

**An Empirical Investigation of Conflicting Relational Models as an
Antecedent of Perceived (In)justice and (Un)cooperative Behavior
at Work**



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ABSTRACT

When people socially interact at work, they have an individual understanding of how they relate to each other, an understanding of what behavior is appropriate and fair. But what cognitive and motivational underpinnings underlie this understanding and shape one's expectation of what behavior is appropriate and fair in a given social interaction? And what are the affective and behavioral consequences if there are discrepancies among co-workers about how to relate to each other? The aim of the present thesis was to find answers to these questions. Building upon relational models theory (Fiske, 1992), which posits four fundamental relational models that people use to coordinate their social interactions, this thesis examines how discrepancies between interaction partners about what relational model to apply in social interactions are related to perceived injustice and relationship conflict and how these variables are in turn related to work-related affective, motivational and behavioral outcomes. For this purpose, six studies were conducted in which conflicting relational models were operationalized in different ways. The first two studies examined how team members' shared understanding of relational models in work teams (i.e., shared relational models) are related to perceived justice, relationship conflict, and different aspects of team viability. The third study examined how shared relational models are related to (un)cooperative behaviors among team members. The last three studies applied an experimental vignette methodology to provide causal evidence for the proposed effects of conflicting relational models on perceived (in)justice and (un)cooperative behaviors among co-workers. In all six studies, I found support for the proposed role of conflicting relational models as an antecedent of perceived (in)justice and conflict, as well as of affective and motivational outcomes and (un)cooperative behaviors at work. The research presented in this thesis demonstrates the relevance of relational models in the workplace and contributes to various strands of research on social interactions at work.

ZUSAMMENFASSUNG

Wenn Menschen am Arbeitsplatz sozial interagieren haben sie eine bestimmte Auffassung davon, welches Verhalten ‚angemessen‘ und welches Verhalten ‚unangemessen‘, welches Verhalten ‚gerecht‘ und welches Verhalten ‚ungerecht‘ ist. Sie haben ein Verständnis davon, wie sie *zueinander stehen*, wie sie sich *in Relation zueinander* sehen. Im Idealfall haben Interaktionspartner eine ähnliche Auffassung davon, welches Verhalten in einer bestimmten Situation angemessen und fair ist und welches nicht. Es gibt jedoch auch Situationen, in denen Interaktionspartner ein unterschiedliches Verständnis davon haben, was als angemessen und fair zu betrachten ist. Doch was sind die Ursprünge und Konsequenzen derartiger Diskrepanzen? Und was sind die zu erwartenden Auswirkungen wenn Interaktionspartner ein unterschiedliches Verständnis davon haben welches Verhalten angemessen und fair ‚ist‘ und welches Verhalten nicht? Ziel dieser Arbeit war es, eine Antwort auf diese Fragen zu finden.

Die vorliegende Dissertation nähert sich dieser Fragestellung aus dem Blickwinkel der Theorie der relationalen Modelle (Fiske, 1992) an, die besagt dass Menschen vier elementare kognitive Schemata, nutzen, um soziale Beziehungen mit ihren Mitmenschen zu regulieren. Diese *relationalen Modelle* dienen als handlungsleitende Prinzipien anhand derer Menschen ihre sozialen Interaktionen interpretieren, planen, antizipieren und bewerten. Jedes der vier relationalen Modelle beinhaltet dabei ein distinktes moralisches Motiv und geht mit einem bestimmten Gerechtigkeitsprinzip einher. Die Beurteilung der *Angemessenheit* und der *Gerechtigkeit* einer sozialen Handlung hängt dementsprechend davon ab, welches relationale Modell bei der beurteilenden Person in der entsprechenden Situation als gültig erlebt wird und ob die betreffende Handlung in Einklang oder im Widerspruch zu diesem relationalen Modell steht. Dementsprechend führt eine soziale Interaktion, in der die Interaktionspartner *unterschiedliche* relationale Modell anwenden mit

einer hohen Wahrscheinlichkeit zu wahrgenommener Ungerechtigkeit und Beziehungskonflikten, da die moralischen Motive und die Gerechtigkeitsprinzipien die den unterschiedlichen relationalen Modellen innewohnen, inkompatibel zueinander sind. Die Aufrechterhaltung eines relationalen Modells verletzt die Prinzipien eines anderen relationalen Modells.

Die zentrale Grundannahme, die dieser Arbeit und den darin enthaltenen Studien zugrunde liegt, lautet daher: Wenn Interaktionspartner unterschiedliche Auffassungen davon haben, wie sie zueinander stehen und welche relationalen Modelle ihren sozialen Interaktionen zugrunde liegen, führt dies mit hoher Wahrscheinlichkeit zu wahrgenommener Ungerechtigkeit, welche wiederum negative Auswirkungen auf die entsprechende Beziehung hat.

Ausgehend von dieser Annahme wurden sechs empirische Studien durchgeführt, in denen untersucht wurde, wie sich die Anwendung unterschiedlicher (konfligierender) relationaler Modelle in sozialen Interaktionen am Arbeitsplatz auf die wahrgenommene Gerechtigkeit und Beziehungskonflikte unter Interaktionspartnern auswirkt, und wie diese wiederum mit verschiedenen affektiven, motivationalen und behavioralen Aspekten der Zusammenarbeit zusammenhängen.

In Kapitel 2 werden die ersten beiden empirischen Studien dieser Dissertation vorgestellt und das Konzept der *geteilten relationalen Modelle in Teams* eingeführt. Der Begriff *geteilte relationale Modelle* beschreibt hierbei die mehr oder weniger starke Übereinstimmung von Mitgliedern eines Teams hinsichtlich ihrer Wahrnehmung der relationalen Modellen, die den sozialen Interaktionen in dem jeweiligen Team zugrunde liegen. Aufbauend auf der Theorie der relationalen Modelle (Fiske, 1992) und der organisationspsychologischen Forschung zu *geteilten mentalen Modellen* (für einen Überblick, siehe Mohammed, Ferzandi, & Hamilton, 2010) wurde davon ausgegangen, dass

ein hoher Grad an geteilten relationalen Modellen in Teams mit einem hohen Maß an wahrgenommener Gerechtigkeit und einem niedrigen Maß an wahrgenommenen Beziehungskonflikten sowie mit verschiedenen affektiven und motivationalen Aspekten der Teameffektivität (Teamkohäsion, partizipative Sicherheit und Team-Commitment) einhergeht.

Im Rahmen von zwei Feldstudien bei denen Mitglieder von $N = 40$ und $N = 48$ Teams aus verschiedenen Organisationen und Universitäten im Feld befragt wurden, konnten alle aufgestellten Hypothesen bestätigt werden. Je größer der Grad der Übereinstimmung der Teammitglieder hinsichtlich ihrer Wahrnehmung der relationalen Modelle in ihrem Team, desto höher war die wahrgenommene Gerechtigkeit und desto weniger Beziehungskonflikte wurden in den Teams erlebt. Darüber hinaus fanden sich in beiden Studien indirekte Zusammenhänge zwischen dem Ausmaß der geteilten relationalen Modelle im Team und verschiedenen affektiven und motivationalen Aspekten der Teameffektivität (Teamkohäsion, Partizipative Sicherheit und Team-Commitment), welche durch die wahrgenommene Gerechtigkeit und die wahrgenommenen Beziehungskonflikte im Team mediiert wurden.

In Kapitel 3 wird die dritte Studie dieser Dissertation vorgestellt. Aufbauend auf den Ergebnissen von Kapitel 2 wurde untersucht, wie geteilte relationale Modelle in Teams mit (un)kooperativem Verhalten zwischen Teammitgliedern zusammenhängen. Dabei wurde angenommen, dass Teammitglieder, die soziale Interaktionen im Team als ungerecht und konfliktbehaftet erleben, weniger kooperatives Verhalten und mehr *unkooperatives* Verhalten gegenüber anderen Teammitgliedern zeigen. In einer Feldstudie mit $N = 48$ Teams aus verschiedenen Organisationen konnte der angenommene indirekte Zusammenhang zwischen den geteilten relationalen Modellen in Arbeitsteams und Hilfeverhalten sowie dem bewussten Zurückhalten von Wissen (*Knowledge Hiding*) innerhalb der Teams bestätigt werden, welcher durch die wahrgenommene Gerechtigkeit und Beziehungskonflikte im Team

mediert wurde.

Die ersten drei Studien, die in Kapitel 2 und Kapitel 3 berichtet wurden, lieferten bereits empirische Evidenz für die angenommene Rolle von konfligierenden relationalen Modellen für die Wahrnehmung von (Un)Gerechtigkeit und Beziehungskonflikten in sozialen Beziehungen am Arbeitsplatz. Eine gemeinsame Limitation dieser Studien kann allerdings darin gesehen werden, dass sie zum einen aufgrund des Querschnittsdesigns keine Aussagen über Kausalbeziehungen zwischen den Variablen zulassen und zum anderen keine konkreten interaktiven Situationen untersucht wurden, in denen Interaktionspartner unterschiedliche relationale Modelle anwenden. Zwar kann davon ausgegangen werden, dass die Auftretenswahrscheinlichkeit für soziale Interaktionen, in denen Teammitglieder von unterschiedlichen relationalen Modellen geleitet werden, in Teams mit einem hohen Maß an geteilten relationalen Modellen niedriger ist als in Teams mit einem niedrigen Maß an geteilten relationalen Modellen; derartige Situationen wurden allerdings weder beobachtet, noch konkret erfragt.

