understanding of crowdwork.

Keywords: crowdwork, utilitarian motivation, hedonic motivation, success

Introduction

Crowdwork, as IT-supported work arrangements, has become a multibillion dollar industry (Durward et al., 2016) granting organizations (so-called requesters) access to a large number of workers, and enabling individuals (so-called crowdworkers) to act as autonomous micro-entrepreneurs (Kuhn, 2016). Requesters use crowdworkers as a flexible, on-demand workforce for short tasks, including picture content rating, text corrections, and design ideas, for which they provide micro-payments upon successful task completion (Brabham, 2010; Deng and Joshi, 2016; Leimeister et al., 2009). Interactions between requesters and crowdworkers are mediated by an IT-supported online platform for task provision and completion. Workers can choose from a variety of tasks from different requesters and can decide which one to start and complete (Saxton et al., 2013). Thus, crowdwork arrangements constitute a loose and highly self-determined work environment, in which the extent of successful task completion is a key indicator of

workers' performance.

Despite the increasing use of crowdwork, research has shown that the success in task completion is highly volatile across individual workers' behavior (Deng et al., 2016). When work environments provide for high self-determination in work behavior – such as in crowdwork – individual motivations are the dominant antecedents for explaining behavior and work performance (Baard et al., 2004; Staples et al., 1999). Owing to the specific platform-supported work access, the short-term nature of crowdwork tasks, and the high task variety, crowdworkers have a high degree of freedom regarding where, when, and how to work (Deng et al., 2016). In such a work environment, individual motivations become the driving mechanisms of work behavior (Deng and Joshi, 2016; Goncalves et al., 2015; Kaufmann et al., 2011). Crowdworkers are self-determined in their work activities, are not bound to specified work schedules, and are not directly supervised. Still, the presence of these aspects is especially important for guiding behavior. Nonetheless, in their absence, the role of individual motivations for success becomes even more critical (Staples et al., 1999).

Thus, we need to understand crowdworkers' dominant motivations for participating in crowdwork activities in order to explain the volatility in task completion success rate. Especially the dimensions of utilitarian and hedonic motivation are central motivators for crowdworkers (Deng and Joshi, 2016; Kaufmann et al., 2011). Utilitarian motivation has been defined as the desire to achieve certain outcomes such as immediate payment (Kaufmann et al., 2011). Hedonic motivation refers to the activation of behavior owing to the extent of enjoyment when completing tasks (Deng and Joshi, 2016). Crowdworkers' behavior is assumed to be largely shaped by these two types of motivation (Teodoro et al., 2014). To understand the relationship between these motivations and success, we analyze how task completion can be explained in relation to utilitarian and hedonic motivation for initial participation in crowdwork activities. We define success in task completion as the degree to which workers are completing tasks and are not rejected by the requesters for their output, thus receiving the payment. Accounting for specific dimensions of the crowdwork environment (e.g. freedom in task selection and completion, high autonomy regarding time and the intensity of activities, lack of direct requester control) (Deng et al., 2016), and building on previous research, hedonic and utilitarian motivation can be the central dimensions in explaining crowdworkers' success (Teodoro et al., 2014).

To date, studies have not used non-survey behavioral data to assess the relationship between utilitarian and hedonic motivation and crowdworkers' success. Research on crowdwork has mainly addressed antecedents of subjective workers' outcomes, such as job satisfaction (Brawley and Pury, 2016; Deng and Joshi, 2016) and crowdworkers' perceptions of marginalization and empowerment (Deng et al., 2016). Experimental studies have addressed the relationship between motivational task design in terms of financial incentives and intrinsic incentive mechanisms (e.g. meaningfulness) and single task performance (Chandler and Kapelner, 2013; Mao et al., 2013; Rogstadius et al., 2011). The lack of research on the influences of utilitarian and hedonic motivation and workers' actual success is puzzling, since understanding this relationship would benefit both workers and requesters, and contribute to the understanding of autonomous and digitalized work settings. This lack constitutes a major research gap, to which we contribute by raising the following research question:

How does utilitarian and hedonic motivation influence success in crowdwork task completion?

We answer this research question by taking a quantitative and qualitative approach. We begin with a quantitative study based on a survey and additional non-survey behavioral performance data of 181 crowdworkers from a global crowdworking platform. Our findings only partially support the assumed positive effects of hedonic and utilitarian motivation, since we found a significant negative effect of hedonic motivation. The quantitative analysis is followed by a qualitative assessment of the counter-intuitive negative effect of hedonic motivation. We gathered narratives from 42 crowdworkers. We participated in expert discussions in crowdwork forums regarding the apparent negative effects. Besides these expert discussions, we used a crowdworking platform to gather narratives from crowdworkers, detailing their opinions about and experiences of the relationship between hedonic motivation and success.

By showing hedonic and utilitarian motivation as influences of crowdworkers' behavior, we gain and contribute to a deeper understanding of crowdwork and digitalized work arrangements. This constitutes a major contribution to the literature on IS-supported and platform-mediated work relationships, and heeds Barley and Kunda's (2001) call, providing additional evidence on work psychology in non-organizational settings. Our findings reveal the relationship between utilitarian and hedonic motivation, adding to the understanding and clarification of antecedents of success in crowdwork, and contribute

to understanding the volatility in crowdworkers' success (Barley and Kunda, 2001; Rzeszotarski and Kittur, 2011). We also found and investigated a negative effect of hedonic motivation, which offers counter-intuitive implications for IS research on digitalized and loose work arrangements. This suggests that hedonic motivation's positive effect on work performance in traditional organizational work settings (Cerasoli et al., 2014; Kuvaas and Dysvik, 2010; Rich et al., 2010) may not necessarily be transferable to digitalized work contexts. Overall, the opposing effects of utilitarian and hedonic motivation have key implications when theorizing about the potential disruptive effects of digitalized work on traditional organizational work settings.

This paper is organized as follows: First, we clarify the contextual and theoretical background of our study, briefly describing the specific aspects of micro-task crowdwork settings. Subsequently, we define and present utilitarian and hedonic motivation in motivational theory and link these findings to crowdwork. Building on this theoretical background, we develop our hypotheses and present an empirical study regarding measurement, procedure, sample, and data analysis. The quantitative analysis is followed by a qualitative post hoc analysis concerning hedonic motivation's counter-intuitive negative effect. Finally, we discuss our findings and present the research implications and limitations.

Contextual and theoretical background

Crowdwork offers IS-supported and platform-mediated loose and autonomous work environments that are rarely present in other work settings. We assume that these characteristics offer a self-determined work environment in which task completion success depends on personal motivation.

Characteristics of the crowdwork environment and success in task completion

In crowdwork, requesters advertise short-term tasks on online platforms. Crowdworkers can register on one or more of these platforms, completing these tasks for requesters. In turn, requesters provide micro-payments to the workers for successful task completion (Deng et al., 2016). The main focus of these work arrangements is task completion. Success in task completion is a key, self-determined aspect of crowdworkers' behavior, since crowdworking environments incorporate unique work designs (Anya 2015; Deng and Joshi 2016). For workers, this work environment can be characterized by (1) platform-supported work access, (2) short-term task design, and (3) high task variety (Brawley and Pury, 2016; Deng and Joshi, 2016; Gibson et al., 2011; Kuhn and Maleki,

2017). These dimensions have the potential to offer crowdworkers maximum autonomy and allow them to determine the amount of invested time and intensity, their task selection, and task completion. This self-determination makes success on task completion highly volatile and dependent on workers' behavior.

First, the *platform-supported work access* and task provision offers workers the opportunity to work remotely (Gibson et al., 2011). Workers can work from anywhere and at any time. Thus, they don't depend on offices or fixed working locations, giving them the autonomy to decide on the extent of their time investment, intensity, and where and when to work (Spreitzer et al., 2017). Second, providing only *short-term tasks* enables workers to start and complete various tasks within a limited timeframe. Since the tasks have short durations, workers typically assign a short timeframe for each task and go on to the next one (Mrass et al., 2017). Tasks are often accompanied by a short-term deadline that is enforced by requesters (Kittur et al., 2013) and that puts additional pressure on workers to complete various projects and to not invest too much time on a single task. Third, *high task variety* is a key component of crowdwork environments. Tasks often cover a broad spectrum of requirements (Brawley and Pury, 2016; Deng et al., 2016). Some tasks are simple acts such as text corrections or picture rating assignments, while others incorporate more creative aspects such as development of design ideas or writing media releases. Crowdworkers have the freedom to choose which task to work on (Brawley and Pury, 2016).

In sum, crowdwork's job design, with the dimensions of (1) *platform-supported work access*, (2) *short-term task design*, and (3) *high task variety*, offers crowdworkers maximum freedom and self-determination. They can decide when to work and how long to work (freedom of time and task intensity), which tasks to start (freedom of task selection), and which tasks to complete (freedom of task completion) (for an extensive literature review, see Spreitzer et al. 2017). This work environment leads to high volatility in crowdworkers' success in task completion depending on their motivations.

Motivational theory in crowdwork: The relevance of utilitarian and hedonic motivation

As self-determination increases, individual motivation becomes especially critical for explaining success in working behavior (Staples et al., 1999). Crowdwork offers a work environment with maximum freedom concerning work behavior and self-determination. Thus, individual motivations have gained attention in this field, and are assumed to be the dominant drivers of various behavioral outcomes (Chandler and Kapelner, 2013; Kuhn

and Maleki, 2017). Therefore, motivational theory plays a key role in understanding crowdworkers' behavior (Deng and Joshi, 2016). Thus, the mutually non-binding crowdwork environment provides an interesting case for re-evaluating findings from organizationally embedded work arrangements.

Ryan and Deci (2000) define motivation as the key mechanism that makes people enact a distinct behavior and take corresponding actions. Psychological studies on motivational factors distinguish between intrinsic and extrinsic motivation. While extrinsic motivation is directed toward the achievement of certain (tangible and intangible) outcomes, intrinsic motivation is associated with the joy of task fulfillment (Ryan and Deci, 2000). A rich literature stream assesses the influence of different kinds of motivation on work behavior in organizational settings and found significant effects on commitment, engagement, and performance (Jenkins et al., 1998; Shaw and Gupta, 2015; Yousaf et al., 2015).

Building on theory of extrinsic and intrinsic motivation, studies of crowdworkers found that utilitarian and hedonic motivation are the dominant motivational factors for participation in crowdwork activities and have been salient across studies (Teodoro et al., 2014). In line with these studies, we define utilitarian motivation as sum of motivations directed toward the achievement of useful outcomes, leading to the perception that crowdwork is a useful and helpful work arrangement (Brawley, 2017). Hedonic motivation constitutes a sub-dimension of intrinsic motivation, which is concerned with activating crowdworkers' behavior owing to the enjoyment of task fulfillment (Kaufmann et al., 2011). Empirical research on utilitarian motivation found desired outcomes, such as immediate and delayed payoffs, that motivate people in various crowdwork settings (Brabham, 2010; Deng et al., 2016). In micro-task crowdwork, immediate payoffs are predominant factors of utilitarian motivation (Kaufmann et al., 2011). Crowdworkers use these work arrangements to generate (additional) income (Brawley, 2017). A study by Brawley and Pury (2016) on work experience on MTurk found that most individuals consider crowdwork to be their primary source of income, defining it as a regular job. Some workers also consider it useful in generating supplementary income in addition to other employment arrangements (Brawley, 2017).

Since enjoyment impacts working behavior, explanations for crowdworkers' behavior should not be reduced to utilitarian motivation, but should also consider hedonic dimensions (Deng and Joshi, 2016; Spreitzer et al., 2017). While in crowdwork,

financially driven utilitarian motivation is often described (Kaufmann et al., 2011; Mason and Suri, 2012), hedonic motivation has just started to receive attention. Deng and Joshi (2016: 656) describe hedonic motivation as ‘the pleasure of engaging in micro-task crowdsourcing.’ Kaufmann et al. (2011) summarize enjoyment-based motivation in terms of job design dimensions, incorporating skills variety (enjoyment using different skills), task identity (enjoyment of working on a comprehensive task), task autonomy (enjoyment of freedom), direct feedback (enjoyment owing to a sense of achievement), and pastime (avoiding boredom).

The relevance of hedonic motivation for working behavior is supported by recent qualitative and quantitative studies that found that the conceptual dimensions of hedonic motivation are key to crowdworkers’ subjective work experiences (Brawley and Pury, 2016; Deng et al., 2016). Studies conclude that hedonic motivation is a key antecedent of crowdworkers’ work perceptions (Deng and Joshi, 2016; Kaufmann et al., 2011). Brawley (2017) found significant quantitative relationships between hedonically motivating job characteristics, worker satisfaction, and turnover. Finally, workers value access to a variety of tasks, as well as contributing to a broader scope of projects. The enjoyment-based dimensions of meaning and making an impact create a sense of empowerment for workers (Deng et al., 2016). In sum, these studies lead to the conclusion that workers’ hedonic motivation is a key antecedent of behavior and should not be ignored or marginalized when analyzing perceptions and behaviors.

