Individual approaches to workplace tensions: implications for creativity and work engagement

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to Chunrong & Zhengqi, my beloved parents

献给我挚爱的父母，春容和正其

Contents

Chapter 1

General Introduction

How wonderful that we have met with a paradox. Now we have some hope of making progress.

– Niels Bohr

Modern-day organizations increasingly demand individuals, teams, and leaders to navigate complex situations and their associated tensions (Waldman, Putnam, Miron-Spektor, & Siegel, 2019), which often involve dealing with contradictions between competing demands, goals, interests, and perspectives (Miron-Spektor, Ingram, Keller, Smith, & Lewis, 2018; Smith & Lewis, 2011). *Individual employees*, for example, experience the tension between freedom and constraints (Rosso, 2014), pursuing both individual and collective accomplishments (Keller, Loewenstein, & Yan, 2017), and working towards both performance and learning goals (Miron-Spektor & Beenen, 2015). *Teams* are required to accommodate both individual differences and achieve collective cohesion (Smith & Berg, 1987), engage in both explorative and exploitative behaviors (Rosing, Rosenbusch, & Frese, 2010), and work under both harmony and conflict (Miron-Spektor, Erez, & Naveh, 2011). *Leaders* also face the challenge to excel in today's and tomorrow's business, provide control while ensuring autonomy, and stress requirements but allowing flexibility (Smith, Lewis, & Tushman, 2016; Waldman & Bowen, 2016; Zhang, Waldman, Han, & Li, 2015). Managing the complexity and persistent tensions at those different levels enables organizational survival and its future viability in complex and changing business environments (Waldman et al., 2019).

Studies on tensions in organizational contexts have predominantly focused on tensions at the macro-level and on collective responses to those tensions (Lewis & Smith, 2014; Miron-Spektor et al., 2018; Schad, Lewis, Raisch, & Smith, 2016; Waldman et al.,

2019). Specifically, existing studies have examined macro-level tensions such as company-level exploration and exploitation (Andriopoulos & Lewis, 2009), control and collaboration (Sundaramurthy & Lewis, 2003), and stability and change (O'Reilly & Tushman, 2008; Raisch & Birkinshaw, 2008). This research has emphasized the use of inter-organizational, organizational, and team practices to manage the competing demands to promote performance, innovation, and sustainability (Schad et al., 2016). However, scholarly understanding of tensions at the individual level and individual responses to those tensions remains limited (Miron-Spektor et al., 2018; Schad et al., 2016; Waldman et al., 2019).

In response, the current thesis further explores tensions at the individual level. In particular, I focus on tensions not as a problem, but as paradoxes that invite individuals to learn, create and engage. Paradox refers to persistent contradictions between interdependent elements (Schad et al., 2016; Smith & Lewis, 2011). Seeing tension from a paradox lens suggests that competing demands, goals, interests, and perspectives need to be addressed simultaneously because of their interdependent and persistent nature. As is clear from the opening quote, paradox allows one to make progress and grow. A paradox approach to tension entails the juxtaposition of competing elements, which presents new opportunities for learning and creative problem solving, strengthening resilience in the face of challenges and sparking positive energy and motivation among individuals (Smith & Lewis, 2011). This dissertation builds on paradox theory (Smith & Lewis, 2011) and explores how and when individuals can be resilient despite tensions and even thrive because of tensions in the workplace. In the following, I will provide a brief introduction to paradox theory, followed by an analysis of gaps in the current tension literature at the individual level and my approaches to address the gaps. I end this introduction chapter with an overview of the dissertation.

Paradox Theory

Paradox theory (Smith & Lewis, 2011) is a meta-theoretical framework used to understand and explain pervasive tensions in organizations. Tensions refer to "competing elements, such as contradictory demands, goals, interests, and perspectives" (Miron-Spektor et al., 2018: 27-28). By definition, tensions can exist at both the intrapersonal level, where tensions may arise between conflicting goals and demands, and at the interpersonal level, where tensions can occur between conflicting interests and perspectives of different people. In fact, organizations operate in a web of tensions such as change-stability, control-autonomy, and flexibility-efficiency (Smith & Lewis, 2011). Building on earlier work (Lewis, 2000; Lüscher & Lewis, 2008; Quinn, 1988), Smith and Lewis (2011) suggest that various tensions can be grouped into four categories: tensions of belonging, learning, organizing, and performing. Belonging tensions arise between contradictory yet coexisting roles, identities and memberships of organizational actors. Learning tensions arise between the need to "create upon" and "destroy the past" to build the future. Organizing tensions stem from different systems emphasizing both control and flexibility. Performing tensions result from conflicting goals and demands placed on organizational actors. All these tensions can emerge both within and between different categories. For example, to achieve efficiency while allowing flexibility to adapt can be seen as both performing and learning tensions.

Paradox theory articulates the sources, processes and outcomes of tensions. Tensions are inherently embedded in the process of organizing, and they can be made salient to organizational actors via environmental forces such as resource scarcity, plurality, and change, or via the adoption of a cognitive frame that juxtaposes contradictory goals and demands (Smith & Lewis, 2011; Smith & Tushman, 2005). A salient tension can be a double-edged sword. It can promote a positive, virtuous cycle that promotes sustainability via unleashing creativity, flexibility, and human motivation and potential, but it can also lead to a negative, vicious cycle that increases anxiety and defensiveness (Miron-Spektor et al., 2018;

Smith & Lewis, 2011). Paradox theory further suggests that organizational actors vary in their ability and resources to constructively react to salient tensions. A defensive approach to tensions leads to anxiety, fear and stress, while a constructive approach to tensions leads to creativity, adaptability and positive energy, which ultimate leads to sustainability.

A paradox approach to tensions differs from the contingency approach. Contingency theory advocates the choice or trade-off among competing elements to fit environmental conditions (Lawrence & Lorsch, 1967) and the resulting fit between the choice and the condition promotes effectiveness and peak performance. However, paradox theory suggests an alternative perspective to approaching tensions, emphasizing the continuous efforts to address competing demands simultaneously to ensure peak performance at the present that enables future success. In essence, paradox theory describes the contradiction between conflicting demands, processes, interests, and perspectives as persistent and interrelated (Schad et al., 2016; Smith & Lewis, 2011). Instead of seeing tensions as dilemmas requiring an either/or choice of one more advantageous option, paradox theory views tensions as paradoxes that can be fruitfully addressed with a both/and approach.

Tensions at the Individual Level: Gaps and Present Approach

Recent years have witnessed a growing interest in using a paradox lens to analyze the unique role of individuals in managing tensions in organizations. Some of this work has focused on creativity as a particular outcome variable (e.g., Miron-Spektor & Beenen, 2015; Miron-Spektor & Erez, 2017; Miron-Spektor, Gino, & Argote, 2011; Miron-Spektor et al., 2018). Indeed, creativity, defined as the generation of both novel and useful ideas, products, processes and procedures (Amabile, 1983, 1996), necessarily involves conflicting demands in its outcomes and processes (e.g., Miron-Spektor & Beenen, 2015; Miron-Spektor & Erez, 2017). Moreover, creativity can emerge by juxtaposing, and forming higher-order links between opposing ideas and elements. This explains why tension management may foster

sustainability, which refers to peak performance in the present that enables success in the future (Smith & Lewis, 2011). Creativity requires both originality and usefulness, and individuals need to possess contradictory motivations, cognitions, and behaviors to achieve both novel and useful outcomes (Leung et al., 2018; Miron-Spektor & Beenen, 2015; Miron-Spektor & Erez, 2017; Miron-Spektor, Gino, et al., 2011). Indeed, research suggests that highly novel ideas tend to be seen as less useful, while useful ideas often lack novelty (Nijstad, De Dreu, Rietzschel, & Baas, 2010; Rietzschel, Nijstad, & Stroebe, 2010). However, research has not yet uncovered what drives individuals to focus on one side (originality or usefulness) of these competing demands. Besides, most research in this area investigated the tensions of creativity in isolation of the work context in which creativity is carried out and did not consider how individual employees and leaders jointly approach tensions in the workplace. Chapters 2 and 3 of this dissertation thus address these two issues, respectively.

In addition, existing literature on tensions at the individual level mainly focused on *intra*personal tensions between goals and demands, and investigated creative performance as the main downstream consequence of tension management. However, little attention has been paid to *inter*personal tensions between values, preferences and perspectives of different people and its subsequent motivational consequences. Interpersonal tensions are common and are among the most damaging processes in socially interdependent contexts. However, we know little about how to effectively cope with it. In Chapter 4, I investigate how individuals approach *inter*personal tensions and examine the consequences for a motivational state: work engagement, a “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, González-romá, & Bakker, 2002: 74). I focus on work engagement as the focal outcome because of its importance for employee performance (Bakker & Demerouti, 2008; Halbesleben, 2010; Kumar & Pansari, 2016) as

well as its important role in paradox theory (Smith & Lewis, 2011). According to paradox theory, positive energy and engagement can be unleashed by successfully juxtaposing contradictory elements. In turn, this can reinforce engagement in higher-order connections between contradictory elements, strengthen resilience in the face of challenges, and promote long-term sustainability (Smith & Lewis, 2011). However, the limited number of studies at the individual level have primarily focused on creativity as an outcome of tension management, whereas engagement has so far received little research attention. My work addresses this gap by examining work engagement as an important motivational consequence of approaching interpersonal tensions at work.

To sum up, in this dissertation, I aim to offer a new perspective on how *individuals* approach and manage *intra*personal tensions between conflicting goals and demands (Miron-Spektor & Erez, 2017) and *inter*personal tensions in the form of interpersonal conflict between competing values, perspectives, and personalities (Jehn, 1995). I further explore the implications for creativity and work engagement, drawing on paradox theory as an overarching framework. In the following, I will provide an overview of how each chapter of this dissertation addresses the gaps I identified in the literature.

Overview of the Chapters

Because of the increasingly complex and dynamic business environment, individual employees, teams, and leaders in organizations face continuous tensions between competing goals, demands, processes, and perspectives over time. Previous research on tensions in the workplace has predominantly adopted organizational-level approaches, resulting in a relative neglect of the micro-foundations of higher levels of organizational tensions. This dissertation, with three empirical chapters, is thus devoted to develop insights into individual level approaches to tensions and their implications for two important employee outcomes: creativity and work engagement.

Chapter 2 was motivated by existing literature that suggests that there may be tension between originality and usefulness in the domain of creativity and that the two dimensions of creativity may be driven by distinct factors. More specifically, Chapter 2 focused on understanding what drives individuals' pursuit of originality in conditions where originality and usefulness are presumably in tension and exploring its underlying mechanisms. Integrating approach-avoidance motivation theory (Carver, 2006; Elliot, 2006; Elliot & Thrash, 2002) and the dual pathway to creativity model (De Dreu, Baas, & Nijstad, 2008; Nijstad et al., 2010), this chapter proposed that independent self-construal drives the pursuit of originality because it facilitates individuals' approach motivation, which in turn increases flexible information processing. To test the three-stage mediation model, one experiment and one survey were conducted. Results of chapter 2 showed that in creative tasks where originality and usefulness are assumed to be in tension, people with an independent self-construal tend to emphasize and pursue originality because of their approach motivation and cognitive flexibility. This implies that employees may possibly develop a tendency towards one of the competing demands of creativity based on their self-construal. Managers should be aware of such tendency and strategically deploy employees to manage both demands of creativity. Although Chapter 2 did not explicitly discuss and examine the tension between originality and usefulness, positioning the link between independent self-construal and originality from a tension perspective provides an alternative angles to interpret our results and motivate future research directions.

In Chapter 3, I examined tensions in the context of workload pressure. Specifically, I conceptualize creativity as a process that involves tensions among competing goals and demands, and propose that those tensions become salient under high workload pressure. I further propose that learning to constructively deal with such salient tensions is important for the development of creativity, and that paradoxical leader behavior (PLB) may stimulate

creativity by enhancing employees' creative self-efficacy (CSE) in such challenging situations. However, PLB will only promote CSE and employee creativity when employees have a high level of integrative complexity to accept and appreciate the complex and paradoxical behaviors of the leader. Based on data from 252 employee-supervisor dyads, I found that through CSE, PLB was most effective in promoting employee creativity when workload pressure and integrative complexity were both high. When workload pressure was high but cognitive complexity was low, PLB harmed employee CSE and creativity. The results imply that to help employees constructively cope with experienced tensions arising from workload pressure, an effective leadership approach is to enhance employees' creative self-efficacy. This can be accomplished by being a role model, showing employees that it is possible to behave paradoxically and thereby address tensions at work and creating a work environment that supports addressing competing demands. However, this leadership approach should be adopted only when employees have the integrative complexity to understand and embrace paradoxes and tensions.

Chapter 4 explored relationship conflict as a source of interpersonal tension and investigated when and how individual observers of a conflict can constructively deal with it. I propose that merely observing relationship conflict within one's team has the potential to negatively influence the observer's work engagement, a psychological state characterized by vigor, dedication, and absorption. Work engagement contributes to employee performance (Bakker & Demerouti, 2008; Halbesleben, 2010; Kumar & Pansari, 2016), and is a proximal psychological outcome of conflict (Kahn, 1990; Rich, Lepine, & Crawford, 2010; Schaufeli, Bakker, & Salanova, 2006). In three multi-method studies, participants who were exposed to relationship conflict among other team members were less engaged in their work, especially when identifying strongly with their team. However, adopting a paradox mindset helped them mitigate the negative impact of observing relationship conflict on their work engagement.

Results further suggest that a paradox mindset buffered the negative effect of observed relationship conflict, because it motivated observers to adopt integrative conflict management. The findings advance our understanding of relationship conflict via a paradox lens, and suggest new ways of managing interpersonal tensions in the workplace.

Chapter 5 summarizes the major findings of the three empirical chapters, discusses the theoretical implications for paradox theory, the creativity literature, and the leadership literature, and provides clear practical suggestions for managers and employees about how to constructively manage intrapersonal tensions to promote creativity and interpersonal tensions to sustain well-being. Altogether, this dissertation supports the notion of seeing tensions as challenging opportunities for learning and growth. Employees can stay resilient and even thrive under conditions of tension, when competing demands, goals, interests and perspectives are approached constructively via a paradox approach.

Table 1.1 provides a visual overview of the chapters, highlighting the sources of tension, responses to tension and outcomes of tension management at the individual level that were examined in each chapter.

TABLE 1.1
Individual approaches to intrapersonal and interpersonal tensions

	Chapter 2	Chapter 3	Chapter 4
Sources			
Latent tension	Intrapersonal tension between goals and demands	Intrapersonal tension between goals and demands	Interpersonal tension between interests and perspectives
Forces sparking salient tension	----------	Workload pressure	Team identification
Responses			
Personal	Self-construal, approach motivation, and cognitive flexibility	Cognitive complexity	Paradox mindset
Contextual	----------	Paradoxical leader behavior	----------
Outcomes			
Performance	Originality of creativity	Creativity	----------
Well-being	----------	----------	Engagement

Chapter 2[1]

Linking Self-Construal to Originality: The Role of Approach Motivation and Cognitive Flexibility

Abstract

While some evidence has linked the way individuals define themselves in relation to others (independent versus interdependent self-construal) to creativity, little is known about the underlying mechanism in explaining why and how self-construal influences creativity. Integrating approach-avoidance motivation theory and the dual pathway to creativity model, this research focuses on the motivational and cognitive mechanisms that transfer the effects of self-construal on a major aspect of creativity, namely, originality. Specifically, we expect that independent self-construal is a driver of originality because it facilitates individuals' approach motivation, which in turn increases flexible information processing. To test the three-stage mediation model, one experiment and one survey study were conducted. In Study 2.1, in a sample of 231 Dutch students, self-construal was manipulated by a story-writing task; approach-avoidance motivation, cognitive flexibility and originality were measured. In Study 2.2, self-construal, approach (and avoidance) motivation, cognitive flexibility and originality were all measured in a second sample of Dutch students (N = 146). The results of two studies supported the three-stage mediation model, showing that approach motivation and cognitive flexibility together mediated the effects of independent self-construal on originality. Limitations and implications for future research are discussed.

[1] This chapter is based on Shao, Y., Nijstad, B. A., & Täuber, S. (2018). Linking Self-Construal to Creativity: The Role of Approach Motivation and Cognitive Flexibility. *Frontiers in Psychology*, 9, 1929.

Introduction

Creativity is essential for organizational performance, competitive advantage and long-term success in today's complex and rapidly changing environment (Anderson, Potočnik & Zhou, 2014). Creativity is defined as the generation of ideas, products, and processes that satisfy two criteria: they need to be novel/original as well as appropriate/useful (e.g., Amabile, 1983,1996). As suggested by De Dreu (2010: 439), "an idea that is highly original but not appropriate is not creative -- it is bizarre. And an idea that is highly appropriate but not original is not creative either -- it is mundane". Ideas that are both original and appropriate/useful enable individuals, groups, and organizations to solve problems flexibly, cope with changes efficiently, and introduce successful innovations to the market (Amabile, 1983; De Dreu, Baas & Nijstad, 2008).

Despite accumulated knowledge and insights, one remaining challenge for scholars and managers is the tension between originality and appropriateness/usefulness (Miron-Spektor & Beenen, 2015). Originality requires individuals to "break rules" and "think outside of the box" so that uniqueness or novelty can be achieved. In contrast, appropriateness requires individuals to "fit in" and meet existing rules, roles, and constraints so that efficiency and effectiveness are assured. Indeed, in experimental research, idea originality and usefulness are often negatively correlated (Nijstad et al., 2010, observed a meta-analytic correlation of r = -.42), and research has suggested that originality and appropriateness are motivated by distinct, even conflicting conditions (Bechtoldt, De Dreu, Nijstad & Choi, 2010; Miron-Spektor & Beenen, 2015). For instance, individuals are more likely to produce original ideas or products when they are motivated by their dreams, hopes, and inspirations. In contrast, individuals tend to generate appropriate ideas or products when they are motivated to fulfill their duties, responsibilities, and obligations (Friedman & Förster, 2001; Miron-Spektor & Beenen, 2015). This line of research suggests that creativity needs to be better understood by distinguishing its paradoxical dimensions and their respective drivers.

Motivated by the assumption that originality and usefulness are often negatively related and there may be a tension between them, this research aims to investigate what drives individuals to pursue one side of the tension: originality and its underlying mechanisms. Integrating approach-avoidance motivation theory (Carver, 2006; Elliot, 2006; Elliot & Thrash, 2002) and the dual pathway to creativity model (De Dreu, Baas, & Nijstad, 2008; Nijstad et al., 2010), this paper proposes that the pursuit of originality is driven by fundamental differences in individuals' self-construal, which refers to how individuals see themselves in relation to others. Individuals differ in the extent to which they see themselves as autonomous, distinct and unique (independent self-construal) versus as dependent and integral part of larger social groups (interdependent self-construal; Gardner, Gabriel, & Lee, 1999; Kitayama, Matsumoto, Markus, & Norasakkunkit, 1997; Markus & Kitayama, 1991).

One important consequence of self-construal is that individuals with different self-construals vary in creativity, defined as generating novel and potentially useful ideas (Amabile, 1983, 1996). Some studies have provided preliminary evidence showing that individuals high in independent self-construal relative to those low in independent self-construal or high in interdependent self-construal are more divergent and original in their thinking (Goncalo & Staw, 2006; Jin, Wang, & Dong, 2016; Ng, 2003; Wang & Wang, 2016; Wiekens & Stapel, 2008). However, little is known about the mechanisms underlying the linkage between self-construal and creativity, especially the originality aspect of creativity. As suggested by motivated information processing theory that to be original in generating ideas, individuals need to have a desire to do so (Caruso, Epley, & Bazerman, 2006; Kunda, 1990), in the present research, we propose a motivational and cognitive mechanism in explaining the influence of self-construal on originality by integrating approach-avoidance motivation theory (Carver, 2006; Elliot, 2006; Elliot & Thrash, 2002) and the dual pathway to creativity model (De Dreu et al., 2008; Nijstad et al., 2010).

As a fundamental psychological concept, approach-avoidance motivation has received considerable attention in the study of human behavior (Carver, 2006; Elliot, 2006; Elliot & Thrash, 2002). Approach motivation is conceptualized as the invigoration by or the direction of behaviors toward positive stimuli, whereas avoidance motivation refers to the instigation by or the direction of behaviors away from negative stimuli (Roskes, Elliot, Nijstad, & De Dreu, 2013). We suggest that because individuals with high independent self-construal have a tendency to distinguish themselves from others, they are more likely to pursue and obtain positive outcomes that may establish their uniqueness. In contrast, because individuals with high interdependent self-construal emphasize fitting in and harmony, they are motivated to avoid negative outcomes that may disconfirm their relationship with others. Thus, independent self-construal can be linked to approach motivation whereas interdependent self-construal is related to avoidance motivation.

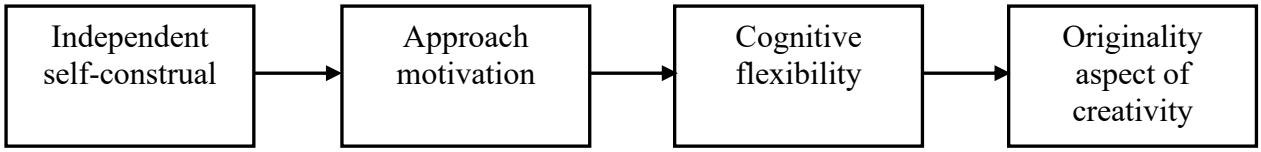
According to the dual pathway to creativity model (De Dreu et al., 2008; Nijstad et al., 2010), creativity, especially the generation of original ideas, can be achieved through either enhanced cognitive flexibility (the use of many and broad cognitive categories or perspectives; Amabile, 1983) or cognitive persistence (the generation of ideas in a few cognitive categories or perspectives; Dietrich, 2004). Personal traits or contextual variables may affect originality either through the flexibility pathway, the persistence pathway, or both (Nijstad et al., 2010). Research has suggested and shown that when approach motivation is activated, originality can be achieved through the flexibility pathway, while when avoidance motivation is activated, originality is achieved through systematic, persistent processing, but only under certain conditions (Baas, Roskes, Sligte, Nijstad, & De Dreu, 2013; Nijstad et al., 2010).

Integrating the above insights leads us to propose that independent self-construal is linked to the originality aspect of creativity because it is associated with approach motivation,

which further promotes cognitive flexibility. Although there are indications that interdependent self-construal is associated with avoidance motivation, the link between avoidance motivation and cognitive persistence is often weak or even negative and depends on additional moderators (e.g., the fulfillment of goals; Baas et al., 2011; Friedman & Förster, 2002). Thus, we do not formulate an explicit hypothesis about the effects of interdependent self-construal on originality through avoidance motivation and persistence. The conceptual model is shown in Figure 2.1.

FIGURE 2.1

Linking self-construal to originality: A three-stage mediation model.



To test the three-stage mediation model, two studies were conducted. First, a laboratory experiment was conducted, in which we manipulated self-construal using a story-writing task and measured approach motivation, cognitive flexibility, and originality. The experiment enabled us to establish the causal effect of self-construal on approach motivation, cognitive flexibility, and originality. Second, a survey study was conducted to replicate the lab findings of Study 1 in a Dutch sample of students. With the two complementary studies, we are able to examine the role of motivation and cognitive flexibility in explaining the effects of self-construal on the originality aspect of creativity.

Theory and Conceptual Model

Self-construal and Creativity

Self-construal theory is built on the basic assumption that individuals differ in the way they define and make meaning of themselves in relation to others. Two distinguishable self-construals were first suggested by Markus and Kitayama (1991). Independent self-construal

refers to the conception of the self as an autonomous, independent unity while interdependent self-construal is defined as the extent to which an individual sees the self as part of an encompassing social relationship (Gardner et al., 1999; Kitayama et al., 1997; Markus & Kitayama, 1991). Although the concept of self-construal was initially used to explain cross-cultural differences in individuals' representation of self, accumulated research has suggested that individuals within each culture vary in chronic self-construal, and are able to see themselves as more or less independent (or interdependent) according to certain situational cues (Gardner et al., 1999; Lee, Aaker, & Gardner, 2000).

The link between self-construal and creativity, the originality aspect of creativity in particular, has received some preliminary support. At the individual level, based on a sample of 158 white undergraduates from Australia and 186 Chinese undergraduates from Singapore, Ng's (2003) study found that independent self-construal had a positive relationship with original insight as measured by the Torrance Test of Creative Thinking (TTCT; Torrance, 1972), while interdependent self-construal was negatively related to creative thinking. Besides, Wiekens and Stapel (2008) demonstrated that the activation of an independent self-construal led to a higher motivation to be independent/different and higher idea generation performance, while the activation of an interdependent self-construal led to a higher motivation to be accepted/to conform and lower idea generation performance.

More recently, Bechtoldt and colleagues (2010) found that individuals with a Korean background had the default tendency to focus on appropriateness, whereas those with a Dutch background had the default tendency to focus on originality. Given that Korean and Dutch backgrounds are associated with high interdependent self-construal and high independent self-construal, respectively, this research provides indirect support for the relationship between independent self-construal and originality. Moreover, based on a sample of junior school

students in China, Wang and Wang (2016) found that independent self-construal is more positively associated with self-reported divergent thinking than interdependent self-construal.

At the group level, Goncalo and Staw (2006) found that groups holding individualistic values were more creative than groups holding collectivistic values, especially when originality of responses was emphasized. Although individualism-collectivism is theoretically different from self-construal, research has argued that cultural contexts with different values typically promote the development of one or the other self-construal more strongly (Cross et al., 2011; Markus & Kitayama, 1991). Taken together, these studies provide converging evidence that self-construal is an important antecedent of creativity, and that independent (rather than interdependent) self-construal is a diver of the production of novel, original ideas.

Self-Construal, Approach-Avoidance Motivation and Creativity

Motivated information processing theory suggests that to be creative in generating ideas, individuals need to have a desire to do so (Kunda, 1990). We propose that self-construal can influence creativity because it affects motivations that facilitate creativity. Approach-avoidance motivation theory distinguishes between motivation systems that focus on approach and avoidance goals and goal pursuit strategies (Carver, 2006; Elliot, 2006; Elliot & Thrash, 2002). Approach and avoidance motivation can be viewed either as stable personal differences, or as situational variables that can be temporarily activated (Elliot, 2006; Gable & Harmon-Jones, 2008). Approach motivation is conceptualized as the invigoration by or the direction of behaviors toward positive stimuli or possibilities, whereas avoidance motivation refers to the instigation by or the direction of behaviors away from negative stimuli or threats (Roskes et al., 2013).

Self-construal and approach-avoidance motivation. The differences in self-construal have consequences for individuals' goal pursuits. Individuals high in independent self-construal primarily aim to enhance self-esteem and to be distinct in a positive way.

Individuals high in interdependent self-construal generally attempt to defer, to be similar to others and to maintain harmony in social settings (Markus & Kitayama, 1991). Because individuals with discrete self-construals pursue different goals, we predict a relation between self-construal and motivational orientation (approach vs. avoidance).