Die letzten drei Studien dieser Dissertation, welche in Kapitel 4 berichtet werden, verfolgten daher einen anderen methodischen Ansatz um diese Limitationen zu überwinden. Ziel dieser Studien war es, zum einen konkrete soziale Interaktionen und Reaktionen auf diese zu untersuchen, zum anderen durch kontrollierte Manipulation der Passung/Nichtpassung der relationalen Modelle, die die Interaktionspartner anwenden, Aussagen über die Kausalität der erwarteten Effekte zu ermöglichen.

Im Rahmen von drei experimentellen Vignettenstudien wurde untersucht, wie sich die Nichtübereinstimmung eines *erwarteten* relationalen Modells mit einem in einer beschriebenen sozialen Interaktion *wahrgenommenen* relationalen Modell (RM-misfit) im Vergleich zu einer Übereinstimmung (RM-fit) auf die wahrgenommene Gerechtigkeit auswirkt und ob diese wiederum mit der Bereitschaft zusammenhängt, in Zukunft dem

jeweiligen Interaktionspartner zu helfen oder ihm benötigtes Wissen vorzuenthalten.

Hierzu wurden den StudienteilnehmerInnen zunächst Textvignetten präsentiert, in denen eine Beziehung zu einem Team oder einem Arbeitskollegen beschrieben wurde, in die sie sich so gut wie möglich hineinversetzen sollten. Die Texte waren dabei so angelegt, dass die jeweiligen Beziehungen prototypisch in genau *einem* relationalen Modell beschrieben waren. Im Anschluss bekamen die StudienteilnehmerInnen eine Beschreibung einer sozialen Interaktion mit dem betreffenden Team oder dem betreffenden Kollegen präsentiert, in dem sich dieses/dieser entweder in Einklang oder in Widerspruch zu dem in der vorherigen Beziehungsbeschreibung enthaltenen relationalen Modell verhält. Abschließend beurteilten die StudienteilnehmerInnen, wie gerecht sie die Situation erlebt hatten und wie wahrscheinlich es wäre, dass sie gegenüber der betreffenden Person in Zukunft Hilfeverhalten zeigen oder ihr Wissen vorenthalten würden.

Wie angenommen führte in allen drei Vignettenstudien ein RM-misfit im Vergleich zu einem RM-fit zu einem niedrigeren Maß an wahrgenommener Gerechtigkeit, was wiederum mit einer niedrigeren Bereitschaft, gegenüber den vorgestellten Interaktionspartnern Hilfeverhalten zu zeigen und einer höheren Bereitschaft, den vorgestellten Interaktionspartnern Wissen vorzuenthalten, einherging.

Zusammengefasst konnten in den sechs Studien dieser Dissertation empirische Belege dafür gefunden werden, dass sich eine unterschiedliche Auffassung von Mitarbeitern über die ihren sozialen Interaktionen zugrunde liegenden relationalen Modelle negativ auf die betreffenden sozialen Beziehungen auswirkt, da sie mit einer niedrigeren wahrgenommenen Gerechtigkeit, einem höheren Maß an Beziehungskonflikten, einem niedrigeren Maß an affektiven und motivationalen Aspekten der Teameffektivität sowie einem niedrigeren Ausmaß an kooperativem Verhalten einhergeht.

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LIST OF ABBREVIATIONS

AR	Authority Ranking
cf.	Compare with
CS	Communal Sharing
e.g.	For example
EM	Equality Matching
H	Hypothesis
i.e.	That is
MP	Market Pricing
OCB	Organizational Citizenship Behaviors
OCB-I	Affiliate-oriented Organizational Citizenship Behaviors (Helping Behavior)
RM	Relational Model
RMT	Relational Models Theory
RM Fit	Relational Model Fit
RM Fit/Misfit	Relational Model Fit vs. Relational Model Misfit
RM Misfit	Relational Model Misfit

Within every work group in a factory, within any division in a government bureau, or within any department of a university are countless acts of cooperation without which the system would break down.

(Katz & Kahn, 1966, p.339)

1. GENERAL INTRODUCTION

With the end of the project coming closer, the question came up of which member of the R&D team should have the honor of presenting the new prototype to the management board. Clara saw no need for much discussion. She had worked on this project longer than anyone else and in the past few years had borne the brunt of the responsibility for its success. When difficult decisions had to be made, the other team members always looked to her, and she could not count the number of times her fellow team members had asked for her advice. However, as the team discussed the upcoming presentation, she felt some tension among the other team members.

Mike was not very happy when Clara informed the team about her plan to present the prototype on her own, and an unpleasant feeling of injustice took hold in his mind. He had invested so much in this project; he had spent countless nights fixing technical problems, and it was usually up to him to turn off the lights in the office after everyone else had already gone home. Ever since he had begun working on this project, he always had the impression that team members kept precise track of their inputs and outputs, and he believed it would be fair for him to be the one to give the presentation in light of his substantial contribution.

However, Mike was not the only one who sensed some unfairness in the discussion: Sarah was disappointed, too - the whole team knew that she had a fixed-term contract and that the decision on its renewal was imminent. The presentation would have been a good opportunity for her to make a good impression to her superiors. If anyone in this team really needed this presentation, it was her. Where was the “all for one and one for all” spirit she had always perceived as being upheld in the team?

When people socially interact, whether at work, in public or in private settings, they act with an individual understanding about what behavior is (in)appropriate and (un)fair, that is, an understanding about what behavior can (or should) be expected from themselves and

their interaction partners. In some cases, interaction partners have a similar understanding about what behavior is appropriate and fair in a social interactive situation, which usually leads to mutual trust and positive social relationships. In other cases, such as in the work situation described above, interaction partners have different understandings of what behavior is appropriate and fair, making it likely for conflict to arise and perceptions of injustice to occur. With the example above and these further considerations in mind, I asked myself, what are the origins of such discrepancies and what are their consequences for social interactions in work settings?

Research on organizational behavior has devoted a great deal of attention to social interactions among co-workers, because well-functioning and trusting relationships between employees are crucial for various aspects of organizational performance (Chiaburu & Harrison, 2008; Ferris et al., 2009). Social interactions with co-workers make up an essential part of daily work routines, and the social environment in the workplace has been shown to affect a variety of work outcomes (e.g., Humphrey, Nahrgang, & Morgeson, 2007). The quality of co-worker relationships has not only been linked to affective outcomes such as job satisfaction, commitment or turnover intentions (Humphrey et al., 2007), but has also been identified as a crucial antecedent of cooperative and uncooperative behaviors among co-workers (Bridoux & Stoelhorst, 2016; Connelly, Zweig, Webster, & Trougakos, 2012; Mossholder, Richardson, & Settoon, 2011; Settoon & Mossholder, 2002).

At a time of dynamic and rapidly changing working environments, with a growing proportion of knowledge workers, highly interdependent tasks and responsibilities, and organizations that largely rely on team-based work structures (e.g., DeChurch & Mesmer-Magnus, 2010a), cooperation among co-workers is becoming an increasingly important factor for organizational success. Accordingly, a large body of research has shown that cooperative behaviors among co-workers, such as helping or sharing knowledge, are crucial for various

aspect of organizational performance (Mesmer-Magnus & DeChurch, 2009; N. P. Podsakoff, Podsakoff, MacKenzie, Maynes, & Spoelma, 2014; N. P. Podsakoff, Whiting, Podsakoff, & Blume, 2009). As Perlow and Weeks (2002) point out, “it has never been more important for us to understand why people help each other at work—and why they don't” (p.346). Against this backdrop, it is imperative for both scholars and practitioners to gain a better understanding of the antecedents and processes that affect the quality of social interactions and relationships in the workplace and to examine to what extent and how they are related to performance-relevant work behaviors such as helping and information sharing.

Given the importance of well-functioning co-worker relationships for employee well-being and organizational performance, scholars have examined indicators of social interactions which are *not* smoothly regulated. In this context, two psychological constructs are of particular interest because they have received considerable attention in organizational psychology and are often used as indicators for the quality of work relationships in practice, namely, perceived justice and relationship conflict. Both constructs have been linked to cooperative and uncooperative behaviors at work (Barclay & Kiefer, 2014; Connelly et al., 2012; de Wit, Greer, & Jehn, 2012; Naumann & Bennett, 2002) as well as affective outcomes such as cohesion and affective commitment (Ambrose & Schminke, 2009; de Wit et al., 2012; Mathieu, Maynard, Rapp, & Gilson, 2008). While a large body of research has provided insights into the consequences of perceived justice and relationship conflict in co-worker interactions (for an overview, see Cropanzano & Ambrose, 2015b; de Wit et al., 2012; O'Neill, Allen, & Hastings, 2013), much less attention has been devoted to *antecedents* of these constructs. Hence, I adopted the latter as a major focus of my dissertation project.

In this thesis, I shed light on both the antecedents and the consequences of perceived injustice and relationship conflict in co-worker relationships. More specifically, I sought to answer the question as to what are the antecedents and consequences of disagreements among

co-workers about what behavior 'is' (in)appropriate and (un)fair in social interactions. This general research question opened up a series of more specific research questions: How do people regulate their relationships at work? How does the relational context influence peoples' expectations regarding their own and their co-workers behavior? What are the building blocks of social rules and norms, and what are the affective, motivational and behavioral consequences when people perceive that others have broken these rules?