Overall, owing to crowdwork’s self-determined work environment, which provides crowdworkers with maximum freedom concerning work activities, utilitarian and hedonic motivation become the central determinants for explaining crowdworkers’ behavior (Chandler and Kapelner, 2013). The new setting, with the non-binding work relationship, as well as the high self-determination in task selection and completion, provides an intriguing opportunity to re-consider the relationship between hedonic and utilitarian motivation and working behavior, since it is unclear whether earlier findings can be directly transferred.

Hypotheses development

Existing studies suggest that utilitarian and hedonic motivation are key dimensions in crowdwork. However, these motivations’ influences on crowdworkers’ success in these self-determined work environments remain unclear.

Utilitarian motivation and success in task completion

Utilitarian motivation is a strong predictor of individuals' work-related behavior (Ryan and Deci, 2000). Several studies have assessed the effects of utilitarian motivation, finding support for the assumption that financial rewards are a key antecedent of employee behavior (Cullen and Greene, 2011; Jenkins et al., 1998; Shaw and Gupta, 2015; Vroom, 1964; Yousaf et al., 2015). Financial rewards increase the productivity and effort of individuals, who are primarily motivated by utilitarian desires (Cerasoli et al., 2014). Meta-studies across several work settings offer further evidence of utilitarian motivation's effect on performance, suggesting that particularly in work environments that are designed as pay-per-performance arrangements, performance is driven by the prospect of material payoffs (Cerasoli et al., 2014; Jenkins et al., 1998).

Crowdworkers can start any task and can then abort it without finishing, but are only paid for tasks they complete successfully and, from the requesters' perspective, satisfactorily (Saxton et al., 2013). Specifically, crowdwork environments are designed as pay-per-performance labor markets. Along with the direct and clear pay-for-performance transactions, individuals who participate in crowdwork based on utilitarian motivation expect financial gains, and therefore have an increased incentive to complete the majority of tasks and strive for a high success rate in task completion. Accordingly, we posit:

H1. The extent of utilitarian motivation for participating in crowdwork activities positively affects the success rate in task completion.

Hedonic motivation and success in task completion

Besides utilitarian motivation, hedonic motivation (e.g. pleasure and enjoyment in an activity) is associated with favorable work-related behavior (Gerhart and Fang, 2015). Researchers have related pleasant and joyful perceptions of work to greater engagement (Masvaure et al., 2014), increased well-being (Benedetti et al., 2015), higher work satisfaction (Luthans and Youssef, 2007), and better performance (Humphrey et al., 2007). Further, Cerasoli et al.'s (2014) meta-study provides support for a holistic, hedonic motivation-performance link across various organizational work settings.

The relationship between intrinsic motivation and work-related outcomes is especially strong in work environments with high autonomy (Baard et al., 2004; Deci and Ryan, 1987, 2000; Yousaf et al., 2015). A number of studies found a significant interaction effect between an autonomy-supportive work environment and hedonic

motivation on work-related performance and effort (Baard et al., 2004). Work environments that offer high autonomy support the underlying needs for self-determination associated with hedonic motivation. In contrast, work environments that are very restrictive and in which work behavior is continuously externally controlled, undermine the desire for self-determination. This not only results in a lower hedonic motivation, but also weakens the effect on work-related behavior such as work effort and performance (Deci and Ryan, 2000; Yousaf et al., 2015). Crowdworking provides freedom of choice regarding work scheduling, location, task selection, and task intensity (Kittur et al., 2013). Further, the relationship between workers and requesters is limited to delivering a product and payment provision, denying long-term bonds between them (Deng et al., 2016). Thus, we assume that hedonic motivation should strongly affect successful participation in crowdwork.

The argument for linking hedonic motivation and performance is supported by work design theory, since shaping motivational job characteristics is central in understanding employee behavior (Hackman and Oldham, 1975). Task properties are important to crowdworkers who enjoy activities with skill variety (enjoyment in using different skills), task identity (enjoyment of working on a comprehensive task), task autonomy (enjoyment of freedom), direct feedback (enjoyment owing to a sense of achievement), and the overall impression of an exciting pastime (Kaufmann et al., 2011). It is well established that these dimensions are crucial for the design of hedonically motivational work environments, and that they significantly affect work engagement, performance, and effort (Humphrey et al., 2007; Lawler and Hall, 1970). Thus, crowdwork task characteristics also support the underlying dimensions of hedonic motivation for participation. Hedonically motivated crowdworkers will put more effort into projects and will complete them owing to the joy they experience while doing them.

Indeed, studies on crowdworkers' task performance have shown that designing crowdwork tasks with enjoyment-based incentives increases effort and performance in task fulfillment (Chandler and Kapelner, 2013; Mao et al., 2013). We broaden this perspective, arguing that crowdwork offers motivational characteristics that support the needs of hedonically motivated individuals, which positively influence their work behavior. We argue that workers' success rate in task completion will increase with their hedonic motivation for participating in crowdwork.

H2. The extent of hedonic motivation for participating in crowdwork activities positively affects the success rate in task completion.

The relative effects of utilitarian and hedonic motivation on success in task completion

Crowdworkers can be motivated by utilitarian and hedonic motivation for participating in crowdwork activities (Deng and Joshi, 2016). These workers can be high in both motivational dimensions and can show a motivational profile that can be explained by both dimensions. We were interested in the motivational dimensions' comparative effects on success in task completion in comparing the two kinds of motivation to each other.

Findings on crowdwork task performance in controlled experimental settings suggest that utilitarian and hedonic motivation might not have the same impact on performance. Research found that financial incentives increase output, but not necessarily task accuracy (Rogstadius et al., 2011). In turn, offering intangible incentives (such as meaningful tasks) increase output accuracy (Chandler and Kapelner, 2013; Rogstadius et al., 2011). These findings are in line with studies in organizational work settings that concluded that hedonic motivation has a stronger effect on work outcomes than utilitarian motivation (Ryan and Deci, 2000).

Based on these findings, we assume that hedonic motivation's absolute effect on success rate is stronger than that of utilitarian motivation, when both motivations are present. We argue that the extent of crowdworkers' utilitarian motivation may not increase accuracy to the same extent as workers' hedonic motivation. Individuals high in hedonic motivation enjoy tasks, take their time, and have a pleasant feeling when completing the tasks (Teodoro et al., 2014). This should lead to greater accuracy in completed tasks, more so than a focus on completion for financial rewards. Thus, hedonic motivation has a stronger absolute effect on crowdworkers' task completion success as accuracy increases, and requesters' expectations are better met. In line with literature in the organizational context on the effect of intrinsic motivation compared to extrinsic ones, we posit:

H3. The absolute effect of hedonic motivation is stronger than the absolute effect of utilitarian motivation on the success rate in task completion.

Quantitative analysis

To test our hypotheses, we conducted a quantitative online survey with 181 crowdworkers. We enriched the subjective data with non-survey behavioral performance data from the participating crowdworkers.

Procedure and sample

Our analysis built on survey and non-survey systems data on crowdworkers provided by the crowdworking platform. We split the survey into two waves, separating the assessed information of motivations from the controls of payment satisfaction and hours spent on crowdwork in order to reduce a potential response bias (Podsakoff et al., 2003). Besides the survey data, the platform provided us with information on the crowdworkers' profiles, providing non-survey data on the number of tasks (un)successfully completed, and the account registration date.

Of the crowdworkers, 220 completed the first part of the survey. After two weeks, 181 crowdworkers responded (an 83% response rate) to the survey's second part. Gender was almost equally distributed, since 51.9% of the participants were female. The average age was 35.96 ($SD = 10.78$). Most participants had long-term crowdwork experience, with an average tenure of 12.72 months ($SD = 11.6$). Further, the average education level was fairly high, since 62.4% held bachelor degrees or higher qualifications. Of the participants, 57.5% reported an annual household income of less than 35.000 USD. Most also had other work relationships; 9.9% were students, and 10.5% reported being unemployed.

Measurements and data

We collected the survey data using validated and well-established scales that we adapted to the crowdwork context. Measuring our *independent variables*, we assessed utilitarian and hedonic motivation for participating in crowdwork with five items each (Voss et al., 2003). We asked participants to rate the extent of agreeableness along a seven-point Likert scale (1 = *I strongly disagree* to 7 = *I strongly agree*). For the utilitarian dimension, participants rated whether crowdwork was effective, helpful, functional, necessary, or practical ($\alpha = .87$). To measure the hedonic dimension, participants rated the degree to which they perceived crowdwork as fun, exciting, delightful, thrilling, and enjoyable ($\alpha = .93$). To assess our dependent variable, success rate, we used the non-survey behavioral data provided by the platform. Since the nature of crowdwork activities varied across participants, we calculated the percentage of successful tasks as a share of the total tasks done. This also allowed us to account for different task contents, since it relativized the

number of tasks. To evaluate payment satisfaction, we presented participants with statements along a four-item scale adapted from Greenberg (1990). The participants rated the agreeableness along a seven-point Likert scale ($\alpha = .93$) (from 1 = *I strongly disagree* to 7 = *I strongly agree*), and the items consisted of statements such as *My current pay reflects my actual contributions* (Greenberg, 1990). Further, we accounted for preferred task content, assessing whether participants were engaging in creative or technical crowdwork tasks beyond their contributions on the micro-task platform. We asked them to indicate whether task descriptions matched the tasks they preferred. Creative tasks referred to tasks such as design contests for clothing, logos, pictures, and product development, etc., while technical referred to *Technical tasks such as software development and testing, etc.* We implemented the responses as dummy variables in the regression analysis with values of one indicating a preference for a task type. We received the date of first login of each crowdworker in our dataset from the platform's system. Based on this information, we were able to control for tenure in engaging in crowdwork activities on the platform. We calculated the number of days between the first login and the date of our survey. Further, we controlled for behavioral patterns using crowdwork in terms of intensity and frequency of usage. To assess the usage intensity, we asked the survey participants how much time they usually invest in doing crowdwork per week. Answer options ranged from 1 = *less than 2 hours* to 7 = *more than 30 hours*. For frequency of usage, we asked participants how often they actively look for tasks on the platform; this ranged from 1 = *several times a day* to 7 = *unsteadily*. Finally, as demographic control, we assessed education. We provided a question that referred to educational level in terms of the highest official educational degree (from 1 = *less than high school* to 6 = *graduate degree*).

Analysis and findings

We found that both utilitarian ($M_{util} = 5.15$; $SD_{util} = 1.14$) and hedonic ($M_{hed} = 4.21$; $SD_{hed} = 1.46$) motivation for participating in crowdwork activities were present, and that success rate varied between 60% and 100%. To analyze the connection between utilitarian and hedonic motivation and success in task completion, we did a multiple OLS regression analysis. Owing to the differences in the independent variables and measurement levels, we standardized metric and quasi-metric independent variables to ensure comparability (Bring, 1994; Walsh, 1990). First, we assessed a control model that incorporated all the aforementioned control variables. We then assessed the proposed model with the motivations as independent variables. Table 1 summarizes the regression analysis results.

Table 1

Regression results

	b	SE (b)	β	p-Value	VIF	R²
<i>Control Model</i>						.10
Constant	.958	.014		.000		
Creative	-.036***	.012	-.226***	.003	1.11	
Technical	-.011	.011	-.078	.305	1.11	
Frequency	.003	.003	.072	.332	1.06	
Intensity	-.001	.005	-.018	.811	1.13	
Payment Satisfaction	-.007	.004	-.117	.110	1.02	
Tenure	-.002	.005	-.036	.628	1.04	
Education	.004	.003	.105	.157	1.05	
F (7, 173) = 2.58**						
<i>Proposed Model</i>						.13
Constant	.955	.014		.000		
Creative	-.032**	.012	-.199**	.010	1.14	
Technical	-.011	.011	-.079	.295	1.11	
Frequency	.004	.003	.097	.192	1.09	
Intensity	-.003	.005	-.054	.489	1.18	
Payment Satisfaction	-.007	.005	-.106	.172	1.18	
Tenure	-.003	.004	-.042	.568	1.04	
Education	.004	.003	.107	.145	1.05	
Utilitarian Motivation	.012**	.005	.194**	.025	1.44	
Hedonic Motivation	-.012**	.005	-.188**	.031	1.47	
F (9, 171) = 2.83***						

Note: * $p < .10$, ** $p < .05$, *** $p < .01$.