There are at least two reasons why self-construal is related to approach-avoidance motivation. First, approach motivation guides people's attention and behavior toward pursuing positive events such as achievement, success and accomplishment (Elliot & Thrash, 2002), which helps to satisfy individuals' goal to positively distinguish themselves from others. In contrast, avoidance motivation focuses individuals' attention and effort on staying away from negative events such as failures, conflicts and mistakes (Elliot & Thrash, 2002), which helps to satisfy individuals' goal to keep harmony and better fit in in social relationships. Following this reasoning, we propose higher independent self-construal is associated with higher approach motivation, whereas higher interdependent self-construal is linked to higher avoidance motivation. Empirical research has provided some evidence for this argument. For instance, Lee et al. (2000) have demonstrated that individuals high in independent self-construal, primed with independent situations, or with a Western cultural background emphasized approach-related information (achieving success) and showed more affective responses (happiness) associated with approach motivation. In contrast, individuals high in interdependent self-construal, primed with interdependent situations, or with an Eastern cultural background emphasized avoidance-related information (avoiding failure) and showed more affective responses (anxiety) associated with avoidance motivation.

Second, some cross-cultural studies have provided insights into the relationship between self-construal and approach-avoidance motivation. For instance, Elliot and colleagues (2001) showed that compared with non-Asian Americans, Asian Americans had more avoidance goals and compared with respondents from the United States, those from

South Korea adopted more avoidance goals (Elliot et al., 2001). In a similar vein, Lockwood, Marshall, and Sadler (2005) found that individuals with a collectivistic cultural background were more likely to be motivated by negative role models than individuals with an individualistic cultural background. In contrast, positive role models were more motivating for individuals from individualistic cultures rather than for those from collectivistic cultures. Given that individualistic cultures foster a dominant independent self-construal while collectivistic cultures nurture a dominant interdependent self-construal (Markus & Kitayama, 1991), we propose that independent self-construal is linked to approach motivation and interdependent self-construal is associated with avoidance motivation.

Approach-avoidance motivation and creativity. Approach-avoidance motivation is associated with creativity because different motivations affect cognitive processing. According to cognitive tuning theory (Schwarz & Bless, 1991), when approach motivation is activated, individuals tend to evaluate the environment as benign. As a consequence, they are more likely to take risks and adopt a relatively heuristic processing style, which in turn enhances the generation of novel ideas. In contrast, when avoidance motivation is activated, individuals tend to judge the environment as problematic and they are more likely to adopt a relatively risk-averse, systematic, and perseverant processing style, which in turn undermines the generation of novel and original ideas.

A number of studies have supported the link between approach-avoidance motivation and creativity. For instance, Friedman and Förster (2002) demonstrated that bodily cues like arm flexor (associated with approach motivation) relative to arm extensor contraction (associated with avoidance motivation) led to a "riskier," more heuristic processing style, which in turn boosted performance in both a problem-solving task and an idea generation task. Relatedly, Friedman and Förster (2001) showed that cues associated with the motivation of pursuing idealized goals relative to cues associated with preventing negative outcomes

resulted in better performance in a divergent thinking task, because the motivation for achieving idealized goals triggered a riskier, explorative processing style than the motivation for preventing negative outcomes. This pattern also held when motivations were measured with individual differences. A more recent study by Roskes and colleagues (2012) showed that approach motivation generally led to higher originality in an idea generation task compared with avoidance motivation. The ideas of avoidance motivated individuals were as original as those of approach motivated individuals only when participants were provided with extra motivations that could compensate for their effortful processing style (Roskes et al., 2012). In general, we expect that approach motivation has a positive effect on the originality aspect of creativity while avoidance motivation might have a negative effect on the originality aspect of creativity.

Approach-avoidance motivation, cognitive flexibility and creativity. The dual pathway to creativity model (De Dreu et al., 2008; Nijstad et al., 2010) suggests that originality, as the hallmark of creativity, can be seen as outcomes of different cognitive processes. Original ideas can be achieved through either enhanced cognitive flexibility (the use of many broad cognitive categories or perspectives: Amabile, 1983) or cognitive persistence (the generation of ideas in a few cognitive categories or perspectives: Dietrich, 2004) and that personality traits or contextual variables may affect originality either through the flexibility pathway, the persistence pathway, or both. Approach-avoidance motivation has been shown to influence originality through affecting the pathway individuals adopt. For instance, De Dreu and colleagues (2011) found that when situations facilitated global, flexible processing, approach motivation potentiated originality and creative insights. However, when situations facilitated local, bottom-to-up processing, approach motivation led to lower originality and creative insights. This research demonstrated that flexible processing plays an important role in the relationship between approach motivation and originality. What is more,

it has been argued and shown that approach motivation generally boosts originality because it associates with enhanced activation and cognitive flexibility (Baas et al., 2011).

Research evidence is less consistent about the relationship between avoidance motivation and originality. Some findings suggested that avoidance motivation promotes originality and other findings showed no or even negative effects (De Dreu et al., 2008; Friedman & Förster, 2001). Although avoidance motivation has the potential to boost originality through persistent processing, research has suggested that avoidance motivation leads to enhanced persistence only when the goals or moods associated with avoidance motivation are activated (Baas et al., 2011) or extra motivation is provided (Roskes et al., 2012). Furthermore, a meta-analysis revealed that creativity is facilitated most by positive activating mood states that are associated with approach motivation (e.g., happiness), rather than moods associated with avoidance motivation (e.g., relaxed, anxious; Baas, De Dreu & Nijstad, 2008).

Based on the above arguments and evidence, we expect that approach motivation boosts originality (the hallmark of creativity) because it associates with enhanced cognitive flexibility. Given the inconsistent evidence about the link between avoidance motivation, persistence and creativity, we do not have clear expectations about their relationships.

Self-construal, Approach-Avoidance Motivation, Cognitive Flexibility and Creativity

We thus propose that approach motivation plays an important role in transferring the effects of independent self-construal on originality because it increases cognitive flexibility. Specifically, we propose that individuals high in independent self-construal are more original in their thinking as they generally hold higher approach motivation, and this motivation facilitates originality through enhanced cognitive flexibility, compared with individuals low in independent self-construal. Although we expect that interdependent self-construal is associated with avoidance motivation, according to past research, the relationship between

avoidance motivation, persistence and originality is difficult to predict without specifying contextual conditions. We thus do not formulate a specific hypothesis about the interdependent self-construal-avoidance motivation-persistence-originality link. Our hypothesis is the following:

Hypothesis 1. Independent self-construal impacts originality through approach motivation and cognitive flexibility.

Study 2.1

Method

Study 2.1 was designed to examine whether independent self-construal has a causal effect on originality through approach motivation and cognitive flexibility. We expected that priming independent self-construal (relative to interdependent self-construal) will temporarily increase individuals' state approach motivation, which in turn promotes generating original ideas through enhanced cognitive flexibility. To achieve this goal, we manipulated self-construal using a story-writing task, and measured cognitive flexibility and originality with an idea generation task. State approach (and avoidance) motivation was measured with a 5-item scale.

Sample and participants. A total of 266 Dutch students (age $M = 20.65$, $SD = 2.67$; 94 women, 168 men and 4 missing values) participated in the study for 4 euros or course credits. We randomly assigned all participants to either an interdependent self-construal or independent self-construal condition. In both conditions, participants completed some scales and performed an idea generation task. The study immediately followed another (unrelated) study, and the total session lasted for about 1 hour and 15 minutes.

Manipulation and procedure. Upon arrival in the laboratory, each participant was seated in front of a computer with a keyboard. All instructions and measures were given on the computer. Participants were told that the session consisted of several separate parts.

Firstly, all participants were asked to finish some personality questionnaires. After that, participants were instructed to perform a story-writing task for 5 minutes. This was the manipulation of self-construal, which was adopted from Trafimow, Triandis, and Goto (1991). In the independent self-construal condition, participants were instructed to think about and write down what makes them different from their family and friends and what they expect themselves to do. In the interdependent self-construal condition, participants were asked to think, and write down what they have in common with their family and friends and what their family and friends expect them to do. Following that, the idea generation task was administered. Participants were instructed to think, and write down as many different and creative uses of a newspaper as possible for 6 minutes, and the ideas generated had to be neither typical nor virtually impossible. After that, we measured participants' state approach and avoidance motivation. Subsequently, we collected demographical information, thanked and debriefed all participants.

Measures. *State Approach/Avoidance Motivation.* We measured state motivation using 5 items on a 7-point Likert scale (1= not at all, 7 = very much). Items of state approach motivation were ''In the problem-solving task, I enthusiastically embraced all opportunities to generate solutions'' and ''In the problem-solving task, I was eager to use all possible ways to find solutions or ideas'' (r = .68, M = 4.49, SD = 1.26). Sample items of state avoidance motivation included "In the problem-solving task, I was concerned with making mistakes'' and ''In the problem solving task, I was cautious about going down the wrong way'' (Cronbach's α = 0.75, M = 3.10, SD = 1.24). As previous research has shown that avoidance motivation can affect creative performance (e.g., Roskes et al., 2012), we controlled state avoidance motivation in our analysis.

Cognitive flexibility and originality. The responses in the newspaper idea generation task were coded for fluency, flexibility and originality. *Fluency* is the number of non-

redundant ideas generated by each participant. *Flexibility* refers to the number of categories that the ideas can be grouped in. Two independent raters coded a subset of responses (30 ideas) for flexibility. The inter-rater agreement (Cohen's Kappa) was .86. Given the good inter-rater agreement, one rater continued to code all ideas. *Originality* was operationalized as the statistical rarity of a given response in a particular sample of subjects, which serves as the indicator of creativity in the present study. Specifically, following Baas et al. (2011), for each idea an originality score was computed: 1-(percentage participants who generated the same idea/100). The scale thus ranged from 0 (low originality) to 1 (high originality). For each participant, the final originality score was the average originality score across all non-redundant ideas.

Results

Data screening. Two participants did not complete the experiment, thus having missing values on key variables, and 3 participants wrote down ideas that were not understandable. We excluded these 5 participants, resulting in 261 participants in our sample.

Manipulation check. We carefully checked the content of participants' stories to see whether the manipulation was successful. This examination showed that there were 30 participants who did not follow the manipulation instruction correctly. They either wrote down similarities when instructed to write down differences or wrote down differences when instructed to write down similarities. We excluded these 30 participants, resulting in 231 participants in the final sample.

Descriptive statistics. As we can see from Table 2.1, state approach motivation was significantly higher in the independent self-construal condition ($M = 4.68$) than in the interdependent self-construal condition ($M = 4.30$) ($t\ (229) = -2.36$, $p < .05$). However, we did not find main effects of the manipulation of self-construal on other variables (except a marginally significant effect on fluency). The correlation matrix showed that self-construal

was significantly correlated with state approach motivation, and state approach motivation was significantly and positively correlated with fluency, flexibility and originality. State avoidance motivation was significantly and negatively correlated with flexibility and fluency but not originality. Fluency, flexibility and originality were significantly correlated ($r > .50$).

TABLE 2.1
Study 2.1 Descriptive statistics and correlations

	Interdependent self-construal	Independent Self-construal	*t*-test		correlations				
	M(SD)	*M(SD)*	*t (df)*	*p*	2	3	4	5	6
1.Self-construal[a]					.15*	.10	-.07	-.11	-.03
2. Approach motivation	4.30(1.20)	4.69(1.29)	-2.36(229)	*p <.05*		-.00	.18**	.19**	.18**
3. Avoidance motivation	2.98(1.24)	3.24(1.23)	-1.58(229)	ns			-.25**	-.20**	-.12†
4. Flexibility	5.91(2.27)	5.57(2.46)	1.11(229)	ns				.86**	.63**
5. Fluency	8.59(3.90)	7.68(4.20)	1.58(229)	*p <.10*					.59**
6. Originality	0.63(0.09)	0.62(0.12)	0.51 (229)	ns					

N = 231. [a] Interdependent self-construal = 0, Independent self-construal = 1. † $p < .10$, * $p < .05$, ** $p < .01$.

Self-construal, state approach motivation, cognitive flexibility and originality. To test the three-stage mediation model, we used Model 6 of the PROCESS procedure described by (Hayes, 2013), which allowed us to test the indirect effect of self-construal on originality through state approach motivation and flexibility while controlling for avoidance motivation. We generated 95% bootstrap bias-corrected confidence intervals for the indirect effect on the basis of 5000 bootstrap samples. The indirect effect is significant when the confidence interval does not include zero. The results are shown in Table 2.2. The results demonstrated that the indirect effect of self-construal on originality through state approach motivation and cognitive flexibility was significant (β = .004, BootSE = .003, BootLLCI = .001 and BootULCI = .01). The three-stage mediation model was thus confirmed.

TABLE 2.2

Study 2.1 Regression results of the three-stage mediation model

Predictors	Dependent variables		
	Approach motivation	Flexibility	Originality
Constant	-.16	.08	.63
Avoidance motivation	-.02	-.24**	.00
Self-construal[a]	.31*	-.15	-.00
Approach motivation		.19**	.01
Flexibility			.08**
R^2	.02†	.10**	.40**
	Effect	BootSE	BootLLCI	BootULCI
Indirect relation[b]	.004	.003	.001	.01

N = 231. [a] 0 = interdependent self-construal, 1 = independent self-construal. [b]Indirect relation = Self-construal-State approach motivation-Cognitive flexibility-Originality. † $p < .10$, * $p < .05$, ** $p < .01$.

In sum, the results of Study 2.1 showed that there is a causal relationship between independent self-construal and originality through state approach motivation and cognitive flexibility while controlling for avoidance motivation, which further confirmed the importance of self-construal in extending the dual pathway to creativity model. However, the direct effects of our self-construal manipulation on originality were not observed.

Study 2.2

In Study 2.1, we found some preliminary evidence to support our conceptual model by priming self-construal in the lab. In Study 2.2, we aimed to replicate the lab findings of Study 2.1 in a different setting where we measured self-construal as a chronic individual difference.

Method

Participants. 146 Dutch students (80 men and 66 women) were recruited to participate in this study. Their average age was 21.14. Results did not change when we included gender and age in the analysis, and we excluded these control variables in the report of the results. We invited the participants to the research lab to finish our survey programed on a computer. The survey consisted of three parts. In the first part, each participant responded to various psychological scales. Following that, they were asked to perform an idea generation task to measure their cognitive flexibility and originality. Finally, they answered several demographical questions.

Measures. *Self-construal.* The self-construal scale (SCS; Singelis, 1994) involved a 12-item independent self-construal and a 12-item interdependent self-construal subscale. Sample items of the independent self-construal subscale were ‘‘I prefer to be direct and forthright when dealing with people I’ve just met” and “I enjoy being unique and different from others in many respects”. Sample items of the interdependent self-construal subscale included “I have respect for the authority figures with whom I interact” and “It is important for me to maintain harmony within my group”. Participants were instructed to rate the degree to which they agree or disagree with the statements on a 7-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The Cronbach’s alpha was .68 for independent self-construal and .62 for interdependent self-construal.

Behavioral Inhibition System/Behavioral Activation System. The Behavioral Inhibition System/Behavioral Activation System (BIS/BAS) scale (Carver & White, 1994), including a

7-item BIS and a 13-item BAS subscale, was used to measure approach-avoidance motivation. Participants were asked to indicate the extent to which the statements reflect themselves on a 7-point scale, ranging from 1 (not true at all of me) to 7 (very much true of me). Sample items of the BAS subscale included ‘‘I go out of my way to get things I want’’ and ‘‘I crave excitement and new sensations’’. The Cronbach’s alpha was .78 for BAS. Sample items of the BIS subscale included ‘‘I worry about making mistakes’’ and ‘‘I have very few fears compared to my friends’’ (reverse scored). The Cronbach’s alpha was .81 for BIS.

Cognitive flexibility and originality. We used the Tin Can idea generation task (Baas et al., 2011). In this task, participants were asked to generate as many different creative ways to use a tin can as possible and the ideas generated had to be neither typical nor virtually impossible. The responses were coded for fluency, flexibility and originality. The operationalization of fluency and flexibility was the same as Study 2.1. Two independent raters coded a subset of responses (30 ideas) for flexibility. The inter-rater agreement (Cohen’s Kappa) was .96. Given the good inter-rater agreement, one rater subsequently coded all ideas. *Originality* was operationalized in the same way as Study 2.1.

Control variables. Because interdependent self-construal and avoidance motivation have been suggested to affect individual creative performance (e.g., Baas et al., 2011; Friedman & Förster, 2001), we included them as covariates when testing the multiple-stage mediation model.

Results

Descriptive statistics, correlations and scale reliabilities are presented in Table 2.3.

TABLE 2.3

Study 2.2 Descriptive statistics and correlations

Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9
1.Age	21.13	2.21									
2.Gender	0.54	0.50	-.15								
3.Fluency	8.66	3.92	.23**	-.10							
4.Flexibility	5.77	2.63	.18*	-.11	.90**						
5.Originality	0.62	0.12	.09	.02	.66**	.67**					
6.InSC	4.76	0.69	.10	.20*	.23**	.25**	.27**	.68			
7.InterSC	4.45	0.60	-.30**	-.11	-.10	-.10	-.14	-.13	.62		
8.BAS	5.20	0.61	.02	-.02	.26**	.27**	.20*	.43**	.08	.81	
9.BIS	4.63	0.99	.03	-.25**	.08	.06	.12	-.26**	.16*	.00	.78

N = 146. InSC = independent self-construal; InterSC = interdependent self-construal. Gender; 0 = women; 1 = man. In the correlation matrix, numbers at the diagonal are Cronbach's α values for measurement scales used in the current study. $^{*}p < .05$, $^{**}p < .01$.

Confirmatory Factorial Analysis (CFA).We performed CFA (Lavaan 0.5-23 R package) to examine the discriminant validity of self-construal and BIS/BAS motivation (see Table 2.4). We compared fit statistics of five alternative models to the baseline model by means of $\chi 2$-differences, Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), the Tucher-Lewis Index (TLI), and the Standardized Root Mean Square Residual (SRMR). To enhance model parsimony, following Ng (2003), we randomly packaged measurement items to a small number of groups. Specifically, we randomly assigned the 12 items to 3 parcels for independent self-construal and interdependent self-construal, respectively. Similarly, we randomly packaged the 13 items to form 3 indicators for BAS and the 7 items to form 3 indicators for BIS. Item parceling has been suggested to enhance model parsimony by reducing the number of indicators and better meet the assumption of maximum likelihood estimation procedure used in the structural equation modeling (Finch & West, 1997).

Results from CFA analysis showed that the hypothesized baseline model (independent self-construal, interdependent self-construal, BIS and BAS) fitted the data well (χ^2 (48) =

69.03, $p < .05$; CFI = .95, TLI = .94, RMSEA = .06, RSMR = .06). The four-factor model was significantly better than the one-factor model where all indicators loaded on a single factor ($\Delta\chi^2$ (6) = 243.37, $p < .001$), and showed a better fit than all other alternative models. This confirms the discriminant validity of the four constructs.

Common Method Bias. Because both self-construal and BIS/BAS motivation were measured using self-reports on a Likert scale, we examined the degree to which common method bias was present in the current study with common latent factor analysis (e.g., (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Williams, Cote, & Buckley, 1989). Compared with the single-factor test (Harman, 1960), the common latent factor approach allows for the consideration of measurement error and does not require the researcher to identify the specific factor responsible for common method effects. This analysis was conducted by adding a latent factor with all of the items as indicators to our four-factor model (see Table 2.4). The paths from the indicators to the common factor were constrained to be equal and the variance of the common factor was constrained to be 1 to make sure the model can be identified (Eichhorn, 2014). Comparing the standardized regression weights from the model with the common latent factor to the standardized regression weights of the baseline model showed that the differences between the standardized regression weights were all below the commonly used threshold 0.20. Besides, the model fit statistics showed that adding a common method factor did not improve the model fit significantly ($\Delta\chi^2$ (2) =7.63, $p > .10$, CFI = .96 , TLI = .94, RMSEA = .05, RSMR = .06). Taken together, we believe common method bias is not a serious concern in the current study.

TABLE 2.4

Study 2.2 Confirmatory factor analysis

Factor structure	$\chi 2$	df	RMSEA	CFI	TLI	SRMR	$\Delta\chi 2(\Delta df)$
Baseline model: four factors	69.03	48	.06	.95	.94	.06	
Model1: one factor	312.40	54	.18	.43	.30	.15	243.37(6)***
Model2: two factors	167.28	53	.12	.75	.69	.11	98.26 (5)***
Model3: two factors	266.61	53	.17	.53	.41	.16	197.58(5)***
Model4: three factors	100.92	51	.08	.90	.86	.08	31.89(3)***
Model5: three factors	137.58	51	.11	.81	.75	.10	68.55(3)***
Model6: three factors	225.04	51	.15	.62	.50	.15	156.02(3)***
Model7: three factors	102.57	51	.08	.89	.85	.09	33.54(3)***
Model8: common latent factor	61.40	44	.05	.96	.94	.06	7.63(4)

N = 146. $\Delta\chi 2$ and Δdf refer to the differences with the baseline model. Model 1: All variables on one factor; Model 2: Independent self-construal and BAS on one factor while interdependent self-construal and BIS on another factor; Model 3: Independent and interdependent self-construal on one factor while BIS and BAS on another factor; Model 4: Interdependent self-construal and BIS on one factor; Model 5: Independent self-construal and BAS on one factor; Model6: BIS and BAS on one factor; Model7: Interdependent and independent self-construal on one factor. Model8: Adding a latent factor with all of the items as indicators to the baseline model. *** $p < .001$.

The Three-Stage Mediation Model. We predicted that independent self-construal has an indirect effect on originality through approach motivation and cognitive flexibility. The three-stage mediation model was tested using Model 6 of the PROCESS tool described by Hayes (2013). As shown in Table 2.5, after controlling for interdependent self-construal and avoidance motivation, independent self-construal had a significant indirect effect of on originality through BAS and cognitive flexibility (β = .007, BootSE = .003, BootLLCI = .002 and BootULCI = .016), replicating Study 1. The results confirmed that independent self-construal affected originality through enhanced approach motivation and cognitive flexibility.

TABLE 2.5

Study 2.2 Regression results of the three-stage mediation model

Predictors	Dependent variables			
	BAS	Flexibility		Originality
Constant	-.13	.01		.61**
InterSC	.11	-.14		-.01
BIS	.09	.15		.01†
InSC	.46**	.18†		.02†
BAS		.23*		-.00
Flexibility				.07**
R^2	.19**	.11**		.46**
Indirect	Indirect effect	BootSE	BootLLCI	BootULCI
Relation	.007	.003	.002	.016

N = 146. InSC = independent self-construal; InterSC = interdependent self-construal. Indirect Relation = Independent self-construal-BAS-Cognitive flexibility-Originality.
† $p < .10$, * $p < .05$, ** $p < .01$.

General Discussion

Earlier research has highlighted the role of self-construal as an important source of creativity, but the existing literature is fragmented in terms of how and why self-construal is linked to creativity. Our research proposed that approach-avoidance motivation may serve as a motivational mechanism in explaining the effects of self-construal on the hallmark of

creativity: originality. Drawing on the dual pathway to creativity model, we further proposed that independent self-construal promotes originality because it enhances individuals' approach motivation, which in turn facilitates flexible information processing in ideation.

Our conceptual model was supported in two complementary studies. In Study 2.1, we found that individuals primed with independent self-construal, relative to those primed with interdependent self-construal, were higher in state approach motivation, and state approach motivation was significantly and positively linked to cognitive flexibility and originality. The mediation analysis showed a significant three-stage indirect effect after controlling for avoidance motivation. In other words, findings of Study 2.2 supported our hypothesis that self-construal influences originality through state approach motivation and cognitive flexibility. However, although we found that priming self-construal temporarily enhanced individuals' approach motivation, we did not find a significant direct effect of self-construal on originality. One possible reason is that the manipulation was not strong enough to produce a direct effect, because self-construal and originality are more distally related than self-construal and motivation. In Study 2, we conducted a survey among a Dutch student sample. We found that after controlling for avoidance motivation and interdependent self-construal, approach motivation and cognitive flexibility together mediated the effects of independent self-construal on originality, replicating the findings of Study 1.

Theoretical Implications

The present research takes a step toward uncovering the mechanism underlying the link between self-construal and the originality aspect of creativity. Previous studies have begun to identify that independent self-construal is linked to motivation to be independent/different whereas interdependent self-construal induces motivation to be accepted/to conform (Wiekens & Stapel, 2008). However, little research has addressed the possibility that the motivation resulting from self-construal can mediate the effects of self-

construal on originality. Besides, despite that some studies have found a positive link between approach motivation and originality because of flexibility (e.g., Roskes et al., 2012), little attention has been paid to reveal the sources of approach motivation. Our three-stage mediation model integrated previously fragmented literature by demonstrating that approach motivation and cognitive flexibility sequentially mediate the relationship between independent self-construal and originality.

More broadly speaking, the findings of the current research identified one factor that drives individuals to focus on one side (originality/novelty or usefulness) of the competing demands of creativity. Consistent with previous research that suggests that individuals need to possess contradictory motivations, cognitions, and behaviors to achieve both novel and useful outcomes (Miron-Spektor & Beenen, 2015; Miron-Spektor & Erez, 2017; Miron-Spektor, Gino, et al., 2011; Miron-Spektor et al., 2018), our research theorized that differences in self-construal may foster different tendencies towards pursuing one side of the tension in creative outcomes and that a dominant independent self-construal may drive individuals to focus on novelty/originality instead of usefulness/feasibility in tasks in which originality and usefulness are presumably in tension. This research thus complements previous research by showing that individuals' self-concept, in addition to motivation (Miron-Spektor & Beenen, 2015) and cognition (Miron-Spektor et al., 2011), has important implications for how one will approach tensions in creative tasks and that independent self-construal may not drive creativity as a whole, but only its originality aspect.

Second, the mediators being tested in the present research have implications for uncovering future moderators of the relationship between self-construal and originality. The present study shows that self-construal influences originality because of approach motivation and cognitive flexibility. Therefore, we can expect that under some circumstances, the positive relationship between independent self-construal and originality may not hold because

the conditions do not support approach motivation and/or flexible information processing. For example, past research suggested that approach motivation has a positive link with originality only if the situation affords flexible and global processing (De Dreu et al., 2011). In a similar vein, we may expect that independent self-construal leads to originality only if the situation makes approach motivation and/or cognitive flexibility feasible. This study thus encourages future research to investigate contextual factors that moderate the relationship between independent self-construal and originality.

In addition, this research examined the indirect effect of independent self-construal on originality with mixed methods. Some past research has either used surveys or laboratory experiments. Our two complementary studies provide consistent support for the three-stage mediation model, which increases confidence about the indirect effect of independent self-construal on originality. Specifically, we contributed knowledge that both situationally primed self-construal and chronic self-construal are associated with originality through approach motivation and cognitive flexibility.

Practical Implications

The central implication for management practices from this study is the challenge to realize the potential of independent self-construal for creative production. This research provides insights into manageable interventions that can be used to promote originality in idea generation. For instance, because self-construal is often stable and difficult to change, for employees low in independent self-construal, it might be more effective for managers to provide and emphasize achievements and train the employees with approach orientated strategies (e.g., the use of intuition) to achieve originality than to change employee's self-definition. In addition, creating conditions that facilitate cognitive flexibility is critical to increase employees' originality. For instance, research has shown that individuals with activated positive moods (e.g., happy) are more original in generating ideas than those with

deactivated positive mood (e.g., relaxed) because of differences in cognitive flexibility (De Dreu et al., 2008). Therefore, creating a work environment that helps employees be happy is beneficial for cognitive flexibility, which in turn boosts originality.