To address these questions, a theoretical framework was needed that describes in detail how people regulate their social relationships, how they relate to each other and which cognitive building blocks determine what behavior is perceived as 'appropriate' and 'fair' in social interactions. Moreover, such a theoretical framework should provide explanations not only for how perceived (in)justice occurs, but also what affective, motivational and behavioral reactions can be expected. Relational models theory (Fiske, 1992) offers such an exhaustive theoretical framework for describing and explaining social interactions. The theory posits four elemental cognitive schemata (i.e., *relational models*) that people use to regulate their social interactions and that shape individuals' understanding about what behavior 'is' fair and appropriate in social interactions. Building upon this theoretical framework, I examine how the application of *conflicting* relational models among interaction partners is related to perceived (in)justice and relationship conflict in co-worker relationships. Furthermore, I examine how conflicting relational models are indirectly related to (un)cooperative behaviors among co-workers as well as to affective and motivational outcomes via injustice and relationship conflict. Specifically, I conducted a series of studies in which I operationalized conflicting relational models in different ways and examined their relationships to perceived (in)justice, relationship conflict and several affective, motivational and behavioral (i.e., cooperative and uncooperative behaviors) outcomes. In the next section, I will describe in detail the theoretical foundations that underlie the central propositions of

this thesis, before providing an overview of the individual studies conducted at the end of this chapter.

Theoretical Background

In psychological research, several authors have proposed theoretical frameworks addressing the question of what 'is' fair and appropriate in different types of relationships. For instance Deutsch (1975, 1985) distinguished among three forms of distribution principles (equity, equality and need), the adoption of which is dependent on higher-ranking group goals. If the group's goal is to maximize productivity, it will choose to apply the equity principle; if its goal is to maximize cooperation among group members, it will choose to apply the equality principle; and if its goal is to meet the personal needs and foster the personal development of its members, it will choose to apply the need principle (Deutsch, 1975). Another classification of social relationships that still has some influence in contemporary research stems from Clark and Mills (1979), who distinguished between communal relationships and exchange relationships. In the former, resources are allocated based on the principle of need without expecting something in return, while in the latter, resources are exchanged in accordance with expectations of reciprocity.

A limitation shared by most theoretical approaches is that they do not cover *all* types of modes in which people can relate to each other. For instance, both theories described above fail to consider hierarchical relationships. Moreover, most theories addressing different types of human relationships have a strong focus on distributive justice, and give little consideration to other aspects of social interaction (Hupfeld-Heinemann, 2005). This is remarkable since judgements about fairness and appropriate treatment do not refer solely to the distribution and exchange of resources, but to all aspects of social interaction. As Cropanzano and Ambrose (2015a) point out, "justice is present when people have what they deserve or have been treated as they deserve to be treated" (p.3). Perceptions of fair - or

unfair - treatment can result from all interpersonal aspects of social interactive situations in all types of relationships.

Therefore, this thesis builds upon a theoretical framework that describes and explains the nature of human relationships in a more comprehensive way, that not only explicitly claims to describe *all* possible forms of social relations but also links them to expectations of appropriate and fair behavior in a large number of social domains. Moreover, it explains not only which relational rules determine social interactions in different relational contexts, but also what affective, motivational and behavioral consequences are likely to occur if these rules are seen as violated.

Relational Models Theory

Simply stated, relational models theory (RMT, Fiske, 1992) addresses the question of how people relate to each other. RMT postulates that humans regulate their social interactions by means of four universal, elementary and distinct cognitive schemes known as *relational models*. People use these relational models “to plan and to generate their own action, to understand, remember, and anticipate others, to coordinate the joint production of collective action and institutions, and to evaluate their own and other’s action” (Fiske, 2004, p. 3). Relational models are mental representations of how people see themselves in relation to each other, and enable interaction partners to instantly assess what behavior is appropriate and what behavior is inappropriate in social interactions. Moreover, relational models are the basis for moral judgements and fairness perceptions because each model contains a distinct and fundamental moral motive (Rai & Fiske, 2011). The four relational models are: *communal sharing, authority ranking, equality matching, and market pricing*.

When applying a communal sharing (CS) model, people see themselves and their interaction partner(s) as undifferentiated and sharing a common identity. The moral motive underlying a CS relationship is *unity*, involving feelings of belonging, solidarity and

unselfishness. When interaction partners apply a CS model, resources are allocated based on the principle of need and decisions are made together by seeking consensus among all group members. Keeping track of specific interaction partners' inputs and outputs is not only uncommon but actually perceived as morally reprehensible (Rai & Fiske, 2011).

When applying an authority ranking (AR) model, people see themselves and their interaction partner(s) in some kind of hierarchical order along a certain dimension such as formal rank, expertise or seniority. The moral motive underlying an AR relationship is *authority* and is characterized by feelings of power, superiority/inferiority, loyalty and respect. When interaction partners apply an AR model, resources are allocated by considering each individual's rank, and it is morally accepted for higher-ranking people to receive a larger share than lower-ranking people. It is socially accepted and often even expected that higher-ranking people make decisions for the whole group. Higher-ranking people can also decide on the individual contribution expected of each group member, and it can be perceived as appropriate for higher-ranking people to contribute either less or more than people of lower rank.

When applying an equality matching (EM) model, people see themselves and their interaction partner(s) as equal but distinct individuals who have exactly the same rights and duties. The moral motive underlying an EM relationship is *equality*, and people applying the EM model are guided by reciprocity, equalization and turn-taking. When interaction partners apply an EM model, resources are allocated in such a way that each group member receives exactly the same share. When decisions are made, the voice of each group member has exactly the same weight. People applying an EM model keep track of individual contributions such as favors and helping behavior and seek to return them in an equivalent manner to avoid imbalances.

When applying a market pricing (MP) model, people see themselves and their

interaction partners as independent individuals in a rational exchange relationship. The moral motive underlying an MP relationship is *proportionality*, which is characterized by rational cost-benefit calculations and considerations of what one invests in and to what degree one profits from an interaction. When interaction partners allocate resources applying an MP model, each individual's share depends on his or her individual contribution. Decisions are made by taking into account each individual's inputs and outputs with regard to both the weight of each individual's voice and the expected consequences of the decision. In an MP model, it is socially accepted and expected for people to keep track of inputs and outputs and to seek to return favors and support in an appropriate (but not necessarily exactly equal) way.

These four relational models form the basic building blocks, the 'grammar' of social interactions and social relationships. They are *universal* in the sense that they are used all over the world when people socially interact and *exhaustive* in the sense that they cover all types of social interaction. It is possible for people to apply different relational models in different social domains of a social relationship. However, RMT posits and research has shown that people have a tendency to use the same relational model across numerous social domains in their relationships, both in dyadic relationships (Haslam & Fiske, 1999; Hupfeld-Heinemann, 2005) and in groups (Vodosek, 2009).

As RMT offers an exhaustive theoretical framework for social interaction, a growing body of research from a wide range of disciplines (for an overview, see Fiske, 2012; Haslam, 2004) has used RMT to explain and predict human experience and behavior in different fields such as moral psychology (McGraw & Tetlock, 2005; Simpson & Laham, 2015), behavioral economics (Brodbeck, Kugler, Reif, & Maier, 2013), emotion research (Fiske, Seibt, & Schubert, 2017; Seibt, Schubert, Zickfeld, & Fiske, 2017; Seibt, Schubert, Zickfeld, Zhu, et al., 2017; Simão & Seibt, 2014, 2015), clinical psychology (Haslam, Reichert, & Fiske, 2002), and neuroscience (Dien, Karuzis, & Haarmann, 2018).

In the field of organizational psychology, RMT received little attention for quite some time. However, in recent years organizational scholars have increasingly drawn on the theory to explain various forms of organizational behavior. RMT has been used as a theoretical framework for examining and explaining various types of organizationally-relevant variables such as cooperative behavior (Bridoux & Stoelhorst, 2016; Mossholder et al., 2011), knowledge sharing (Boer, Berends, & van Baalen, 2011), interpersonal conflict (Frone, 2000; Vodosek, 2000), leadership (Fehr, Yam, & Dang, 2015; Giessner & van Quaquebeke, 2010; Keck, Giessner, Quaquebeke, & Kruijff, 2018; Wellman, 2017), mentoring (Rutti, Helms, & Rose, 2013), and proactive behavior (Batistič, Černe, Kaše, & Zupic, 2016). Currently, a large share of the research on relational models and organizational behavior is still of a theoretical nature (e.g., Bridoux & Stoelhorst, 2016; Fehr et al., 2015; Giessner & van Quaquebeke, 2010; Mossholder et al., 2011; Rutti et al., 2013; Vodosek, 2000; Wellman, 2017). In contrast, the number of studies providing *empirical* evidence for the role of relational models in organizations (e.g., Boer et al., 2011; Keck et al., 2018; Vodosek, 2009) is still quite small. As a consequence, several propositions made in and derived from RMT have not yet been empirically tested.

RMT has a number of considerable strengths which make it an appropriate theoretical framework for addressing this thesis' research questions. First, it offers explanations for how peoples' understanding of what behavior 'is' appropriate and fair is shaped by the relational context. Second, it offers explanations for why interaction partners sometimes have fundamental different understandings of what behavior is appropriate and fair in a given social interactive situations. Third, it offers explanations not only for the antecedents of perceived injustice in social interactions but also for the affective, motivational and behavioral consequences interaction partners are likely to experience. Below, I describe these explanations in more detail.