We tested for multicollinearity using variance-inflation-factor (VIF) for both models. Results showed that all values are below the relevant threshold level. The control model showed a significant overall model test ($F(7, 173) = 2.58; p < .05$). Nonetheless, the overall model test showed better results for the proposed model than for the control model ($F(9, 171) = 2.83; p < .01$). The control model explained 10% of the dependent variable's variance. By including the proposed independent variables, the explanation value increased up to 13%. R^2_{Adj} also showed an increase above 2% when including the motivators, indicating the variables' relevance and explanation value. Owing to the many

differences in variances between the dependent and independent variables, and the standardization of independent variables, coefficients should not be interpreted in absolute effects, but in terms of relative explanatory value (Bring, 1994; Walsh, 1990). We found that, in the control model, the variable for creative tasks showed a significant negative effect ($b = -.036; p < .01$). Other variables showed no significant effects. For the proposed model, including utilitarian and hedonic motivation, we found the same control variable influences the success rate. The creative task dummy's negative effect was reduced ($b = -.032; p < .05$). Concerning our hypotheses, we observed a significant positive effect of utilitarian motivation on success rate ($b = .012; p < .05$), supporting H1. We also found a significant effect of hedonic motivation on crowdworkers' success rate. However, contrary to our assumptions, this effect had a negative coefficient ($b = -.012; p < .05$), leading us to reject H2. Owing to hedonic motivation's negative effect, we also had to reject H3.

Qualitative post hoc analysis

We found a significant negative effect of hedonic motivation on crowdworkers' success rate, which contradicts H2. Beyond our argumentation, this finding also contradicts existing research on the influence of enjoyment-based motivation on performance, which was assumed for the last decades in organizational settings (Cerasoli et al., 2014). Therefore, we were especially interested in reasons that explain this finding. To gain a better understanding and preclude statistical artifacts, we conducted a qualitative post hoc analysis.

Data collection

We gathered our qualitative data after the initial quantitative analysis on hedonic motivation's negative effect on success via guided discussions and open narratives. We collected the data in early 2018 and used two independent sources. First, we used expert discussions in open online communities of crowdworkers. In these communities, crowdworkers openly discuss problems and share information and experiences concerning their crowdwork activities. We started with an open question that asked about the relationships between motivations and success and the reasons for or against a potential negative relationship between hedonic motivation and success rate. As discussion progressed, several community members commented on our question with reasons for a negative relationship. In total, 22 community members actively participated in the discussion.

We also used a second source for data access. We placed a task on a crowdworking platform that asked for an explanation of a potential negative relationship between hedonic motivation and success rate. The workers were encouraged to provide us with short narratives, experiences, and/or reasoning as to why this relationship possibly exists or whether they believe it is not a reasonable or reliable finding. On this platform, we financially compensated the 20 participating crowdworkers. This process of data collection via online communities and the crowdworking platform resulted in statements by 42 crowdworkers who provided us with valuable information to understand the phenomenon we found.

Data analysis

We used a three-step iterative inductive coding procedure, referring to Gioia et al. (2013). Two researchers conducted the procedure separately before discussing the individual results. We started with the initial coding, systemizing the statements for underlying concepts. In this coding stage, we summarized the central elements given in the statements into first-order concepts. We closely related first-order concepts to the narratives of our discussion partners and statements on the crowdworking platform and kept the abstraction level low. For instance, we found statements that emphasized the relevance of tasks being joyful and exciting.

After building first-order concepts, we contrasted them to the initial data to summarize them into second-order concepts and to lift them to a higher degree of abstraction. In this stage, we paid special attention to similarities and differences between first-order concepts, to ensure the validity of the second-order concepts we found (e.g. we combined the aspects of having general joyful experiences and the relative importance of this experience in relation to payment into the second-order dimension of personal demands concerning task attributes). Again, we contrasted second-order concepts with the initial data to ensure adequate interpretation and abstraction.

After identifying second-order concepts separately, the researchers discussed the derived dimensions and adjusted their wording and content when necessary. This resulted in an iterative approach in the assessment of the second-order concepts and finally the summary into aggregated dimensions (Gioia et al., 2013). In sum, we arrived at two aggregated dimensions that referred to the perceptions of professionalism in crowdwork activities and behavior in task processing. Table 2 summarizes the found data structure in terms of first-order concepts, second-order concepts, and aggregated dimensions.

Table 2

Data structure

First-Order Concepts	Second-Order Concepts	Aggregated Dimensions
<ul style="list-style-type: none"> • Degree to which tasks need to be joyful • Relative importance of joyful task attributes in relation to good payment 	Personal demands concerning task attributes	Professionalism in crowdwork activities
<ul style="list-style-type: none"> • Relevance of worker's status for work experience • Willingness to develop specialized skills • Additional value of access to better paying tasks 	Responsiveness to incentive and sanction mechanisms	
<ul style="list-style-type: none"> • Necessity of success for a positive self-image • Perceptions of personal responsibility for requesters 	Personal identification with crowdwork success	
<ul style="list-style-type: none"> • Readiness to finish tasks even when not pleasant • Readiness to finish tasks despite distraction 	Task abandonment	Behavior in task processing
<ul style="list-style-type: none"> • Attention to task requirements • Susceptibility to distraction 	Negligence	

Findings

We found relationships between the second-order concepts and the different motivations. The extent of hedonic and utilitarian motivation for participating in crowdwork activities affects professionalism in crowdwork activities in terms of *personal demands concerning task attributes*, *responsiveness to incentive and sanction mechanisms*, and *personal identification with crowdwork success*. In turn, this affects behavior in task processing (referring to *task abandonment* and *negligence*).

Personal demands concerning task attributes for (accurate) task completion

Crowdwork activities offer the opportunity to freely choose from a large number of tasks with substantially different task characteristics. Crowdworkers with a high degree of hedonic motivation will pursue the motivational desire for enjoyable experience by selecting tasks that are perceived as enjoyable pastimes. Every task they work on must be enjoyable and must fulfil their desire for a pleasant experience. Based on this goal, they

decide which tasks to undertake and complete. Nonetheless, since initial task descriptions are often vague and imprecise, it is hard to assess the potential for a joyful experience before starting a task; thus, hedonically motivated workers could start with several tasks. However, when pleasure levels decrease, they will abort a project.

“I don’t suffer ridiculous hits. It’s not about fun, but about fatigue. If I’m not enjoying myself, I am going to quit.” (Discussion participant; No. 4)

Since financial gains are less important to hedonically motivated workers, they will sacrifice financial rewards in favor of a joyous, pleasant experience, enjoying their work.

“[...] if the task isn't fun they may return some. People who are striving to meet a financial goal will do any hits available.” (Discussion participant; No. 11)

This is particularly true for long-term tasks characterized by monotony and low variety.

“The others who have fun just do some jobs the one day and some the other. But they won't sit before their laptop for hours searching for address data and call that 'fun'.” (Statement via crowdwork platform; No. 4)

While a strong emphasis on hedonic motives can result in favoring exciting experiences, task designs seldom meet this motivation. Crowdwork tasks are often monotonous. Thus, when individual hedonic experiences are emphasized, individuals will work less carefully on tasks that become repetitive and less enjoyable. Such carelessness leads to lower quality outputs and a higher rejection rate by requesters.

“In my opinion doing tasks for fun leads to less successfully completed tasks because people take their completion less serious and are easier on the rules.” (Statement via crowdwork platform; No. 19)

When workers emphasize their hedonic experience, they will work less carefully and are more easily distracted, if task requirements don’t fulfill the desire for enjoyment. Crowdworkers can easily become distracted, since inhibitions to engaging in other activities such as watching videos or browsing websites are low.

“[...] if you take part on the surveys just for fun and not because you probably need the money you are less attentive. If I would do the jobs just to pass time I would probably be more distracted. I would do a few things besides doing my tasks for [the platform]. So, the results are not at its best.” (Statement via crowdwork platform; No. 16)

Thus, hedonic motivation amplifies the personal requirements concerning task attributes. For hedonically motivated workers, tasks must fulfil the desire for an enjoyable pastime. If tasks don’t meet this requirement, these workers are more likely to abort

projects or to become distracted, leading to poorer results and ultimately to rejection by requesters. Finally, their overall success rate will suffer.

Responsiveness to incentive and sanction mechanisms

Since crowdwork is voluntary and payment comes from the requester, there are very few platform incentive and sanction mechanisms to encourage beneficial behavior and extraordinary efforts or results. Platforms can manipulate task access by reducing task availability or excluding participants for poor performance or for abandoning tasks. Incentive mechanisms that target task availability used by platforms might be less effective for hedonically motivated workers.

“[...] people who work on [the platform] as a hobby or as something to keep them occupied, don't really put much emphasis on doing accurate work because they are not concerned with potentially getting banned from Hitapps.” (Statement via crowdwork platform; No. 11)

Further, platforms provide higher-rated crowdworkers with premium status and additional access to better-paying tasks. Since hedonic motivation must be sufficiently met by current tasks, crowdworkers' opportunities to continue working could be sufficient for those particular workers. The opportunity to build a better income perspective is less relevant.

“If they are only doing it for fun, they do not care about rejections or getting masters.” (Discussion participant; No. 4)

Owing to the low prioritization of increased access or premium status, hedonically motivated workers will be less willing to invest effort into specialized skills development. Workers high in utilitarian motivation often specialize in specific tasks and develop the skills and competences necessary to improve task performance. Hedonically motivated workers have little interest in the development of an advanced skills set, since they primarily focus on fulfilling hedonic desires.

“Casual [platform] users are here for fun or to pass time and have not developed the skillset that long time workers have from completing hundreds of thousands or even millions of hits.” (Discussion participant; No. 9)

In sum, higher hedonic motivation diminishes a worker's responsiveness to incentive and sanction mechanisms, since these mechanisms are directed toward status and financial gains. Thus, these mechanisms will be less able to counteract poor performance and task abandonment.

Personal identification with crowdwork success

The extent of hedonic motivation relates negatively to the prioritization of crowdwork as a serious work activity, and thus the importance of and personal identification with outcomes. Since engaging in crowdwork activities based on hedonic motivation is considered a leisure activity, task fulfillment and successful task completion are often not taken seriously. Utilitarian-motivated workers become personally involved with their activities and incorporate their success into their self-image. In contrast, hedonic motivation reduces the personal involvement in work outcomes and therefore its relevance to a worker's self-evaluation.

“Anyone, who is doing it for fun or trivial reasons, will doubtless have a lack of investment and a disassociation with this task and their own self-image. That is to say, they will not evaluate their self-worth on the quality of their work here since they do not associate this work with them as a person.” (Statement via crowdwork platform; No. 5)

Further, hedonic motivation leads to lower sense of responsibility for the results. People are less concerned whether their outcomes are valuable to requesters, and don't care about requesters' perceptions of them. Their reason for participation is based on their personal desire for enjoyment and less on the consequences for requesters.

“[...] they're dilettantes who don't need the money, are playing at [the platform] because they're bored, and don't care about doing a good job. That's my best guess, yeah. They're not taking it seriously, so their work ethic is less than good.” (Discussion participant; No. 12)

Mistakes are not a big concern. Hedonically motivated workers do not find setbacks, such as poor evaluations from requesters or payment rejections, to be too serious.

“When people need the money, they are more likely to do the work as a job, in a serious way. People seeking fun are more likely to treat HITs like a video game, say, “Oh, well,” if they do something wrong.” (Discussion participant; No. 22)

In sum, hedonic motivation reduces the consideration of crowdwork activities as serious work, inhibiting a worker's identification with their success rate. Hedonically motivated workers will have low personal involvement in successful task completion and will feel less sense of responsibility for results.

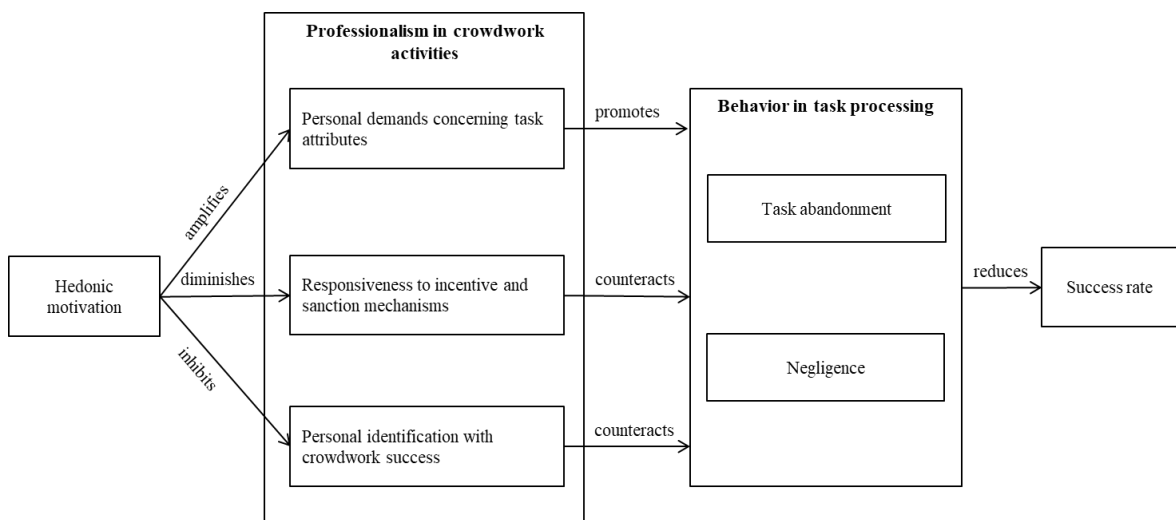
An integrated model for the relationship between hedonic motivation and success rate

Based on the displayed results, we developed a comprehensive model for the negative effect of hedonic motivation we found on success rate in task completion. As Figure 1

shows, the findings suggest that workers with a high hedonic motivation display lower professionalism in their crowdwork activities, as this motivation affects professional attitudes in terms of *personal demands concerning task attributes* for completion and attentiveness, *responsiveness to incentive and sanction mechanisms*, and *personal identification with crowdwork success*. Through these mechanisms, hedonic motivation affects behavior in task processing in undesirable ways, lowering the success rate.