Limitations and Avenues for Future Research

The contributions of the current study should be seen in light of several limitations. First, we only adopted one cognitive manipulation of self-construal. We are not certain whether the effects we observed in our experiment can be generalized to different manipulations such as the word search task (Brewer & Gardner, 1996), Sumerian warrior task (Trafimow et al., 1991) and a different version of the story-writing task (Utz, 2004). Second, we used a single measure of originality in the present research. Although idea generation tasks are widely used to assess originality, the effect we observed for the idea generation task (divergent thinking task) may not hold for other convergent thinking tasks. For example, Shen et al. (2018) have found that although risk-taking orientation is not significantly related to divergent thinking performance, it has a significant, negative association with convergent thinking performance. Future research is thus encouraged to employ the Remote Associates Test (RAT: Mednick & Mednick, 1967) or other convergent thinking tasks to investigate the effects of self-construal on originality. Third, our model was tested only in Dutch samples. Future research can address this limitation by testing our model in other cultures.

Also, in the current research we chose to only focus on the link between independent self-construal and originality of ideas. However, in order to have a better understanding of how to manage the tension between originality and usefulness of creative outcomes, we believe that it is equally important to study how interdependent self-construal influences appropriateness or usefulness of ideas adopting a paradox lens. Some evidence has suggested that individuals with different self-construals tend to have different tendencies toward creativity (e.g., Bechtoldt et al., 2010). Specifically, it seems that people with independent

self-construal are motivated to stand out and be original in idea generation, while people with interdependent self-construal are motivated to be similar and generate mainly appropriate and useful ideas. Future studies could directly examine this possibility by measuring both originality and appropriateness of ideas and examining whether they are shaped by different self-construals. Moreover, if people with different self-construals tend to focus on either originality or appropriateness of creativity, one intriguing question is how individuals can be ambidextrous in creativity by achieving appropriateness and originality simultaneously given that both aspects are important for creativity. Indeed, a few studies have started to investigate the conditions that can foster both appropriateness and originality simultaneously and have shown it is possible for individuals to be ambidextrous in creativity (Miron-Spektor & Beenen, 2015). In addition, Zhang and colleagues (2015) have shown that leaders can demonstrate paradoxical behaviors, creating a work environment that fosters employees' productivity and adaptivity simultaneously. In sum, the current study takes the first step to examine individuals' bias toward the originality aspect of creativity because of their independent self-construal, and future studies may investigate the question of how and why such a tendency can be managed to achieve high creativity characterized by high originality and usefulness.

Finally, our second study used a self-report method to measure both independent self-construal and approach motivation. Although the common latent factor analysis showed that the common method bias is unlikely to threaten the validity of our results, future study is encouraged to reduce common method bias by, for example, measuring the two constructs with different methods or from different sources.

Conclusion

Scholars tend to argue that for individuals to be creative, they need to have the motivation to do so (Kunda, 1990). Although research has suggested that self-construal is a

predictor of overall creativity, it is unclear how and which aspect of creativity is affected by self-construal. The present study provides empirical evidence for the motivational mechanism, in that it showed that approach motivation plays a role in explaining the influences of independent self-construal on the originality aspect of creativity. More importantly, this research showed that approach motivation mediates the independent self-construal-originality link because it gives rise to cognitive flexibility. The motivational and cognitive mechanism clearly explains how and why independent self-construal impacts creativity.

Chapter 3[2]

Creativity under Workload Pressure and Integrative Complexity: The Double-Edged Sword of Paradoxical Leadership

Abstract

Modern-day organizations often demand creativity, but motivating creativity under unfavorable conditions such as high workload pressure is difficult. Integrating paradox theory and social cognitive theory, we conceptualize creativity as a process that involves tensions among competing goals and demands, and those tensions become salient under high workload pressure. We propose that learning to constructively deal with such salient tensions is important for the development of creativity and that paradoxical leader behavior (PLB) may stimulate creativity by enhancing employees' creative self-efficacy (CSE) in such challenging situations. However, PLB will only promote CSE and employee creativity when employees have a high level of integrative complexity to accept and appreciate the complex and paradoxical behaviors of the leader. Based on data from 252 employee-supervisor dyads, we found that through CSE, PLB was most effective in promoting employee creativity when workload pressure and integrative complexity were both high. However, PLB was less effective for promoting CSE and creativity when workload pressure was low, or when workload pressure was high while integrative complexity was low. Implications and limitations of our research are discussed.

[2] This chapter is based on Shao, Y., Nijstad, B. A., & Täuber, S. (2019). Creativity under workload pressure and integrative complexity: The double-edged sword of paradoxical leadership. *Organizational Behavior and Human Decision Processes*, *155*, 7-19.

Introduction

Employee creativity is essential for organizational innovation, survival, and growth in complex and dynamic environments (Anderson, Potočnik, & Zhou, 2014; Zhou & Hoever, 2014). Motivating employee creativity, however, is challenging because generating creative ideas requires individuals to move away from existing solutions, to try out different alternatives, and to risk failure. Motivating creativity becomes even more challenging when employees face high workload pressure, because this often leads individuals to prioritize activities that are more certain and controllable over creative actions (Elsbach & Hargadon, 2006; Ford, 1996). Because workload pressure is a fact in many modern organizations (e.g., Reid & Ramarajan, 2016), an important question for scholars as well as for leaders is how to foster employee creativity under such unfavorable conditions.

In this article, we integrate paradox theory (Smith & Lewis, 2011) with social cognitive theory (Bandura, 1977, 1986) to examine how leaders may foster creative self-efficacy (CSE) among employees in high workload pressure situations. Previous research suggests that to initiate and sustain creative efforts, it is essential that individuals feel efficacious about their competence in creative activities (Tierney & Farmer, 2002). Indeed, research has shown CSE is a critical predictor of creativity at work (Farmer & Tierney, 2017; Tierney & Farmer, 2011). It is also a key mediating mechanism between situational and personal factors, including different leadership styles and creative performance (Chong & Ma, 2010; Gong, Huang, & Farh, 2009; Liu, Jiang, Shalley, Keem, & Zhou, 2016; Shin & Zhou, 2007; Tierney & Farmer, 2004). However, few studies have investigated factors that fuel creative self-efficacy in highly demanding situations.

Paradox theory (Smith & Lewis, 2011) provides a unique perspective on this issue, for three reasons. First, creativity is a process that inherently involves tensions and paradoxes: competing demands, goals, interests, and perspectives that persist over time

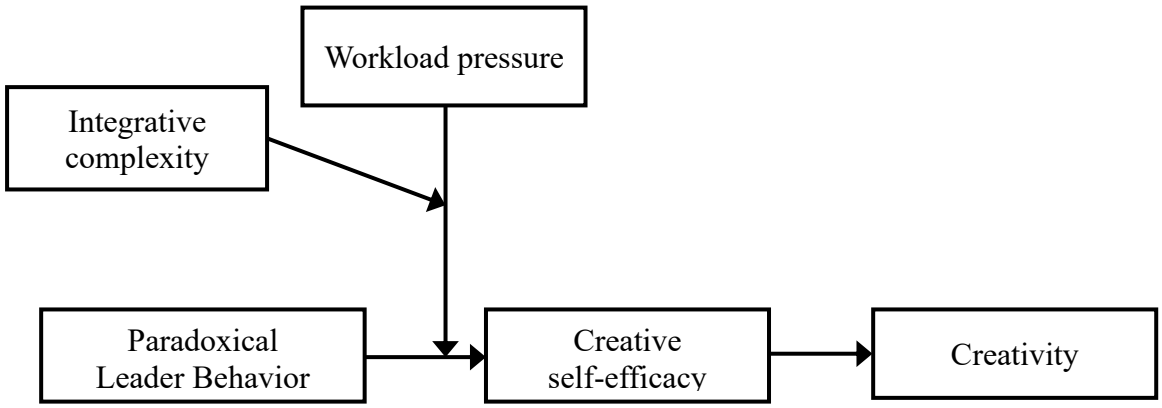
(Bledow, Frese, Anderson, Erez, & Farr, 2009; Hill, Brandeau, Truelove, & Lineback, 2014; Schad et al., 2016). Thus, creativity requires novelty *and* usefulness (Miron-Spektor & Beenen, 2015), exploration *and* exploitation (Rosing, Frese, & Bausch, 2011), divergent *and* convergent thinking (Miron-Spektor & Erez, 2017), and cognitive flexibility *and* cognitive persistence (Nijstad et al., 2010). Second, paradox theory suggests that these tensions become salient especially when situations are difficult, such as under conditions of high demands (e.g., high workload pressure; Lewis & Smith, 2014). In more benign situations, tensions remain latent because employees can address each goal or demand without compromising or inhibiting others. Third, paradox theory suggests that one may deal with salient tensions and paradoxical demands in a constructive way, leading to learning and growth; or in a defensive way, leading to anxiety and stagnation (Miron-Spektor et al., 2018; Smith & Lewis, 2011). Constructively dealing with tensions requires that tensions are recognized, and that competing demands and goals are integrated, which may lead to learning and can potentially fuel employee CSE.

We focus on the role of paradoxical leader behavior (PLB): leader behaviors that are "seemingly competing, yet interrelated, to meet competing workplace demands simultaneously and over time" (Zhang, Waldman, Han, & Li, 2015, p: 538). Drawing on social cognitive theory (Bandura, 1977, 1986), we propose that PLB can promote CSE through role modelling and by establishing a supportive environment conducive to managing tensions. Following paradox theory, we further propose that PLB will be effective especially in conditions of high workload pressure, because only then do paradoxical tensions become salient and PLB becomes relevant for helping employees deal with salient tensions, and that PLB only raises CSE among employees with sufficient cognitive capability to understand and profit from the complex and paradoxical behaviors of the leader. We focus on integrative complexity, defined as the extent to which individuals are willing and capable to accept

competing aspects of an issue and establish conceptual links among these competing aspects (Suedfeld, Tetlock, & Streufert, 1992; Suedfeld & Bluck, 1993). In sum, we expect that PLB may stimulate CSE and creativity in situations of high workload pressure, but only among employees with high integrative complexity. In turn, we expect that CSE will be positively related to employee creativity (see Figure 3.1).

This research makes several unique contributions to the literature. We propose that PLB is particularly useful under high workload pressure, and thereby advance our understanding of how leaders can promote CSE and creativity even in stressful circumstances. Secondly, we suggest that workload pressure may not always be negative, but in the right conditions can lead to learning (i.e., CSE) and creativity. Moreover, we draw on paradox theory to explain for whom and when PLB would be beneficial, which advances the paradoxical leadership literature by clarifying boundary conditions of the relationship between PLB and creativity (Zhang et al., 2015). Finally, we examine the effectiveness of PLB in a Western context, which contributes to the generalizability of PLB from its original Eastern context.

FIGURE 3.1
The conceptual model.



Theory and Hypotheses

Creativity is conceptualized as the generation of ideas that are both original and useful (Amabile, 1983). Building on social cognitive theory (Bandura, 1977, 1986), previous research suggests that one important way in which leaders affect employee creativity is by building creative self-efficacy (CSE). Pursuing excellence in challenging situations necessitates a resilient sense of self-efficacy (Bandura & Locke, 2003) and domain-specific self-efficacy is a robust predictor of performance in that domain (Bandura, 1986; Tierney & Farmer, 2011). CSE, defined as one's efficacy beliefs related to the skills and ability to produce creative outcomes (Tierney & Farmer, 2002), has been shown to predict employee creativity and to mediate effects of various factors on creativity (Gong et al., 2009; Shin & Zhou, 2007; Tierney & Farmer, 2004). Indeed, CSE is a unique, positive predictor of employee creativity, even after accounting for intrinsic and prosocial motivation (Liu et al., 2016). CSE is conceived as malleable (Tierney & Farmer, 2011), and leadership has been shown to be an important predictor of employee CSE (e.g., Chong & Ma, 2010; Gong et al., 2009; Shin & Zhou, 2007).

However, few studies have looked at how leaders can fuel CSE in challenging, demanding situations. This is important because employees are increasingly required to work with intensified job demands and high time pressure (Reid & Ramarajan, 2016). Ironically, to survive and compete in increasingly complex and dynamic environments, organizations have a strong need for employees' creativity, which may be negatively affected by workload pressure (e.g., Amabile et al. 1996). High workload pressure often leads individuals to prioritize activities that are more certain and controllable (e.g., exploitation) over uncertain, creative actions (e.g., exploration) that are less controllable (Elsbach & Hargadon, 2006; Miron-Spektor et al, 2018). In this study, we therefore examine how leaders can build CSE

and creativity in high workload pressure situations by integrating social cognitive theory and paradox theory.

Paradox Theory

Paradox theory (Smith & Lewis, 2011) is a meta-theoretical framework that provides insights into the sources, nature and outcomes of organizational tensions. Paradoxical tensions denote contradictions between competing demands, processes, perspectives that persist over time (Schad et al., 2016; Smith & Lewis, 2011). The central tenet of paradox theory is that paradoxical tensions can be rendered salient by situational factors such as resource scarcity, plurality and change, and that salient tensions can be a double-edged sword. That is, salient tensions can spur a virtuous cycle that enhances creativity, innovation, and sustainability, but tensions can also lead to a vicious cycle that increases anxiety and defensiveness (Miron-Spektor et al., 2018; Smith & Lewis, 2011). Paradox theory further suggests that individuals vary in their ability and resources to constructively react to salient tensions.

In recent years, creativity is increasingly understood as a process that involves paradoxical tensions. The paradox perspective suggests that to be creative, individuals are required to both break assumptions and rules *and* to adhere to boundaries and constraints (Guilford, 1957), to make use of both divergent *and* convergent thinking (Miron-Spektor, Gino, & Argote, 2011; Sowden, Pringle, & Gabora, 2015), to adopt both learning *and* performance achievement goals (Miron-Spektor & Beenen, 2015), to work with both passion *and* discipline (Andriopoulos & Lewis, 2009), and to be both cognitively flexible *and* cognitively persistent (Nijstad et al., 2010). The experience of contradictory yet interrelated goals, processes, and demands makes creativity challenging (Miron-Spektor & Erez, 2017). Furthermore, to engage in creative activities takes time and other resources, which may be at odds with performing day-to-day activities (e.g., Ford, 1996; Miron-Spektor et al., 2018). For

example, ambidexterity theory suggests that individuals may experience a tension between using time and other resources for exploitation (using existing competencies to perform daily tasks) and exploration (developing new competencies through search, experimentation, and creativity) (e.g., Bledow et al., 2009; Mom, Van den Bosch, & Volberda, 2009; Rosing et al., 2011).

Applying paradox theory to creativity has generated insights into how individuals can cope with paradoxical tensions to achieve creativity. For instance, Miron-Spektor and Beenen (2015) found that both learning and achievement goal orientations are necessary for achieving creativity, because novelty and feasibility are facilitated by those different motivations. Research has also found that individuals who were primed with a paradoxical mindset to embrace seemingly contradictory elements demonstrated higher creativity as compared with those who were not (Miron-Spektor et al., 2011). However, few studies have paid attention to the work context in which tensions of creativity are manifest, or to the external resources that individuals need to cope with manifest paradoxical tensions.

Paradoxical Leader Behavior (PLB)

In dynamic and complex business environments, leaders face contradictory, paradoxical demands and challenges (Smith, Lewis, & Tushman, 2016; Waldman & Bowen, 2016; Zhang et al., 2015). Thus, leaders need to meet both structural organizational demands that emphasize order, control, and stability, and follower demands that emphasize freedom, autonomy, and flexibility (Zhang et al., 2015). Similarly, leaders have to manage the paradox between agency and communication inherent to leadership behavior, and between continuity and change inherent to dynamic environments (Waldman & Bowen, 2016). To effectively respond to paradoxical challenges, leaders need to perform multiple and contradictory roles (Denison, Hooijberg, & Quinn, 1995), adopting paradoxical behavior (Lewis, Andriopoulos, & Smith, 2014; Waldman & Bowen, 2016; Zhang et al., 2015). In contrast to calculated

decision making or compromising, paradoxical leaders accept the persistent contradiction between paradoxical challenges and seek to synergize and integrate them within a larger system (Zhang et al., 2015). In turn, this enables organizations to not only survive, but also continuously innovate (Smith & Lewis, 2011).

PLB is defined as leader behaviors that are "contradictory yet interrelated, to meet competing workplace demands simultaneously and over time" (Zhang et al., 2015, p: 538). Zhang and colleagues conceptualized PLB as a behavioral syndrome that consists of five dimensions: (1) combining self-centeredness with other-centeredness, (2) maintaining both distance and closeness, (3) maintaining decision control, while allowing autonomy, (4) enforcing work requirements, while allowing flexibility, and (5) treating subordinates uniformly, while allowing individualization. These authors found that PLB contributed positively to employee proactivity, proficiency, and adaptivity, even after accounting for traditional leadership approaches such as transformational and transactional leadership.

These five dimensions address different paradoxes, but when considering creativity, the balance between control and autonomy and between structure and flexibility are most relevant (Lewis, 2000; Smith & Lewis, 2011). Instead of assuming that autonomy/freedom is good and control/constraint is bad for creativity, recent research showed that autonomy/freedom and control/constraint have inconsistent, paradoxical relationships with creativity, showing both positive and negative effects (e.g., Caniëls & Rietzschel, 2015; Roskes, 2015; Rosso, 2014). We consequently focused on the two dimensions of control and autonomy, and enforcing work requirements and flexibility, which together embody the "loose-tight" paradox in management (Sagie, 1997; Zhang et al., 2015). Thus, we focus on leader behavior ensuring control over subordinate behavior and decision making, while also granting employees discretion to work flexibly and autonomously.

Paradoxical Leader Behavior and Creative Self-Efficacy

Individuals derive information and cues from their interpersonal environment to form efficacy judgments (Bandura, 1997; Gist & Mitchell, 1992). One of the most immediate and dominant cues in work contexts is the leader who clarifies group goals and visions, controls critical resources and information, and provides rewards and punishments (Amabile, Schatzel, Moneta, & Kramer, 2004). Indeed, research has shown that leader behaviors strongly shape employee efficacy beliefs (Chong & Ma, 2010; Gong et al., 2009; Tierney & Farmer, 2002).

Social cognitive theory suggests that four sources of information drive the formation of efficacy views: mastery experience, vicarious experience or modelling, verbal persuasion, and physiological arousal. In our context, role modelling and mastery experience are the most relevant. First, paradoxical leaders can be role models for employees, showing employees how to deal with paradoxical tensions in a complex environment (Zhang et al., 2015). Such vicarious learning is one of the main drivers of the development of self-efficacy (Bandura, 1982), and research supports that leaders can increase followers' self-efficacy by role modelling targeted behaviors (Gong et al., 2009; Walumbwa et al., 2011). When leaders behave paradoxically and deal with tensions and paradoxes at work constructively, they provide employees with the chance to observe, make sense of, and reflect on their own handling of tensions at work (Zhang et al., 2015). As a result, employees might become more self-efficacious when encountering paradoxical tensions during creative task performance.

Second, by showing both control-focused and autonomy-focused behavior, PLB can create a conjoint bounded *and* autonomous work environment that is conducive to mastery experiences (Zhang et al., 2015). By emphasizing high work requirements and maintaining decision control, paradoxical leaders create a structured, bounded work environment. This helps employees understand work goals, norms and constraints, which is beneficial for achieving useful, practical outcomes at work. Simultaneously, paradoxical leaders construct

an autonomous work environment by granting autonomy and flexibility. This supports employees in experimenting with original solutions (Zacher, Robinson., & Rosing, 2014), enhances intrinsic motivation (Ryan & Deci, 2000), and encourages creative behavior (Liu, Chen, & Yao, 2011), which promotes the attainment of novel ideas. This aligns with the ambidexterity literature, which suggests that leaders can support innovation by showing both opening behaviors that encourage exploration and closing behaviors that focus on exploitation (Rosing et al., 2011; Zacher et al., 2014). Because PLB creates a supportive environment to manage tensions in creativity, employees can gain successful experiences of producing creative outcomes, which strengthens their CSE.

Although more indirectly, PLB may also affect CSE by reducing negative physiological arousal. Because PLB can create a supportive environment to manage the paradoxical challenges involved in creativity, employees are less likely to experience aversive physiological arousal (e.g., stress, anxiety) when engaging in creativity, which helps sustain CSE (Gong et al., 2009). In addition, because paradoxical leaders can see the connection between contradictory demands, they can convince employees through verbal communication that it is possible to manage competing demands. As a result, employees may feel more efficacious when encountering contradictory goals and demands in creative tasks, resulting in higher CSE.

The Role of Workload Pressure

Although PLB can potentially enhance employees' CSE, paradox theory (Lewis & Smith; 2014; Miron-Spektor et al., 2018; Smith & Lewis, 2011; Zhang et al., 2015) suggests that PLB may be more effective in situations in which paradoxical tensions become salient, such as when workload pressure is high. Workload pressure is defined as the extent to which individuals are required to work fast and have too much work to do (Bakker, Evangelia, & Verbeke, 2004; Spector & Jex, 1998; Voydanoff, 2005). It concerns how much work one has

to do in a certain period of time, covering both the quantity and pace of work, and is therefore closely related to time pressure. Interestingly, the effects of workload and time pressure on creativity are inconsistent (Gutnick, Walter, Nijstad, & De Dreu, 2012). Some studies suggest a negative association between workload pressure and creativity (e.g., Amabile et al., 1996), whereas others show a positive relationship (e.g., Janssen, 2000). Similarly, Andrews and Smith (1996) found that time pressure has a negative effect on creativity, while Baer and Oldham (2006) found a curvilinear relationship, and Mehta and Zhu (2016) even found a positive association between time pressure and creativity.

We propose that workload pressure increases the salience of paradoxical tensions, and that PLB becomes more relevant when workload pressure is high. According to paradox theory, tensions often remain latent, but become salient when environmental conditions (e.g., resource scarcity, change, and plurality) prompt actors to see elements, such as specific behaviors or goals, as contradictory. Specifically, Lewis and Smith (2014) pointed out that rising demands and declining resources accentuate conflicts and paradoxical tensions. When workload pressure is high, the time and energy resources for addressing different goals declines, and employees will experience tensions between competing demands and activities (e.g., Moeini et al., 2008). Under these conditions, PLB will be a useful resource to prevent a one-sided focus on day-to-day activities at the expense of creativity, or a focus on only one side of paradoxical demands in the creative process, which may help employees build CSE. Accordingly, when employees experience tensions because of workload pressure, PLB becomes a useful resource for managing tensions. In contrast, when workload pressure is low, tensions remain latent because employees can address each goal or demand without compromising or inhibiting other goals or demands. Under these conditions, paradoxical tensions are not salient, PLB is largely irrelevant, and will not be related to CSE.

The Role of Integrative Complexity

Paradox theory suggests that there may be individual differences in how employees deal with tensions at work. We therefore propose that the effects of PLB on CSE further depend on employee integrative complexity. This resonates with conclusions from contingency theories of leadership (e.g., Fiedler, 1964) that the effectiveness of leadership depends on whether leader behaviors fit follower characteristics, traits, and circumstances (Howell & Shamir, 2005; Uhl-Bien, Riggio, Lowe, & Carsten, 2014). Research has suggested that this is also the case for PLB, and that the effectiveness of PLB depends on whether employees endorse leaders' paradoxical thinking and behavior (e.g., Zhang et al., 2015).

Integrative complexity, originating from personal construct theory (Kelly, 1955), captures the complexity of cognition in terms of the willingness and capability to understand the environment in a differentiated and integrated manner (Suedfeld et al., 1992; Zhang et al., 2015). Differentiation refers to forming different, competing perspectives, and integration refers to forging conceptual links between those perspectives (Suedfeld et al., 1992). Individuals develop increasingly complex cognition by successfully dealing with various situational demands in different social roles (Hannah, Balthazard, Waldman, Jennings, & Thatcher 2013). High integrative complexity enables individuals to make sense of their environment with differentiated perspectives and to understand how differentiated perspectives can coexist and both be valid, which promotes effective adaptation in changing, complex situations. Individuals with low integrative complexity are less able to differentiate various elements and integrate those elements within an existing knowledge structure (Hannah et al., 2013), and are less able to adapt to complex environments.

Social cognitive theory emphasizes the importance of observers' cognitive capability in social learning process (Bandura, 1977). When the modelled behavior involves high levels of complexity, observers' cognitive ability to attend, retain, and process the complex information associated with modelled behavior becomes critical for successful learning. PLB

involves seemingly inconsistent, complex, and conflicting behaviors that may cause discomfort and cognitive dissonance among employees. To learn from PLB, employees need to have the ability to accept and appreciate contradictory behaviors and understand how they are integrated and combined. Otherwise, employees might feel conflicted about the inconsistency in leaders' behavior and experience negative affect (Harmon-Jones, 2000), which could decrease their CSE (Gong et al., 2009). We propose that employees with high integrative complexity are more receptive to PLB, as compared to those with low integrative complexity, and they learn from PLB more effectively.

In sum, paradox theory suggests that in situations of workload pressure, and particularly for employees high in integrative complexity, PLB is effective in enhancing CSE. First, in situations of high workload pressure, tensions become manifest, which makes paradoxical leaders more desirable role models for learning. Second, however, individuals do not necessarily embrace tensions as opportunities to be creative, and integrative complexity is an important individual difference factor that enables individuals to recognize and accept tensions. Thus, PLB will have the strongest positive effect on CSE for employees with high integrative complexity who work in situations of high workload pressure. In contrast, we propose that individuals with low integrative complexity will not benefit from PLB to the same degree, because they lack the cognitive resources to deal with this complex leader behavior. Further, under conditions of low workload pressure, PLB is less relevant, because tensions do not need to be directly addressed, and PLB will be less strongly associated with CSE. We thus propose:

Hypothesis 1: PLB, employee integrative complexity, and workload pressure interact to affect employee CSE in such a way that when workload pressure and integrative complexity are both high, PLB has the strongest positive relationship with CSE.

The Mediating Role of Creative Self-Efficacy

Social cognitive theory asserts that individuals with inefficacious beliefs tend to avoid an activity and are less persistent when facing obstacles, but that individuals with efficacious beliefs are willing to invest more effort and are resilient to challenges and difficulties (Bandura, 1977, 1982). Consistent with this notion, Tierney and Farmer (2002) proposed that CSE is a key motivational driver for engaging in creative behaviors, and research has consistently shown that creativity is strongly related to CSE. For instance, Tierney and Farmer (2004) found that people who felt they had higher creative capacity were evaluated as more creative by their supervisor, and Tierney and Farmer (2011) found that increases in employees' CSE lead to increases in employee creative performance over time. Moreover, the meta-analysis by Liu and colleagues (2016) showed that CSE consistently predicts creative performance across studies, over and above effects of intrinsic and prosocial motivation. We therefore hypothesize:

Hypothesis 2: CSE mediates the three-way interaction among PLB, workload pressure and integrative complexity on creativity. PLB has the strongest positive indirect effect on creativity through CSE when workload pressure and integrative complexity are both high.

Method

Sample and Procedure

To test hypotheses, we collected data from employees and their direct supervisors in organizations in the Netherlands and Germany, operating in various sectors, in April/May 2016. Four masters-level students contacted managers/supervisors from their own social network. In total, 81 supervisors were approached for participation in our online survey. After supervisors agreed to participate, we asked them to provide their own work email addresses and those of a maximum of 10 employees directly supervised by them. In total, 484 employees' working email addresses were collected and a survey link was sent to those email

addresses. Supervisors were asked to evaluate their employees on creativity, and employees were asked to rate the PLB of their supervisor, their integrative complexity, creativity self-efficacy, and experience of workload pressure. The questionnaires were provided in Dutch, English, and German to increase participation rates. The original English measurement instruments were translated and back-translated following Brislin's (1970) procedure.