Conflicting relational models as an antecedent of perceived injustice and conflict.

RMT posits that each of the four relational models includes a distinct moral motive, a distinct justice principle and distinct expectations of what behavior is appropriate and inappropriate, fair and unfair. Consequently, what behavior is perceived as fair and appropriate depends on the relational model an individual applies when participating in or observing a social interactive situation (Simpson & Laham, 2015). A central proposition of RMT is that the four moral motives and justice principles inherent to the four relational models are incommensurable with each other because “adherence to one model usually violates the standards of any other” (Fiske, 1992, p. 712). Accordingly, when interaction partners apply different (and thus conflicting) relational models to the same social interactive situation, they are likely to (unintentionally) violate each other’s expectations of what behavior is appropriate and fair in that situation.

The example provided at the beginning of this thesis illustrates one such social interactive situation in which interaction partners apply different and thus conflicting relational models. The three team members described in the example apply different relational models when deciding which team member will have the honor of presenting the new prototype to management. They perceive different relational models to be valid in the team and had expected that the team would act in accordance with the justice principles inherent in these relational models. One team member applying an AR model would consider it fair for the person with the highest rank in the team’s hierarchy to give the presentation. Another team member applying an MP model would consider it fair for the person who contributed most to the team’s success to give the presentation. Yet another team member applying a CS model would consider it fair for the person who needs the presentation most to give it.

A social interactive situation in which interaction partners apply different relational

models is likely to result in perceptions of unfairness (Fiske, 1992; Rai & Fiske, 2011). Moreover, since people often have the desire to attack those they perceive as violating the relational model they consider valid (Fiske, 1991; Rai & Fiske, 2011), the application of conflicting relational models is likely to result in relationship conflict, defined as interpersonal, non-task-related issues resulting from differences in norms and values and involving feelings of annoyance, frustration and irritation (de Wit et al., 2012; Jehn, 1995; Jehn & Mannix, 2001). Taken together, the application of different relational models by interaction partners to one and the same social interactive situation is likely to lead to both injustice perceptions and relationship conflict among the interaction partners.

Consequences of perceived injustice and relationship conflict. Perceived injustice and relationship conflict, which often reciprocally influence each other (Shapiro & Sherf, 2015), are likely to negatively influence the quality of social relationships in several ways.

First, injustice and relationship conflict are likely to evoke negative affective and motivational reactions. If social interactions are perceived as unfair and conflict-laden, people are likely to perceive the relationship as unsatisfying and avoid interactions when possible. This assumption has received empirical support from team research, as injustice perceptions have been shown to be negatively related to various aspects of team viability, such as job satisfaction (Aryee, Budhwar, & Chen, 2002), team cohesion (De Backer et al., 2011), team commitment (Ganesh & Gupta, 2015), team identification (De Backer et al., 2011), and participative safety (Ganesh & Gupta, 2015). Likewise, a large body of research has shown perceived relationship conflict in teams to be negatively related to various aspects of team viability (for an overview, see de Wit et al., 2012).

Second, perceived injustice and relationship conflict are likely to affect both cooperative and uncooperative behavior among co-workers. Justice perceptions and relationship conflict have both been shown to be negatively related to cooperative behaviors

at work such as helping behavior among co-workers (Ambrose, Wo, & Griffith, 2015; de Wit et al., 2012). When people help each other, this usually involves some form of effort for the helper, who provides some kind of resource, such as time, labor or knowledge, to someone else. These resources are provided under the assumption that the interaction partner to whom help is given will adhere to the 'rules' of the respective relationship. If the person receiving the help is perceived as breaking these rules, or in other words, behaving unfairly, the helper's willingness to provide resources is likely to decrease. Beyond merely reducing their cooperative behaviors, co-workers may even engage in behaviors of an explicitly *uncooperative* nature, such as intentionally withholding knowledge (i.e., knowledge hiding, Connelly et al., 2012), as a reaction to perceived injustice. According to RMT, people expect their interaction partners to adhere to the relational models they perceive as valid in the social interactive situation at hand and have a strong desire to punish them if they are perceived as breaking the relational rules (Fiske, 1991, 1992). From this perspective, engaging in knowledge hiding behaviors can be seen as a form of punishment for an interaction partner who is perceived as behaving unfairly.

Research Overview

This thesis contains six empirical studies. The central proposition underlying the hypotheses of all studies is as follows: if co-workers apply conflicting relational models in a given social interactive situation, perceptions of injustice and disagreements among the interaction partners are likely to occur, in turn evoking harmful behavioral responses and negatively affecting the quality of their social relationship. To test this proposition, I operationalized conflicting relational models in different ways and examined their relationships with different affective, motivational and behavioral outcomes in different settings.

In Study 1 and Study 2, which are presented in *Chapter 2*, the concept of *shared*

relational models in teams is introduced, which refers to team members' greater or lesser shared understanding of the relational models underlying the social interactions within their team. These studies address the question of how the degree of sharedness of relational models is related to various aspects of team functioning. Specifically, my co-authors and I empirically examined how the degree of sharedness of relational models within teams is related to team members' perceptions of justice and relationship conflicts and to various aspects of team viability.

Building upon these findings, Study 3, which is presented in *Chapter 3*, examines the extent of team members' cooperative and uncooperative behaviors as an outcome of conflicting relational models in co-worker interactions. Specifically, it is examined how the sharedness of relational models in teams, perceived justice and relationship conflict are related to helping behavior and knowledge hiding among team members.

In the last three studies of this thesis (Studies 4-6), which are presented in *Chapter 4*, an experimental vignette methodology is used to examine how a (mis)fit between an expected and a perceived relational model in a social interactive situation is related to situational perceptions of (in)justice and the willingness to engage in helping behavior and knowledge hiding towards co-workers.

Table 1 provides an overview of the empirical thesis contained in this thesis.

Table 1

Study overview

Chapter	Study	Object of investigation	Outcome variables	(Theoretical) Temporal focus	Methodology	Sample
2	1	Team	Team viability	Over time	Field study	40 teams 141 individuals
	2	Team	Team viability	Over time	Field study	48 teams* 195 individuals*
3	3	Team	Cooperative behavior, Uncooperative behavior	Over time	Field study	48 teams* 195 individuals*
4	4	Team	Cooperative behavior	Situational	Experimental vignette study	451 individuals
	5	Dyad	Cooperative behavior	Situational	Experimental vignette study	635 individuals
	6	Dyad	Cooperative behavior, Uncooperative behavior	Situational	Experimental vignette study	455 individuals

* Study 2 and Study 3 used the same sample

Aims and Expected Contribution

By examining conflicting relational models in different settings, from different perspectives, and using different methodological approaches, the present thesis and the studies contained therein aim to contribute to various strands of research.

First, this thesis aims to contribute to research on RMT by testing some of its elemental propositions, namely assumptions concerning conflicting relational models as a source of injustice perception and relationship conflict (Studies 1-3), and behavioral responses to them (Studies 3-6). By testing these propositions in the organizational context, the thesis in particular aims to contribute to the small but growing body of research on

relational models in organizations, which is currently dominated by theoretical works, with the number of empirical studies testing propositions derived from RMT in organizational settings remaining scarce. Second, the present thesis aims to contribute to research on perceived justice (Studies 1-6) and relationship conflict (Studies 1-3) in coworker relationships by obtaining insights into relational antecedents of these constructs. Third, the present thesis aims to contribute to research on cooperative (i.e., helping) and uncooperative (i.e., knowledge hiding) behavior by examining these behaviors as reactions to perceived injustice (Studies 3-6) and relationship conflict (Study 3) in co-worker relationships. Fourth, by examining team members' shared understanding of relational models in their teams (Studies 1-3), this thesis also aims to contribute to research on shared mental models in teams, which has largely neglected shared mental models regarding core aspects of social interaction up until now.

2. WHEN TEAM MEMBERS (DIS-)AGREE ABOUT SOCIAL RULES AND NORMS: A SHARED RELATIONAL MODELS APPROACH TO EXPLAINING TEAM VIABILITY¹

Summary

When people work together in teams, they ideally have a common understanding, a shared mental model (Mohammed et al., 2010) regarding various aspects of teamwork. This common understanding refers not only to task-related aspects of teamwork but also to the elemental social rules and norms that underlie social interactions among team members. Relational models theory (Fiske, 1992) proposes that social rules and norms can be seen as the implementation and combination of four elemental relational models that people use to coordinate their social interactions. Since each of these relational models encompasses a distinct moral motive, which determines expectations of fairness and appropriate behaviors in social interactions, we² propose that the degree of sharedness of individuals' perceptions regarding the applicable relational models in teams (i.e., shared relational models) is positively related to various aspects of team viability, mediated by perceived justice and relationship conflict. In two field studies collecting data from $N = 40$ and $N = 48$ work teams in organizations, we found reproducible support for our hypotheses. Our studies' findings emphasize the importance of shared relational models among team members for justice perceptions, conflict and team viability in organizational settings.

¹ The first study of this chapter has been presented at the 50th Conference of the German Psychological Society (2016, September) in Leipzig, Germany. The second study of this chapter has been presented at the 29th International Congress of Applied Psychology (2018, June) in Montreal, Canada. An adapted version of this chapter has been submitted for publication to *Personnel Psychology*.

² When using the term "we" I refer to my coauthors Katharina G. Kugler and Felix C. Brodbeck and myself.