Figure 1

Derived model



First, crowdworkers with a higher degree of hedonic motivation show lower degrees of professionalism in their crowdwork activities, since this motivation amplifies their *personal demands concerning task attributes*. They only value tasks that fulfil their desire for an enjoyable pastime. Thus, if any task stops being enjoyable at some point during task processing, these higher demands can promote higher task abandonment. Diminishing enjoyment also leads to easier distraction and thus higher negligence when tasks are no longer perceived as enjoyable. The resulting task abandonment and the faster negligence can reduce the overall success rate.

Second, hedonic motivation negatively affects crowdworkers' professionalism by diminishing their *responsiveness to the incentive and sanction mechanisms*. Platforms offer successful workers access to more and better-paying tasks, and sanction bad performance by excluding workers from highly financially incentivized tasks and reducing their status. Nonetheless, with increasing hedonic motivation, long-term financial gains and status are not primary motives that guide behavior, also because professional attitudes are not vivid. Hedonic motivation diminishes workers responsiveness to platforms' incentives and sanction mechanisms that are oriented to the

improvement of long-term financial gains and status. However, the responsiveness to these mechanisms is central, as, due to high responsiveness, incentives and sanctions are generally able to counteract poor behavior in task processing. As responsiveness among hedonically motivated workers is diminished, the mechanisms are less able to counteract task abandonment and negligence in task processing. Thus, control mechanisms become less powerful as hedonic motivation increases, making them less able to counteract undesired behavior in task processing, which, in turn, reduces the success rate.

Finally, lower professionalism in crowdwork activities also includes a lower *personal identification with crowdwork success*. Hedonic motivation addresses this aspect, since it inhibits personal identification with success. With increasing hedonic motivation, workers interpret their crowdwork activities rather as paid leisure time than as a serious work context. Success is not included in a positive self-image, and workers show only minor personal involvement in successful task completion. Further, they experience less responsibility for providing useful results than workers with a utilitarian motivation and high professionalism do. However, personal identification with crowdwork success is a central component in counteracting task abandonment and negligence in task processing. Workers who personally identify highly with success try to avoid such behaviors, since they contradict a positive self-image and their perceptions of being responsible for requesters' results. In sum, we found that, with increasing hedonic motivation, personal identification with crowdwork success might be inhibited. Thus, hedonic motivation reduces the counteracting mechanisms of identification in relation to task abandonment and negligence, which then can have the effect of lowering the success rate

Discussion

We investigated hedonic and utilitarian motivation and their impacts on crowdwork success. By deriving our dependent performance measures based on non-survey, behavioral data, we contribute to an improved understanding of motivation in crowdwork. We discovered – counter-intuitively – that hedonic motivation negatively affects performance. This finding strongly impacts our understanding of crowdworking behavior, since it implies that results from traditional work settings are not necessarily transferable. This is the first study to report detailed information regarding motivation and measured crowdwork performance, assessed on behavioral data, from a platform's system log rather than solely self-described data based on subjective evaluations. We provided additional evidence on utilitarian motivation's influence in crowdwork

activities. Since the transaction of work is reduced to piece-work tasks, it is not surprising that performance is positively impacted when crowdwork is seen as an effective income source. As suggested in some qualitative answers, crowdwork is evaluated according to potential earnings per hour or time invested. Although Deng et al. (2016) suggested this link, quantitative numbers and performance information based on non-survey data has not been analyzed before.

Further, with this study we provide evidence that hedonic motivation negatively affects crowdwork performance. While both utilitarian and hedonic motivations significantly influence successful task completion, this finding is surprising, since it disagrees with the extensive literature on motivation (Humphrey et al., 2007). Our findings clearly contradict existing theories that emphasize the positive impacts of intrinsic factors such as hedonic motivation on performance. To understand this result, we analyzed crowdworker narratives and open discussions. The qualitative information suggests that the unprecedented extent of non-binding work substantially changes the behavior in this new work type (Spreitzer et al., 2017). Since inhibitions to cancelling tasks are marginal, and lowering work input has no long-term consequences, we found that work behavior exhibits a lower output orientation. The autonomous, loose, and self-determined characteristics that provide maximum freedom in task selection and task completion fuel the resulting counterproductive behavior. Our qualitative post hoc analysis shows that individuals, who participate in crowdwork with hedonic motivation, understand crowdwork as a leisure activity rather than as serious work.

By emphasizing the hedonic crowdwork experience as a spare time activity, workers are not responsive to platform mechanisms, show less interest in work outcomes, and generally identify less with crowdwork and task completion. The different motivations may serve as an indicator of heterogeneity in crowdwork. Crowdwork mostly involves short-term projects that cover a variety of activities, varying in underlying motivations and in extent, duration, and regularity. Also, the workforce cannot be considered to be homogenous. Workers can view such employment as a serious source of income or as a leisure activity. Thus, it could be misleading to assume similar effects between variables based on previous theories regarding work and organizational behavior. This is a key insight, since there is a long history of transferring theories from analog to digital settings (Bakos and Kemerer, 1992; Chen and Horton, 2016; van der Heijden, 2004). Our study supports a critical perspective and calls for a better, more meticulous consideration of

theories in organizational behavioral research that account for the specific circumstances of crowdwork.

Finally, our findings contribute to understanding potential scenarios for crowdwork adoption in organizations. Some academics foresee that the designs used in crowdwork settings (using online platforms for task provision and high autonomy in task selection and completion for organizational employees) will spread into organizations and could disrupt regular work relationships (Anya, 2015). Our study contributes to this idea by showing that the current design of crowdwork reveals an unprecedented extent of non-binding labor transactions. It may not be suitable to disrupt regular work settings, since outcomes may suffer, depending on employees' extent of hedonic or utilitarian motivation. However, as the platform would be integrated into an organizational context and tasks would be provided by only one requester (namely the employing organization), effects might differ. Employees would have to be aware of long-term negative consequences if they don't perform well. With the additional organizational embeddedness, the negative effect of hedonic motivation could be reduced, as sanction mechanisms might not be limited to payment provision. Thus, it is doubtful whether this effect would be the same in intra-organizational crowdwork arrangements, since a clear context is provided. Offering organizational members internal crowd platforms that allow autonomy to decide on the duration, intensity, task selection, and completion of assignments might combine benefits from organizational and loose non-binding work arrangements by enriching organizational embeddedness with autonomy, or vice versa.

Our study has provided important insights for practical uses of crowdwork. Since the crowd consists of a broad range of workers, their dependence on additional income varies drastically. On the one hand, some workers engage in crowdwork as a paid leisure activity. They are less engaged and tend to leave tasks incomplete when faced with challenges or when they lose interest. On the other hand, some workers depend on the additional income. These workers want to get work done effectively rather than spending unnecessary time on it. They are more professional, persistent, and intent on improving their skills, which brings about better performance and more satisfactory results. When delegating tasks to crowdwork, one must be aware of these different groups, since active, individual worker selection is rarely possible and is impractical in crowdwork. Further, crowdworkers' heterogeneity indicates two strategies for the effective utilization of crowdwork, each of which requires different task designs. For tasks that allow for stronger variance in results, hedonic orientations could be beneficial. For instance, small tasks that

require creativity, are unrelated to a broader project context, and offer low payment, can attract casual workers. More complex tasks that require endurance and precision should be designed to attract more professional crowdworkers. Further, such tasks should incorporate larger amounts of work and should not be rushed. If designed properly, tasks can potentially attract well-educated and skilled crowdworkers.

Despite our novel findings, a comprehensive research approach, and the use of non-survey success data, our study has limitations. First, we found fairly low effects of hedonic and utilitarian motivation on success rate. Further, the success rate in our sample was high, offering little variance in the dependent variable. Nonetheless, we produced significant results. Researchers should address this shortcoming by replicating this study with a larger sample size. It would also be useful to collect a sample with greater success rate variance. Second, even if motivations and especially utilitarian and hedonic motivation are the central determinants of crowdworkers' behavior, it would be an interesting approach to introduce additional explorative variables into the model, since success remains under-researched in this field. An expansion of the model for instance in relation to averaged remuneration as a moderator, or financial dependence on crowdwork income as independent variable and motivations as mediators, could provide further valuable insights into completing tasks and the interactions with each motivational dimension. Further, as noted, crowdworkers can be high in both motivational dimensions. It would be an interesting approach to assess interactions among motivations on various work-related outcomes to better understand the interplay between them. Third, as our qualitative post hoc analysis supposes, there are additional behavioral patterns concerning task completion that are influenced by hedonic motivation, which, in turn, affect the success rate. Even after revealing these effects post hoc, we were unable to introduce every aspect into our quantitative approach. Future research should operationalize these variables and should integrate them into the model as mediators to further explain the negative relationship between hedonic motivation and crowdworkers' task completion success rate. Finally, since we collected survey data and non-survey behavioral data from one crowdwork platform, the success rate cannot be generalized across platforms. Even if crowdworkers typically use several platforms for task completion, their success rate may differ, depending on the task type and the platform structure. Thus, future research should incorporate the success rate of workers from various platforms.

Conclusion

We examined the utilitarian and hedonic motivation of crowdworkers and their impact on crowdworkers' success in task completion. Employing a quantitative and qualitative approach, we showed a positive relationship between utilitarian motivation and successful task completion, and a negative relationship between hedonic motivation and successful task completion. These insights into motivations and success in highly self-determined, loose, and autonomous work relationships offer a rich new research agenda for understanding crowdworkers' behavior. We trust that these findings will encourage new empirical studies and theories to rethink existing relationships between various work-related variables from the organizational context and their implementation in the new digitalized workplace.

The final essay of this dissertation addresses the role of social support provided by online communities in engaging crowdworkers in their work activities. While online communities as source of social support have often been overlooked, they constitute an important characteristic of the work environment for engaging workers in these settings.

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Let's rock these gigs together! The mediated effects of social support in professional online communities on work engagement in crowdwork

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This paper investigates how social support in professional online communities affects work engagement in crowdwork. Recently, HR-scholars focused on work design explaining which aspects of the work environment contribute to engagement in crowdwork. The relation between social support as social element of the work environment and engagement is especially challenging. In organizations social support is critical for creating identification and enhancing experienced meaningfulness of work, which in turn affects engagement. In crowdworking requesters and platforms rarely provide such support. However, workers frequently participate in professional online communities, functioning as alternative source of social support. So far it remains unclear whether and how this type of social support contributes to engagement. We argue that in the absence of supportive organizational structures, social support from online communities offers social cues, manifesting in occupational identification and experienced meaningfulness of doing crowdwork, which enhances engagement. Therefore, we conducted a two-wave survey with 181 micro-workers, which shows that affective social support enhances occupational identification and meaningfulness and thereby indirectly, due to fully mediated effects, affects engagement. We contribute to work design for this emerging context by showing the importance of professional communities, and we describe practical implications for engaging the digital on-demand workforce.

Keywords: gig work, micro-task crowdwork, social support, professional online communities, occupational identification, experienced meaningfulness, work engagement

Introduction

The rise of digital labor platforms in the gig economy gives organizations the opportunity to supplement their internal workforce with a digital on-demand labor pool (Kuhn and Maleki, 2017). Organizations (requesters) outsource discrete short-term piece-like tasks, such as text correction or audio transcription, in an open call to a self-employed, independent, and physically dispersed on-demand workforce of crowdworkers via online

platforms (Duggan et al., 2019). Workers then choose from different tasks posted by various requesters, and complete these tasks autonomously and remotely to receive a predefined payment. Organizations such as Google, Mozilla, or Deutsche Telekom make extensive use of micro-task crowdwork. In 2016 requesters placed almost half a million tasks on the largest crowdwork platform, Amazon Mechanical Turk (Deng et al., 2016). In this way online crowdworking platforms provide access to a large workforce which offers requesting organizations high flexibility, reduced labor costs, and fast access to a pool of workers available on demand (Felstiner, 2011; Kuhn and Maleki, 2017).

Due to the highly autonomous and remote nature of crowdwork, individual engagement in the work activities becomes critical for micro-task crowdworking (Bush and Balven, 2018). High work engagement fosters investing physical, emotional, and cognitive energy into work roles and increases attention to the tasks, reduces distractions, and overall creates higher work involvement, which drives faster and more accurate results (Christian et al., 2011; Rich et al., 2010). Understanding crowdwork engagement is therefore vital to effectively supplement the internal workforce with the on-demand self-employed crowdworkers via online labor platforms (Bush and Balven, 2018).