We were able to match 253 (52% response) employees with their creativity ratings provided by 62 supervisors (77% response). Following the recommendation by Meade and Craig (2012), we excluded one case because the respondent answered "4" to all items, which is likely invalid. The remaining sample consisted of 142 men and 110 women with an average age of 40.97 years (*SD* = 11.03); 47% of the employees had a bachelor degree or higher. Mean organizational tenure of employees was 11 years (*SD* = 10.03), and mean dyadic tenure (the length of time an employee had worked with their current supervisor) was 4 years (*SD* = 5.28). Of the 62 supervisors, 45 were male and 17 were female. Their mean age was 44.95 years (*SD* = 10.10); 74% of the supervisors had a bachelor degree or higher. The majority of respondents worked in manufacturing (39%), healthcare (30%), and business service (15%) organizations; 33% of the respondents worked in management and 30% in operation and production. Diverse organizational and task backgrounds ensured variation in terms of creativity demands.

Measures

PLB. PLB was measured with 22 items developed and validated by Zhang et al. (2015). This scale has good convergent and divergent validity, as well as predictive validity on multiple performance criteria (Zhang et al., 2015). Among the 5 dimensions of PLB, the balances between control and autonomy, and between structure and flexibility, are most relevant when creativity is the focal criterion (Lewis, 2000; Smith & Lewis, 2011). Accordingly, we focused on two dimensions, each measured with 4 items: *enforcing work*

requirements, while allowing flexibility, and *maintaining decision control, while allowing autonomy*. Employees were asked to rate the degree to which their leader demonstrated paradoxical behaviors on a 7-point Linkert scale (*1 = not at all* to *7 = a lot*). Sample items are [The leader…] "Clarifies work requirements, but does not micro-manage work", and "Makes final decisions for subordinates, but allows subordinates to control specific work processes". The internal consistency of all eight items combined was high (α = .85). We also conducted exploratory analyses for separate dimension of PLB (see Appendix A).

Integrative complexity. Integrative complexity was measured using the scale developed by Zhang et al. (2015). The differentiation dimension (5 items) captures the extent to which individuals have differentiated views toward an issue. Sample items were: "I understand how there can always be divergent viewpoint on certain issues" and "I believe in the value of dissent". The integration dimension (6 items) indicates the degree to which individuals believe that conflicting forces can be integrated and synergized. Sample items included "When there are different perspectives on an issue, I often point out the common areas of overlap that may serve to bridge these differences" and "I believe that trade-offs can be avoided when making a decision". We used a 7-point Likert scale (*1 = strongly disagree* to *7 = strongly agree*). Following Zhang et al. (2015), we averaged all items to form a measure of integrative complexity (α = .79).

Workload pressure. Following Bakker and colleagues (2004) and Molino, Cortese, Bakker, and Ghislieri (2015), workload pressure was measured with 4 items on a 7-point Likert scale (*1 = never* to *7 = always*). Sample items are "How often do you have to work extra hard in order to reach a deadline?" and "Do you have too much work to do?". The items were averaged to measure workload pressure (α = .88).

Because we assume that workload pressure is associated with the experience of tension, we tested this assumption in a separate Dutch sample of 76 employees. We collected

those additional data using a similar sampling strategy as the main study. The experience of tension was measured with the 7-item scale developed by Miron-Spektor et al. (2018). Sample items include "I often need to decide between opposing alternatives" and "My work is filled with tensions and contradictions" (α = .87). The results showed that the correlation between workload pressure and tension experience was positive and significant (r = .38, p = .001). Further, to show that workload pressure can predict tension experience beyond resource scarcity, we adopted 3 items from Miron-Spektor et al. (2018) such as "Generally, I can get the resources I need for my work" (*R*) and "I have adequate resources for performing my tasks" (*R*) (α = .81). Regression results showed that workload pressure remained a positive predictor of the experience of tension (β = .38, p = .001) while controlling for resource scarcity. Consistent with our assumptions, these results show that workload pressure can be a source of tension at work.

Creative self-efficacy. CSE was measured with the four-item scale used by Gong et al. (2009), which was adapted from the original three items developed by Tierney and Farmer (2002). We preferred the four-item scale over the original three-item scale to improve internal consistency. The items were rated on a 7-point scale (*1 = strongly disagree* to *7 = strongly agree*). Sample items were: "I feel that I'm good at generating novel ideas" and "I have confidence in my ability to solve problems creatively" (α = .82).

Creativity. In keeping with research using supervisor ratings of creativity (e.g., Baer & Oldham, 2006; Huang, Krasikova, & Liu, 2016; Zhou & George, 2001), leaders were asked to rate employees' creative performance on a 7-item scale developed by Sacramento, Fay, and West (2013) (*1 = strongly disagree* to *7 = strongly agree*). This scale was based on Tierney, Farmer, and Graen (1999) and Zhou and George (2001). Sample items were: [At work, this person….] "Demonstrated originality in his/her work" and "Suggested feasible ideas for the project/work activities" (α = .94).

Control variables. Following the recommendations for the use of theoretically potent control variables (Bernerth & Aguinis, 2016; Carlson & Wu, 2012), we considered several relevant control variables including education (7 = PhD, 6 = master, 5 = bachelor, 4 = practical degree, 3 = high school/technical school diploma, 2 = middle school, 1 = no school or primary school), dyadic tenure (in years), creative job requirement, leader support, and job autonomy. Education level is associated with cognitive development in terms of the use of complicated schemas, diverse experiences and knowledge, which enable individuals to feel confident to solve problems creatively and demonstrate creativity at work (Tierney & Farmer, 2002). Tenure with a supervisor may affect subordinates' perception of leadership and supervisor ratings of performance (Duarte, Goodson, & Klich, 1994; Wayne, Shore, & Linden, 1997).

Because we sampled from a variety of job positions and organizations, we controlled for perceived creative job requirements, measured on a 5-item scale (*1 = not at all to 7 = completely*) adopted from Unsworth, Wall, and Carter (2005). A sample item was "My job requires me to have ideas about changing ways of organizing work" (α = .86). Employees with higher creative requirements are more likely to think and behave in creative ways (Unsworth & Clegg, 2010). We also controlled for job autonomy because it is an important determinant of intrinsic motivation (e.g., Shalley, Zhou, & Oldham, 2004), and because the employees in our sample were diverse in terms of job title and autonomy. Job autonomy was measured on a 7-point scale with 3 items adopted from (Spreitzer, 1995). One sample item was "I have considerable opportunity for independence and freedom in how I do my job" (α = .91). To account for the influence of other leader behaviors on CSE and creativity, we controlled for leader support, measured with 3 items on a 7-point scale developed by Amabile et al. (2004). A sample item was "To what extent is there a positive interaction between you and your supervisor?" (α = .84). According to Amabile and colleagues, various leader

behaviors influence subordinate perceptions of leader support which, in turn, influence creativity. Moreover, supervisor support may affect the formation of CSE (Tierney & Farmer, 2002). In addition, we also included conventionally-controlled variables such as age, gender, organizational tenure in our survey, but including these variables did not change our results.

Results

Descriptive Statistics and Preliminary Results

Descriptive statistics, correlations and scale reliabilities are shown in Table 3.1. PLB was not correlated with creative self-efficacy (r = .05, *ns*) and positively with creativity (r = .13, $p < .05$). CSE was positively correlated with creativity (r = .28, $p < .001$). In terms of control variables, education level, dyadic tenure, creative job requirement, leader support, and job autonomy were significantly correlated with at least one of our variables of interest; we thus controlled for these variables (Becker, 2005).

TABLE 3.1

Descriptive Statistics and Correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender[a]	0.56	0.50													
2. Age[b]	40.97	11.03	.04												
3. Education level[c]	4.51	1.21	.06	-.18**											
4.Organizational tenure[b]	11.52	10.03	.07	.61***	-.13*										
5.Dyadic tenure[b]	4.27	5.28	-.05	.23***	-.24***	.35***									
6.Creative job requirement	4.90	1.10	0.01	-0.04	-0.07	0.07	0.07	(.86)							
7. Leader support	5.34	1.18	-.15*	-.05	.05	-.04	-.04	.27**	(.84)						
8. Job autonomy	5.27	1.20	.19**	.02	.01	.01	-.09	.28**	.23**	(.91)					
9. Workload pressure	4.83	1.07	-.07	-.01	-.05	-.06	-.05	.25***	.04	.13*	(.88)				
10. PLB	5.22	0.86	-.07	-.08	-.00	-.03	-.04	.18**	.59***	.15*	.01	(.85)			
11. Integrative complexity	5.19	0.58	-.17**	-.03	.05	-.08	-.05	.29***	.18**	.17**	.27***	.16*	(.79)		
12. Creative self-efficacy	5.30	0.85	.02	-.09	.08	-.10	-.13*	.26***	.11†	.20**	.17**	.05	.29***	(.84)	
13. Creativity	4.86	1.20	-.07	-.23***	.20**	-.14*	-.12^{+}	.20**	.20**	.20**	.09	.13*	.12^{+}	.28**	(.95)

Notes. $N = 252$. Cronbach's Alphas are in parentheses on the diagonal. [a] 0 = female, 1= male. [b] Age, organizational tenure and dyadic tenure were measured in years. [c] Education level was coded as: 7 = PhD, 6 = master, 5 = bachelor, 4 = practical degree, 3 = high school/technical school diploma, 2 = middle school, 1 = no school or primary school. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Confirmatory factor analyses were conducted to examine the discriminant validity of our four employee self-reported measures using Rosseel's (2012) Lavaan R package. The hypothesized model with the four constructs indicated by their respective items showed a reasonable fit (χ^2 (318) = 626.93, $p < .001$; CFI = .88, TLI = .87, RMSEA = .06, SRMR = .07). The hypothesized model showed better model fit than a model in which PLB and integrative complexity were combined ($\Delta\chi^2(3) = 674.06$, $p < .001$) or a model in which creative self-efficacy and integrative complexity were combined ($\Delta\chi^2(3) = 351.87$, $p < .001$). The hypothesized model also fit better than the one-factor model in which all items were modeled on one factor ($\Delta\chi^2(6) = 1458.90$, $p < .001$).

Because employees were nested within supervisors, we tested whether CSE and creativity ratings varied between supervisors. The analysis showed that the variance of CSE at the group level was relatively small (ICC (1) = .05, *ns*). However, the variance of creativity at the group level was significant (ICC (1) = .23, $p < .001$). Therefore, to account for the group level influence, we used multilevel modelling, with random intercepts for supervisors. Prior to analysis, to facilitate interpretation of results, all variables except the dependent variables (CSE for hypotheses 1 and Creativity for hypothesis 2) were grand mean-centered to avoid multicollinearity (Cohen, Cohen, West, & Aiken, 2003). We tested all hypotheses using Mplus with maximum likelihood estimation (Muthén & Muthén, 2012). We also checked the robustness of the results with alternative estimation methods[3]. There were five

[3] To check the robustness of the results, we analyzed the data with alternative estimation methods (Bayesian estimation and MLR) available in Mplus. The three-way interaction effect was consistently significant across different methods. With regard to hypothesis 2, Bayesian estimation (with informative prior about the relationship between CSE and creativity based on the meta-analysis by Liu et al. (2016), or with non-informative prior) produced comparable results as ML. MLR estimation differed slightly, and showed a positive, but non-significant conditional indirect effect when workload pressure and integrative complexity were both high (1SD above the means). This might be due to the fact that MLR is more susceptible to the influence of influential data points, obtaining larger standard errors. Because Bayesian statistics are robust to the presence of influential data points (Aguinis, Gottfredson, & Joo, 2013), we believe our results are robust. All other effects were comparable across different analyses.

missing values on dyadic tenure and two on education, and the multiple imputation method (Asparouhov & Muthén, 2010) was used to replace these missing values.

Test of Hypotheses

The results regarding Hypotheses 1 are shown in Table 3.2. Hypothesis 1 predicted that PLB, workload pressure, and integrative complexity interactively affect CSE such that PLB would have the strongest positive effect on CSE when workload pressure and integrative complexity are both high. The results indicated that the three-way interaction between PLB, integrative complexity and workload pressure on CSE was significant (B = .25, SE = .10, p < .05). As shown in Figure 3.2 and Table 3.3, only when integrative complexity and workload pressure were both high, PLB had a significant, positive effect on CSE (B = .23, SE = .09, p < .05). In contrast, the effect of PLB on CSE was negative for other combinations of integrative complexity and workload pressure. Particularly, the effect was significantly negative when workload pressure was high while integrative complexity was low (B = -.37, SE = .13, p < .01). Consistent with the idea that PLB is less relevant when workload pressure is low, the effects of PLB were not significant when workload pressure was low. Taken together, Hypothesis 1 was supported.

To look at the three-way interaction in a different way, we also examined the simple slopes of workload pressure under different combinations of PLB and integrative complexity. The results showed that workload pressure had a significant positive effect on CSE only when PLB and integrative complexity were both high (B = .19, SE = .10, p < .05). The effect of workload pressure on CSE was non-significant when PLB and integrative complexity were both low (B = .06, SE = .07, *ns*), when PLB was high and integrative complexity was low (B = -.05, SE = .11, *ns*), or when PLB was low while integrative complexity was high (B = -.19, SE = .11, p < .10). These complementary results suggest that, consistent with paradox theory, difficult situations may even stimulate learning: workload pressure had positive effects on

CSE, but only for employees with high integrative complexity who can learn from the paradoxical behaviors of their leaders.

TABLE 3.2

Multilevel Modeling Results for Hypothesis 1

	Creative self-efficacy			
Predictors	Model 1	Model 2	Model 3	Model 4
Control variables				
Education level	.05(.05)	.04(.04)	.05(.04)	.05(.04)
Creative job requirement	.18***(.05)	.14**(.05)	.15**(.05)	.16**(.05)
Dyadic tenure	-.02†(.01)	-.02†(.01)	-.02†(.01)	-.02*(.01)
Leader support	.01(.05)	.02(.05)	.03(.05)	.03(.05)
Job autonomy	.08† (.05)	.07(.05)	.05(.05)	.05(.04)
Predictors				
PLB		-.05(.07)	-.12(.07)	-.15*(.07)
Integrative Complexity (IC)		.29**(.09)	.38***(.09)	.36***(.09)
Workload Pressure (WL)		.04(.05)	.03(.05)	.00(.05)
Interaction terms				
PLB * WL			.07(.06)	.08(.06)
PLB * IC			.33**(.10)	.26*(.11)
WL * IC			-.05(.07)	-.00(.07)
PLB * WL * IC				.25*(.10)
Within-Level Residual	.61***	.58***	.54***	.52**
Pseudo-R^2	.11	.15	.19	.22
ΔR^2		.04	.08	.11

Notes. N = 252. Standard errors are in parentheses. ΔR^2 refers to change in *Pseudo-R^2* when adding the hypothesis-relevant variables compared to the control model. † $p < .10$, * $p < .05$ ** $p < .01$, *** $p < .001$

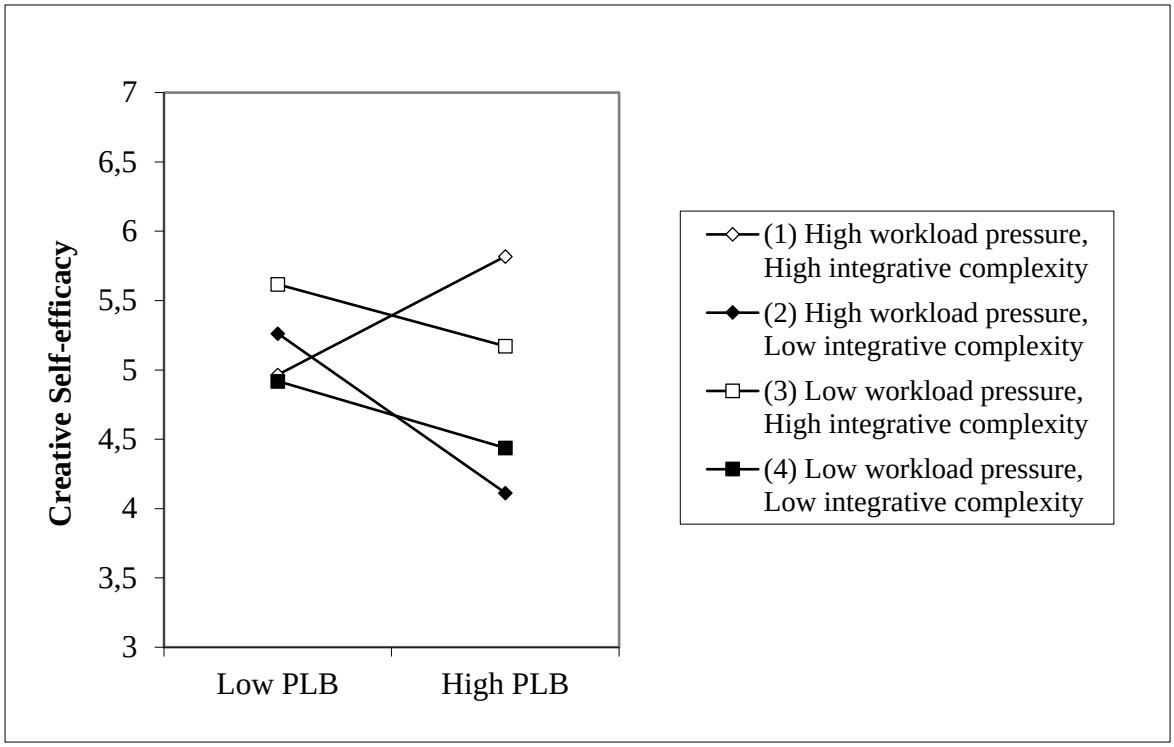
TABEL 3.3
Conditional Effects of PLB on Creative Self-Efficacy

Pairs of comparison	Slope	*t*
1(High WL, high IC)	.23(.09)	2.47*
2(Low WL, low IC)	-.23(.13)	-1.76†
3(Low WL, high IC)	-.24(.16)	-1.55
4(High WL, low IC)	-.37(.13)	-2.83**
Slope difference		
1 and 2	.47(.15)	3.01**
1 and 3	.49(.18)	2.57*
1 and 4	.60(.15)	4.13***
2 and 3	.01(.19)	.06
2 and 4	.14(.17)	.80
3 and 4	.13(.20)	.63

Notes. $N = 252$. Standard errors are in parentheses. We computed the simple slopes with the values of the moderator(s) at one standard deviation above and below the mean.
* $p < .05$, ** $p < .01$, *** $p < .001$.

FIGURE 3.2

Three-way interaction among PLB, integrative complexity and workload pressure on creative self-efficacy.



Hypothesis 2 predicted that CSE mediates the conditional effect of PLB on employee creativity such that PLB has the strongest positive, indirect effect when workload pressure and integrative complexity are both high. The results of multilevel modelling are shown in Table 3.4. As anticipated, CSE remained a significant, positive predictor of creativity after accounting for control variables and PLB (B = .29, SE = .09, p < .01). The conditional indirect effect analysis using the Monte Carlo bootstrapping method (Preacher & Selig, 2012) showed that PLB had a positive, significant indirect effect on creativity only when workload pressure and integrative complexity were both high (B = .07, SE = .03, p < .05, 95% CI [.01, .14]), but a negative, significant indirect effect when workload pressure was high while integrative complexity was low (B = -.10, SE = .05, p < .05, 95% CI [-.22, -.02]). The indirect effect of PLB on creativity was negative, but not significant when integrative complexity and

workload pressure were both low, and when integrative complexity was high and workload pressure was low. These results thus support Hypothesis 2.

TABLE 3.4

Multilevel Modeling Results for the Moderated Mediation model

	Dependent variable	
Predictors	Creative self-efficacy	Creativity
Control variables		
Education level	.05(.04)	.17** (.06)
Creative job requirement	.16**(.05)	.14*(.07)
Dyadic tenure	-.02*(.01)	-.02(.01)
Leader support	.03(.05)	.08(.07)
Job autonomy	.05(.04)	.09(.06)
Predictors		
PLB	-.15* (.07)	-.03(.10)
Workload Pressure (WL)	.00(.05)	
Integrative Complexity (IC)	.36***(.09)	
Interaction terms		
PLB * WL	.08(.06)	
PLB * IC	.25*(.11)	
WL * IC	-.00(.07)	
PLB * WL * IC	.24*(.10)	
Mediator		
Creative self-efficacy (CSE)		.29**(.09)
Conditional indirect effects of PLB on creativity through CSE		
	Effect	95% confidence interval
1(High WL, high IC)	.07*(.03)	[.01, .14]
2(Low WL, low IC)	-.07(.04)	[-.17, .01]
3(Low WL, high IC)	-.07(.05)	[-.18, .02]
4(High WL, low IC)	-.10*(.05)	[-.22, -.02]

Notes. N = 252. Standard errors are in parentheses. [a] Confidence interval for the indirect effect was constructed with the Monte Carlo method (20000 repetitions). We computed the conditional indirect effect with the values of the moderator(s) at one standard deviation above and below the mean. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion and Conclusion

Integrating social cognitive theory and paradox theory, we addressed the issue of fostering employees' creative self-efficacy (CSE) and creativity in high workload pressure situations, focusing in particular on the role of paradoxical leader behavior (PLB). Based on

paradox theory, we suggested that PLB can be an external resource for employees to learn to embrace tensions rendered salient by workload pressure, enhancing CSE and creativity. However, we also suggested that employees who have the integrative complexity to effectively understand and act upon complex, dynamic leader behavior would benefit more from PLB than employees with low integrative complexity. The findings from a multi-source survey support the thesis that PLB is effective in promoting CSE and creativity under high workload pressure, especially for employees with high integrative complexity. When integrative complexity was low, however, PLB had a negative effect on CSE and creativity, and this negative effect was strongest when workload pressure was high but integrative complexity was low.

Theoretical Implications

These results have implications for several streams of research. First, this paper complements the existing understanding of how leaders can promote employee CSE and creativity in stressful circumstances. Previous research has suggested that leadership (e.g., transformational/charismatic leadership) plays an important role in CSE and creativity (Gong et al., 2009; Van Knippenberg & Sitkin, 2013), and that leadership can buffer negative effects of work stress/demands on employees outcomes such as well-being, engagement, and OCB (e.g., Babcock-Roberson & Strickland, 2010; Syrek, Apostel, & Antoni, 2013). However, few studies have investigated factors that promote CSE and creativity even under stressful circumstances. Similarly, although research has suggested that the effects of empowering leadership on follower performance depend on situational factors such as follower stress, it predicts an attenuating (not an augmenting) effect of follower stress on the relationship between empowering leadership and follower performance (e.g., Sharma & Kirkman, 2015). Our study found that PLB was effective at promoting CSE and creativity especially for employees who experienced high workload pressure and had high integrative complexity.

However, PLB was ineffective when workload pressure was low, and even negatively affected CSE and creativity when employee integrative complexity was low and workload pressure high. As such, our study provides insights into how leaders can enhance creativity in high workload pressure situations.

More broadly speaking, our research further clarifies the relationship between workload pressure and creativity, contributing to the interactional perspective of creativity (Woodman, Sawyer, & Griffin, 1993; Zhou & Hoever, 2014). Empirical research on workload and time pressure and creativity has yielded inconsistent findings, with some studies suggesting a negative relationship (e.g., Andrews & Smith, 1996), while others showing nonlinear (Baer & Oldham, 2006) or even positive relationships (Mehta & Zhu, 2016). Workload pressure thus belongs to the "configurational" type of factors that are hard to classify as beneficial or harmful, but that "specifically promote or hinder creativity in particular configurations with other factors" (Zhou & Hoever, 2014, p. 352). Adopting a paradox perspective, we focused on the configurational effects of workload pressure, PLB, and employee integrative complexity, and found that when PLB and integrative complexity were both high, workload pressure promoted creativity. We did not observe a similar positive effect under other combinations of PLB and integrative complexity. Our research thus demonstrates that consistency between the presence of PLB and employee integrative complexity is important for fostering creativity under high workload pressure.

Second, our linking of PLB to CSE and creativity extends the growing body of research that applies a paradox lens to creativity. Most existing studies in this research stream have investigated how individuals handle tensions in creativity by, for example, adopting a paradoxical mindset or having multiple motivations (Miron-Spektor & Beenen, 2015; Miron-Spektor et al., 2011). Little attention has, however, been paid to the external resources that individuals need to cope with manifest paradoxical tensions. Addressing this issue, our work

simultaneously considered leader behavior, follower characteristics, and situational factors, and showed that they exert interactive effects on CSE and creativity. Our results suggest that by showing opposing yet interrelated behaviors, paradoxical leaders help build employee CSE which allows them to more effectively handle salient tensions (Zhang et al., 2015), but only for employees with high integrative complexity. Our research is among the first studies, if not the first one, to bridge paradox leadership research and creativity research.

Third, following paradox theory, we outlined two important boundary conditions (integrative complexity and workload pressure) of the effectiveness of PLB for CSE and creativity. This emphasis on the role of personal (integrative complexity) and contextual (workload pressure) contingencies of PLB departs from the current literature on paradox, which tends to neglect individual differences and the organizational context (Schad et al., 2016). The present work suggests that research in paradoxical leadership should investigate *when* and *for whom* PLB might be good or bad for performance. For instance, we found that PLB hampered CSE when individuals do not have the integrative complexity to accept and embrace PLB, and for those individuals, paradoxical leaders may even be seen as stressful, uncomfortable and confusing. This is consistent with Zhang and colleagues' (2015) suggestion that employees' receptiveness to paradoxes needs to be taken into account when leaders perform complex, seemingly inconsistent behavior. Moreover, this study also speaks to Miron-Spektor et al.'s (2018) work on the micro-foundations of organizational paradox, which underscores the importance of a paradox mindset in responding to salient tensions triggered by resource scarcity. The current research suggests that PLB can be a double-edged sword, bearing the potential to promote employee creativity only under certain circumstances.

This study also has implications for research on ambidextrous leadership for innovation. Inspired by research on organizational ambidexterity (C. A. O'Reilly &

Tushman, 2013; Tushman & O'Reilly, 1996), ambidextrous leadership was conceptualized as "the ability to foster both explorative and exploitative behaviors in followers by increasing or reducing variance in their behavior and flexibly switching between those behaviors" (Rosing et al., 2011, p. 957). According to this theory, the innovation process is complex and nonlinear, and requires ambidexterity from individuals/teams to flexibly switch between exploration and exploitation activities. To support this requirement of ambidexterity, leaders should show both opening behaviors that encourage experimentation, and closing behaviors that focus on monitoring (Rosing et al., 2011; Zacher et al., 2014). Our study aligns with the idea of ambidextrous leadership, in that leaders need to show seemingly contradictory, complex behaviors to facilitate performance that involves conflicting demands. However, our study raised an important question that has been overlooked in the ambidextrous leadership literature: when and for whom this contradictory and complex behavior might bring benefit. Given that ambidextrous leadership is also complex and involves inconsistency, it is possible that the performance of employees with low integrative complexity, instead of being motivated or supported, is hampered if leaders perform both opening and closing behaviors. Future research on the effects of ambidextrous leadership on innovation should consider when and for whom the effects apply.

Moreover, this study underscores CSE as a motivational mediator between PLB and employee creativity. Existing research has suggested that supervisory modelling and persuasive behaviors related to creativity play a key role in determining employee CSE (Gist & Mitchell, 1992; Gong et al., 2009; Tierney & Farmer, 2002). We provide an alternative perspective on how leaders facilitate the development of employee CSE, suggesting that leaders' role modelling behavior may not necessarily involve the demonstration of specific creative skills or creative performance. Leaders can also inspire employees to constructively deal with tensions in achieving creativity (Miron-Spektor & Erez, 2017). Similarly, leaders

can support creativity by constructing a conjoint structured and autonomous environment that allows individuals to manage the challenges (paradoxical tensions) in creativity. Taken together, our study suggests that viewing paradoxical tensions as a central challenge in creativity provides insights into the conditions that help constructively manage those challenges, which in turn enhances employee CSE and creativity.