Introduction

In a time of rapidly changing and complex work environments, organizations are increasingly relying on team-based work structures, and the effectiveness of work teams is crucial for organizational success (DeChurch & Mesmer-Magnus, 2010a). In organizational science, a large body of research has been conducted to identify antecedents of team effectiveness (DeChurch & Mesmer-Magnus, 2010a; Kozlowski, 2018). Team effectiveness refers not only to a team's performance outcomes but also to *team viability*, or a team's ability to keep up team members' satisfaction and willingness to remain in the team (Hackman, 1987; Kozlowski & Ilgen, 2006). Identifying and understanding what team characteristics enhance team effectiveness is crucial for both practitioners and academics (Kozlowski, 2018).

In recent decades, scholars have identified and examined (the extent of) team members' shared understanding of various aspects of teamwork, so-called *shared mental models*, as an antecedent of team effectiveness (for an overview, see Mohammed et al., 2010; Turner, Chen, & Danks, 2014). With regard to the criterion domain, this line of research has a strong focus on performance outcomes, while team viability, as the person-related aspect of team effectiveness, has been underresearched (Mohammed et al., 2010). With regard to the content domain, a large body of research has focused on shared mental models of task-specific aspects of team work in specific working environments, often using highly task-specific measurement tools. Much less attention has been devoted to shared mental models of the social rules and norms that underlie social interactions among team members. This area warrants greater attention because social rules and norms play a role in all types of teams and organizations.

Social rules and norms are often unspoken but can nevertheless have a strong impact on interaction partners' expectations about fairness and appropriate behavior (Fiske, 1992;

Rai & Fiske, 2011). According to relational models theory (RMT, Fiske, 1992), social rules and norms stem from four distinct and elemental mental representations of relationships, so-called *relational models*, that people use to regulate their social interactions. Because each relational model encompasses a distinct moral motive defining distinct expectations about what behavior is appropriate and fair, interaction partners should ideally have a shared understanding of which relational model to apply in various types of social interactions (Fiske, 1992). Accordingly, the group of individuals making up a team should ideally have a shared understanding of the relational models to be applied in the various types of social interactions relevant for team functioning (i.e., shared relational models). But what are the consequences for team functioning and team effectiveness when team members have a low (rather than high) degree of sharedness of relational models in their team?

The present studies aim to shed light on this question. Building upon the theoretical framework of RMT, we propose that the degree of sharedness of relational models in work teams is related to perceived justice and relationship conflict among team members, which are in turn related to various aspects of team viability. By focusing on RMT, fairness perceptions, interpersonal conflict and team viability, we seek to contribute to three fundamental lines of research. First, we seek to contribute to research on RMT by empirically testing one of its core propositions, namely that the application of *different* relational models by the people involved in a social interaction is negatively related to justice perceptions and positively related to relationship conflict. Second, we seek to contribute to research on shared mental models with respect to both the content domain, by examining shared understanding of fundamental aspects of social interaction, and the criterion domain, by examining team viability as an affective and motivational outcome of shared relational models. Third, we seek to contribute to research on work team effectiveness more generally by identifying antecedents of team viability, which is known to be an important factor for

team performance (Mathieu et al., 2008).

Relational Models Theory

Relational models theory (RMT) posits that people use four universal and distinct cognitive schemas, so-called *relational models*, to structure their social interactions. People use these relational models “to plan and to generate their own action, to understand, remember, and anticipate others, to coordinate the joint production of collective action and institutions, and to evaluate their own and other’s action” (Fiske, 2004, p. 3). Relational models can be seen as the grammar or building blocks of social interactions. They guide people in social interactions by providing specific representations of oneself and the other in a social interaction as well as specific information about what behavior is (not) appropriate and (not) acceptable in a given situation. Moreover, each relational model includes a specific, distinct moral motive (Rai & Fiske, 2011), making them the major source of fairness perceptions and moral judgements. The four relational models are as follows: communal sharing (CS), authority ranking (AR), equality matching (EM) and market pricing (MP).

When people apply a *communal sharing* model, they perceive themselves and their interaction partner(s) as sharing a common identity. CS relationships are guided by the moral motive of unity and characterized by feelings of belonging, altruism and solidarity. In a CS relationship, resources are distributed based on the principle of need. Keeping track of in- and outputs of individuals within the group is not only not common, it is considered extremely inappropriate and morally wrong. Decisions are taken together and consensus among group members is sought.

When people apply an *authority ranking* model, they perceive each other to be in a hierarchical order with respect to a certain dimension, such as formal rank, experience or seniority. AR relationships are guided by the moral motive of authority and characterized by feelings of superiority/inferiority, power, loyalty and respect. When resources are distributed

in an AR relationship, it is socially accepted that individuals with higher status receive a larger amount than individuals with lower status. In a similar vein, it is socially accepted that people with higher status make decisions for the whole group. However, while higher ranking people have these privileges, they are also expected to lead and to protect lower-ranking people.

When people apply an *equality matching* model, they perceive each other as equivalent (but distinct) individuals and seek balance in their interactions. EM relationships are guided by the moral motive of equality and characterized by attributes such as reciprocity, equalization and turn-taking. When resources are distributed in EM relationships, it is important that everyone receives exactly the same share. When decisions are made, each member's vote has exactly the same value. In EM relationships, people keep track of imbalances of favors and support and strive to balance them out by reciprocating in an equivalent way.

When people apply a *market pricing* model, their interactions are driven by considerations of what they have invested in and to what degree they profit from a relationship. MP relationships are guided by the moral motive of proportionality and characterized by attributes such as ratios, cost-benefit calculations and individual pay-offs. When resources are distributed in MP relationships, each individual's share depends on his/her individual contribution. Decisions are made by considering proportionality with respect to each individual's input as well as regarding the consequences of the decision. Unlike in CS relationships, it is considered appropriate and even expected for group members to keep track of individuals' inputs and outputs, and individuals' effort and participation in MP interactions depends to a large extent on the pay-off he/she can expect from the relationship.

Because RMT was developed to provide a theoretical framework for analyzing and

predicting human motivation and behavior in all social interactive situations, professional and private, face-to-face, remote or computer mediated, it can be seen as a broad and generic theory about human relationship regulation in social situations. It has gained empirical support from studies in various disciplines (for an overview see Fiske, 2012; Haslam, 2004) and across a multitude of domains, such as emotion research (Fiske et al., 2017; Seibt, Schubert, Zickfeld, & Fiske, 2017; Seibt, Schubert, Zickfeld, Zhu, et al., 2017), neuroscience (Dien et al., 2018), moral psychology (McGraw & Tetlock, 2005), clinical psychology (Haslam et al., 2002), and behavioral economics (Brodbeck et al., 2013). In recent years, scholars have also started to use RMT to explain and examine various forms of organizational behavior, such as interpersonal conflict (Frone, 2000; Vodosek, 2000), leadership (Fehr et al., 2015; Giessner & van Quaquebeke, 2010; Keck et al., 2018; Wellman, 2017), mentoring (Rutti et al., 2013), cooperative behavior (Bridoux & Stoelhorst, 2016; Mossholder et al., 2011), knowledge sharing (Boer et al., 2011), and proactive behavior (Batistič et al., 2016). A large share of organizational research on relational models is of a theoretical nature (e.g., Bridoux & Stoelhorst, 2016; Fehr et al., 2015; Giessner & van Quaquebeke, 2010; Mossholder et al., 2011; Rutti et al., 2013; Vodosek, 2000; Wellman, 2017). Only a few empirical studies empirically examining organizational behavior from the theoretical perspective of RMT have been published (e.g., Boer et al., 2011; Keck et al., 2018; Vodosek, 2009), and several core propositions of RMT have not yet been empirically tested.

From the perspective of RMT, social rules and norms can be seen as the combination and manifestation of the four relational models described above in various domains of social interaction within a group. Relational models are the implicit ‘building blocks’ of social rules and norms since they define how team members see themselves in relation to each other in social interactions. Thus, when we perceive someone’s behavior in a social interactive situation within a team as inappropriate and breaking the team’s social rules, this means that

his/her behavior is incompatible with and thus a violation of the relational model we are applying to the respective social interaction. Since people strongly believe that interaction partners should adhere to the relational models perceived as valid in a given situation (Fiske, 1992), the application of *different* relational models among interaction partners is likely to have a negative impact on their relationship.

Shared Relational Models in Teams

In the ideal case, all members of a team have a similar understanding of the relational models which should be applied in particular social interactive situations frequently encountered within their team. In this case, the team members have *a shared mental model* regarding the social rules and norms to be applied in interactive situations within their team. *Shared mental models* or *team mental models*³ have been defined as “team members’ shared, organized understanding and mental representation of knowledge about key elements of the team’s relevant environment” (Mohammed et al., 2010, p. 879).

In recent decades, interest in the concept of shared mental models has grown, and a growing number of empirical studies have provided evidence for the role of shared mental models as an antecedent of various aspects of team functioning (DeChurch & Mesmer-Magnus, 2010b; Mohammed et al., 2010; Turner et al., 2014). Most empirical studies in this field examine *task-focused* mental models in specific team types, such as military teams or student teams, performing simulation games (Mohammed et al., 2010), which limits the transferability of their findings to other contexts and tasks, while also neglecting the relational aspects of social interaction in teams. Studies examining *team-focused* mental models (e.g., Johnson et al., 2007; Lim & Klein, 2006) have only investigated selected aspects of social interaction, such as open communication or mutual trust. Measurement instruments that capture only certain aspects of social interaction fail to consider many

³ Following Mohammed et al. (2010), we treat these two terms interchangeably

possible variants of social interactions and in particular how people see each other in relation to each other. Hence, shared mental models regarding *fundamental aspects of social interactions* have been largely neglected in empirical research. This research gap is remarkable, since the question of how team members see themselves in relation to each other plays a central role in every team, regardless of team type, team task or environmental conditions. Due to the importance of fundamental aspects of social interaction for all types of teams and work contexts, it is an important step for shared mental models research to close this gap.