While how to engage individuals in their work activities is a key issue in HR-literature (Guest, 2017), little is known in the setting of online crowdworking platforms. Since in crowdwork conventional employment relationships have disappeared, HR-literature increasingly shifts its focus away from the traditional managerial HR-perspective. Rather, HR scholars focus on the opportunities work design theory offers for understanding crowdworkers' work engagement (Bush and Balven, 2018; Jabagi et al., 2019; Schroeder et al., 2019).

As crowdwork creates a transactional, remote, and autonomous work setting between workers, requesters, and platforms, especially the relation between social characteristics of the work design and work engagement presents a challenging question. Empirical evidence from organizational work settings has shown us that social characteristics of the work, particularly social support (e.g. receiving practical advice and individual appreciation) from the organization and its representatives, is central to individuals' work engagement (Hüffmeier and Hertel, 2011). A widely held explanation for the relation is that social support from supervisors or the overall organization can give the employee a sense of identification with the organization (Wiesenfeld et al., 2001), which in turn will result in higher work engagement (Hüffmeier et al., 2014). Further, social support

enhances the experienced meaningfulness of work by offering social cues that work activities are valuable and worthwhile (May et al., 2004), thus also contributing to an employee's work engagement (Kahn, 1990; May et al., 2004; Ng and Feldman, 2008). As crowdworkers do not have a supportive organizational environment, the relation between social support and work engagement poses an exceptionally challenging question on crowdworking online platforms.

The crowdwork environment constitutes a relationally detached and isolated work environment for workers, which does not provide sufficient social support from requesters and platforms (Kost et al., 2018). However, it also offers new opportunities for finding social support outside of the task arrangement through professional crowdworking online communities. The absence of social support from requesters and platforms is critical, as although workers do not establish traditional employment relationships and are not organizationally embedded, they expect social support (e.g. individual advice and appreciation) in their work environment (Duggan et al., 2019). In practice however, requesters and platforms fail to provide sufficient social support, leading to perceptions of worker marginalization (Fieseler et al., 2017). On the other hand, looking beyond the triangular relation between worker, requester and platform, crowdworkers often join professional online communities (Schwartz, 2018) which offer an alternative source of social support as in giving practical advice and individual appreciation and recognition (Wood et al., 2018). Thereby, these communities can shape the crowdworkers' work experiences (Wood et al., 2018).

However, so far it remains an open question whether and how the social support in professional online communities as a social work characteristic enhances work engagement. We argue that social support in professional crowdworking online communities acts as a valuable social cue that creates a sense of identification between micro-task crowdworkers and the occupational group, and enhances experienced meaningfulness of doing crowdwork, despite the lack of a supportive organization. Both aspects have the potential to affect work engagement in crowdwork (Bush and Balven, 2018). Thus, this study addresses the research gap on whether and how social support in professional online communities affects work engagement in crowdwork. Consequently, we raise the following research question:

(How) Does social support in professional crowdwork online communities, foster workers' engagement in doing crowdwork?

Social support through communities is likely to offer valuable external social cues to crowdworkers' activities and their work roles. In this context, we argue that social support that manifests in occupational identification and experienced meaningfulness of doing crowdwork enhances work engagement. Due to the importance of work engagement for effectively utilizing crowdwork, analyzing the engagement and the social antecedences to such work, our study makes vital contributions to HR theory and practice. First, we present the first study that shows that indeed the extent of social support from professional online communities does substantially increase engagement, contributing to the relevance of social work characteristics for crowdworkers' engagement. Second, we show the mechanisms through which professional community social support affects crowdwork engagement, i.e. creating occupational identification among workers and increasing the experienced meaningfulness of doing crowdwork. Crowdworkers overcome inherent marginalizing structural work characteristics through social relationships in virtual communities (Ashford et al., 2018). Third, we discuss the transferability of our findings to other types of gig work. We spell out practical implications suggesting that the design and use of crowdworking platforms should actively point to external communities for mutual crowdworker support.

The crowdwork environment and crowdworkers' work engagement

Gig work and crowdwork

The thriving field of gig work offers a wide range of new forms of digital contract work (Duggan et al., 2019; Swart and Kinnie, 2019). In gig work, requesters use online labor platforms or apps to outsource short-term tasks or projects to a self-employed on-demand workforce, and they offer financial compensation for the successful completion (Meijerink and Keegan, 2019). Requesters and workers do not establish any long-term employment relationship and online platforms only act as intermediary connecting the other two parties (Kuhn and Maleki, 2017). Examples of gig work include app-work, in which workers' services are requested via an app in the same geographical location as requesters (e.g. mystery shopping), as well as remote types of digital working, including piece-like micro-task crowdwork (Deng et al., 2016; Deng and Joshi, 2016; Duggan et al., 2019). Very many organizations use especially such crowdwork, so that its utilization and relevance for organizations is growing (Kuhn, 2016).

In crowdwork, requesters break down larger tasks to provide piece-like short term assignments which can be processed within minutes (Deng and Joshi, 2016). The small self-confined tasks are outsourced in an open call via online platforms to the "crowd" of

online workers instead of being assigned to a specific worker (Duggan et al., 2019). Crowdworkers can choose from the various short-term tasks, such as text correction or picture categorization, placed on these platforms. The workers work remotely and autonomously from any given location in exchange for predefined micropayments (Duggan et al., 2019) and without direct relationships to requesters (Deng et al., 2016). Typically, micro-task crowdworkers use online labor platforms as a serious job opportunity and complete various short-term tasks for different requesters. Crowdfunding becomes a source for generating (additional) income on a regular basis, making the access to a large number of tasks most critical for workers (Brawley and Pury, 2016; Deng et al., 2016; Kuhn and Maleki, 2017). Online intermediary platforms mediate the entire work process from task provision, through processing, to payment (Howcroft and Bergvall-Kåreborn, 2019).

The concept of work engagement and its relevance

As workers process tasks autonomously, having workers with a high work engagement in the crowd is critical for the successful usage of online platforms by organizations. Work engagement is a multidimensional motivational concept, defined as activating the entire self to work-roles, driving individuals to fully invest their physical, cognitive and emotional energy into their work (Kahn, 1990; May et al., 2004). Engaged individuals are entirely focused, feel deeply personally connected to their work (Kahn, 1992), and are narrowly devoted to their work activities (Kahn, 1990; Rich et al., 2010).

As engagement is a multi-level construct we need to distinguish work engagement from other forms of individuals' engagement in the work-related context, such as task and organizational engagement. Task engagement refers to an individuals' investment of physical, cognitive, and emotional resources in a specific task, rather than in their entire work role (Saks and Gruman, 2014; Schaufeli and Salanova, 2011). Organizational engagement differs from work engagement, as it invests energy in the organizational role, rather than the work role (Christian et al., 2011; Saks, 2006; Saks and Gruman, 2014).

In this study, due to how critical work engagement is, we focus on crowdworkers' engagement in their work role across single tasks. Work engagement shapes many work-related behaviors which are central to delivering quality work for requesters. Engaged individuals are exceptionally involved in their job activities, are reflective on what is actually needed to deliver results, and work with concentration and commitment (Rich et al., 2010). Hence, individuals with a high degree of work engagement are likely to deliver accurate and fast results (Bush and Balven, 2018).

The mediated effect of social support on work engagement

As we know from empirical studies on the organizational setting, social support – the extent of access to job resources such as advice, assistance, and exchange of emotional resources that employers and coworkers provide to employees (Karasek et al., 1998) – can be an important predictor of motivation and work engagement (Christian et al., 2011). Social support has been conceptualized in the dimensions of affective and instrumental social support: Affective social support includes exchanging emotional resources in the sense of social recognition and individual apperception. Affective support incorporates the inception of feeling valued, appreciated and cared for. Instrumental social support involves direct work-related advice. It incorporates the provision of direct information on how to accomplish specific goals, and the support of behavior that will result in optimal working outcomes (Ducharme and Martin, 2000; Hüffmeier and Hertel, 2011). Social support can give valuable social cues about peoples' self-understanding and the perceived value of work activities. In traditional organizational work settings, such social cues from supervisors and the employing organization itself can manifest in employees' sense of identification with the organization and in their experienced meaningfulness of work activities, which in turn drive work engagement (May et al., 2004; Wiesenfeld et al., 2001).

Social support, identification, and work engagement

Social support provided by a social group can cause an individual to identify with that group. Social support acts as an important cue assuring individuals that they are appreciated and included in a social group (Hüffmeier et al., 2014). Individuals closely link the social cues to their self-image, identifying with the social reference group and aligning individual behavior to group norms and values (Wiesenfeld et al., 2001).

Identification with a social group is however not fixed, but rather depends on the context-specific salient group as social reference (van Dick et al., 2004). In the work context, two types of identification are especially relevant: organizational and occupational identification (van Dick et al., 2005). Organizational identification describes individuals defining themselves through their membership in an organization (Wiesenfeld et al., 2001). Thereby, the achievement of the organizational goals becomes a central part of a positive individual self-image. Thus, employees are motivated to put additional effort into their work to benefit the organization (Dutton et al., 1994; Reade, 2001). Occupational identification, on the other hand, describes how individuals incorporate the perceived characteristics and values of an occupational group into their self-concept (as

in 'I am a teacher') (London, 1983). Individuals who identify with an occupational group act according to the professional group's norms and values, thereby increasing their work engagement, as the occupational group highly values its members being fully engaged (Ng and Feldman, 2008; van Dick et al., 2005). We argue that in crowdworking, in the absence of an organizational environment, the occupational group becomes the dominant salient category for identification (Ashford et al., 2018) guiding crowdworkers' behavior. Nonetheless, this link so far has not been explored.

Social support, experienced meaningfulness of work, and work engagement

Experienced meaningfulness of work is defined as the perception that individuals experience their job as being valuable, worthwhile, and that their work outcomes bring meaningful benefits (Hackman and Oldham, 1976). How meaningfulness emerges is a key issue in the current research on work on online platforms (Kost et al., 2018). In organizational settings, social support of (e.g.) supervisors or coworkers is a central social cue assuring individuals that their work is valued, and that their results contribute positively to a broader purpose (Kahn, 1990; May et al., 2004). Receiving social support in the work context signals to employees that they add value that goes beyond their occupational role (Hackman and Oldham, 1976).

Individuals, who experience their work as worthwhile and meaningful, develop positive attitudes toward their work and invest resources beyond simple task fulfilment (Hirschi, 2012; May et al., 2004). They find that their work activities are valuable in the sense that they reflect their own ideals (Kahn, 1990). Kahn (1990) argues that personally experienced meaningfulness is a strong predictor of engagement, due to the high return on what people invest in their work. This experienced return in the form of feelings of personal usefulness and worthwhileness fosters a willingness in future to invest additional resources in the work. Several empirical studies support these arguments (Bunderson and Thompson, 2009; Hackman and Oldham, 1976; Hirschi, 2012; May et al., 2004; Soane et al., 2013), and a meta-study on the job characteristics model (Humphrey et al., 2007) concludes that experienced meaningfulness of work is a central psychological state that engages individuals in their work.

Restrictions on and opportunities for social support in crowdworking

While organizationally embedded work settings inherently offer the opportunity for a socially supportive environment (Morgeson and Humphrey, 2006), crowdwork distinctly alters the sources and opportunities for obtaining social support. In the crowdwork setting

requesters' or the platform's social support are virtually non-existent for several reasons: First, crowdworkers act as an on-demand workforce (Kuhn, 2016) whose relationship to a requester is limited to the time of task processing (De Stefano, 2016). Ongoing relationships between requester and worker beyond a specific task are not the rule (Fieseler et al., 2017). Second, interactions between requesters and crowdworkers take place on online platforms where there is no direct contact nor physical meetings (Kuhn and Maleki, 2017). Additionally, often there is no direct communication between the requesters and crowdworkers. Requesters place the tasks on the platform with a general description. Neither the requesters, nor the platforms offer support during the task completion process (Deng et al., 2016). Moreover, platforms often connect workers and requesters anonymously without an opportunity for direct communication. Third, requesters do not assign the tasks to a specific worker, but rather put them out to the whole "crowd" of workers (Duggan et al., 2019). This implies that the requesting organization considers each individual worker as interchangeable, without giving any individualized appreciation (Deng et al., 2016). Thus, the triangular relationship between workers, requesters, and platforms creates an isolating work environment which lacks social support (Fieseler et al., 2017).

However, this virtual work setting is not as isolated as it seems at first. The need for relatedness and support is such a core desire of crowdworkers, that they turn to professional online crowdwork communities to establish a platform- and requester-independent source for support (Wood et al., 2018). These online communities such as "Turker Nation", or professional groups in social networks, are web-based communication platforms used for building a professional network among physically remote workers (Lehdonvirta, 2018). They consist of various threads addressing themes currently under discussion among crowdworkers (Brabham, 2010; Brawley, 2017). Community members offer a supportive social environment as they give useful advice on work-related issues, such as sharing information about well-paid tasks, or their experience with certain requesters (Lehdonvirta, 2018; Schwartz, 2018). Further, workers share negative emotions when they experience disappointments or unfair treatment, such as payment being withheld on unacceptable grounds, or positive emotions such as mutually appreciating individual goal achievements (Bush and Balven, 2018; Lehdonvirta, 2018).