Finally, to our knowledge, our study is among the first to test the effects of PLB in a Western context. The concept of PLB is based on Chinese yin-yang philosophy (Zhang et al., 2015), which emphasizes a "both/and" approach to contradictory demands. Because this approach differs from the long-standing, Western "if/then" approach of contingency theory (Lawrence & Lorsch, 1967), empirically examining the effectiveness of PLB in a Western context is crucial (Zhang et al., 2015). The results of the present study suggest that PLB is also relevant in a Western (European) context. We encourage future research to test the PLB-creativity link in other contexts. For instance, it would be interesting to test the relationship in Eastern Europe, which has a history of communism, resulting in different cultural norms and values compared to Western Europe (Steenkamp, 2001).

Practical Implications

Our study provides empirical evidence that PLB, particularly behavior that combines control and autonomy, and constraints and flexibility, can enhance employee CSE and creativity in high workload pressure situations. Although different authors have suggested that paradoxical leadership may benefit innovation and creativity (Lewis et al., 2014; Lewis & Smith, 2014; Rosing et al., 2011; Schad et al., 2016), empirical support for this idea is scarce. Although research has shown that leaders are able to combine contradictory behaviors (Zacher & Rosing, 2015; Zhang et al., 2015), and contradictory personal traits (e.g., leader narcissism and humility, Owens, Wallace, & Waldman, 2015) to promote follower performance, none of this research has directly focused on creativity. More importantly, few

studies have investigated how leaders can enhance employees CSE and creativity under stressful circumstances. Our research suggests that when faced with high workload pressure and intensified tensions, PLB helps sustain CSE and creativity. However, managers need to be mindful that performing PLB will not guarantee creativity among all employees. We found that PLB promoted CSE and creativity only when workload pressure was high and when employees had sufficient integrative complexity. Therefore, leaders need to be aware of the situational configurations when performing PLB. It is important to note that integrative complexity can be developed and trained by, for example, exposure to other cultures (Suedfeld & Bluck, 1993; Tadmor, Galinsky, & Maddux, 2012) and occupation of different social roles (Hannah et al., 2013). When subordinates have low integrative complexity, it is a good idea for managers to develop employees' integrative complexity before showing complex leader behaviors such as PLB.

Moreover, managers can also promote CSE by focusing on managing tensions at work. First, managers may convince their subordinates that contradictory and conflicting goals and processes occurring in creativity can be combined and integrated. Managers may coach their employees to accept paradoxical goals and behave paradoxically. Further, managers can build a work environment that is both autonomous and bounded so that employees have both directions and autonomy to engage in creative behavior, enhancing employee CSE and creativity. Moreover, by role modeling and building a supportive environment for managing tensions, leaders can help alleviate fear and stress among employees when encountering paradoxical tensions in creativity. Our study suggests that developing CSE is not necessarily only about fostering creative skills, it is also about managing the paradoxical challenges in creativity.

Limitations and Future Research Directions

Although we collected data from different sources, our cross-sectional survey data cannot rule out the possibility of reverse causality. For example, the possibility that more creative employees actually cause leaders to behave more paradoxically cannot be excluded. Despite this limitation, our field data provide evidence for the external validity of the conceptual model. Future research should investigate the internal validity of our model by manipulating PLB in a controlled laboratory setting or by applying longitudinal designs. Relatedly, although the three-way interaction effect was tested based on data from a single report, common method variance is unlikely to inflate the observed three-way interaction effect (Podsakoff, MacKenzie, & Podsakoff; 2012; Siemsen, Roth, & Oliveira, 2010). Instead, Siemsen et al. (2010) suggested that detecting significant interaction effects despite the presence of potential common method variance should be regarded as strong evidence of the existence of the proposed interaction effect.

We measured employee creativity using leader subjective ratings instead of objective criteria. Considering that we were interested in understanding "small c" creativity that is performed by individuals in their daily activities, and that objective products are not necessarily the ultimate goal of those creative behaviors, supervisor ratings tend to be very useful to assess creative behaviors at work. Indeed, research has suggested that both subjective and objective measures have advantages, depending on the context (Elsbach, Kramer, & Elsbach, 2012). Nevertheless, supervisor ratings of creativity are subjective and may be influenced by other factors in addition to employees' creative achievements. We therefore encourage future research to measure creativity with objective data as well.

Although we used leader support to control for the influences of other leadership styles and job autonomy as a proxy of intrinsic motivation, we acknowledge that it is a limitation that we did not measure different leadership styles (e.g., transformational

leadership, empowering leadership, and servant leadership) and intrinsic motivation directly in this study. However, existing research has demonstrated the unique predictive validity of both PLB (Zhang et al., 2015) and CSE (Liu et al., 2016), suggesting that the current results may hold over and above the effects of other leadership styles and intrinsic motivation. Nevertheless, we encourage future research to directly examine the effects of PLB on CSE and creativity, while simultaneously controlling for other leadership styles and intrinsic motivation.

We suggested that PLB helps employees manage tensions between day-to-day activities and creative actions, and between contradictory demands within creative processes. However, we did not explicitly test whether PLB helps employees achieve an optimal balance between different activities or demands. Although our overall creativity measure allowed us to examine the consequences of PLB on supervisor ratings of integral employee creativity, future research could further advance our understanding of creativity by testing the effects of PLB on specific behaviors or outcomes that are relevant for creativity. We also argued that high workload pressure intensifies the experience of tensions, and this assumption was supported in a separate pilot study. However, experienced tensions were not measured per se in our main study, and consequently we cannot be sure that workload pressure had the moderating effect that we observed because it intensified paradoxical tensions. Similarly, we assumed, but did not specifically examine, that experienced tensions may increase anxiety among employees with low integrative complexity. The direct assessment of anxiety would present an opportunity to further test paradox theory.

We identified employees' cognitive characteristics as a relevant boundary condition, but additional moderators are possible. For instance, future research could explore the moderating role of leader-member exchange (LMX; Dansereau, Graen, & Haga, 1975) in the PLB-creativity link. Employees with high LMX may respond more positively to PLB

because they have more trust in the leader than employees with low LMX (Scandura & Graen, 1984). Moreover, mediators other than CSE might be relevant as well. For example, PLB may relate to employee creativity by enhancing explorative and explorative behavior among employees (Rosing et al., 2011), and future work may thus explore alternative mediators and moderators of the PLB-employee creativity link.

Future research on CSE and creativity might benefit from considering other personal and contextual factors that are relevant for handling paradoxical tensions. For instance, at the individual level, paradox mindset, which refers to "the extent to which one is accepting of and energized by tensions" (Miron-Spektor et al., 2018, p. 26) would be associated with positive psychological states when faced with tensions at work. In turn, social cognitive theory (Bandura, 1977) suggests that these positive psychological states may drive the formation of CSE. Similarly, at the dyadic level, leaders' expression of emotion complexity—"the simultaneous or sequential experience of at least two different emotional states during the same emotional episode" (Rothman & Melwani, 2017, p. 259)—may also enhance CSE and creativity by signaling to employees that the situation invites creative responses to tensions and contradictions (Rothman & Melwani, 2017). This could offer the opportunity to make use of creativity-related cognitive or emotional processes, thereby enhancing CSE and creativity (Tierney & Farmer, 2002).

Conclusion

Today's increasingly dynamic, fast-paced and rapidly changing business environment requires a leadership approach that maximizes employee creativity. However, fostering creativity under stressful circumstances is challenging. According to the paradox perspective, the journey to creativity is full of tensions among goals, processes and perspectives, which can be either seeds of creativity and innovation, or sources of confusion and defensiveness. High workload pressure intensifies employees' experience of tensions, compelling

individuals to initiate responses. To help employees deal with experienced tensions constructively, an effective leadership approach is to strengthen employees' creative self-efficacy by being a role model, showing employees that it is possible to behave paradoxically and thereby address tensions at work. However, this leadership approach is only effective when employees have the integrative complexity to understand and embrace paradoxes and tensions.

APPENDIX A

Multilevel Regression Results of Each Dimension of PLB

	Model1[a]		Model2[a]		Model3[a]		Model4[a]		Model5[a]	
Variable	CSE	Creativity	CSE	Creativity	CSE	Creativity	CSE	Creativity	CSE	Creativity
Education	.04(.04)	.17**(.06)	.04(.04)	.17**(.06)	.05(.04)	.17**(.06)	.05(.04)	.17**(.06)	.03(.04)	.17**(.06)
Creative job requirement	.15**(.05)	.14*(.07)	.15**(.05)	.14*(.07)	.15**(.05)	.14*(.07)	.15**(.05)	.14*(.07)	.14**(.05)	.14*(.07)
Dyadic tenure	-.02*(.01)	-.02(.01)	-.02(.01)	-.02(.01)	-.02†(.01)	-.02(.01)	-.02**(.01)	-.02(.01)	-.02*(.01)	-.02(.01)
Leader support	-.02(.06)	.08(.08)	-.04(.05)	.07(.07)	.03(.05)	.09(.07)	.01(.05)	.06(.07)	-.04(.05)	.06(.06)
Job autonomy	.06(.05)	.09(.06)	.07(.05)	.09(.06)	.06(.04)	.09(.06)	.04(.04)	.09(.06)	.06(.04)	.09(.06)
PLB dimension	-.00(.06)	-.03(.09)	.09(.06)	-.01(.08)	-.09(.06)	-.05(.08)	-.12†(.06)	.01(.08)	.07(.05)	.02(.06)
Workload (WL)	.02(.05)		.03(.05)		.02(.05)		-.01(.05)		.02(.05)	
Integrative complexity (IC)	.36***(.09)		.27**(.10)		.35***(.09)		.33***(.09)		.29**(.09)	
PLB * WL	.04(.04)		.08(.06)		.05(.05)		.05(.06)		.06(.05)	
PLB * IC	.18*(.08)		.06(.10)		.21*(.08)		.24*(.11)		.15† (.08)	
WL * IC	.00(.08)		-.04(.07)		-.00(.07)		.01(.08)		-.05(.07)	
PLB * WL * IC	.10(.07)		.08(.08)		.12(.08)		.28**(.09)		.10(.07)	
Creative self-efficacy (CSE)		.29**(.08)		.29**(.09)		.28**(.09)		.29**(.08)		.28**(.09)

Notes. N = 252. Standard errors are in parentheses. [a] Model 1, Model 2, Model 3, Model 4 and Model 5 show the results with the dimension "Treating subordinates uniformly while allowing individualization", "Combining self-centeredness with other-centeredness", "Maintaining decision control while allowing autonomy", "Enforcing work requirements, while allowing flexibility", and "Maintaining both distance and closeness" as the predictor, respectively. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Chapter 4[4]

Relationship Conflict and Observers' Work Engagement: The Role of Team Identification and Paradox Mindset

Abstract

Relationship conflict abounds in organizations. We propose that observing relationship conflict within one's team can influence one's engagement with work. In three multi-method studies, participants exposed to relationship conflict among their team members were less engaged with their work, especially when they identified strongly with the team. The effect was mitigated among observers with a paradox mindset, because it helped them adopt integrative conflict management, and thus served as a buffer against the negative effect of observed relationship conflict. Our findings help reconcile inconsistent results in the literature, advance theory on relationship conflict, and suggest new ways of managing relationship conflict in the workplace. They also suggest that paradox theory is a useful approach not only to intrapersonal tensions, but also to interpersonal tensions.

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Introduction

Relationship conflict – tensions that arise from conflicting values, attitudes, preferences and personalities (De Dreu & Van Vianen, 2001) – is among the most damaging processes in teams. It distracts members from their task, heightens anxiety among them, and inhibits their cognitive functioning, all of which ultimately undermine individual and group performance, team member satisfaction, and psychological well-being (De Dreu & Weingart, 2003; De Wit, Greer, & Jehn, 2012; Jehn, 1995; Jehn & Mannix, 2001; Jehn & Shah, 1997). Unlike task conflict, which can prompt team members to engage in deep and deliberate processing of task-relevant information, relationship conflict poses a direct threat to the ego, distracts from the task at hand, and is difficult to manage (De Dreu & Van Knippenberg, 2005).

Studies of relationship conflict tend to focus either on its implications for team outcomes or take an intra-personal view, analyzing the effects on those who are directly involved. Far less research has been devoted to its effects on observers' motivations and behaviors, albeit relationship conflict often occurs in the presence of others (Reich & Hershcovis, 2015). Although related work on incivility suggested that witnessing uncivil behaviors can influence the observer (Dhanani & LaPalme, 2019; Miron-Spektor, Efrat-Treister, Rafaeli, & Schwarz-Cohen, 2011; Porath & Pearson, 2010; Rafaeli et al., 2012; Reich & Hershcovis, 2015), relationship conflict is different from incivility in at least three important aspects. First, relationship conflict often involves oppositions of high intensity between two parties while incivility mainly concerns low-intensity deviant actions. Second, relationship conflict is two-sided, with both sides being the sources and targets of negative behaviors. In contrast, uncivil behaviors (e.g., discrimination, bullying, and sexual harassment) often involve one party as the offender and the other party as the victim. Third, because of the two-sided nature, observed relationship conflict is more likely to be

experienced as a tension involving conflicting interests and perspectives. In contrast, observed incivility is unlikely to be perceived as a tension as it often involves clear wrongdoings from one party. Those differences between relationship conflict and incivility call for a closer examination of the effects of observing relationship conflict, expanding our limited knowledge on the impact of relationship conflict on observers, and on how they can effectively cope with it (Chua, 2013). However, relatively little is known about the impact of relationship conflict on observers, and even less on how they can effectively cope with it (Chua, 2013).

In addressing these questions, we draw on paradox theory (Miron-Spektor et al., 2018; Smith & Lewis, 2011). The central tenet of paradox theory is that tensions are latently embedded in the process of organizing, and they can be made salient to organizational actors via situational factors such as resource scarcity, plurality, and change, or via the adoption of a cognitive frame that juxtaposes contradictory goals and demands (Smith & Lewis, 2011; Smith & Tushman, 2005). A salient tension can be a double-edged sword for the actors. It can promote a positive, virtuous cycle that promotes human motivation and potential, creativity, and flexibility, but it can also lead to a negative, vicious cycle that increases anxiety and defensiveness (Miron-Spektor et al., 2018; Smith & Lewis, 2011). Paradox theory further suggests that organizational actors vary in their ability and resources to constructively react to salient tensions. A defensive approach to tensions leads to anxiety, fear and stress, while a constructive approach to tensions leads to positive motivation, creativity, and adaptability.

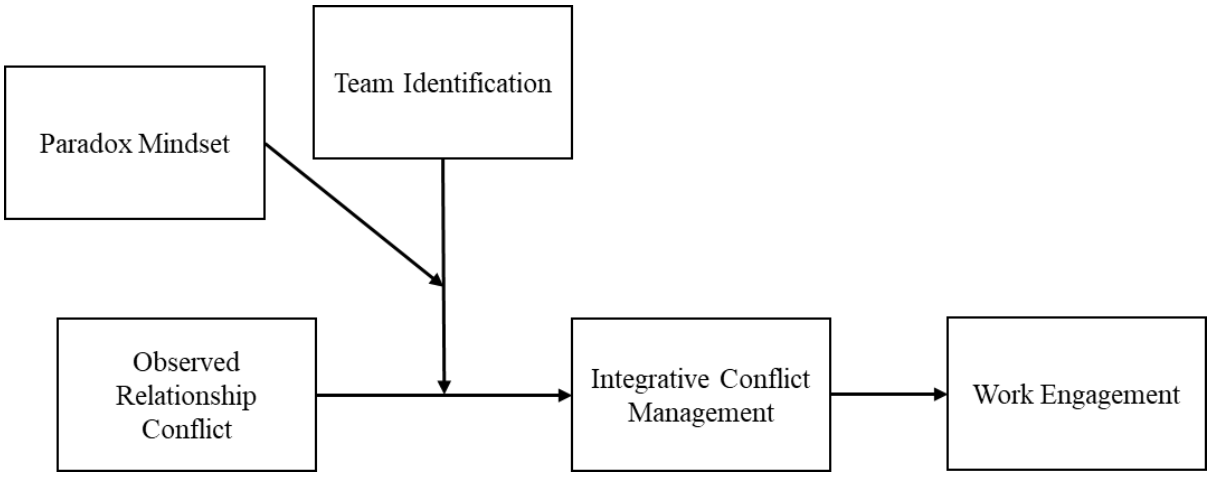
Based on the tenets of paradox theory, we propose that as relationship conflict surfaces latent tensions and contradictions between team members' values, preferences, and personalities, witnessing such conflicts may undermine observers' *work engagement*, a term denoting a motivational state characterized by absorption, dedication and vigor (Schaufeli et al., 2002). We focus on work engagement as our focal outcome because of its importance for

employee performance (Bakker & Demerouti, 2008; Halbesleben, 2010; Kumar & Pansari, 2016) as well as its important role in paradox theory as a motivational outcome of dealing with tensions (Smith & Lewis, 2011). Moreover, we propose that the effects of the observed relationship conflict on work engagement will vary according to individuals' psychological proximity to the observed conflict and their capability to constructively deal with it. Specifically, we propose that the stronger the sense of *team identification* – a member's sense of oneness with, or belonging to the team (Ashforth & Mael, 1989) – the more proximate and salient the tension will be, and the less engaged the observer will become. However, paradox theory suggests that individuals can approach tensions in defensive or constructive ways: some see it as threatening and seek to avoid or eliminate it; others see conflict as natural and seek to 'build bridges'. We posit that an observer's ability to adopt a *paradox mindset* – a willingness to accept/feel comfortable with the tensions (Miron-Spektor et al., 2018) – will act as a buffer against the negative effect of observed relationship conflict on work engagement, even when the observer strongly identifies with the team (see Figure 4.1).

Our research makes several unique contributions to the literature. To the best of our knowledge, it is the first to examine relationship conflict from a paradox perspective, thereby adding novel insights on its effects and how it can be managed. We show that the impact of relationship conflict is broader than previously assumed – it can impact the sense of engagement of observers' who are not directly involved – and that a paradox mindset can mitigate the negative impact on engagement. We thereby extend prior research, which tends to be confined to the context of intra-individual conflict, to show how a paradox mindset can also help to manage reactions to interpersonal conflict.

Figure 4.1

The conceptual model.



Theoretical Background

Work Engagement and Relationship Conflict

Kahn (1990) conceptualizes engagement at work as the extent to which individuals cognitively, emotionally, and physically employ and express their preferred selves in performing their work role. His analysis of work engagement suggests that individual differences and situational factors affect individual (dis)engagement at work by altering three psychological antecedents: meaningfulness, safety, and availability, defined respectively as a feeling of receiving worthwhile returns from work, an ability to employ and express one's self without fear of negative consequences, and having the cognitive, emotional and physical resources to engage with work.

Drawing on Kahn's theoretical framework, Schaufeli, Salanova, González-romá, and Bakker (2002: 74) operationalize work engagement as a "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" and developed the Utrecht Work Engagement Scale (UWES) to measure the physical, cognitive and emotional aspects of engagement at work. Their groundwork has spurred studies on work engagement over the past two decades (Bakker & Albrecht, 2018). Subsequent research found that work

engagement not only benefitted individual employees by boosting positive affect, health and well-being (Demerouti, Bakker, De Jonge, Janssen, & Schaufeli, 2001; Rothbard, 2001), but also boosted firms' competitive advantages by increasing performance, creativity, organizational citizenship behavior, and customer satisfaction (Bakker, Demerouti, & Sanz-Vergel, 2014; Harter, Schmidt, & Hayes, 2002; Salanova, Agut, & Peiró, 2005).

Work engagement is undermined by relationship conflict (De Dreu & Weingart, 2003) that arises from the tension between team members' conflicting values, preferences and interpersonal styles (De Dreu, Harinck, & Van Vianen, 1999; Jehn, 1995). Such conflict can involve negative exchanges and disputes, which surface tensions between underlying conflicting values, beliefs, and personalities of team members, and these may evoke a sense of threat – to oneself and one's sense of belonging to a meaningful collective. According to Kahn (1990), when one's sense of safety and meaningfulness are thwarted, and one's cognitive, emotional and physical resources are depleted, one's work engagement is undermined. Experiencing relationship conflict has been found to undermine individual work engagement (Chen, Zhang, & Vogel, 2011; Jehn, 1995).

Our study goes a step further – suggesting that the effects of relationship conflict extend to team members who are not directly involved. As observers of intense, emotional exchange – driven by anger, distrust, fear and frustration (Jehn, 1995; Jehn & Mannix, 2001; Jehn & Shah, 1997) – they are likely to experience it as a threatening event that portends negative or harmful consequences for themselves (Miron-Spektor et al., 2011). Observing hostility and/or personal attacks in their immediate social environment may be interpreted as a potential threat to their own safety (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008), inducing fear and anxiety, undermining the anticipated return on teamwork, and taxing their personal resources to cope with the situation. As per Kahn's (1990) theory of engagement, the threat to safety and meaningfulness and the depletion of their resources will undermine

their work engagement. Indeed recent research found that employees' involvement at work was adversely affected by seeing fellow workers being mistreated (Dhanani & LaPalme, 2019).

While a negative association between observing relationship conflict and work engagement may seem self-evident, recent research suggests that third-party observers differ in their resilience to external conflict, and that relationship conflict may not always affect observers' work engagement to the same extent (Chua, 2013). While relationship conflict generally has a negative effect on team outcomes, Thiel, Harvey, Courtright, and Bradley (2019) find that this effect can be overcome or regulated for the benefit of the team. When regulated effectively it can help develop trust, enhance coordination and positive interpersonal processes (Thiel et al., 2019), keeping members engaged and committed to the team (Costa, Passos, & Bakker, 2014). However, this research does not consider the regulation of relationship conflict from the *observer's* perspective. Given the complex interplay between the two, we seek to clarify when and why observing conflict may affect work engagement within a team.

Relationship Conflict through A Paradox Lens

We propose that relationship conflict in a team context will surface underlying tensions that are otherwise unperceived or ignored. Tensions denote "competing elements, such as contradictory demands, goals, interests, and perspectives" (Miron-Spektor et al., 2018: 27-28). Tensions within a team become salient when relationship conflicts bring conflicting values, beliefs and personalities of different team members to the surface. For the observer, increased awareness of these tensions may reveal contradictory perspectives and interests between members (Miron-Spektor, Erez, & Naveh, 2011; Phillips & Loyd, 2006).

Relationship conflict may prompt contradictory responses among observers. On the one hand, they may be driven by a sense of belonging to a meaningful and safe collective and

thus inclined to respond by constructively regulating the relationship conflict in the team to avert any threat to its existence; on the other hand, they may feel it is in their interest to avert potential danger, and hence avoid getting involved. Observers take these opposing stances into account to arrive at a decision about how to respond (Yang, Li, Wang, & Hendriks, 2011).

The growing literature on paradox sheds light on how observers may react to tensions and complex situations such as relationship conflict. According to paradox theory (Smith & Lewis, 2011), latent tensions only become salient under certain conditions, evoking negative feelings such as anxiety, defensiveness, and ambivalence (Schad et al., 2016). However, recent research suggests that the negative consequences can be attenuated when individuals adopt a paradox mindset, defined as "the extent to which one is accepting of and energized by tensions" (Miron-Spektor et al., 2018, p. 61). People adopting a paradox mindset feel comfortable with tensions. Instead of avoiding or compromising each side of the tension, they are more likely to approach contradictory elements constructively, transcend the tension, and see it as an opportunity for learning and growth (Lewis, 2000; Lewis & Smith, 2014).

Previous studies on paradox mindset focus on *intra*personal tensions between conflicting goals (e.g., Andriopoulos & Lewis, 2009; Miron-Spektor, Gino, & Argote, 2011; Miron-Spektor et al., 2018; Smith & Tushman, 2005). Related research has examined paradoxical motivations (e.g., Miron-Spektor & Beenen, 2015) and leadership behaviors (e.g., Zhang, Waldman, Han, & Li, 2015). Extending this work, we apply paradox theory to understand how individuals handle interpersonal tensions in the immediate team context, notably specifying two boundary conditions on the link between relationship conflict and observers' work engagement: team identification and paradox mindset.

The Moderating Roles of Team Identification and Paradox Mindset

Although relationship conflict may bring tensions between conflicting values, beliefs, and personalities in the team to the surface, we posit that it will not be equally salient to all members. It will be more salient to observers who identify strongly with the team because of their psychological proximity than those whose sense of identification is weaker, thus having a stronger influence on the former.

Team identification, a concept that originated from social identity theory (Tajfel & Turner, 1979; Tajfel & Turner, 1986), refers to the extent to which individual members perceive a sense of "oneness" with a particular team, such that they perceive its achievements and failures as their own (Ashforth & Mael, 1989; Mael & Ashforth, 1992). Social identity analyses of organizational behavior emphasize the role of team identification in understanding individuals' behavior in organizational contexts (Hirst, van Dick, & van Knippenberg, 2009). Since team identification implies strong emotional, cognitive and behavioral bonds between the individual and the team (Tajfel & Turner, 1986), members who identify strongly with the team tend to perceive their team's problems as their own, and therefore are more likely to attend to, and react to the observed relationship conflict than those whose sense of identification is weaker. When relationship conflict occurs among members, the latter tend to be indifferent to the problem and feel less threatened. As a result, their engagement is less negatively affected. Taken together, we propose:

Hypothesis 1: Team identification will moderate the negative effect of observing relationship conflict on work engagement, such that this relationship is stronger for observers who identify more strongly with the team.

Paradox theory further suggests that there may be differences in how individuals deal with salient tensions at work. We suggest that the effects of relationship conflict on the observer's work engagement will be further moderated by their ability to adopt a paradox

mindset – defined as an individual's willingness to accept and feel comfortable with tension (Miron-Spektor et al., 2018) – enabling them to address a complex reality (Gupta & Govindarajan, 2002) and integrate both sides of the argument (Leung et al., 2018; Lewis, 2000). In the absence of such a mindset, individuals are less likely to accept the validity of both sides, will tend to avoid confronting the tension, and offer over-simplified, one-sided solutions (Hannah, Balthazard, Waldman, Jennings, & Thatcher, 2013). While these may suffice to calm the situation, it is only a matter of time before tensions resurface and may even intensify (Lewis & Smith, 2014).

Even though members who strongly identify with the team are affected by relationship conflict more strongly than their more distant counterparts, we propose that they will also be more motivated to deal with the tensions and more likely to stay engaged with work – provided that they have resources to cope with the observed interpersonal tension. Here again, the paradox mindset comes into play. Team members who are able to adopt a paradox mindset are more likely to see interconnections or interdependence between the conflicting parties' values, beliefs and personalities, and thus embrace an integrative approach, which allows the group to keep functioning. They see the potential to transform the threatening situation into an opportunity, which in turn helps them continue to safely and fully present themselves at work, thereby sustaining their work engagement. Without a paradox mindset, members who identify strongly with the team members feel threatened by observed interpersonal tensions but lack the ability to approach the situation constructively. As a result, the observed relationship conflict remains a threat to their identity, creating negative expectations about future interactions, hence undermining their work engagement. In contrast, members who attach less value to their membership will be less affected by relationship conflict observed in the team, and hence experience less negative consequences on their work engagement:

Hypothesis 2: There will be a three-way interaction among observing relationship conflict, team identification, and paradox mindset on work engagement. When paradox mindset is low, team identification strengthens the negative effect of observing relationship conflict on work engagement; when paradox mindset is high, the negative effect of observing relationship conflict on work engagement of highly identified team members is weaker.