Teams vary in the degree to which team members share a common understanding of how social interaction in general should be regulated within their team, how team members should relate to each other and how *fundamental social interactions* between team members should take place. From the perspective of RMT, teams vary in the degree to which team members have a shared understanding of which relational models are to be applied in specific social interactions among team members, for instance when team members help each other or when they make joint decisions. In this paper, we term this degree of sharedness⁴ of relational models within teams *shared relational models*.

Shared Relational Models in Teams, Justice Perceptions and Conflict

Each of the four relational models identified by RMT encompasses a distinct moral motive; therefore, judgments about right and wrong, about what is fair and unfair depend on the relational model a person applies in a specific social interaction (Simpson & Laham, 2015). The principles of fairness and justice inherent to the different relational models are

⁴ In the present study, the term sharedness refers to the (varying) degree of sharedness of mental models among team members. However, in the pertinent literature, scholars have also used a wide range of other terms for this concept, such as consensus, agreement, similarity or convergence (see Mohammed et al., 2010). A large share of the literature uses the term shared mental model to imply a varying degree of sharedness. Hence, we follow the predominant trend in the literature by referring to the sharedness of relational models within teams using the term shared relational model.

usually incommensurable with each other because the “adherence to one model usually violates the standards of any other” (Fiske, 1992, p. 712). This becomes evident, for example, when team members apply different relational models to the exchange of resources: a team member who keeps track of his/her and other team members’ giving and taking and employs cost-benefit analyses to guide his/her behavior (e.g., refrains from helping others when his/her giving to the other person exceeds the other person’s giving to him/her) will be viewed as acting appropriately and reasonably from the perspective of the MP model. However, a team member who witnesses the behaviors just described while applying a CS model will most likely judge them as highly inappropriate and morally reprehensible, since they violate the fundamental fairness principles embodied in the CS model. A team member who seeks help from someone without directly offering something in return or without expecting that the helper will profit will be perceived as behaving appropriately when applying a CS model, but inappropriately when applying an MP model.

The lower the degree of sharedness of relational models in a team, the more likely it is that team members apply *different* relational models with conflicting moral motives in a given social interactive situation. The more often team members repeatedly observe social interactive situations in which their expectations about what is fair and about how relationships “should” be regulated are not fulfilled, the less justice they are likely to perceive in their team. In contrast, the higher the degree of sharedness of relational models in a team, the more likely it is that team members apply *the same* relational model and thus hold the same moral motive in a given social interactive situation. The more often team members observe social interactive situations in which their expectations about what is fair and appropriate are fulfilled, the more justice they are likely to perceive in their team.

Thus, we predict the following:

Hypothesis 1: The sharedness of relational models in teams is positively related to

justice perceptions within teams.

The degree of sharedness of relational models in a team should also be related to the probability of relationship conflicts among team members. Relationship conflict is caused by interpersonal, non-task-related issues, such as differences in norms and values, and often involves feelings of annoyance, frustration and irritation (de Wit et al., 2012; Jehn, 1995; Jehn & Mannix, 2001). Relationship conflict has been repeatedly linked to justice perceptions (e.g., Bouckennooghe, De Clercq, & Deprez, 2014; Zhe Zhang & Jia, 2013), with further research suggesting that these two constructs reciprocally influence each other (Shapiro & Sherf, 2015).

The moral motives underlying the four relational models and the justice principles inherent in them are usually incommensurable with each other, making them a major source of interpersonal conflict (Fiske, 1992). Team members who apply different relational models in a social interactive situation are likely to violate the principles inherent in each other's relational models (Poulson, 2005). People often attack and try to punish other people who are perceived as having profoundly violated the relational model they perceive as valid (Fiske, 1991; Rai & Fiske, 2011). Thus, the application of different relational models due to a low degree of shared relational models in teams is likely to lead to aggression and tension and hence to relationship conflict among team members (Vodosek, 2000). Thus, we predict the following:

Hypothesis 2: The sharedness of relational models in teams is negatively related to perceptions of relationship conflict among team members.

Justice, Relationship Conflict and Team Viability

Justice perceptions and relationship conflict have repeatedly been identified as antecedents of various aspects of team effectiveness (de Wit et al., 2012; Mathieu, Hollenbeck, van Knippenberg, & Ilgen, 2017). Team effectiveness is usually conceptualized

with respect to team performance, satisfaction of team members' needs, and team members' willingness to remain in the team (Hackman, 1987; Kozlowski & Ilgen, 2006). In the present studies, we will focus on the latter two and thus on the person-oriented side of team effectiveness, which is usually termed *team viability* (Balkundi & Harrison, 2006). Team viability is defined as "a team's potential to retain its members through their attachment to the team, and their willingness to stay together as a team" (Balkundi & Harrison, 2006, p. 52) and includes team outcomes such as team commitment, member satisfaction, team climate and group cohesion (Balkundi & Harrison, 2006). In the present studies, we focus on three aspects of team viability which have been intensively studied in organizational research: team cohesion and a participative safety climate on the team level of analysis and team members' affective commitment to the team on the individual level of analysis.

Team cohesion has been defined as "the resultant of all the forces acting on the members to remain in the group" (Festinger, 1950, p. 274). In organizational research, team cohesion is one of the most examined affective aspects of team effectiveness (Kozlowski & Chao, 2012) and has been repeatedly linked to various aspects of team performance (e.g., Beal, Cohen, Burke, & McLendon, 2003; Chiocchio & Essiembre, 2009).

Participative safety refers to a team atmosphere perceived as a non-threatening interpersonal social climate characterized by trust and support (Burningham & West, 1995). In a climate of participative safety, team members feel that they will not be rejected, embarrassed or punished by other team members for speaking up and sharing their ideas (Peltokorpi & Hasu, 2014). Participative safety has been repeatedly linked to group performance, particularly to group innovation (e.g., Bain, Mann, & Pirola-Merlo, 2001; Brodbeck & Maier, 2001; Hülshager, Anderson, & Salgado, 2009; Peltokorpi & Hasu, 2014)

Affective commitment to the team (hereafter: *team commitment*) refers to team members' "emotional attachment to, identification with and involvement in" (Wombacher &

Felfe, 2017b, p.1557) their team. Team commitment has been repeatedly shown to be positively related to various aspects of team performance and performance-related behaviors such as OCB-I (e.g., Ohana, 2016; Wombacher & Felfe, 2017a).

There is ample evidence that justice perceptions among team members are an antecedent of team viability (Mathieu et al., 2008). For instance, justice perceptions on the individual and team level have been found to be positively related to team commitment (Ganesh & Gupta, 2015), team identification (De Backer et al., 2011), job satisfaction (Aryee et al., 2002), team cohesion (De Backer et al., 2011), and participative safety (Ganesh & Gupta, 2015). When people do not feel treated fairly, this is likely to cause anger, hostility and moral outrage (Judge, Scott, & Ilies, 2006), which are also likely to negatively affect team viability and member satisfaction. Thus, we predict the following:

Hypothesis 3a: Justice perceptions among team members are positively related to perceptions of team cohesion, participative safety and affective commitment to the team.

There is robust empirical evidence showing that relationship conflict has large negative effects on various aspects of team effectiveness, including team viability (de Wit et al., 2012). Relationship conflict is associated with negative affect (e.g., Kessler, Bruursema, Rodopman, & Spector, 2013) and often involves hostility among team members (de Wit, Jehn, & Scheepers, 2013). In this way, relationship conflict is likely to decrease team members' satisfaction and team commitment and thus their willingness to remain in the team (Jehn, Greer, Levine, & Szulanski, 2008; Wombacher & Felfe, 2017b). When team members repeatedly experience that social interactions lead to tension and hostility among team members, this is also likely to negatively affect the participative safety climate, since team members are likely to try to avoid conflict by refraining from actively getting involved in interactions with other team members. Indeed, previous research has linked relationship conflict with team members' anxiety and discomfort (Poitras, 2012). Moreover, besides its

negative direct effect on group effectiveness, relationship conflict has also been shown to exacerbate the effects of other types of conflicts, such as task conflict, which can have positive effects on team effectiveness in absence of relationship conflict but negative effects when relationship conflict is present (de Wit et al., 2012; de Wit et al., 2013). Hence, relationship conflict is likely to negatively affect team viability. Thus, we predict the following:

Hypothesis 3b: Perceived relationship conflict among team members is negatively related to perceptions of team cohesion, participative safety and affective commitment to the team.

As formulated in Hypotheses 3a and 3b, we expect justice perceptions and relationship conflict among team members to be predictors of team viability. Since the degree of sharedness of relational models in teams functions as an antecedent of justice perceptions and relationship conflict (see Hypothesis 1 and Hypothesis 2), the following mediation effect is also proposed:

Hypothesis 3c: The sharedness of relational models in teams is positively and indirectly related to team members' perceptions of cohesion, participative safety and affective commitment to the team via relationship conflict and justice perceptions.