Despite the promising avenue of these online communities for positive work experiences, only a few studies have addressed their role in the work environment. Lehdonvirta (2018) found that exchanges of information in online communities among

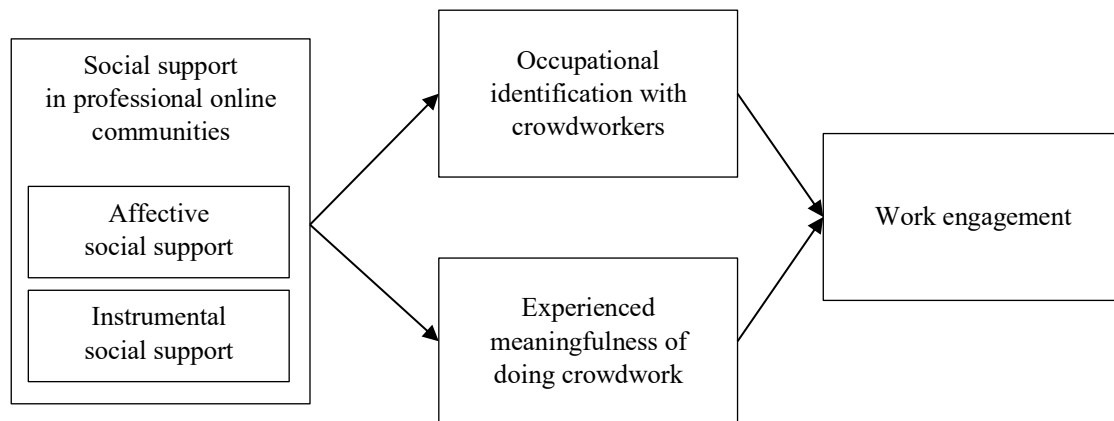
online freelancers helped them to deal with daily constraints and negative experiences of gig working. Deng et al. (2016) found that workers value quality communication with others that makes them feel valued and less marginalized by requesters and platforms. Additionally, online communities can fulfil the need for relatedness and positively shape job satisfaction (Brawley and Pury, 2016). Therefore, social support in professional online communities can be of special advantage to the working experience of crowdworkers. Nonetheless, it is not clear whether and how this source of social support affects work engagement.

Hypotheses development

We argue that in crowdwork, where there is no organizational support, affective and instrumental social support from professional online communities gives centrally valuable social cues that will manifest in the sense of occupational identification and experienced meaningfulness in doing crowdwork. This in turn affects work engagement. Thus, we postulate an indirect effect between affective and instrumental social support from professional crowdworking online communities on work engagement (cf. Figure 1).

Figure 1

Conceptual model



Social support in online crowd communities builds occupational identification and enhances experienced meaningfulness of crowdwork

Online communities are effective means for building relationships among dispersed and remotely situated individuals. Identification arises in online communities when community members experience a supportive social online environment and create cognitive and emotional bonds with these online groups (Fiol and O'Connor, 2005). Supportive social interaction in online communities is therefore an important web-based activity which fosters identification among virtually connected individuals (Fiedler and

Sarstedt, 2014).

The more salient a group is in the cognitive repertoire of an individual in a given context, the more likely identification with that group will emerge (van Dick et al., 2005). Correspondingly, we argue that individuals who experience a strong supportive environment in online crowdworking communities, will develop a strong sense of occupational identification with the “professional” group of crowdworkers. We propose this for several reasons: First, a group’s salience increases if individuals attribute meaning and personal significance to being affiliated to that group in a certain context (Oakes, 1987; van Dick et al., 2005). Identification is especially likely if the group members are connected via shared topics of personal relevance, such as shared goals and difficulties (Flippen et al., 1996). This holds for the context of crowdwork where professional communities enable sharing work-related information and experiences central to crowdworkers’ working lives (Wood et al., 2018). Thus, online communities connect workers through the important topic of their working experiences and thereby allow for affiliation with that community. Second, micro-task crowdworkers widely lack direct long-term and individualized relationships with other potential reference groups such as requesters or platforms (Ashford et al., 2018), which can hinder a work-related affiliation (Fieseler et al., 2017; Kost et al., 2018) and identification with those parties. Social support from the crowd community offers the only enduring external cues for direct connectivity. Third, in the absence of stable organizational environments and in situations in which the professional group mainly provides social support (such as in professional online communities), individuals see their occupational group as a salient reference group (Ashforth et al., 2008). Building on these arguments, we formulate the following hypothesis:

H1. The extent of (a) affective and (b) instrumental social support in professional online crowdworking communities positively affects occupational identification among crowdworkers.

In addition to building occupational identification, professional online communities most likely increase the experienced meaningfulness in crowdwork. Owing to minimal supportive relationships with requesters, crowdworkers rarely receive personal appreciation from the requesters, even for extraordinary performance (Deng et al., 2016), which results in workers not feeling particularly appreciated for their work contributions. The online crowd communities, however, buffer this lack of appreciation by sharing

experience and mutually recognizing and appreciating one another's efforts, performance and individual goal achievement (Brawley and Pury, 2016). Such personal appreciation and recognition can induce the perception that one's own work is valuable and worthwhile (Bush and Balven, 2018; Kost et al., 2018). Further, affective social support acts as a buffer when crowdworkers have negative work experiences. The affective social support they receive reduces feelings of marginalization, for example after perceived unfair treatment by requesters or platforms, such as exclusion from tasks or unpaid work efforts (Deng et al., 2016; Fieseler et al., 2017). Mutual reassurance helps crowdworkers to cope with negative working experiences by getting them to realize that such incidents are not necessarily their individual responsibility. By offering mutual appreciation, the professional communities enhance feelings of doing a worthwhile task; additionally, they shield against negative and marginalizing experiences. Therefore, the communities' affective support impacts the experienced meaningfulness in crowdwork.

A community's instrumental social support helps crowdworkers to work more efficiently and to find better paying assignments (Wood et al., 2018). Workers associate better remuneration with the perceptions that their work is valuable (Deng et al., 2016). At the same time, instrumental social support helps workers to avoid unfavorable treatment. Community members share experiences about requesters, and offer advice on which work behavior may lead to requesters' rejection, sometimes without any justification (Wood et al., 2018), lowering the perceived significance of the worker's own contribution. Thereby, instrumental support helps crowdworkers to perceive their working activities as more worthwhile, and valuable. Accordingly, we formulate the following hypothesis:

H2. The extent of (a) affective and (b) instrumental social support in professional online crowdworking communities positively affects experienced meaningfulness of doing crowdwork.

Occupational identification and experienced meaningfulness of crowdwork increase work engagement

In the case of high occupational identification, individuals integrate the goals, values and norms of the professional group in their self-concept (Ng and Feldman, 2008; van Dick et al., 2004). Those who strongly identify with an occupational group, will align their goals to the group's (Witt, 1993) and adapt their behavior to correspond with the group's norms and values (Ng and Feldman, 2008). As achieving goals and appropriate behavior is strongly tied to the self-concept, individuals develop cognitive and emotional bonds

connecting their own values and norms to the group's (van Dick and Wagner, 2002).

In the case of professional groups, the common goals are to be successful in their professional field, and to achieve career-related goals (Lobel and Clair, 1992). Research shows that people, high in occupational identification are strongly motivated to invest significant time and effort to be successful in their occupational role, which means they will devote themselves to their work (Ng and Feldman, 2008). Crowdworkers with a high occupational identification will integrate the profession's goals and values in their self-image. The dominant common goals of the occupational group of crowdworkers are to generate income and offer satisfactory results to requesters (Deng et al., 2016). For those with high occupational identification, the achievement of these goals is important for a positive self-image, and drawbacks are perceived as personal defeat. This importance of achieving goals, feeds into crowdworkers investing extensive resources in their work, such as concentrating on the actual task and building an emotional connection to their success at work (Ihl et al., 2018). Thus, to achieve these internalized goals, crowdworkers with a high degree of occupational identification will show higher work engagement, as is given in the third hypothesis:

H3. Occupational identification among crowdworkers positively affects work engagement in crowdwork.

Studies found that experienced meaningfulness of work is a strong and robust antecedent of work engagement in the organizational setting (Kahn, 1990; May et al., 2004). Due to its special significance, experienced meaningfulness and its relations to work attitudes has become a key issue in the crowdwork setting (Kost et al., 2018). As explaining workers' engagement by extrinsic rewards (such as payment) only, is insufficient in gig work (Jabagi et al., 2019), the aspiration to do something beneficial for others can possibly expand our previous understanding of crowdwork engagement (Bush and Balven, 2018). Experiencing meaningfulness in crowdwork creates positive attitudes toward work, and motivates crowdworkers to invest additional effort in executing their task and making sure that valuable results can be realized (Chandler and Kapelner, 2013). This creates a sense of cognitive and affective connection between workers, their activities and their work outcomes, and fosters investing extensive personal energies in work-related activities (Bush and Balven, 2018).

An experimental study that investigated the effects of meaningful task design on task performance of crowdworkers compared those who were assigned to a task with a

meaningful framing to groups with no framing. In the meaningful condition, workers received personal recognition and the precise purpose of the task (searching active cancer cells in a picture) was explained. In the control group, no information was given. The researchers found that workers process tasks more accurately and perform better in meaningfully framed tasks (Chandler and Kapelner, 2013). One explanation for this is that the workers were more engaged in the task which was perceived as meaningful. Further, a field study analyzed the effects of workers' pride and perceived appreciation on their activities in the crowdwork context (Boons et al., 2015). This study concluded that workers who experience pride and appreciation in their work, invested additional physical (in terms of time) resources in crowdworking. Further, studies have repeatedly reported crowdworkers' desire to contribute to the life quality of others, and to experience the broader implications of their work (Deng et al., 2016). In line with the theoretical reasoning, as well as with these first empirical studies, we argue that experienced meaningfulness affects the engagement in crowdwork. This leads us to hypothesize as follows:

H4. Experienced meaningfulness of crowdwork positively affects work engagement in crowdwork.

The indirect effects of social support in professional online communities on work engagement

The above considerations lead us to assume an indirect effect of the extent of community social support on work engagement. The extent of social support creates a sense of occupational identification in the community. Individuals who experience a great deal of social support in online crowd communities develop high commitment to the crowd's shared goals, leading to individuals investing additional personal resources in their crowdwork activities. Thus, social support drives occupational identification which again drives engagement; thereby, occupational identification mediates the social support-engagement relationship:

H5. The extent of (a) affective and (b) instrumental social support in professional crowdworking online communities, indirectly increases work engagement through the enhancement of occupational identification among crowdworkers.

The social support workers obtain in crowdworking communities produces a source of appreciation, respect, and dignity (Brawley, 2017). In positive and negative work experiences, affective social support gives crowdworkers a feeling of value and significance regarding their work. Instrumental social support gives them a more

meaningful work experience in that they are increasingly encouraged to perceive fair treatment and adequate remuneration as recognition of value in their work. This experienced meaningfulness drives additional efforts to deliver high quality work and intensive engagement in crowdwork activities, which leads us to hypothesize:

H6. The extent of (a) affective and (b) instrumental social support in professional online crowdworking communities indirectly increases work engagement through the enhancement of experienced meaningfulness of crowdwork.

Method

Procedure

We conducted a two-wave quantitative field study with active micro-task crowdworkers. We designed a questionnaire to assess the perceived instrumental and affective social support through participation in online communities, work engagement, occupational identification and experienced work meaningfulness. We collected data in a two-wave survey, separating independent, mediating, and dependent variables (Podsakoff et al., 2003). In the first wave, we assessed the perceptions of instrumental and affective social support provided by professional crowdwork communities. After two weeks, we started to assess the level of experienced work meaningfulness, occupational identification, and work engagement. We accessed the sample by posting the first part of the questionnaire as a task on an international crowdworking platform based in Germany. We received the anonymized ID of each participant, which gave us the opportunity to invite the same participants for the second part of the survey. It was important for our investigation that our participants were knowledgeable about professional online communities and had some experience in using them, to assess the extent of social support they experience through them. Therefore, we made sure that workers in our sample had knowledge and had previously used online communities related to crowdwork.

The sample contained 181 completed questionnaires. There were slightly more female (51.9%) than male participants, and the average age was 35.96 ($SD = 10.78$). Our respondents' highest educational level showed that 74% attended college, and 48% have a higher academic degree. Most crowdworkers in our sample had an additional employment relationship to their work on the platforms. In all, 20% indicated that they work at an additional job for a maximum of 20 hours per week, while 50% worked fulltime as employees or self-employed. Most respondents (47%) did crowdwork for a part-time income, and spent between 10 and 30 hours per week doing crowdwork.