The Mediating Role of Integrative Conflict Management

In seeking to explain the joint effects of team identification and paradox mindset on work engagement when observing relationship conflict, we suggest the importance of *integrative conflict management* as a reaction to observed relationship conflict. Integrative conflict management implies an active search for shared benefits and value creation for both parties in a conflict situation (Rognes & Schei, 2010). Research suggests that approaching conflicts with an integrative style produces high-quality solutions that lead to greater satisfaction, fairness and trust than other conflict-management styles (e.g., forcing or yielding; De Dreu, Weingart, & Kwon, 2000; Rognes & Schei, 2010). According to the dual-concern model (Pruitt & Lewis, 1975), integrative conflict management – characterized by mutual information sharing, mutual understanding of both parties' concerns and the search for mutually beneficial solutions – reflects a concern about the outcome for both parties (e.g., oneself and the other party). We suggest that team members who strongly identify with the team are more likely to take an integrative approach to observed relationship conflict than those who weakly identify with the team, and that this effect will be stronger in the presence of a paradox mindset.

Paradox theory (Smith & Lewis, 2011) holds that an individual's approach to tensions determines whether it leads to learning, growth, and creativity, or to stress, anxiety, and defensiveness. As suggested earlier, relationship conflict is salient to observers whose team identification is strong, they in turn respond by adopting different coping strategies. When

observers who strongly identify with the team adopt a paradox mindset, they are able to understand the observed conflict from the point of view of both parties, encourage mutual information sharing, and seek interconnections between their respective values, beliefs and personalities (Leung et al., 2018). In so doing they can transform a threatening situation into one in which learning and growth are possible – allowing them to remain fully engaged in their work. Others who strongly identify with the team but lack such a mindset will feel threatened by the observed tension, yet will be incapable of seeing the interdependence of the conflicting parties and offering an integrative approach, and in turn are less likely to stay engaged at work. Indeed, recent findings suggest that adopting a paradox mindset enables opposing parties to understand the other's perspective in a negotiation setting, resulting in more integrative and creative solutions to the conflict (Leung et al., 2018). Individuals who can integrate the perspectives of both parties in a conflict are capable of achieving a greater level of cognitive complexity and emotional detachment. This increases their sense of control over events and enables them to reappraise negative emotions, which attenuates the negative effect on their work engagement (Rafaeli et al., 2012).

We suggest that members who identify less strongly with the team, regardless of their ability to cope with tensions, are likely to stay passive, or at best search for one-sided, rapid or simple solutions, because they have little motivation to help the team constructively deal with the conflict. As a result, their engagement will not be significantly altered by the resources available (such as a paradox mindset) to cope with the observed tension.

Hypothesis 3: When observing relationship conflict, an integrative conflict management approach will mediate the interaction between team identification and paradox mindset on observers' work engagement: team identification will have an indirect positive effect on work engagement through integrative conflict management when paradox mindset is high but not when it is low.

Overview of the Present Research

In this research, we aim to investigate when and why relationship conflict influences observers' work engagement in a team context. In addition, we study individual differences in reaction to such conflicts. We first tested whether the negative effect of relationship conflict on observers' work engagement is exacerbated when they identify strongly with the team (Hypothesis 1, Study 4.1). We then examined whether this interaction effect is stronger among members who lack a paradox mindset (three-way interaction, Hypothesis 2; Study 4.2). In Study 4.3 – in support of our theory – we demonstrate the mechanism whereby paradox mindset buffers the negative effect of relationship conflict on the work engagement of strongly identified team members, by motivating the adoption of an integrative conflict management strategy. Table 4.1 shows an overview of the studies.

TABLE 4.1
Study overview

Study	Hypothesis	**Independent variable**	**Moderator**		**Mediator**	**Dependent variable**
		Observed relationship conflict	Team identification	Paradox mindset	Integrative conflict management	Work engagement
4.1	1	Manipulated	Manipulated	NA	NA	Measured
4.2	2	Measured	Measured	Measured	NA	Measured
4.3	3	NA[1]	Manipulated	Manipulated	Coded	Measured

Note: 1. In study 3, participants in all conditions were presented with the same scenario about observing a relationship conflict between two team members.

Study 4.1-Method

Sample and Procedure

With the help of a pre-screening procedure, we recruited 360 US Mturk workers who had teamwork experience in real organizations to participate in the study (203 males, 154 females and 3 trans-genders; M_{age} = 39.40, *SD* = 9.97). We randomly assigned participants to one of six conditions in a 3 (Relationship Conflict: high, low or no conflict) by 2 (Team Identification: high or low) design. In this study, all participants were asked to imagine that they are working in a marketing team in a multinational technology company. The marketing team in which they work is responsible for organizing campaigns that promote the sales of new technology products. The marketing work is fast-paced, sometimes stressful, and they have worked in this team for six months. Following the description of the general working environment, we administered the team identification and observing conflict manipulations, which were pre-tested among 241 Mturk participants[5]. Subsequently, we measured intended work engagement, manipulation checks, and demographical variables.

Team identification manipulation. To manipulate team identification, team members were provided with different instructions that asked them to imagine that they work in a team that they either highly identify with or not. Instructions in the high team identification condition read: *In general, you like working in this team. You feel that you are an integral part of this team, and this team is important to you. If the team encounters problems, you feel like they are your problems.*

[5] To check whether the scenario we created was realistic, it was pretested among 241 Mturk participants with a 3 (Relationship Conflict: high, low or no conflict) by 2 (Team Identification: high or low) between-subject experimental design. After reading the scenario, all participants indicated to what extent they thought the scenario was likely to happen in real life on one item, ranging from 1 = very unlikely to 5 = very likely. The results showed that the main effect of team identification manipulation was not significant. However, the main effect of the conflict manipulation was significant (High conflict: M_{likely} = 3.64, *SD* = 0.95; Low conflict: M_{likely} = 3.35, *SD* = 1.04 ; No conflict: M_{likely} = 4.33, *SD* = 0.64; $F(2, 238) = 25.43$, $p < .001$). The results suggest that the conversation in the control condition was most likely to happen in real life, and the conversations in the two conflict conditions were also relatively likely to happen in real life.

In contrast, instructions in the low team identification condition read:

In general, you are indifferent about working in this team. You do not feel that you are an integral part of this team, and the team is not really important to you. If the team encounters problems, you feel like they are not your problems.

Following the manipulation, participants were asked to imagine that they had a weekly team meeting in which each team member can suggest ideas and react to each other's ideas. During that meeting, they witnessed a conversation between Chris and Alex, through which we manipulated observing relationship conflict.

Relationship conflict manipulation. Participants in the conflict condition were asked to imagine that they observed a hostile, emotionally intense conversation between Alex and Chris:

Alex*: This is really disappointing! It is probably the worst idea for a campaign one could think of. Did you use your brain when you thought about it?*

Chris*: Why? What is your problem? It is a good idea. Frankly, I am tired of working with people like you. You are so arrogant. Strop treating other people as idiots!*

Alex*: And I am tired of working with lazy people who hardly contribute anything to the team project! Unlike you, I spent the entire day yesterday, thinking of the best solution for our team*

Chris*: Well, I am not crazy about your idea either, and I really do not like your attitude. If this is how things work here, I do not want to be part of it. Just go ahead and do whatever you want.*

Participants in the *high relationship conflict frequency* condition read:

You realize that these types of interactions are very common in your team and happen very often. In fact, in the past six months, you have seen many occasions where emotional, personal conflict was evident among other members in this team.

Participants in the *low relationship conflict frequency* condition read:

You realize that these types of interactions are rare in your team and happen only occasionally. In fact, in the past six months, you have seen very few occasions where emotional, personal conflict was evident among other members in this team.

Participants in the *no conflict* condition read:

***Alex**: Can you explain your idea for the campaign? Seems like you invested some thought into it.*

***Chris**: Sure. I was inspired by an idea that I read in a fascinating book. I am still trying to make sense of it, and it is very preliminary. What about you? Did you find some interesting ideas?*

***Alex**: I have a good idea but I think I need a bit more time to sort it out. I have an important deadline today in another project. I will further develop my idea tomorrow.*

***Chris**: I have some time today and will try to finish it until the evening.*

***Alex**: Sounds like a plan.*

Measures

Work engagement. Work engagement was measured with the 5 items adapted from the Utrecht Work Engagement Scale (Schaufeli et al., 2006). Immediately after reading the scenario, we asked participants to indicate the likelihood they will feel or behave in accordance with each statement in the scale. The items were rated on a 5-point scale (1 = very unlikely to 5 = very likely). Sample items were [As a team member working in the team described above, given the situation, how likely are you to…]: "…be immersed in your work." and "feel happy when doing your work" (α = .95).

Manipulation check. Using 5-point Likert scales (1 = strongly disagree to 5 = strongly agree), three items were used to check team identification manipulation. Sample items were "You like working in this team" and "You are indifferent about working in this

team (*R*)" (α = .85). Participants also rated the extent to which the conversation between Chris and Alex involved conflict and it was harmonious (*R*) (two items, *r* = .95). For participants in the conflict condition, we asked them to indicate how frequent similar interactions happened in the team (1 = never to 5 = very often, two items, *r* = .97).

Other measures. Participants reported their gender (0 = female, 1 = male, 3 = other), age (in years), education (1 = less than high school, 2 = high school, 3 = some college, 4 = 2-year bachelor, 5 = 4-year bachelor, 6 = master, 7 = PhD). We also asked participants to indicate the gender of Alex and Chris. In all analyses including the gender variable did not change the results and our conclusion. Therefore, we did not include it in the reported analyses.

Study 4.1-Results

Data inspection. Because we focused on witnessing an interaction between team members instead of direct involvement in the interaction, we asked participants to indicate whether they were directly involved in the interaction between Alex and Chris (yes or no) after reading the scenario. We excluded 13 participants who indicated that they were directly involved in the conversation. The remaining sample consists of 347 participants (196 males, 148 females and 3 trans-genders; M_{age} = 39.40, *SD* = 9.87). 70.9% of the participants have an educational background equal to or higher than a two-year bachelor's degree.

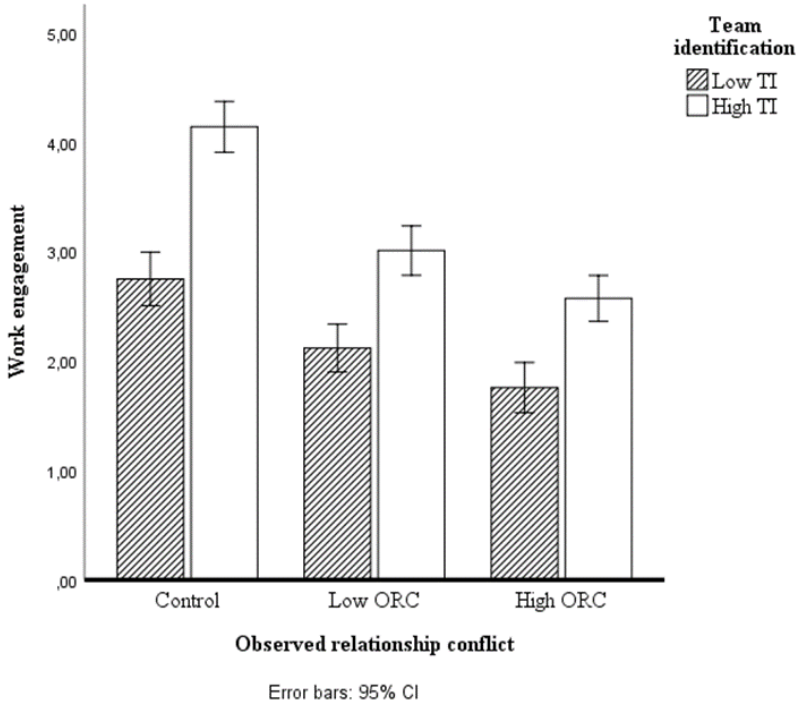
Manipulation checks. The manipulations worked as intended: participants in the high team identification condition reported higher team identification compared to those in the low team identification condition (*M* = 3.50, *SD* = 1.17 vs. *M* = 1.92, *SD* = 0.90, *F* (1, 345) = 197.02, *p* <. 001, η_p^2 = .36). Participants in the high and low frequency conflict condition scored higher than those in the control condition on the two items assessing the extent to which the witnessed conversation involved conflict (*M* = 4.85, *SD* = 0.41 vs. *M* = 4.90, *SD* = 0.32 vs. *M* = 1.56, *SD* = 0.79; *F* (2, 343) = 1436.93, *p* < .001, η_p^2 = .90), the

conflict conditions did not differ significantly from each other (F (1, 241) = 1.26, *ns.* η_p^2 = .01). Participants assigned to high conflict frequency condition indicated that conflict happened more often in the team than those in low conflict frequency condition (M = 4.69, SD = 0.53 vs. M = 1.53, SD = 0.76; F(1, 241) = 1429.24, p < .001, η_p^2 = .86).

Hypothesis testing. Hypothesis 1 predicted an interaction between observing relationship conflict and team identification on work engagement. To test this hypothesis, a two-way ANOVA analysis was conducted. The results revealed a significant main effect of team identification (F (l, 341) = 120.08, p < .001, η_p^2 = .26) and observing relationship conflict (F (2, 341) = 62.13, p < .001, η_p^2 = .27). Importantly, the interaction between team identification and observing relationship conflict was significant (F (2, 341) = 3.49, p < .05, η_p^2 = .02; see Figure 4.2). An analysis of simple effects showed a significant negative effect of observed relationship conflict on work engagement when team identification was high (F (2, 341) = 50.59, p < .001, η_p^2 = .23) and low (F (2, 341) = 17.18, p < .001, η_p^2 = .09). In support of Hypothesis 1, relationship conflict had a stronger negative effect on observers' work engagement when their team identification was high rather than low.

FIGURE 4.2

Study 4.1 Two-way interaction between observed relationship conflict and team identification on work engagement.



In line with our prediction, our first study revealed that relationship conflict had a stronger negative effect on observers' work engagement when team identification was high as compared to low. Although our experimental design established the causal link between our variables, we also wanted to test whether we can find similar results in actual work contexts. In Study 4.2, we therefore employed a survey approach to ask employees to report their experience of observing relationship conflict in their work team, team identification, and their work engagement. In addition, we tested Hypothesis 2 regarding the moderating role of paradox mindset. Specifically, we investigated whether paradox mindset further moderates the interaction effect between relationship conflict and team identification on observers' work engagement.

Study 4.2-Method

Sample and Procedure

267 Mturk participants who had teamwork experience and were employed at the moment the study was conducted completed our survey (128 females, 139 males, M_{age} = 38.03, *SD* = 9.81). Participants' average organizational tenure was 7.33 years (*SD* = 6.19) and average team tenure 3.97 years (*SD* = 4.12). 73% of the participants had an educational background equal to or higher than a two-year bachelor's degree. At the beginning of the survey, we asked all participants to write down the team which they currently worked in and asked them to keep this team in mind whenever they answered questions about their team. We made the survey questions specific to the team the participants wrote down with piped text function so that the team name was presented in the instruction of each scale except paradox mindset. Participants answered questions about conflicts in their work team in which they were not directly involved, team identification, paradox mindset, and work engagement. At the end of the survey, we measured control variables and demographics.

Measures

Observed relationship conflict. Observed relationship conflict was measured as the extent to which incompatibility of values, personalities, and emotional tensions existed among other members in the work team. Specifically, we asked participants to think about conflicts in their team that they were aware of, but not directly involved in. Relationship conflict was measured with 4 items adapted from the scale developed and validated by Jehn (1995) (5-point Likert scale, 1 = none to 5 = a lot). Sample items were [In the recent past…] "how much emotional conflict was there among other members in your work team?" and "how much were personality conflicts evident among other members in your work team?" (α = .91).

Team identification. Team identification was measured with 3 items from Van Knippenberg, Van Knippenberg, Monden, and De Lima (2002) on a 7 point Likert scale (1=strongly disagree to 7 = strongly agree). Sample items were "I identify strongly with my

team" and "When someone criticizes my team, it feels like a personal insult". The internal consistency of the measure was good (α = .91).

Paradox mindset. Paradox mindset was measured with the 9-item scale developed by Miron-Spektor et al. (2018). On a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree), participants rated to what extent they feel comfortable with and are able to accept tensions and contradictions they experience at work. Sample items were "I am comfortable working on tasks that contradict each other" and "Accepting contradictions is essential for my success" (α = .90).

Work engagement. Work engagement was measured with the 9-item shortened version Utrecht Work Engagement Scale developed by Schaufeli and Bakker (2006) on a 7-point Likert scale (1 = never to 7 = always). We asked participants to indicate their feelings about their job/work in the recent past. Sample items were [In the recent past…] "I was immersed in my work" and "I felt happy when doing my work" (α = .95).

Demographics and control. Regarding demographics, we measured age, gender, education level, and organizational and team tenure of the participants. We also measured different team and individual characteristics that may affect work engagement. Type of team was measured with dummy variables *team type* (work team, parallel team, project team, and management team; management team as the reference category). We considered task interdependence as a potential control, because it affects how strongly work relationship affects individuals' behavior and attitudes at work (Costa, Passos, & Bakker, 2014b). One example item of task interdependence is "I have a one-person job; it is not necessary for me to coordinate or cooperate with others (reversed-worded)" (α = .82). Besides, occupying a leadership role in a team may affect the resources that people have to cope with work demands and stress in the team, which may have consequences for work engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). We therefore included team

leadership position as a control (0 = I am not the team leader, 1= I am the team leader). Moreover, to demonstrate the effects of *observed* relationship conflict go beyond the effects of *experienced* relationship conflict on work engagement, we adapted the 4-item relationship conflict scale developed by Jehn (1995) (5-point Likert scale, 1 = none to 5 = a lot) to measure conflicts in work teams in which the participants were directly involved. Specifically, we asked participants to think about conflicts in their team that they were directly involved in. One example item is [In the recent past…] "How much friction was there between you and other members in your work team?" (α = .91). Only experienced relationship conflict, leadership role, and task interdependence were significantly correlated with work engagement; we thus controlled for these variables when testing our hypotheses (Becker, 2005). Our results were comparable when excluding these control variables.

Study 4.2-Results

Descriptive Statistics and Preliminary Results

Descriptive statistics and correlations among the main variables are shown in Table 4.2.

TABLE 4.2
Study 4.2 Descriptives and correlations

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Work Engagement	4.54	1.26	(.95)														
2. Age (in years)	38.03	9.81	.05														
3. Gender[a]	0.52	0.50	-.07	-.07													
4. Education[b]	4.55	1.12	.04	.07	.08												
5.Team Tenure (in years)	3.97	4.11	-.01	.34**	.04	-.04											
6. Organization Tenure (in years)	7.33	6.19	-.01	.48**	.07	-.07	.57**										
7. Leadership role[c]	0.44	0.50	.24**	.04	-.08	.00	.11†	.09									
8. Task interdependence	5.74	0.81	.28**	.13*	.07	.10	.06	.07	.22**	(.82)							
9. Work team[d]	0.65	0.48	-.08	.07	.16*	-.07	.27**	.15*	-.01	-.09							
10. Parallel team[d]	0.05	0.22	-.01	-.01	.02	.03	-.07	-.08	-.14*	-.07	-.32**						
11. Project team[d]	0.21	0.41	.01	-.11†	-.12*	.01	-.25**	-.13*	-.04	.02	-.71**	-.12*					
12. ERC[e]	1.97	0.78	-0.15*	-0.10	0.01	-0.02	0.08	-0.00	0.12	0.02	0.05	-0.04	-0.03	(.91)			
13. ORC[f]	2.30	0.85	-.07	-.00	-.08	.00	.17**	.06	.05	.12*	.05	-.07	-.00	.60**	(.91)		
14. Paradox mindset	4.55	1.05	.43**	-.05	.17**	-.03	.01	-.08	.19**	.21**	.02	-.07	-.07	.01	.04	(.90)	
15. Team identification	5.47	1.36	.61**	0.08	-.04	-.05	.09	.13*	.26**	.29**	.02	-.02	-.08	-.23**	-.13*	.32**	(.91)

Notes. N = 267. Cronbach's Alphas are in parentheses on the diagonal. [a] 0 = female, 1= male. [b] Education level was coded as: 7 = PhD, 6 = master, 5 = 4-year bachelor degree, 4 = 2-year bachelor degree, 3 = some college, 2 = high school, 1 = less than high school; [c] 0 = I am not the team leader, 1= I am the team leader. [d] Management team as the reference category. [e] ERC = Experienced Relationship Conflict. [f] ORC = Observed Relationship Conflict.
† $p < .10$, * $p < .05$, ** $p < .01$.

It is important to note that the estimation of interaction effects cannot be an artefact of common method variance (CMV; Siemsen, Roth, & Oliveira, 2010). On the contrary, the estimates of interaction terms such as our three-way interaction term can be strongly deflated by common method variance, making detecting a statistically significant effect more difficult (e.g., Podsakoff, MacKenzie, & Podsakoff, 2012; Siemsen et al., 2010). Our cross-sectional data is thus a conservative test for the hypothesized interaction effects. Nevertheless, the discriminant validity of our four self-reported measures was examined using Rosseel's (2012) Lavaan R package (see Table 4.3). The hypothesized model with the four constructs indicated by their respective items showed a reasonable fit (χ^2 (318) = 673.35, $p < .001$; CFI = .92, TLI = .91, RMSEA = .08, SRMR = .07). The hypothesized model showed a better model fit than a model in which team identification and work engagement were combined ($\Delta\chi^2(3) = 475.27$, $p < .001$) or a model in which paradox mindset and work engagement were combined ($\Delta\chi^2(3) = 890.82$, $p < .001$). The hypothesized model also fit better than the one-factor model in which all items were loaded on one factor ($\Delta\chi^2(6) = 2063.20$, $p < .001$). In addition, separate CFA analyses were conducted to examine the discriminant validity of *observed* and *experienced* relationship conflict. The two-factor model indicated by respective items of observed and experienced relationship conflict showed significantly better fit (χ^2 (19) = 85.48, $p < .001$; CFI = .96, TLI = .95, RMSEA = .11, SRMR = .04) than the one-factor model indicated by the items of the two constructs combined (χ^2 (20) = 521.67, $p < .001$; CFI = .72, TLI = .61, RMSEA = .31, SRMR = .14; $\Delta\chi^2(1) = 436.19$, $p < .001$). This suggests that observed and experienced relationship conflict are two different constructs.

TABLE 4.3

Study 4.2 CFA analysis for the main constructs

	χ^2(df)	CFI	TLI	RMSEA	SRMR	$\Delta\chi^2$(df)
Baseline model[a]	673.35(269)	.92	.91	.075	.07	
Combine WE_TI	1148.62(272)	.83	.82	.11	.08	475.27(3)***
Combine WE_PM	1564.17(272)	.75	.72	.13	.13	890.82 (3)***
Combine ORC_TI_PM	2728.24(274)	.53	.49	.18	.29	2054.90(5)***
Combine WE_TI_PM	2024.19(274)	.67	.63	.16	.13	1350.84(5)***
One factor model[b]	2736.55(275)	.53	.49	.18	.17	2063.20(6)***

Note. [a] Baseline model refers to the four-factor model with observed relationship conflict (ORC), team identification (TI), paradox mindset (PM) and work engagement (WE) as distinguishing factors. [b] A model with all items of our four main constructs loading on one factor. *** $p < .001$.

Hypotheses Testing

The hypotheses were tested with SPSS (version 25). The two-way and three-way interaction analyses were performed using the linear regression analysis function and the PROCESS macro procedure (Hayes, 2013). To decrease concerns about multicollinearity and facilitate interpretation, we standardized all continuous predictors to form the product terms of interaction effects.

Two-way interaction. The results regarding Hypothesis 1 are shown in Table 4.4 Model 3. Hypothesis 1 predicted that relationship conflict would have a stronger negative effect on work engagement when team identification is high instead of low. Results from model 2 indicate that relationship conflict was not significantly related to observers' work engagement (*B* = -.00, *SE* = .08, *ns.*), while team identification was positively linked to work engagement (*B* = .69, *SE* = .07, $p < .001$). As predicted, results from model 3 show that team identification moderated the effect of relationship conflict on observer' work engagement (*B* = -.15, *SE* = .05, $p < .01$). Subsequent probing of the interaction effect (with 1 SD above and below the mean) revealed a stronger negative relationship between relationship conflict and observers' work engagement when their team identification was high (*B* = -.17, *SE* = .10, *p*

= .08). In contrast, observed relationship conflict showed non-significant, positive influence on observers' work engagement when their team identification was low (*B* = .12, *SE* = .09, *p* = .15). These findings support Hypothesis 1.

Three-way interaction. The results regarding Hypothesis 2 are shown in Table 4.4 Model 5. Hypothesis 2 predicted that paradox mindset further moderates the interaction effect between relationship conflict and team identification on observers' work engagement such that when paradox mindset is low, team identification strengthens the negative effect of relationship conflict on work engagement; when paradox mindset is high, the negative relation between observing relationship conflict and work engagement of highly identified team members is weaker. In line with our prediction in Hypothesis 2, there was a three-way interaction among paradox mindset, team identification and relationship conflict on observer's work engagement (*B* = .10, *SE* = .04, $p < .05$). Subsequent probing of the conditional two-way interactions (see Table 4.5) showed that the interaction between observed relationship conflict and team identification was negative and significant when paradox mindset was low (*B* = -.21, *F* (1, 256) = 12.79, $p < .001$), but non-significant when paradox mindset was high (*B* = -.02, *F* (1, 256) = .03, *ns.*). The conditional effects of observed relationship conflict on work engagement are shown in Figure 4.3 and Table 4.5. When team identification was high, relationship conflict had a negative effect on work engagement when paradox mindset was low (*B* = -.27, *SE* = .13, *p* = .06). In contrast, when team identification was high, relationship conflict had a non-significant negative effect on observers' work engagement when paradox mindset was high (B = -.07, *SE* = .11, *ns*.). Thus, Hypothesis 2 was supported.