Study Overview

We conducted two separate studies to test our hypotheses. The sample of Study 1 included work teams from various organizations and industries as well as student teams at universities. In order to strengthen our findings and ensure the generalizability of our results to natural work groups, we conducted Study 2 as a robust replication study only including natural work teams in organizations.

Study 1

Method

Sample and procedures. We conducted a field study using an online questionnaire. Data was collected from work teams in various organizations and industries in Germany as well as from student project teams at German universities. We used anonymous identification codes to match the members of each team.

A total of 157 participants completed the questionnaire. Ten teams who not reach the minimum rate of three respondents per team had to be excluded, which resulted in the exclusion of 16 participants.

Thus, $N = 40$ teams with a total of $N = 141$ participants made up our final sample. Fifty seven percent of participants were female; the average age was 30.1 years ($SD = 9.41$). Seventy-two percent of participants hold a university degree. The modal team tenure in the work teams was less than one year (47.9%).

The average team size was 3.1 ($SD = 1.3$) and ranged from three to eight members per team. Seven teams (22 participants) were student project teams, while 33 teams were work teams (119 participants). Sixty three percent of the participants had been working in their current team for less than one year, 17% between one and two years, 18% between two and five years, and 2% for more than five years.

Measures. If possible, a validated German version of each scale was used. If only English versions were available, the respective scales were translated and back-translated by several individuals fluent in both languages. Only a few differences occurred, which were resolved through discussion between the translators and the authors of the present study, and the respective items were revised accordingly.

All items were answered on a 5-point frequency scale (ranging from 1 = *strongly disagree* to 5 = *strongly agree*).

Relational models in teams. Team members' perceptions of relational models in their team were assessed using the relational models scale developed by Vodosek (2009). The measure includes four subscales assessing the four relational models. A sample item for the communal sharing subscale is "If one of the group members needs something, other group members give it without expecting anything in return." A sample item for the authority ranking subscale is "One of the group members tends to lead". A sample item for the equality matching subscale is "Group members typically divide things up into shares that are the same size". A sample item for the market pricing subscale is "Group members calculate what their payoffs are in this group and act accordingly". All subscales were reliable ($\alpha = .78$ for CS, $\alpha = .88$ for AR, $\alpha = .84$ for EM, and $\alpha = .83$ for MP).

To assess the overall parameter for the degree of sharedness of relational models in teams, the following calculations were conducted: First, we calculated four r_{wg} values for each team based on the individual team members' ratings for each of the four relational models. The r_{wg} is a measure assessing inter-rater agreement. In the present study, we used the r_{wg} value to determine team members' agreement in rating their team with respect to the relational models. The r_{wg} specifies "agreement among judges [i.e., team members] by comparing the observed variance to the variance expected when judges [i.e., team members] respond randomly" (LeBreton & Senter, 2008, p. 818 - 819; see also Klein & Kozlowski, 2000; Lindell, Brandt, & Whitney, 1999). Second, the four r_{wg} values were summed up in order to obtain one overall index for the degree of sharedness across all four relational models for each team.

Justice perception. Team members' overall justice perception was measured with four items adapted from Ambrose and Schminke (2009). A sample item is "I consider the collaboration in my team as fair". Cronbach's alpha was $\alpha = .86$.

Relationship conflict. Team relationship conflict was measured with three items

from the German version of Jehn's Intragroup Conflict Scale (Jehn, 1995), taken from Lehmann-Willenbrock, Grohmann, and Kauffeld (2011). The wording was slightly adapted to our question format. A sample item is "There is much tension among members in my team". Cronbach's alpha was $\alpha = .86$.

Participative safety climate. Participative safety climate was measured with three items from the German version of the team climate inventory (Brodbeck, Anderson, & West, 2000). A sample item is "We stick together as a team." Cronbach's Alpha was $\alpha = .79$

Team cohesion. Team cohesion was measured with eight items taken from Kauffeld (2001). A sample item is "We feel like a team." Cronbach's Alpha was $\alpha = .88$

Affective commitment to the team. Team members' affective commitment to the team was measured with three items taken from Xue, Bradley, and Liang (2011). A sample item is "If I had a chance to do the same work again in a team, I would rather stay in the same team." Cronbach's Alpha was $\alpha = .85$.

Research model. Given the hierarchical nature of our data, our research model is a multi-level model including a team level ($N = 40$ teams) and an individual level ($N = 141$ individuals). Our proposed mediation model is depicted in figure 1.

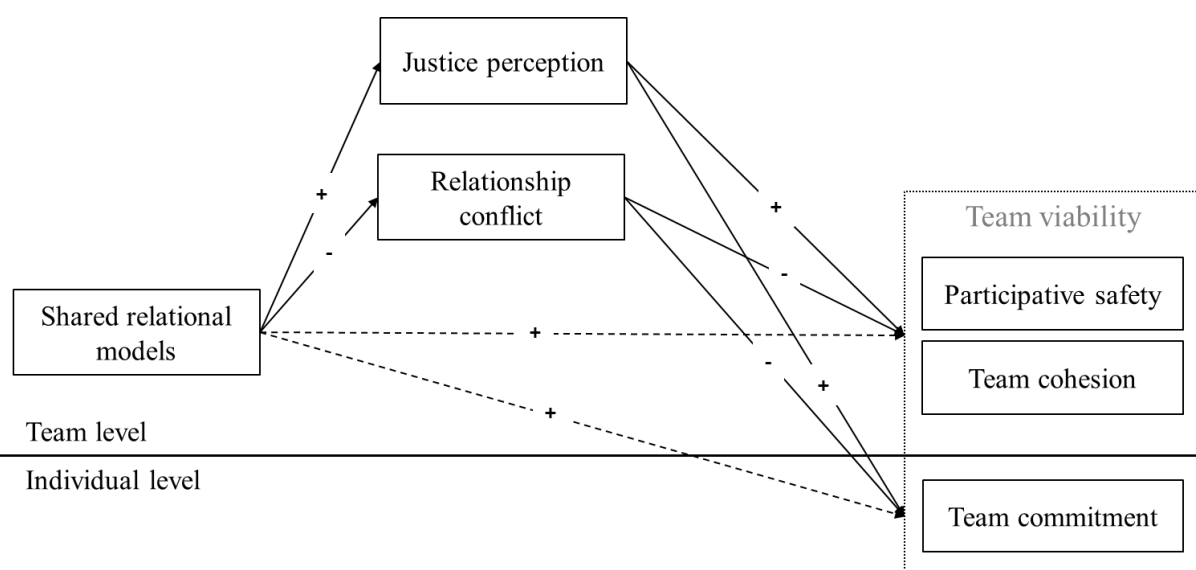


Figure 1: Proposed mediation model for Study 1 and Study 2

The team-level measurement of the sharedness of relational models is a direct function of team members' within-group agreement across all four relational models. The other variables in our research model were assigned to different levels of measurement based on theoretical considerations and the perceptual reference object of the corresponding scales (i.e., Do the items reference the team as a whole from the perspective of the team member as an observer, or do the items reference the team member and his/her perceptions as an individual?). Since we were interested in team members' perception of overall justice *in the team as a whole* and the *general* level of relationship conflict among *all members of the team*, these variables were conceptualized and assessed as team-level constructs. Following Beal et al. (2003), we also conceptualized and measured team cohesion as a team-level construct. Participative safety, as an aspect of team climate, was conceptualized and measured on the team level as well. Therefore, all these variables were aggregated onto the team level. In contrast, team members' individual affective commitment to their team was conceptualized and assessed on the individual level of analysis because it refers to their individual satisfaction with and feelings of belonging to the team.

Results

Correlations (both levels), means, standard deviations (team level) and reliabilities (individual level) for all variables are shown in Table 2. Table 3 and Table 4 show the results of the mediation analyses on Level 2 as well as cross-level.

Data aggregation and analysis. To support the aggregation of our team-level constructs, ICC(1) and r_{wg} values were calculated for the respective scales. The r_{wg} values ranged from .84 to .90 and all ICC(1) values were statistically significant, indicating that group membership had a substantial effect on individual ratings (LeBreton & Senter, 2008). Hence, these scales were aggregated to the team level by calculating the mean for each team.