Concerning their crowdwork activities, they indicated extensive experience in conducting crowdwork, with an average crowdwork tenure of 12.73 months ($SD = 11.6$). These sample characteristics are in line with demographics across a series of other studies on the crowdworker population, which reported a comparatively high level of female workers, an academic level of education, and people using crowdwork as a part-time job opportunity (Behrend et al., 2011; Deng et al., 2016; Deng and Joshi, 2016; Goodman et al., 2013), indicating that our sample represents the overall crowdworker population well.

Measures

We used well-established and previously validated scales in the survey, which we partially adapted to the crowdwork context. All were measured on a seven-point Likert scale (ranging from 1 = *totally disagree* to 7 = *totally agree*). The exact items and formulations are provided in the Appendix. As the dependent variables in our model, we assessed participants' crowdwork engagement. For our measure, we adapted nine items to the crowdwork context (Rich et al., 2010). The overall engagement scale showed high reliability ($\alpha = .92$).

We operationalized the independent variables, affective and instrumental social support, separately. We assessed affective social support ($\alpha = 0.92$) and instrumental social support ($\alpha = 0.93$) with four items each (Ducharme and Martin, 2000), and we adapted the wording to a crowdwork setting in order to highlight the professional *crowdworking online community* as the relevant social reference group.

We assessed the mediator of occupational identification with three context adapted items from the group identification scale (Doosje et al., 1995). We replaced the relevant reference group with *crowdworker(s)*, for instance stating, *I see myself as a crowdworker*. The three items provided a Cronbach's α of 0.80. We measured the second mediator of experienced meaningfulness ($\alpha = 0.95$) with five items (Bunderson and Thompson, 2009). An example item is: *This job is a meaningful one*.

Additionally, we integrated task variety, task identity, and autonomy as control variables in our model. Work design theory proposed that these variables are important predictors of work engagement (Morgeson and Humphrey, 2006), and are centrally relevant in crowdworkers engagement (Schroeder et al., 2019). Task variety (offering the opportunity to work on various different types of tasks), task identity (offering the opportunity to start and finish self-contained tasks), and autonomy (working from anywhere, anytime, and choosing which tasks to work on) (Hackman and Oldham, 1976),

are regularly said to deliver a motivating work environment for crowdworkers (Deng and Joshi, 2016). We assessed task variety with four items ($\alpha = .94$), task identity with four items ($\alpha = .90$), and autonomy with three items ($\alpha = .94$) (Morgeson and Humphrey, 2006).

Results

Initial analysis

We assessed means and standard deviations of the variables used later in our mediation model. We found significant and positive bivariate correlations between our dependent variable and independent variables. Crowd communities' affective social support ($r = .40$, $p < .01$) and instrumental social support ($r = .30$, $p < .01$) significantly correlated with work engagement. Occupational identification was positively associated with the extent of work engagement ($r = .64$, $p < .01$). Experienced meaningfulness showed the highest correlation with work engagement ($r = .66$, $p < .01$). Table 1 summarizes correlations.

Table 1

Descriptive statistics and bivariate correlations

	<i>M</i>	<i>SD</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Work engagement	5.19	1.04							
(2) Affective social support	3.17	1.46	.40**						
(3) Instrumental social support	4.27	1.46	.30**	.49**					
(4) Occupational identification	3.06	1.04	.64**	.51**	.36**				
(5) Experienced meaningfulness	4.08	1.46	.66**	.55**	.34**	.65**			
(6) Task identity	5.32	1.23	.21**	.08	.29**	.07	.17*		
(7) Task variety	4.74	1.35	.50**	.36**	.28**	.38**	.52**	.31**	
(8) Autonomy	4.46	1.54	.29**	.37**	.23**	.25**	.31*	.26**	.33**

Note: ** $p < .01$, * $p < .05$

To ensure that our operationalized variables were relevant to our model, we tested for convergent validity. We calculated the average variance extracted (AVE). As all values exceed the threshold of 0.5, thus all variables are sufficiently relevant to the model (Hair et al., 2017). Further, multiple constructs show substantial correlations. To exclude multicollinearity problems, we ran a regression analysis with all predictor variables on

work engagement, and checked the variance-inflation-factors. All values were below the critical threshold level of 3. Taken together with the use of well-established scales, the results indicate no reasons for concern (Hair et al., 2017). Further, we assessed discriminant validity of our measurements. First, we referred to the Fornell-Larcker criterion suggesting sufficient discriminant validity among our modelled variables, as square roots of the AVEs of the constructs showed higher values than any correlations between latent variables (Fornell and Larcker, 1981). Furthermore, we calculated the heterotrait-monotrait (HTMT) ratio of correlations. Again, the variables seem sufficiently discriminant as HTMT-values, with the highest value of .75 falling below the threshold level of .85 (Hair et al., 2017). Despite the conceptual proximity of the constructs, the operationalization provided clearly distinct constructs.

Hypotheses testing

We performed a PROCESS-mediation analysis based on bias-corrected bootstrapped confidence intervals (Hayes, 2013). We specified model four for parallel mediation from the PROCESS-template. The analysis was done based on OLS/ML bias-corrected bootstrap 95% confidence intervals, using 10000 bootstrap iterations. We calculated the models for the direct effects of our independent variables on the mediators. Further, we calculated the direct effects model on our dependent variables. Lastly, we calculated the total effects model, total indirect effects, and specific indirect effects for the dependent variables. All models included the control variables as covariates on the mediators and the dependent variable.⁶ Overall, using this approach for mediation analysis is seen as superior to running three-step regression analysis or using the Sobel test for the analysis of mediation, as it increases test power in small to medium samples. Further, this approach makes no assumptions about the distribution of the data. Normal distribution is not required (Hayes, 2013). Lastly, significant direct effects are not required for the analysis of mediation (Zhao et al., 2010).

First, we tested the assumed direct relationships in our model, starting with the positive effect of affective social support on occupational identification. In all, the regression model on occupational identification including affective social support, instrumental social support, and covariates showed a good overall model fit ($F = 16.58$, $p < .01$; $R^2 = .32$). Affective social support has a significant positive effect on the

⁶ Additionally, we calculated our model without the control variables. This model did not alter the significance levels of the effects and did not significantly affect the estimated coefficients. Please see the summary of total and specific indirect effects in the appendix. We would like to thank two anonymous reviewers for this valuable advice.

occupational identification ($b = .26, SE = .06, p < .01$). Instrumental social support also showed a significant relationship on identification on a 10%-level ($b = .10, SE = .06, p < .10$). These results offer strong support for H1a (affective social support) and rather weak support for H1b (instrumental social support).

Next, we ran a regression analysis, incorporating affective and instrumental social support and covariates on experienced meaningfulness. The results show that these variables are capable of predicting the level of experienced meaningfulness ($F = 25.59, p < .01$). The model explained approximately 42% of variance of the dependent variable. To test our second hypothesis, we looked at the coefficient of affective social support on experienced meaningfulness and found a significant positive relationship ($b = .38, SE = .07, p < .01$), supporting H2a. In contrast, we were not able to show an effect of instrumental social support on meaningfulness ($b = .05, SE = .07, p = .52$), offering no support for H2b. Concerning our control variables we found an effect of task variety on meaningfulness ($b = .39, SE = .07, p < .01$). Finally, we assessed the effects of the variables on work engagement, to test H3 and H4. Overall, the model for work engagement including both social support variables and covariates showed good model fit ($F = 29.46, p < .01; R^2 = .54$). We found a significant effect of occupational identification on work engagement ($b = .37, SE = .06, p < .01$). Further experienced meaningfulness and work engagement showed a significant positive relationship ($b = .24, SE = .06, p < .01$) and work engagement. These results offer strong support for H3 and H4.

In a second step, we analyzed the proposed mediation hypotheses. Given that our model entails two independent variables and that PROCESS is limited to one independent variable at a time, we followed Hayes (2013) for assessing the indirect effects in such a case. We first ran an analysis incorporating affective social support as independent variable, while instrumental social support was integrated as covariate for mediators and the dependent variable, and switched their roles in the second analysis. As covariates are statistically treated the same as independent variables, this enabled us to analyze mediation models with more than one independent variable using the advantages of PROCESS.

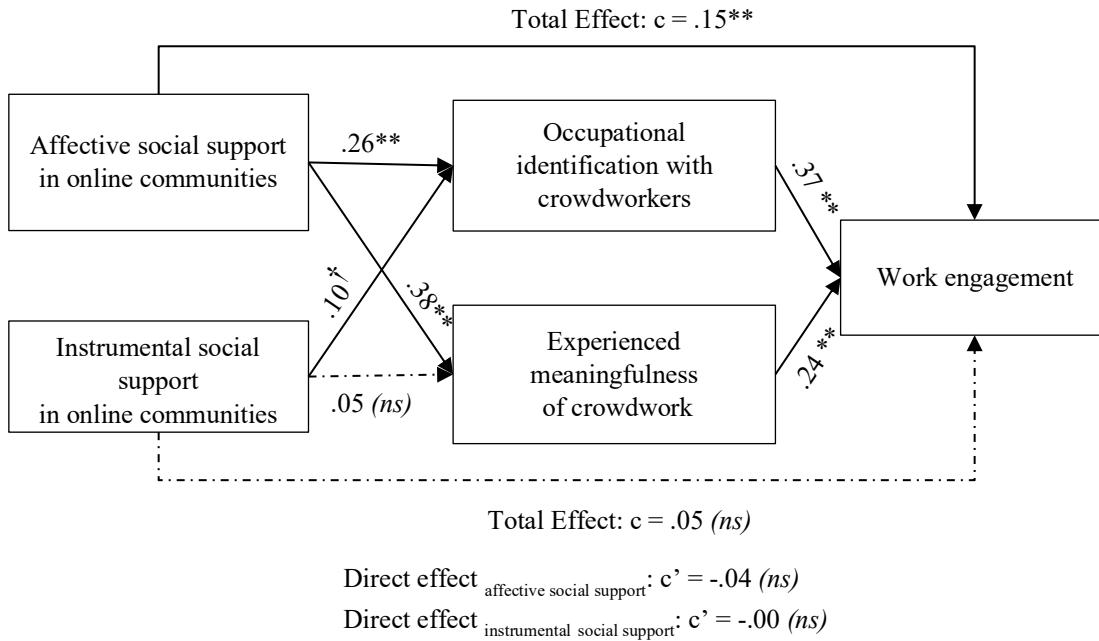
When incorporating identification and meaningfulness as mediators, instrumental social support and controls as covariates affecting mediators and the dependent variable, we found no direct effect of affective social support ($c' = -.04, SE = .05, p = .43$) on work engagement. The total effect of affective social support on work engagement was positive

and significant ($c = .15$, $SE = .06$, $p < .01$). The total indirect effect of affective social support on work engagement was also positive and significant, showing a 95% bias-corrected bootstrapped confidence interval excluding zero ($coeff = .19$, $SE_{boot} = .04$, $CI_{95\%} = [.1194, .2664]$). This supports the assumed mediated effect of affective social support on work engagement through the proposed mediators. To understand the separated effects across the mediators, we checked the specific indirect effects. First, we found a significant positive specific indirect effect for occupational identification ($a_1 \times b_1 = .09$, $SE_{boot} = .03$, $CI_{95\%} = [.0490, .1588]$). This supports H5a. Second, we also found a significant specific indirect effect of affective social support on work engagement via experienced meaningfulness ($a_2 \times b_2 = .09$, $SE_{boot} = .03$, $CI_{95\%} = [.0454, .1528]$), offering support for H6a.

To check the results for instrumental social support, we ran an additional PROCESS-analysis specifying instrumental social support as independent variables, and affective social support as covariate for the mediators and dependent variable, again including control variables. Similarly, we found no direct effect of instrumental social support on work engagement ($c' = -.00$, $SE = .05$, $p = .99$). As we found no effect of instrumental social support on experienced meaningfulness, we excluded this relationship here. The total effect of instrumental social support on work engagement was not significant ($c = .05$, $SE = .06$, $p = .39$). This was also found for the total indirect effect ($coeff = .05$, $SE_{boot} = .04$, $CI_{95\%} = [-.0240, .1229]$) and inferentially for the specific indirect effects (please see appendix). These results show no support for the relationships between instrumental social support and work engagement and thus lead to a rejection of H5b and H6b. Figure 2 summarizes the total and direct effects we found between the variables.

Figure 2

Results of mediation analysis



Note: The analysis builds on bias-corrected 95% confidence intervals using 10000 bootstrap iterations. Simple arrows, significant path coefficients; dotted arrows, non-significant path coefficients; $**p < .01$; $^{\dagger}p < .10$; ns=not significant. Control variables: Task identity, task variety, autonomy.

Discussion

This study addresses the question whether and how the extent of affective and instrumental social support that workers obtain through professional online communities, enhances crowdwork engagement. Such enhancement is hypothesized to be mediated through enhancing occupational identification and experienced meaningfulness of doing crowdwork. Our findings support the positive impact of affective, but not instrumental social support on work engagement. We found that affective social support increases work engagement and that occupational identification and experienced meaningfulness fully mediate this effect.