TABLE 4.4

Study 4.2 Two-way and three-way interaction effects on work engagement

	Model1	Model2	Model 3	Model 4	Model 5
Leadership role[a]	.53(.15)**	.19(.13)	.22 (.13)	.14(.12)	.16(.13)
Task interdependence	.37(.09)***	.17(.08)*	.17(.08)*	.13(.08)†	.13 (.08)†
ERC	-.28(.09)**	-.05(.10)	-.06(.10)	-.06(.10)	-.11(.10)
ORC		-.00(.08)	-.02(.08)	-.04(.07)	-.05(.07)
TI		.69(.07)***	.70(.07)***	.62(.07)***	.62(.07)***
PM				.32(.06)***	.33(.06)***
ORC*TI			-.15(.05)**	-.15(.05)**	-.11 (.05)*
ORC*PM				-.02(.06)	-.01(.06)
TI*PM				-.02(.05)	.00(.05)
ORC*TI*PM					.10(.04)*
R^2	.14***	.39***	.41***	.46***	.47***
ΔR^2		.24***	.02**		.01***

Note. [a] 0 = No and 1 = Yes, ORC = Experienced relationship conflict, ORC = observed relationship conflict, TI = team identification, and PM = paradox mindset. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

TABLE 4.5

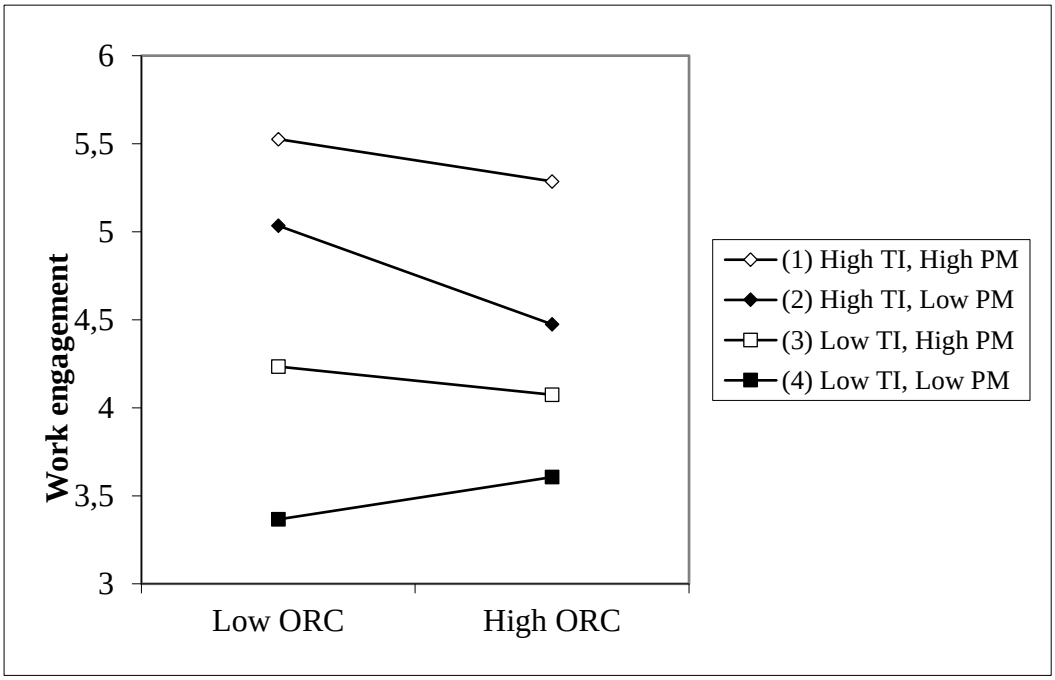
Study 4.2 Conditional effects on work engagement

Test of conditional two-way interaction (ORC*TI) at values of PM		
	Effect	*F*-test
Low PM	-.21***	F (1, 256) = 12.79
High PM	-.01	F (1, 256) = .03
Conditional effects of ORC at the values of TI and PM		
	Effect	*t*-test
1(High TI, high PM)	-.07(.11)	-0.58
2(High TI, low PM)	-.26(.09)†	-1.92
3(Low TI, high PM)	-.05(.13)	-0.36
4(Low TI, low PM)	.16 (.10)	1.63

Note. ORC = observed relationship conflict, TI = team identification, and PM = paradox mindset. † $p < .10$, * $p < .05$, *** $p < .001$.

FIGURE 4.3

Study 4.2 Three-way interaction among observed relationship conflict(ORC), team identification (TI) and paradox mindset (PM) on work engagement.



After controlling for the influence of experienced relationship conflict, the results of Study 4.2 provided additional support for the two-way interaction effect between relationship conflict and team identification on observers' work engagement (Hypothesis 1). Slightly different from the pattern observed in Study 4.1, however, Study 4.2 showed that relationship conflict did not significantly relate to observers' work engagement if their team identification was low. This difference may have occurred because manipulated relationship conflict (Study 4.1) is more accessible and salient than recalled relationship conflict (Study 4.2), thus having a stronger effect on participants' motivation and behaviors. Furthermore, Study 4.2 demonstrated the role of paradox mindset in attenuating the negative impact of relationship conflict on highly identified observers' work engagement, which supports the value of paradox mindset in helping people handle observed relationship conflict (Hypothesis 2).

In Study 4.3, we took a step further and explored the psychological mechanisms through which paradox mindset and team identification influence observers' reactions to observed relationship conflict. Given our interest in understanding the role of paradox mindset and team identification in the reaction to observed relationship conflict, in the next study observing relationship conflict was held constant, and we only manipulated team identification and paradox mindset.

Study 4.3-Method

Sample and Procedure

240 Mturk workers were recruited for participation in a scenario study with a 2 (paradox mindset: high vs. low) by 2 (team identification: high vs. low) design. Participants were randomly assigned to one of the four conditions. Similar to Study 1, all participants were asked to imagine themselves as team members working in a marketing team in a multinational technology company. We held observing relationship conflict constant by telling all participants that they observed a relationship conflict between two team members, Alex and Chris. We varied the extent to which the participants identified with the team and manipulated their paradox mindset. Then, we measured their work engagement.

Team identification manipulation. We used the same manipulation as in Study 4.1.

Paradox mindset manipulation. Following Leung et al. (2018), we manipulated paradox mindset by asking participants to consider the contradictory elements, in this case, the interest of both parties (high paradox mindset), or the perspective of one party only (low paradox mindset; half of them took the perspective of Alex, and half took the perspective of Chris).

Specifically, participants in the *high paradox mindset condition* read:

This scenario presents a conflict between Alex and Chris, who are members of your team. It is important that you take the perspectives of both Alex and Chris in the conflict

situation. Try to understand what are Alex's goals and feelings in the situation. Please also take the perspective of Chris in the conflict situation. Try to understand what are Chris goals and feelings in the situation. In other words, please take a moment to imagine what you will be thinking from the perspective of both Alex and Chris.

In contrast, participants in the *low paradox mindset condition* read:

This scenario presents a conflict between Alex and Chris, who are members of your team. It is important that you take the perspective of Chris [Alex] in the conflict situation. Try to understand what are Chris' [Alex's] goals and feelings. In other words, you try to imagine what you will be thinking from Chris' [Alex's] perspective.

Measures

Integrative conflict management. We assessed the extent to which individuals engaged in integrative conflict management behavior following observing relationship conflict in the team. Specifically, participants were given 3 minutes to write down how they would react to the observed relationship conflict in as much detail as possible. We coded the responses in terms of the extent to which it reflected integrative conflict management behavior. Specifically, based on related research on integrative conflict management behavior (Rahim, 1983; Rognes & Schei, 2010), we developed the following four-point scoring matrix: 1 = did not engage in coping; 2 = low integration characterized by a consideration of one side of a problem, or a search for a rapid, simplified solution; 3 = moderate integration characterized by a consideration of two sides of the problem, or a search for common integration methods such as compromise; 4 = high integration characterized by a consideration of two sides of the problem and an attempt to combine and integrate those aspects to achieve a win-win solution that addressed both parties' interests. After establishing a shared understanding of the coding schema by coding 60 responses, two raters independently coded the responses. Inter-rater reliability was good, with an intra-class

coefficient of .84. Given the good inter-rater agreement, the scores of two coders were averaged to measure integrative conflict management.

Work engagement. We measured work engagement on a 5-point scale (1 = very unlikely, 5 = very likely) with the 9-item Utrecht Work Engagement Scale (Schaufeli et al., 2006). Sample items were [As a team member working in the team described above, given the situation, how likely are you to…]: "…be immersed in your work." and "feel happy when doing your work" (α = .97).

Demographics. We measured participants' age, gender and education level as in Study 4.1.

Study 4.3-Results

Data inspection. We asked participants to indicate whether they were directly involved in the interaction between Alex and Chris (yes or no) after reading the scenario. We left out 13 participants who indicated that they were directly involved in the conflict. The remaining sample consists of 227 participants. A further examination of the writing responses showed that 5 participants did not write down sufficient texts for coding, and 24 participants did not write down their reaction as an observer (they pretended to be Alex or Chris when talking about their reactions; e.g., "If I were Alex…"). We therefore excluded those participants, which resulted in 198 participants in our final sample (88 males and 110 females; M_{age} = 37.35, SD = 9.37; 65 % of the participants have an educational background equal or higher than a two-year bachelor degree). Excluded participants did not differ from participants that remained in our sample in terms of gender, age, and education level.

Descriptive analysis. The means and standard deviations of study variables by conditions are shown in Table 4.6.

TABLE 4.6
Study 4.3 Means and SDs of measured variables by condition

	Low TI-Low PM	High TI-Low PM	Low TI-high PM	High TI-high PM
Work engagement	2.67(0.97)[a]	3.18(0.87)[b]	2.46(0.93)[a]	3.37(1.06)[b]
Integrative conflict management	1.94 (0.72)[a]	2.15(0.67)[a]	2.02(0.74)[a]	2.72(0.10)[b]

Note. $N = 198$. TI = team identification; PM = paradox mindset. Means not sharing a similar subscript differ at $p < .05$.

We tested whether team identification and paradox mindset influence work engagement indirectly through integrative conflict management using model 7 of the PROCESS procedure (Hayes, 2013; Hayes & Preacher, 2014) with 95% bias-corrected bootstrap confidence intervals (with 5000 bootstrap samples).

Hypotheses Testing

Two-way interaction on integrative conflict management. We found a significant interaction effect between paradox mindset and team identification on integrative conflict management ($B = .47$, $SE = .22$, $p < .05$) (see Table 4.7 and Figure 4.4). Team identification increased integrative conflict resolution when paradox mindset was high ($B = .68$, $SE = .14$, $LLCI = .40$, $ULCI = .54$), but not when it was low ($B = .21$, $SE = .16$, $LLCI = -.11$, $ULCI = .53$).

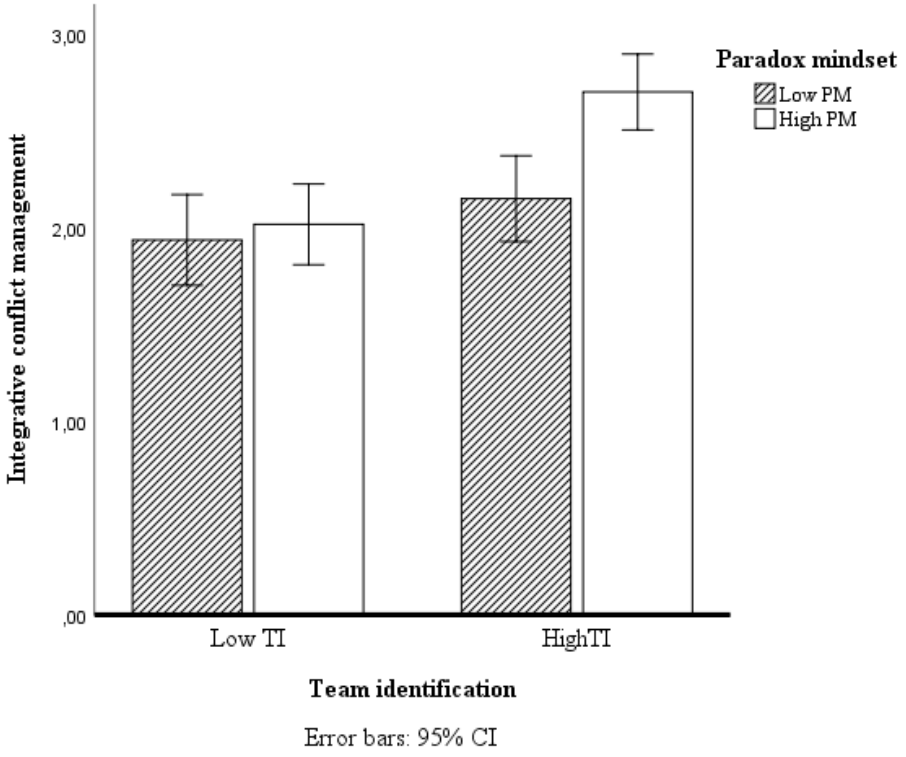
TABLE 4.7
Study 4.3 Coping as the mediating mechanism

	Integrative conflict management	Work engagement
Team identification (TI)	.21(.16)	.57(.14)***
Paradox mindset (PM)	.08(.16)	
TI*PM	.47(.22)*	
Integrative conflict management		.34(.08)***
R^2	.15***	.19***
Conditional indirect effect		
Low PM	.07(.05)	[-.02, .20]
High PM	.23(.08)	[.10, .42]

Note. TI = team identification; PM = paradox mindset. * $p < .05$, ** $p < .01$, *** $p < .10$.

FIGURE 4.4

Study 4.3 Two-way interaction between team identification and paradox mindset on integrative conflict management.



Integrative conflict management as a mediator. We found that paradox mindset and team identification influenced work engagement indirectly through integrative conflict management (*B* = .16, *SE* = .09, *LLCI* = .03, *ULCI* = .38). The conditional indirect effects are shown in Table 4.7. Specifically, team identification had a significant positive indirect effect on work engagement through integrative conflict management when paradox mindset was high (*B* = .23, *SE* = .08, *LLCI* = .10, *ULCI* = .42), but not when paradox mindset was low (*B* = .07, *SE* = .05, *LLCI* = -.02, *ULCI* = .20).

Confirming Hypothesis 3, the results of Study 4.3 suggest that highly identified team members are more likely to search for an integrative approach to the observed relationship conflict if they adopt a high paradox mindset, which helps them stay engaged in their work.

In contrast, when lacking a paradox mindset, highly identified team members are not able to suggest an integrative approach, resulting in a lower level of engagement.

Discussion and Conclusion

This research suggests that the impact of relationship conflict is broader than previously assumed, as even indirect exposure to such conflict can impede the work engagement of a third-party observer. Specifically, we found that observed relationship conflict had a stronger negative effect on observers' work engagement when they identify strongly with their team (Studies 4.1 and 4.2), even when controlling for directly experienced relationship conflict (Study 4.2). When these members adopted a paradox mindset, they were more likely to remain engaged in their work (Study 4.2), because they were more likely to adopt integrative conflict management to the conflict (Study 4.3). These findings highlight team identification and paradox mindset as key factors for coping with observed relationship conflict, and contribute to our understanding of this important yet understudied topic.

Theoretical Implications

Our research makes several contributions to theory on conflict and paradox. First, it extends prior research on relationship conflict in teams by focusing on the spill-over effects of relationship conflict on observers' work motivation. We are among the first to acknowledge that as part of teamwork, members can be exposed to relationship conflict between teammates and that this can negatively impact their work engagement. By doing so, we extend prior research that focuses on the detrimental effects of relationship conflict on those directly involved in the conflict, and that regards relationship conflict as a team process in which all team members are equally engaged (De Dreu & Weingart, 2003; De Wit et al., 2012).

More broadly, our research contributes to the literature on observed aggression and uncivil behavior at work (e.g., Miron-Spektor et al., 2011; Porath & Erez, 2007; Rafaeli et al.,

2012). Existing studies in this area have focused on witnessing a perpetrator engaging in negative behavior towards a victim (Dhanani & LaPalme, 2019) such as sexual harassment, discrimination, rudeness, aggression, and bullying, and have examined its emotional and cognitive consequences (e.g., Einarsen, Skogstad, Rørvik, Lande, & Nielsen, 2018; Rafaeli et al., 2012; Reich & Hershcovis, 2015). Our work contributes to this line of research by focusing on observing an overt disagreement between two team members in one's work team, without clearly distinguishing a perpetrator and a victim, and by investigating the motivational and behavioral mechanisms explaining the relationship between observing relationship conflict and observers' work engagement. We found that observing relationship conflict is particularly threatening to members who strongly identify with their team. Yet at the same time they are more likely to take an integrative approach to address the conflict– providing they adopt a paradox mindset that allows them to remain emotionally detached and seek for mutual understanding, rather than siding with one party or the other. The pursuit of an integrative solution in turn enables observers to remain engaged in the work.

Our study extends research on paradox (Miron-Spektor et al., 2018; Smith & Lewis, 2011) in two important ways. First, we have identified relationship conflict as an environmental factor that can surface underlying tensions. Moreover, we posit that observed interpersonal tension is more salient to an observer under certain circumstances, notably in terms of members' identification with the team as a situational factor (Miron-Spektor & Rafaeli, 2009). By showing the heightened effect of team identification on the effect of observed relationship conflict on work engagement, we demonstrate the importance of endogenous factors in intensifying surfaced tensions (Miron-Spektor et al., 2018; Smith & Lewis, 2011). Our research thus extends prior theoretical accounts by showing that an individual's psychological proximity to the situation may intensify the experienced tension

caused by exogenous factors (e.g., change, resource scarcity, and plurality; Smith & Lewis, 2011).

Second, unlike traditional research on paradox which focused on macro-level tensions, we add to a growing body of work on the micro-foundations (Miron-Spektor et al., 2018) by shifting from *intra*personal tensions to investigating *inter*personal tensions in social dynamics, notably those between conflicting values, personalities, and beliefs of team members. We show that observes constructively cope with relationship conflict and remain engaged if they identify with their team and adopt a paradox approach that enables integrative thinking. Similar to recent findings, we show that the effect of a paradox mindset is more evident when people experience higher levels of tension (Shao, Nijstad, & Täuber, 2019; Miron-Spektor et al., 2018). To the best of our knowledge, this is the first study to demonstrate the benefits of a paradox mindset to manage observed relationship conflict.

Our study also suggests an effective strategy for coping with relationship conflict. Although relationship conflict abounds in organizations, little is known about how to cope with them beyond a few studies that identify factors that buffer the negative consequences of observing relationship conflict between others. Extending research on perspective-taking in conflict situations (Rafaeli et al., 2012), we show that observers who could integrate the views of both sides were more likely to remain engaged in their work. A balanced perspective is essential, especially when team identification is strong.

Lastly, our findings point to team identification as a ‘mixed blessing’. While considerable beneficial outcomes have been documented, including job satisfaction, extra-role behavior, and decreased turnover intentions, our study supports new findings that underscore the dark side of team identification (e.g., Conroy, Henle, Shore, & Stelman, 2017), showing that when observing conflict in their workgroup, members who identify strongly with the team are more likely to be negatively influenced and become less engaged

at work, yet also more likely to seek to constructively manage it. And that adoption of a paradox mindset leads to more constructive outcomes.

Practical Implications

While relationship conflict abounds in organizations and teams, our study suggests that its influence is broader than assumed, and thus invites careful attention from managers. We have shown that indirect exposure to relationship conflict hinders work engagement, especially when team members identify with their team. While it may be impossible to eliminate relationship conflict from organizations, managers should heed the following recommendations. First, although team identification is a valuable asset, they need to be aware that it also makes team members vulnerable to observed relationship conflict in the team. Second, by encouraging their employees to adopt a paradox mindset and consider the point of view of both conflict parties, they can counteract the negative implications of relationship conflict and potently leverage its benefits by seeking integrative approaches.

Limitations and Future Research Directions

Although we used mixed methods to test our conceptual model, our sample consists of only Mturk workers from the US. We can therefore not establish that our conclusions can be generalized to other working populations outside the US, or whether the results would hold for non-Mturk samples. Despite this limitation, the quality of data obtained from Mturk is comparable to that obtained via other methods, and Mturk participants are well representative of the general population of the US (Buhrmester, Kwang, & Gosling, 2011). Because we used a screening procedure to select employed participants with teamwork experience, we believe that Mturk samples were appropriate for testing our conceptual model. Nonetheless, we encourage future research to test our conceptual model using samples outside the US and using data from employees in a single organization.

Relatedly, we used scenarios to establish the internal validity of our model. The scenario simulated real conflicts in teams. Although studies that manipulated conflict-related behaviors using confederates and scenarios found similar results with both methods (Porath & Erez, 2007, 2009), future studies that manipulate relationship conflict with confederates, with careful considerations of ethics, could provide additional support for our findings. Furthermore, for reasons of simplicity we simulated a particular form of relationship conflict that took place between two team members. Future studies could test whether our findings are similar when the observed conflict involves more than two members.

The effect of relationship conflict on observers' work engagement could depend on factors that are beyond the scope of this research. For example, agreeable members may be more reactive to conflict (Suls, Martin, & David, 1998), and cultural background may determine whether individuals avoid or approach conflict (Paletz, Miron-Spektor, & Lin, 2014). Future research could also focus on the role of having a leadership position in the relation between relationship conflict in work teams and observers' work engagement. For example, some participants in Study 4.3 mentioned in the writing task that their reactions to the observed conflict largely depended on whether they were in the position of a team leader.

In addition to integrative conflict management, future research could explore emotional detachment from relationship conflict as an alternative mediating mechanism. Prior research suggests that detaching one's emotions from relationship conflict ("going to the balcony" as a metaphor) could decrease the tension, helping the opposing parties deal with the conflict (e.g., De Dreu & Van Vianen, 2001; Ury, 1991). From the perspective of observers who strongly identify with the team, adopting a paradox mindset enables them to analyze the conflict situation from the perspectives of both parties. This cognitive engagement may help them emotionally detach from the conflict, and in turn enables

reappraisal of negative events, thereby reducing the negative effects on work engagement (Rafaeli et al., 2012).

Finally, we encourage future research to consider other outcome variables of observing relationship conflict in addition to motivational states. Relationship conflict, as an environmental stressor and negative work event, can also provoke mental and psychological strain among observers (Sonnentag & Frese, 2003), undermine positive attitudes towards job and organization (e.g., Cooper-Thomas et al., 2014), potentially diminish the impulse to help, and increase deviant behavior (Mitchell, Vogel, & Folger, 2015). Future research could also explore the effects of observing relationship conflict on off-the-job outcomes, given that work and non-work domains are increasingly intertwined (Dhanani & LaPalme, 2019).

Conclusion

Relationship conflict is one of the most damaging and difficult-to-manage dynamics within a team, and threatening not only to members who are directly involved but to those who witness the conflict, especially members who identify strongly with their team. To cope effectively with such a conflict and stay engaged, team members must learn to accept it as an inherent part of group dynamics and see it as an opportunity for development. Our research shows that viewing group conflict through a paradox lens enables team members to consciously engage with underlying tensions and take the perspectives of opposing parties to reach an integrative solution.

Chapter 5
General Discussion

To survive and ensure future viability in complex and changing business environments, contemporary organizations demand individuals, teams, and leaders to manage complex situations and their associated tensions (Waldman et al., 2019). For example, organizations must manage the tension between control and autonomy (Zhang et al., 2015), between exploration and exploitation (Smith & Tushman, 2005), and between continuity and change (Waldman & Bowen, 2016). Existing research has mainly examined tensions at the organizational level, team level, or manager level, and has focused on the use of inter-organizational, organizational, and team practices to address those tensions (Lewis et al., 2014; Miron-Spektor et al., 2018; Schad et al., 2016). However, our understanding of tensions at the individual level and individual responses to those tensions remains limited and individual-level tensions are understudied (Waldman et al., 2019). This dissertation set out to provide new insights into tensions at the individual level and provide new knowledge on individual approaches for managing tensions. Specifically, driven by the call for expanding paradox theory to different topical areas (Waldman et al., 2019), I used paradox theory as a meta-perspective to understand how individuals respond to *intra*personal tensions to achieve creativity and how they respond to *inter*personal tensions to maintain engagement, both of which are considered important outcomes of tension management specified by paradox theory (Smith & Lewis, 2011).

Paradox theory describes tensions between conflicting demands, processes, interests, and perspectives as persistent and interrelated (Schad et al., 2016; Smith & Lewis, 2011), which cannot be resolved via a trade-off approach. Specifically, this theory assumes that various tensions are inherently embedded in the process of organizing, and can be made salient to organizational actors via environmental forces such as resource scarcity, plurality

and change or via the adoption of a cognitive frame that juxtaposes contradictory goals and demands (Smith & Lewis, 2011; Smith & Tushman, 2005). A salient tension can be a double-edged sword. It can promote a positive, virtuous cycle that promotes sustainability via unleashing creativity, flexibility, and human potential, but it can also lead to a negative, vicious cycle that increases anxiety and defensiveness (Miron-Spektor et al., 2018; Smith & Lewis, 2011). Paradox theory further suggests that organizational actors vary in their ability and resources to constructively react to salient tensions. A defensive approach to tensions leads to anxiety, fear and stress, while a constructive approach to tensions leads to creativity, adaptability and positive energy, which ultimately leads to sustainability.

Drawing on paradox theory, Chapter 1 identified three knowledge gaps in the literature of micro-level tensions, which have motivated the three empirical chapters in this dissertation. First, research on *intra*personal tension (in creativity) has overlooked why some individuals choose to focus on one side (originality *versus* usefulness) of the competing demands of creativity. Second, existing research did not consider how individual employees and individual leaders jointly approach tensions and how that affects creative performance in a stressful environment. Third, theoretical progress at the individual level has mainly focused on how individuals approach *intra*-personal tensions between goals and demands, leaving the question of how individuals approach *inter*personal tension understudied.

This final chapter connects the main findings of Chapters 2, 3, and 4 to the knowledge gaps identified in Chapter 1 and describes how those findings collectively contribute to tension and paradox research, the creativity literature and leadership theories. Besides, this chapter further discusses how future research directions can build on this dissertation's findings and concludes with the implications for management practice.

Summary of Main Findings

Chapter 2: Intrapersonal Tension between Originality and Usefulness

Chapter 2 addressed the question of what drives the pursuit of originality given that originality and usefulness are often negatively related and there may be a tension between them. Following research suggesting that originality and usefulness are motivated by distinct, even conflicting conditions (Bechtoldt et al., 2010; Miron-Spektor & Beenen, 2015), I propose that the pursuit of originality is driven by individuals' motivation to be unique and different, which has its roots in the way individuals define and construct their selves. Integrating approach-avoidance motivation theory (Carver, 2006; Elliot, 2006; Elliot & Thrash, 2002) and the dual pathway to creativity model (De Dreu et al., 2008; Nijstad et al., 2010), I suggest that in tasks where originality and usefulness are presumably in tension, the pursuit of originality is driven by independent self-construal because it facilitates individuals' approach motivation, which in turn increases flexible information processing. Results from one experiment and one survey study suggest that people with an independent self-construal drives the pursuit of originality because of their approach motivation and cognitive flexibility.

Chapter 3: Intrapersonal Tension between Routine and Creative Actions

Chapter 3 examined tension in high workload pressure situations and how employees can cope with tension to achieve creative self-efficacy and creativity. Based on paradox theory, I suggested that tensions can be made salient by workload pressure, and that paradoxical leader behavior can be an external resource for employees to learn to embrace tensions, enhancing employee creative self-efficacy and creativity. However, I also suggested that employees who have the integrative complexity to effectively understand and act upon complex, dynamic leader behavior would benefit more from paradoxical leader behavior than employees with low integrative complexity. The findings from a multi-source survey support the thesis that paradoxical leader behavior is effective in promoting creative self-efficacy and

creativity under high workload pressure, especially for employees with high integrative complexity. When integrative complexity was low, however, paradoxical leader behavior harmed creative self-efficacy and creativity, and this negative effect was strongest when workload pressure was high but integrative complexity was low.

Chapter 4: Interpersonal Tension arising from Observed Relationship Conflict

Chapter 4 investigated interpersonal tensions manifested in relationship conflicts, and suggests that the impact of relationship conflict is broader than previously assumed: even indirect exposure to such conflict can impede the work engagement of a third-party observer. I further suggested that observers can approach relationship conflict in defensive or constructive ways, depending on their team identification and paradox mindset. Specifically, I found that observing relationship conflict had a stronger negative effect on observers' work engagement when observers identified more strongly with their team. Importantly, I also found that when observers who identified with their team adopted a paradox mindset, they were more likely to remain engaged in their work, because they were more likely to look for integrative solutions to the observed conflict. These findings highlight team identification and paradox mindset as key factors for coping with observed relationship conflict, and contribute to our understanding of this important yet understudied topic.