Theoretical implications

Crowdwork creates a radical change in the social aspect of work environments compared to former more traditional work settings (Ashford et al., 2018). Hence, new theory development is necessary to arrive at a nuanced understanding of which elements of the work environment arising from the new structure of work, may or may not contribute to workers attitudes (Bush and Balven, 2018; Jabagi et al., 2019; Schroeder et al., 2019).

This study contributes to our understanding of underlying factors of crowdwork engagement, and thereby offers insights for theory development.

First, as the first study that empirically investigates social support in online communities it contributes to our understanding of crowdwork engagement. In this study, we add a more nuanced perspective to the current understanding of work design aspects for a more sophisticated theory development toward engaging workers. Social support in professional online communities is central to enhancing work engagement in the absence of social work environments with requesters and platforms. Our findings show that integrating social support in terms of “professional communities’ social support” rather than just the broad concept of social support in new work design frameworks, helps us to be more precise about the nature of the crowdwork environment. We offer an important step in reaching the same accuracy for work design frameworks in the crowdwork setting as is available for frameworks in the organizational setting, where the latter often distinguishes between supervisor social support and organizational social support. Then, distinguishing between instrumental and affective professional community social support adds even more insight, to extend further development of these frameworks. Further, we found that especially the affective support is central in explaining work engagement. For the theory, this implies that although the work environment typically restricts affective relational elements due to its detached and transactional nature, we still need to pay specific attention to how positive, counteracting characteristics (Boons et al., 2015) emerge, which actors are involved in their creation, and how they affect work attitudes. For this, we need to emphasize the relevant reference groups, to recognize how, despite the lacking direct support of requesters and platforms, the online communities’ support can sufficiently meet the needs of crowdworkers.

Second, we advance theory on crowdworker engagement, by answering the question how social support affects work engagement. We found that the affective social support workers receive, enhances work engagement fully mediated by occupational identification, and experienced meaningfulness of crowdwork. These findings detail the relevant mediating mechanisms for developing a work design framework for crowdworking (Schroeder et al., 2019). Crowdworkers are often said to be professionally isolated so that they experience loneliness while working (Ashford et al., 2018). This could negatively impact on their work motivation and engagement across tasks, as it creates unpleasant associations with the work environment (Bush and Balven, 2018). However, we show that affective social support of other workers in online communities

can effectively counteract these feelings of isolation and marginalization. Our study builds on this perspective by accounting for crowdworkers' opportunities to participate in online communities, also showing how this affects positive psychological mechanisms (occupational identification and experienced meaningfulness), which in turn affect work attitudes. We empirically show the high relevance of social support for the critical psychological state of experienced meaningfulness of doing crowdwork which engages workers. While recent research has focused on how meaningfulness can be enhanced through task design (Bush and Balven, 2018), we urge a broadening of this perspective. We show that meaningfulness is not only important in linking task characteristics and engagement, but that affective social influences actively enhance the experienced meaningfulness of crowdwork, as it offers social cues that the work is valued and appreciated. This adds additional relationships in the theoretical framework of work characteristics and working attitudes in crowdworking. Further, so far, occupational identification has not been included in these theoretical frameworks (Schroeder et al., 2019). Our findings emphasize the relevance of occupational identification as a mediating psychological state, especially when individuals lack an organizational environment. Affective social cues from other workers can create a sense of belonging, shared goals, and thus higher engagement of workers. Hence, occupational identification should be considered in theoretical frameworks and empirical investigations, especially in the loosely connected crowdwork settings.

Finally, this study prompts reflection on our findings' transferability to other types of gig work. The gig economy widely enables individuals to work autonomously and remotely, with limited connection to requesters, but strong social support from online communities instead (Spreitzer et al., 2017). Consider, for example, contest-based crowdwork, in which requesters write out a contest (e.g. for logo creation) in the form of an open call, and only pay the worker that wins this contest. In such settings the projects might be more complex than in micro-task crowdwork; however, the projects are still placed as open calls, and interactions with requesters and platforms are restricted to descriptions of the requirements and what solution should be provided (Duggan et al., 2019). Analogous to our study, workers are working for several requesters on a short-term, self-employed, and transactional basis, and also frequently use online communities as a source of social support (Brabham, 2010). Further, similar aspects are present in other forms of remote gig work, such as online freelancing in software coding. While online freelancing is often organized in longer projects and the projects are assigned to specific

workers rather than by open call, the work context has several similarities with crowdwork in being physically remote, having short-term work interactions with several requesters, and platform-mediated communication (Spreitzer et al., 2017). Requesters are often not interested in a personal relationship with freelancers; they simply want to get their work done. Freelancers also engage in online communities to compensate for the missing social support (Lehdonvirta, 2018). Therefore, online communities could also be a source of social support for freelancers, enhancing their work engagement in projects. We acknowledge that the transferability of the missing link of instrumental social support in our findings is challenging for complex types of gig work such as software coding. If projects become more complex, instrumental social support might be more valued, and thus more central in the relationship to work engagement. It would be a fruitful way to examine this aspect in other types of gig work to see if it gains more relevance as tasks become more complex.

Practical implications

Further, our findings give suggestions to requesters on how to supplement their internal workforce with the external self-employed crowd effectively. For the best use of crowdwork for organizations, work engagement can be critical, as engaged individuals are more dedicated and emotionally attached to their work (Rich et al., 2010). Organizations that aim to use online labor platforms effectively to supplement their internal workforce, need to look closely at which platform to choose. As tasks are given to the crowd and not assigned to specific workers, and workers and requesters are connected anonymously, it is difficult to exclude workers who did not meet standards in the past, from future tasks. Certainly, there are opportunities to ask the platform for help in finding suitable workers; nonetheless, this is often costly and increases the effort requesters would have to invest in their outsourcing activities (Bush and Balven, 2018). Thus, requesters need to consider the level of work engagement existent on a given platform. It would be fruitful to first assess the range of online communities, to understand on which platforms workers (who are also involved in supporting social exchanges in communities) are primarily working. The crowd on social support platforms is likely to be highly engaged, and thus more accurate and attentive. Especially, considering that increased engagement comes at virtually no charge to requesters, devoting attention to community activity could be beneficial.

Still, supportive online communities for crowdworkers might not be directly controlled by platforms, as workers could fear negative ramifications from critical

arguments. Then requesters should consider that platform-owned forums can impose limits on free discussion, and in fact offer less valuable social support. Platforms can also holistically benefit from an engaged crowd, as it might attract more requesters. Platforms are encouraged to give workers the opportunity to interact on platform-specific forums without being directly controlled, to ensure free discussion. Especially when a platform-owned workers' forum is offered, platform managers should bear in mind that restrictions to the free expression of opinions, such as discussing negative experiences, can reduce the perceived support and ultimately decrease engagement.

Limitations and future research

Although we were very thorough in undertaking this research project, we acknowledge some limitations. Our study was carefully designed to prevent self-selection effects and biases in the sample. Nonetheless, owing to the time at which the survey was uploaded there could be unexpected clusters, for instance in the nationalities represented. Further, we applied established, but nonetheless self-rated, measures. Despite these well-established scales, objective measures could, in future, provide valuable additional insight on working behavior in the gig economy. By using a two-wave approach, we separated our independent variable from mediators and the dependent variable. However, mediators and the dependent variable were assessed at the same time. This could raise concerns regarding a bias due to common method variance. To counter this threat, we avoided ambiguous or double-barreled questions (Hua et al., 2019; Podsakoff et al., 2003). Further, in excluding mediators, we found a significant relationship between independent and dependent variables supporting the effects across the two waves. Nonetheless, the risk remains of a bias due to the cross-sectional design relying on a common method. Longitudinal studies have strong potential to overcome this issue, and further to reveal intriguing processes. We focused on individuals who have experience in using professional online communities as source of work-related social support. Some workers could prefer to talk to friends and family about their work-related issues in crowdwork. These two types of support source substantially differ as online communities are related to the profession of being a crowdworker, while friends and family might be more trusted but have less experience in this type of work. Thus, we see a new research avenue in comparing workers who receive their social support from online communities with those who receive it from friends and family; also, we need research on how this would comparatively affect crowdworkers' assessment of their occupational identification, work meaningfulness, and work engagement. This would offer even more insight on the

relevant sources of social support in gig work. Further, we addressed the mediating role between occupational identification and meaningfulness. While we found full mediation, we did not propose for additional parallel mediators. However, it would be interesting if future research would address other proposed critical psychological states as boundary conditions in relating these two mediators to work engagement. Assessing interactions such as a moderated mediation with other critical aspects proposed in the crowdwork setting (Jabagi et al., 2019), would advance our knowledge of work engagement further.

Conclusion

This study showed whether and how affective and instrumental support in professional online communities affects work engagement of working on crowdworking online platforms. We found that affective social support in online communities shapes engagement through creating occupational identification and experienced meaningfulness of doing crowdwork. We found no support for the direct or indirect effects of instrumental social support. These findings offer timely contributions to HR-literature on work design frameworks in gig work, give requesters implications for how to best utilize crowdwork, and show the relevance of online communities creating critical psychological states in a work environment that otherwise lacks social support.

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Appendix

Table A1

Measurement of variables

Construct	Scale	CA/AVE
Work engagement**	<ol style="list-style-type: none"> 1. I am enthusiastic in this job. 2. I feel energetic at this job. 3. I am interested in this job. 4. I feel positive about this job. 5. I am excited about this job. 6. At work, my mind is focused on this job. 7. At work, I pay a lot of attention to this job. 8. At work, I am absorbed by this job. 9. At work, I concentrate on this job. 	.92/.55
Affective social support*	<ol style="list-style-type: none"> 1. The members of the crowd community really care about me. 2. I feel close to the members of the crowd community. 3. The members of the crowd community take a personal interest in me. 4. I feel appreciated by the members of the crowd community. 	.92/.75
Instrumental social support*	<ol style="list-style-type: none"> 1. The members of the crowd community are helpful in getting the tasks done. 2. The members of the crowd community give useful advice on job problems. 3. The members of the crowd community assist with unusual work problems. 4. The members of the crowd community will pitch in and help. 	.93/.77
Occupational identification**	<ol style="list-style-type: none"> 1. I identify with other crowdworkers. 2. I see myself as a crowdworker. 3. I feel strong ties with crowdworkers. 	.80/.57
Experienced meaningfulness of crowdwork**	<ol style="list-style-type: none"> 1. The work that I do is important. 2. This job is a meaningful job. 3. The work I do makes the world a better place. 4. What I do at work makes a difference in the world. 5. The work I do is meaningful. 	.95/.81
Task identity**	<ol style="list-style-type: none"> 1. The job involves completing a piece of work that has an obvious beginning and end. 2. The job is arranged so that I can do an entire piece of work from beginning to end. 3. The job gives me the chance to completely finish the pieces of work I begin. 4. The job allows me to complete work I start. 	.90/.70

Measurement of variables (continued)

Construct	Scale	CA/AVE
Task variety**	1. The job involves a great deal of task variety. 2. The job involves doing a number of different things. 3. The job requires the performance of a wide range of tasks. 4. The job involves performing a variety of tasks.	.94/.80
Autonomy**	1. The job gives me a chance to use my personal initiative or judgment in carrying out the work. 2. The job allows me to make a lot of decisions on my own. 3. The job provides me with significant autonomy in making decisions.	.94/.85

Note: *We asked the participants to refer to the extent of social support they perceived in online professional crowdwork communities. ** Participants were encouraged to refer to their overall crowdwork activities across single tasks. They were told that “job” or “work” refers to their crowdwork activities.

Table A2

Total and specific indirect effects

	Coefficient (Boot SE)	LLCI	ULCI
<i>Model 1: Excluding control variables (tasks identity, task variety and autonomy)</i>			
Total indirect effect affective social support	.27 (.05)	.18	.37
Specific indirect effects affective social support			
Affective social support via occupational identification	.11 (.03)	.07	.19
Affective social support via experienced meaningfulness	.15 (.04)	.08	.24
Total indirect effect instrumental social support	.07 (.05)	-.02	.16
Specific indirect effects instrumental social support			
Instrumental social support via occupational identification	.04 (.02)	-.00	.09
Instrumental social support via experienced meaningfulness	.03 (.03)	-.02	.09
<i>Model 2: Including control variables (task identity, task variety, and autonomy)</i>			
Total indirect effect affective social support	.19 (.04)	.12	.27
Specific indirect effects affective social support			
Affective social support via occupational identification	.09 (.03)	.05	.16
Affective social support via experienced meaningfulness	.09 (.03)	.05	.15
Total indirect effect instrumental social support	.05 (.04)	-.03	.13
Specific indirect effects instrumental social support			
Instrumental social support via occupational identification	.04 (.02)	-.01	.09
Instrumental social support via experienced meaningfulness	.01 (.02)	-.03	.05