Theoretical Contributions

In the following section, I discuss how this dissertation advances our understanding of managing micro-level tensions, and how this contributes to the paradox literature, the creativity literature, and the leadership literature.

Contribution to the Paradox Literature

Unlike traditional paradox studies that focused on macro-level tensions, I add to a growing body of work on the micro-foundations of organizational paradoxes (Miron-Spektor et al., 2018). The primary contribution of this dissertation lies in advancing our understanding

of how individuals approach intrapersonal and interpersonal tension and its implication for creativity and work engagement, with Chapter 2-3 concentrating on intrapersonal tension and Chapter 4 focusing on interpersonal tension.

Chapter 2 of this dissertation examined the tension *within* creativity and aimed to identify what factor drives individuals to focus on one side (originality/novelty or usefulness) of the competing demands of creativity. Building on previous research suggesting that individuals need to possess contradictory motivations, cognitions, and behaviors to achieve both novel and useful outcomes (Miron-Spektor & Beenen, 2015; Miron-Spektor & Erez, 2017; Miron-Spektor, Gino, et al., 2011; Miron-Spektor et al., 2018), results from Chapter 2 theorized that differences in self-construal may foster different tendencies towards pursuing one side of the tension in creative outcomes and that a dominant independent self-construal may drive individuals to focus on novelty/originality instead of usefulness/feasibility. This research thus complements previous research by showing that individuals' self-concept, in addition to motivation (Miron-Spektor & Beenen, 2015) and cognition (Miron-Spektor, Gino, et al., 2011), has important implications for how one will approach tensions in creative tasks.

Chapter 3 took a broader perspective to investigate the tension *between* creative and routine behavior, which are made salient when workload pressure is high. High workload pressure limits the energy resources for addressing different goals, resulting in the experience of tension between competing demands and activities (Lewis & Smith, 2014; Moeini et al., 2008). This research, therefore, extends prior research which mainly looked at resource scarcity, change, and plurality as the situational factors that trigger the experience of tension. Besides, most existing paradox studies at the individual level have mainly investigated how individuals handle tensions utilizing personal resources, for example, by adopting a paradoxical mindset or having multiple motivations (Miron-Spektor & Beenen, 2015; Miron-Spektor, Gino, et al., 2011). Little research has investigated the external resources that

individuals need to cope with manifest tensions. Addressing this issue, the work in Chapter 3 simultaneously considered paradoxical leader behavior, follower integrative complexity, and the situational factor workload pressure, and showed that they jointly affected how individuals manage tensions to achieve creativity. This emphasis on the personal (integrative complexity) and contextual (workload pressure) contingencies of paradoxical leader behavior departs from the current literature on paradox, which tends to neglect individual differences and the organizational context (Schad et al., 2016). The present work suggests that research in paradoxical leadership should investigate *when* and *for whom* PLB might be good or bad for performance.

Chapter 4 extended the micro-level paradox studies, which primarily focused on *intra*personal tensions, by investigating *inter*personal tensions in social dynamics in work teams, notably those between conflicting values, personalities, and beliefs of team members. By conceptualizing relationship conflict as a manifestation of underlying tensions between conflicting values, attitudes and preferences, scholars may get a better understanding of the "paradoxes of group life" that make the team dynamics challenging for individual team members and prevents teams from their optimal functioning. The study by Thiel and colleagues (2019) suggests that teams can rebound from the short-term deleterious consequences of relationship conflict. The work in Chapter 4 extends this idea by looking at the micro-process of rebounding from relationship conflict at the individual level, showing that third-party team members who adopted a paradox mindset to integrate the views of both sides of the conflict were more likely to resist the negative effects of relationship conflict and remained engaged in their work. Moreover, consistent with the findings of Miron-Spektor et al. (2018), the results of Chapter 4 showed that adopting a paradox mindset can help individuals to constructively cope with tensions. My research extends the study by Miron-Spektor and colleagues (2018) in two important ways. First, by showing that team

identification strengthened the effect of observed relationship conflict on work engagement, my research demonstrates the importance of endogenous factors in intensifying surfaced tensions (Miron-Spektor et al., 2018; Smith & Lewis, 2011). My research thus extends prior theoretical accounts by showing that an individual's psychological proximity to the situation may intensify the experienced tension caused by exogenous factors (e.g., change, resource scarcity, and plurality; Smith & Lewis, 2011). Second, my research suggests that a paradox mindset is not just effective when managing intrapersonal tensions, but also when managing interpersonal tensions.

Contribution to the Creativity Literature

This dissertation also generates new insights for the creativity literature. The central findings of Chapter 2 of this dissertation suggest that an independent self-construal is positively linked to novelty/originality, which is often strongly and negatively correlated with usefulness (Diedrich, Benedek, Jauk, & Neubauer, 2015; Nijstad et al., 2010). The results demonstrate that when novelty and usefulness are in tension (as suggested by the negative correlations from past research), people with an independent self-construal prioritize novelty over usefulness because of the associated approach motivation and cognitive flexibility. My research is thus consistent with the idea that novelty and usefulness are two differentiated dimensions of creativity (Beersma & De Dreu, 2005; Diedrich et al., 2015; Montag, Maertz, & Baer, 2012; Rietzschel, Nijstad, & Stroebe, 2007) that are driven by differentiated factors (Miron-Spektor & Beenen, 2015). I encourage future research to explicitly distinguish usefulness and novelty of creativity, and examine what factors motivate the integration of both novelty and usefulness in generating creative outcomes. Another contribution to the creativity literature from Chapter 2 is the integration of previously fragmented literature by showing that approach motivation and cognitive flexibility sequentially mediate the effects of self-construal on originality. This integration provides a more clear and complete

understanding of the pathway through which self-construal, as a distal antecedent, affects creative performance.

Moreover, this dissertation also provides insights into how to build creative self-efficacy and creativity. Previous research on leading the creative workforce emphasized leaders' role in shaping creative role identity and being a creative role model (Gong et al., 2009; Koseoglu, Liu, & Shalley, 2017) in promoting employee creativity. My research extends previous research by showing that leaders can also be a role model of managing tensions, which inspires employees to constructively manage tensions to achieve creativity (Miron-Spektor & Erez, 2017). Instead of one-sidedly focus on the role of autonomy and freedom for creativity, my research suggests that leaders should combine autonomy and constraints to create an environment that is both structured and autonomous and gives individuals both clear goals and flexible paths to achieve those goals. In sum, my research sees paradoxical tensions as the central challenge in achieving creativity, especially when stressful situations make tensions salient, and provides insights into the conditions that help constructively manage those challenges, which in turn enhances employee CSE and creativity.

Contributions to the Leadership Literature

This dissertation complements the existing understanding of effective leadership behavior for promoting creativity in stressful circumstances. Previous research suggested a buffering role of leadership (e.g., transformational leadership and empowering leadership) in mitigating the negative effects of work stress/demands on employees outcomes such as well-being, engagement, OCB, and performance (e.e., Babcock-Roberson & Strickland, 2010; Sharma & Kirkman, 2015; Syrek, Apostel, & Antoni, 2013). The study in Chapter 3, however, found that paradoxical leader behavior was effective in *enhancing* creative self-efficacy and creativity when workload pressure was high if those employees had sufficient

integrative complexity. However, PLB was ineffective when workload pressure was low, and even negatively affected CSE and creativity when employee integrative complexity was low and workload pressure was high. As such, my research provides new knowledge about how leaders can effectively promote employee creativity in stressful circumstances.

Chapter 3 of this dissertation also speaks to the ambidextrous leadership literature. My theorization based on paradox theory suggests that leaders need to show seemingly contradictory, complex behaviors to facilitate performance that involves conflicting demands. This is consistent with the idea of the ambidextrous leadership literature, which emphasizes the value to "foster both explorative and exploitative behaviors in followers by increasing or reducing variance in their behavior and flexibly switching between those behaviors" (Rosing, Frese, & Bausch, 2011, p: 957). However, my study extends the ambidextrous leadership literature by investigating when and for whom the contradictory and complex behavior might be beneficial. Given that complex behavior may not be equally appreciated by employees and may not be necessary for some situations (as suggested by the results of Chapter 3), future research on ambidextrous leadership should carefully consider the boundary conditions.

Practical Implications

To achieve short-term performance that also fuels success in the long run, organizations need to address contradictory demands at the organizational, team, and individual levels. Effectively attending to and managing tensions between contradictory demands unleashes creativity, resilience, and human potential, which are key to building sustainable businesses that can succeed at the present and in the future (Smith & Lewis, 2011). This dissertation advances our limited understanding of tensions at the individual level, offering new insights into individual approaches to tensions and its implications for creative performance and work engagement. In this section, I discuss the practical

contributions of this dissertation from two themes: (i) Approaches to intrapersonal tension (ii) Approaches to interpersonal tension.

Approaches to Intrapersonal Tension

In Chapter 2, I zoomed in on the intrapersonal tensions that individuals face while engaging in creative tasks. In line with the notion that creativity involves tensions between achieving both novelty and usefulness (Andriopoulos, 2003; Miron-Spektor & Erez, 2017), the results of Chapter 2 suggest that a dominant independent self-construal results in the pursuit of originality in a setting where achieving originality is in tension with achieving usefulness. One central implication for management practices from this study is to be aware of that originality may come at the cost of usefulness, and that individuals with high independent self-construal may overlook the usefulness aspects of creativity. If originality is the primary goal, managers should recruit employees with a dominant independent self-construal, because those people are motivated by their desire to positively distinguish themselves from others, which fuels flexibility in generating divergent ideas, in turn resulting in more original, novel outcomes. However, if both originality and usefulness are concerned, managers should bear in mind that a highly original idea may be "creative" in the abstract but destructive in actual operation when it lacks usefulness, which may hinder the company by investing valuable resources in the wrong place (Levitt, 2002). Individuals with high independent self-construal may excel at contributing novel ideas, but making those novel ideas potentially useful and feasible may not be their default motivation. This implies that managers who aim for both novel and useful ideas need to have employees with both independent self-construal and interdependent self-construal work together.

In Chapter 3, I zoomed out to examine the intrapersonal tension between creative and routine action when workload pressure makes this tension salient. When workload pressure is high, managers need to be aware that employees feel torn between the demand to carry out

routine work and creative work, and often routine work is prioritized because it is more certain and less risky. This suggests that it is challenging for employees to engage in creativity in stressful situations. The findings of Chapter 3 imply that paradoxical leader behavior, particularly behavior that combines control and autonomy, and combines constraints and flexibility, can be effective in promoting employee creative self-efficacy and creativity even in stressful circumstances. When workload pressure is high, managers should create clear goals, structure, and requirements to reduce anxiety and uncertainty among employees when encountering paradoxical tensions. At the same time, managers should also grant enough autonomy and flexibility to employees to explore and try out different solutions. By embracing this "both-and" approach, managers can be a role model for employees to learn from to meet contradictory demands. This helps build a supportive environment that is both autonomous and bounded so that employees have both directions and autonomy to engage in creativity.

However, managers need to be aware that not all employees benefit from paradoxical leader behavior. I found that paradoxical leader behavior promoted creative self-efficacy and creativity only when workload pressure was high and when employees had sufficient integrative complexity. Therefore, leaders need to be aware of the situational configurations when performing paradoxical leader behavior. When subordinates have low integrative complexity, it is advised that managers should develop employees' integrative complexity before showing complex leader behaviors such as paradoxical leader behavior. Managers can develop and train employees' integrative complexity by, for example, providing employees the opportunity to work in different cultures (Suedfeld & Bluck, 1993; Tadmor et al., 2012) and assigning them to different social roles (Hannah et al., 2013).

Approaches to Interpersonal Tension

Chapter 4 shifted the focus from managing intrapersonal tension to interpersonal tension. The findings of Chapter 4 suggest that indirect exposure to interpersonal tension could potentially hinder work engagement, a positive psychological state that is characterized by absorption, dedication, and vigor, especially when team members identify with their team. Managers should, therefore, pay attention not only to those who directly experienced interpersonal tensions in the team, but also those indirectly exposed to the interpersonal tension. The effort targeted to intervene in the interpersonal tension should cover both the parties who experience the conflict and the third-party observers. It may be a daunting task for managers to eliminate interpersonal tension from organizations, given that more and more work is team-based, and employees are encouraged to share divergent ideas to achieve team creativity and innovation. However, based on the results of Chapter 4, I believe managers can play an active role to buffer the negative effects of observed interpersonal tension on work engagement. First, managers should be aware that although team identification is a valuable asset, it also makes team members vulnerable to observed interpersonal tension in the team. Second, managers should train their employees to adopt a paradox mindset and consider the point of view of both conflict parties, because a paradox mindset can better counteract the negative implications of observed interpersonal tensions and potentially leverage its benefits by seeking integrative approaches.

Future Research Directions

In this section, I discuss several promising avenues for future research on tensions emerged from the results in chapters 2-4.

First, in this dissertation, I suggest that a constructive approach to tensions can foster creativity (Chapter 3) and sustain work engagement (Chapter4). A direct extension of my research is to examine other positive consequences of tension management in the workplace.

For example, in addition to creativity and engagement, Smith and Lewis (2011) suggested that embracing competing demands simultaneously fosters cognitive and behavioral flexibility, which enhances adaptability and resilience in a complex, dynamic environment. Future research could contribute to this body of research by empirically testing adaptability as a consequence of tension management. Relatedly, another interesting direction for future research is to investigate the potential dark sides of embracing contradictory demands at work. Research so far has primarily focused on the positive consequences, and we have a limited understanding of the costs associated with the paradoxical approach. The findings of Chapter 3 suggest that when individuals do not have sufficient integrative complexity, their creativity and creative self-efficacy can be undermined by paradoxical leader behavior. Besides, Smith and Lewis (2011) suggested that emotional anxiety and defensiveness can result from failing to successfully manage tensions. I, therefore, encourage future research to enrich our understanding of the negative consequences of tension management in the workplace.

Second, my work made important progress in extending the paradox theory framework to understand interpersonal tension, showing in Chapter 4 that a paradox mindset can buffer the negative effects of observed interpersonal tension between team members on highly identified team members' work engagement. Nevertheless, the scenario studies only simulated a particular form of interpersonal tension that took place between two team members, and it is not clear whether the findings hold for other forms of interpersonal tensions. Future studies could test whether the findings are similar when the observed conflict involves more than two members or two subgroups of members. I suspect that if the observed interpersonal tension involves two subgroups of team members, the observers' sub-group identification may become more important than team identification to guide their reactions to the observed tension. Future search is needed to empirically examine those possibilities

Third, future research can enrich our understanding by further adopting a process lens, exploring how tensions are experienced and addressed (Putnam, Fairhurst, & Banghart, 2016). In Chapter 4, the results showed that integrative conflict management explained why highly identified members with a high paradox mindset were less negatively affected by observed interpersonal tension. I encourage future research to take a similar approach to extend Chapter 3, explaining how exactly paradoxical leader behavior helps employees address contradictory demands. I suggested that paradoxical leader behavior supports individuals to meet conflicting demands by creating a supportive environment characterized by both autonomy and structure. Future research could examine whether work autonomy and work structure simultaneously mediate the effects of paradoxical leader behavior on follower outcomes.

Fourth, in the dissertation, I used mixed methods including experiments, scenario studies and multi-source surveys to examine how individuals react to intrapersonal and interpersonal tensions. Future research can extend this research by employing a longitudinal design to explore how tensions are experienced and addressed over time. For example, employees may experience a high level of tension when a particular situational factor has increased (e.g., workload pressure), but perhaps especially when they have little experience in managing such tension. However, because individuals can gain experience and develop skills in managing tensions over time, the same amount of workload pressure may not evoke the same feeling of tension and elicit the need to address the tension at a later point in time. Moreover, future research can explore how individuals shift between contradictory goals and demands over time more thoroughly.

Finally, future research should broaden its focus and employ a paradox lens to examine multilevel tensions (Fairhurst et al., 2016). Research so far has advanced our understanding of tensions and their management at different levels of analysis, such as the

organization level (Raisch & Tushman, 2016), manager level (Smith, 2014), and team level (Gebert, Boerner, & Kearney, 2010), and this dissertation contributes to the growing understanding of individual-level tensions and their management (Miron-Spektor et al., 2011; Miron-Spektor et al., 2018). However, we still have a limited understanding of how multiple tensions experienced at different levels are addressed jointly within multiple levels of analysis (Fairhurst et al., 2016). For example, Smith and Tushman (2005) noted that the tension between exploitation and exploration spurs nested tensions throughout the organization, sparking contradictory demands for leadership, team practices, and individual behaviors. It would be interesting to explore more deeply how tension at different levels is addressed across levels collectively by individual employees, leaders, teams, units, and organizations, and how tension management at one level affects tension management at another level (Fairhurst et al., 2016).

Conclusion

Competing demands pervade contemporary organizations. Employees face the challenge of managing complex situations and associated tensions. This dissertation views tension not as a problem, but as an opportunity that enables individuals to learn, create and engage. Drawing on paradox theory, this dissertation offers new insights into understudied individual approaches to intrapersonal tensions between competing demands and goals, and interpersonal tensions surfaced by relationship conflict. Chapters 2 and 3 focused on intrapersonal tension in the domain of creativity with Chapter 2 examining how individual factors are associated with the pursuit of one-sided creative solutions, and Chapter 3 investigating when and how leaders and employees can jointly manage tensions arising from workload pressure to achieve better creative performance. Chapter 4 studied relationship conflict as a form of interpersonal tension, suggesting a new way to counteract its negative implications to stay engaged. Taken together, this dissertation not only advances the existing

understanding of managing tensions at the micro-level, but also contributes to paradox theory by identifying new boundary conditions that contextualize benefits and costs associated with tensions and paradoxes. I hope this dissertation will serve as a building block for future research on workplace tensions, fuelling a better understanding of how employees and leaders can thrive and progress in tensions.

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Nederlandse Samenvatting

Tegenstrijdigheden tussen concurrerende doelen, eisen, belangen en perspectieven roepen spanningen op. Individuele werknemers ervaren in toenemende mate intrapersoonlijke spanningen tussen concurrerende doelen en eisen op het werk. Fashion ontwerpers streven er bijvoorbeeld naar om in de behoefte van bestaande klanten te voorzien en tegelijkertijd nieuwe klanten tevreden te stellen. Van R&D-professionals wordt verwacht dat zij nieuwe producten ontwikkelen die ook praktisch en haalbaar zijn. Onderzoekers voelen zich heen en weer geslingerd tussen het voldoen aan de publicatie-eisen en het vrijelijk verkennen van hun onderzoeksinteresses. Omdat steeds vaker gebruik wordt gemaakt van werkgroepen en teams om taken in organisaties uit te voeren, ervaren medewerkers naast intrapersoonlijke spanning ook steeds meer interpersoonlijke spanningen door tegenstrijdige belangen en perspectieven. Zo wordt van teamleden verwacht dat zij goed omgaan met tegenstrijdige emoties, ideeën en gedragingen die in het team naast elkaar bestaan.

Ondanks de alomtegenwoordigheid van spanningen op individueel niveau, hebben studies over spanningen in de context van organisaties zich voornamelijk gericht op spanningen binnen teams, organisaties als geheel en samenwerkings verbanden tussen organisaties, en op collectieve reacties op die spanningen (Lewis & Smith, 2014; Miron-Spektor et al., 2018; Schad, Lewis, Raisch, & Smith, 2016; Waldman et al., 2019). Verschillende spanningen zijn in deze studies onderzocht, zoals de spanning tussen exploratie en exploitatie (Andriopoulos & Lewis, 2009), tussen controle en samenwerking (Sundaramurthy & Lewis, 2003), en tussen stabiliteit en verandering (O'Reilly & Tushman, 2008; Raisch & Birkinshaw, 2008). Deze onderzoeken hebben de nadruk gelegd op het gebruik van praktijken om prestaties, innovatie en duurzaamheid te bevorderen en daarmee concurrerend te blijven (Schad et al., 2016). Echter, wetenschappelijk inzicht in spanningen op individueel niveau en individuele reacties op die spanningen is beperkt (Miron-Spektor et

al., 2018; Schad et al., 2016; Waldman et al., 2019). In de huidige dissertatie worden de spanningen op individueel niveau daarom verder verkend. We richten ons niet op spanning als een probleem, maar op spanning als een paradox die individuen aanzet tot leren, creëren en zich te engageren.

Het begrip paradox verwijst naar hardnekkige tegenstellingen tussen onderling afhankelijke elementen (Schad et al., 2016; Smith & Lewis, 2011). Een paradoxale benadering van spanning suggereert dat concurrerende eisen, doelen, belangen en perspectieven tegelijkertijd moeten worden aangepakt vanwege hun onderling afhankelijke en hardnekkige aard. Een paradoxale benadering van spanning houdt in dat tegenstrijdige elementen naast elkaar worden geplaatst. Dit biedt nieuwe mogelijkheden om te leren en problemen op een creatieve manier op te lossen, de veerkracht bij uitdagingen te versterken en positieve energie en motivatie bij individuen op te wekken (Smith & Lewis, 2011). Gebaseerd op paradox theorie (Smith & Lewis, 2011) zijn de drie empirische hoofdstukken van dit proefschrift gewijd aan het ontwikkelen van inzichten over de aanpak van spanningen op individueel niveau en de implicaties daarvan voor twee belangrijke uitkomsten voor medewerkers: creativiteit en betrokkenheid bij het werk.

Hoofdstuk 2: Intrapersoonlijke spanning tussen originaliteit en bruikbaarheid

In hoofdstuk 2 werd ingegaan op de vraag waarom sommige mensen de voorkeur geven aan de originaliteits- boven de bruikbaarheidsdimensie van creativiteit, gezien het feit dat deze twee dimensies vaak negatief gerelateerd zijn en er een spanning tussen hen kan bestaan. Gebaseerd op onderzoek dat suggereert dat originaliteit en buikbaarheid gemotiveerd worden door verschillende, zelfs tegenstrijdige condities (Bechtoldt et al., 2010; Miron-Spektor & Beenen, 2015), stelden we voor dat het streven naar originaliteit boven buikbaarheid gedreven wordt door de motivatie van individuen om uniek en anders te zijn, wat zijn wortels heeft in de manier waarop individuen hun zelf definiëren en construeren. We

integreerden theorie over benadering- en vermijdingsmotivatie (Carver, 2006; Elliot, 2006; Elliot & Thrash, 2002) met het *dual pathway to creativity model* (De Dreu et al., 2008; Nijstad et al., 2010) en suggereerden dat in taken waar originaliteit en bruikbaarheid op gespannen voet staan, het streven naar originaliteit wordt gedreven door een onafhankelijke zelfconstructie (*independent self-construal*). Deze vorm van zelfconstructie versterkt benaderingsmotivatie, wat op zijn beurt flexibele informatieverwerking vergroot. Resultaten van een experiment en een veldonderzoek suggereerden dat mensen met een onafhankelijke zelfconstructie vooral streven naar originaliteit vanwege hun sterke benaderingsmotivatie en cognitieve flexibiliteit.

Hoofdstuk 3: Intrapersoonlijke spanning tussen routinematige en creatieve acties

In hoofdstuk 3 werd gekeken naar spanning in situaties met een hoge werkdruk en hoe medewerkers kunnen omgaan met spanning om creatieve zelfeffectiviteit (*creative self-efficacy*) en creativiteit te bereiken. Op basis van paradox theorie suggereerden we dat spanningen door werkdruk kunnen worden versterkt, en dat paradoxaal leiderschapsgedrag een externe hulpbron kan zijn voor medewerkers om met spanningen om te gaan, waardoor de creatieve zelfeffectiviteit en creativiteit van medewerkers wordt vergroot. We suggereerden echter ook dat medewerkers die voldoende integratieve complexiteit hebben om het complexe, dynamische leidersgedrag te begrijpen en ernaar te handelen meer baat zouden hebben bij paradoxaal leidersgedrag dan medewerkers met een lage integratieve complexiteit. De bevindingen van een multi-source onderzoek ondersteunden de stelling dat paradoxaal leiderschapsgedrag effectief is in het bevorderen van creatieve zelfeffectiviteit en creativiteit onder hoge werkdruk, vooral voor werknemers met een hoge integratieve complexiteit. Wanneer de integratieve complexiteit laag was, echter, schaadde paradoxaal leiderschapsgedrag de creatieve zelfeffectiviteit en creativiteit, en dit negatieve effect was het sterkst wanneer de werkdruk hoog was, maar integratieve complexiteit laag.

Hoofdstuk 4: Interpersoonlijke spanning als gevolg van waargenomen relatieconflicten

Hoofdstuk 4 onderzocht interpersoonlijke spanningen tijdens relatieconflicten, en suggereert dat de impact van relatieconflicten breder is dan eerder werd aangenomen: zelfs indirecte blootstelling aan een dergelijk conflict kan het functioneren van een waarnemer (een teamlid dat niet direct bij het conflict is betrokken) belemmeren. We suggereerden verder dat waarnemers relatieconflicten op een defensieve of constructieve manier kunnen benaderen, afhankelijk van de identificatie met hun team en hun paradoxale mentaliteit (*paradox mindset*). In het bijzonder vonden we dat het observeren van relatieconflicten een sterker negatief effect had op de werkbetrokkenheid van waarnemers wanneer zij zich sterker identificeerden met hun team. Belangrijk is dat we ook ontdekten dat wanneer waarnemers die zich met hun team identificeerden een paradoxale mentaliteit aannamen, ze meer betrokken bleven bij hun werk, omdat ze meer geneigd waren om naar integratieve oplossingen voor het conflict te zoeken. Deze bevindingen benadrukken identificatie met het team en paradoxale mentaliteit als sleutelfactoren voor het omgaan met geobserveerde relatieconflicten, en dragen bij aan ons begrip van dit belangrijke, maar nauwelijks bestudeerde onderwerp.

Conclusie

Concurrerende eisen zijn alomtegenwoordig in hedendaagse organisaties. Medewerkers staan voor de uitdaging om complexe situaties en de daarmee gepaard gaande spanningen te hanteren. In dit proefschrift wordt spanning niet als een probleem gezien, maar als een uitdaging die individuen in staat stelt te leren, te creëren en zich te engageren. Op basis van paradox theorie biedt dit proefschrift nieuwe inzichten in nauwelijks bestudeerde individuele benaderingen van intrapersoonlijke spanningen tussen concurrerende eisen en doelen, en interpersoonlijke spanningen die aan het licht komen door relatieconflicten. De hoofdstukken 2 en 3 richten zich op intrapersoonlijke spanningen in het domein van creativiteit. In

hoofdstuk 2 werd onderzocht hoe individuele factoren samenhangen met het streven naar eenzijdige creatieve oplossingen; in hoofdstuk 3 werd onderzocht wanneer en hoe leiders en medewerkers gezamenlijk spanningen kunnen beheersen die voortkomen uit werkdruk, om daarmee tot betere creatieve prestaties te komen. Hoofdstuk 4 bestudeerde relatieconflicten als een vorm van interpersoonlijke spanning, en stelde een nieuwe manier voor om de negatieve implicaties ervan tegen te gaan zodat individuen betrokken blijven. Dit proefschrift bevordert niet alleen inzicht in hoe individuen omgaan met spanningen op microniveau, maar draagt ook bij aan paradox theorie door nieuwe randvoorwaarden te identificeren die de voordelen en kosten van spanningen en paradoxen beïnvloeden. We hopen dat dit proefschrift zal dienen als een bouwsteen voor toekomstig onderzoek naar spanningen op het werk, waardoor een beter begrip ontstaat van hoe werknemers en leiders kunnen gedijen en vooruitgang kunnen boeken in situaties waarin spanningen optreden.

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