Table 2

Means, standard deviations, and correlations of Study 1 variables

Variable	ICC(1)	ICC(2)	r _{WG} (mean)	M	SD	1	2	3	4	5	6
1 Shared relational models	-	-	-	3.12	.43	(-)	.22**	-.26**	.23**	.22**	.15 [†]
2 Justice perception	.34	.65	.90	4.12	.52	.33*	(.86)	-.60***	.63***	.72***	.63***
3 Relationship conflict	.43	.72	.84	1.75	.68	-.37*	-.71***	(.86)	-.42***	-.64***	-.45***
4 Participative safety	.28	.58	.84	4.18	.55	.37*	.75***	-.55***	(.79)	.67***	.67***
5 Team cohesion	.48	.77	.87	4.08	.61	.32*	.84***	-.72***	.80***	(.88)	.69***
6 Team commitment	.34	.64	.82	4.14	.63	.23	.80***	-.52***	.77***	.85***	(.85)

Note: Means and standard deviations are at Level 2 ($N = 40$). Level 1 correlations ($N = 141$) are above the diagonal. Level 2 correlations ($N = 40$) are below the diagonal. For Level 1 correlations, Variable 1 was disaggregated by assigning each member of each group the same value. Reliabilities (Cronbach's alpha) are indicated on the diagonal in parentheses. Please note that some of our hypotheses concern cross-level effects, which are not shown in this table. [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 3

Results of multilevel mediation analyses for Study 1 and Study 2 (Mediator: Justice perception)

	Mediator: Justice perception (Level 2)		Dependent Variable: Participative safety (Level 2)		Dependent Variable: Team cohesion (Level 2)		Dependent Variable: Team commitment (Level 1)			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
<i>IV:</i>										
Shared relational models (Level 2)	.33 (.18)*	.37 (.19)*	.15 (.11)	.32 (.22)*	.05 (.10)	.16 (.08) [†]				
<i>Mediator:</i>										
Justice perception (aggregated; Level 2)		.75*** (.12)	.73*** (.12)	.84*** (.11)	.87*** (.10)	.59*** (.07)	.60*** (.07)			
<i>Control Variable:</i>										
Justice perception (group mean centered; Level 1)						.47*** (.09)	.47*** (.09)			
<i>IV:</i>										
Shared relational models (Level 2)	.35 (.16)*	.29 (.18)*	.01 (.13)	.38 (.19)**	.09 (.11)	.21 (.07)				
<i>Mediator:</i>										
Justice perception (aggregated; Level 2)		.77*** (.11)	.77*** (.11)	.85*** (.09)	.82*** (.10)	.51*** (.05)	.51*** (.06)			
<i>Control Variable:</i>										
Justice perception (group mean centered; Level 1)						.54 (.07)	.54 (.07)			

Note. Standardized coefficients are shown; standard errors are included in parentheses. Models 1 - 7 (i.e., single level relationships on Level 2) were calculated as linear regressions ($N_{\text{Study 1}} = 40 / N_{\text{Study 2}} = 48$ on Level 2). Models 8 - 10 (i.e., multilevel relationships) were calculated as multilevel linear models with random intercepts ($N_{\text{Study 1}} = 40 / N_{\text{Study 2}} = 48$ on Level 2 and $N_{\text{Study 1}} = 141 / N_{\text{Study 2}} = 195$ on Level 1). [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 4

Results of multilevel mediation analyses for Study 1 and Study 2 (Mediator: Relationship Conflict)

	Mediator: Relationship conflict (Level 2)		Dependent Variable: Participative safety (Level 2)		Dependent Variable: Team cohesion (Level 2)		Dependent Variable: Team commitment (Level 1)			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
<i>IV:</i>										
Shared relational models (Level 2)	-.37 (.24)*	.38 (.19)*	.20 (.14)	.32 (.22)*	.06 (.12)	.16 (.08) [†]	.03 (.08)			
<i>Mediator:</i>										
Study 1 Relationship conflict (aggregated; Level 2)			-.55 (.11)***	-.47 (.14)**	-.72 (.10)***	-.40 (.08)***	-.38 (.08)***			
<i>Control Variable:</i>										
Relationship conflict (group mean centered; Level 1)								-.40 (.12)***	-.39 (.11)***	
<i>IV:</i>										
Shared relational models (Level 2)	-.29 (.21)*	.29 (.18)*	.09 (.14)	.38 (.19)**	.15 (.12) [†]	.19 (.07)*	.09 (.07)			
<i>Mediator:</i>										
Study 2 Relationship conflict (aggregated; Level 2)			-.69 (.09)***	-.66 (.10)***	-.82 (.08)***	-.37 (.07)***	-.34 (.07)***			
<i>Control Variable:</i>										
Relationship conflict (group mean centered; Level 1)								-.41 (.09)***	-.41 (.09)***	

Note. Standardized coefficients are shown; standard errors are included in parentheses. Models 1-7 (i.e., single level relationships on Level 2) were calculated as linear regressions ($N_{\text{Study 1}} = 40 / N_{\text{Study 2}} = 48$ on Level 2). Models 8-10 (i.e., multilevel relationships) were calculated as multilevel linear models with random intercepts ($N_{\text{Study 1}} = 40 / N_{\text{Study 2}} = 48$ on Level 2 and $N_{\text{Study 1}} = 141 / N_{\text{Study 2}} = 195$ on Level 1). [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

The mediation hypotheses were tested using the following methodologies: Mediations on Level 2 were assessed using bootstrapping methodology with 20,000 replications (Hayes, 2013). Cross-level mediations were assessed using hierarchical linear modeling (HLM 7, Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2011) and the Monte Carlo method with 20,000 repetitions (cf. Selig & Preacher, 2008). When testing cross-level mediations, we followed the suggestions of Zhen Zhang, Zyphur, and Preacher (2009) and included the mediator variables on both levels (i.e., group mean-centered on the individual level and aggregated on the team level) to differentiate the within-group and between-group variance. Since we were interested in the latter, we only analyzed the mediator variables on the team level.

Hypothesis tests. In confirmation of Hypothesis 1 and Hypothesis 2, we found the degree of sharedness of relational models to be positively related to justice perceptions on the team level ($\beta = .33, p = .04$) as well as perceived relationship conflict on the team level ($\beta = -.37, p = .02$). In other words, the higher the degree of sharedness of relational models within teams, the higher the perceptions of justice and the less perceived relationship conflict.

Hypothesis 3a proposed that team members' justice perceptions are positively related to team cohesion, participative safety and team commitment. Supporting Hypothesis 3a, we found justice perceptions on the team level to be positively related to team cohesion on the team level ($\beta = .84, p < .001$), participative safety climate on the team level ($\beta = .75, p < .001$), and team commitment on the individual level ($\beta = .59, p < .001$). The more justice among team members was perceived, the more cohesion and participative safety were perceived and the more team commitment was experienced by team members.

Hypothesis 3b proposed perceived relationship conflict among team members to be negatively related to team cohesion and participative safety on the team level and team commitment on the individual level. Supporting Hypothesis 3b, we found perceived

relationship conflict to be negatively related to team cohesion on the team level ($\beta = -.72$, $p < .001$), participative safety climate on the team level ($\beta = -.55$, $p < .001$) and team commitment on the individual level ($\beta = -.40$; $p < .001$). In other words, the more relationship conflict within a team was perceived among team members, the less team cohesion and team-level participative safety were perceived by team members, and the less team commitment was experienced by each individual team member.

Hypothesis 3c proposed the degree of sharedness of relational models in teams to be positively and indirectly related to team cohesion, participative safety climate and team commitment via justice perceptions and perceived relationship conflict. Supporting Hypothesis 3c, we found justice perceptions to be a mediator of the expected indirect relationships between the degree of sharedness of relational models and team cohesion (95% bias-corrected bootstrap CI [.00, .62]), participative safety (95% bias-corrected bootstrap CI [.02, .54]) and team commitment (95% bias-corrected bootstrap CI [.03, .75]). Similarly, we found perceived relationship conflict to be a mediator of the expected indirect relationships between the degree of sharedness of relational models and team cohesion (95% bias-corrected bootstrap CI [.06, .50]), participative safety (95% bias-corrected bootstrap CI [.03, .42]) and team commitment (95% bias-corrected bootstrap CI [.05, .55]). Thus, Hypothesis 3c was fully supported by our data.

Study 2

We conducted Study 2 as a robust replication of Study 1 to strengthen our findings and to ensure the generalizability of our results to natural work groups in organizations. Thus, our theoretical rationale and hypotheses were the same as in Study 1.

Method

Sample and procedures. We included the measures described in Study 1 in another field study examining a related research question regarding relational models in teams

(Arendt, Kugler, & Brodbeck, 2019a, Study 3 of this thesis). Data was collected via online questionnaire from work teams in various organizations and industries in Germany, Austria and Switzerland.

Teams were recruited using the following strategies: First, we contacted individuals from our personal and professional networks. Second, we contacted the HR departments of various organizations in different industries; third, we advertised the study in social networks (mainly XING). Unlike in Study 1, we limited recruitment to natural work teams in organizations and did not include any student project teams.

A total of 272 participants from 61 teams participated in Study 2. Forty-eight participants had to be excluded because they stopped participating at one of the two first pages of the questionnaire. Thirteen teams (24 individuals) were excluded because they did not reach the minimum response rate of three participants per team. Hence, 200 individuals nested in 48 teams remained in the final sample. Five of these 200 individuals did not completely answer the questionnaire. However, they stopped at a very late stage of the questionnaire, and since we deemed their view of the social rules and norms in their team viable, we used their data to calculate the shared perception of relational models on the team level only.

Thus, the final sample used to test our hypotheses consisted of $N = 195$ individuals nested in $N = 48$ teams. The number of participants per team ranged from three to eight ($M = 4.44$, $SD = 1.40$). Seventy percent of the participants were female. Our sample consisted of individuals from Germany (82%), Austria (9%), Switzerland (6%) and other nationalities (3%). Eighty-two percent of our participants hold a university degree

The actual team size reported by the participants (including team members who did not answer the questionnaire) ranged from three to 31 ($M = 7.84$, $SD = 4.20$). Seventeen percent of the participants had been working in their current team for less than one year, 20%

between one and two years, 33% between two and five years, 13% between five and ten years, and 17% for more than ten years.

Measures. The measures used in Study 2 were identical to those used in Study 1. Again, all items were answered on a 5-point frequency scale (ranging from 1 = *strongly disagree* to 5 = *strongly agree*). For scale reliabilities and descriptive statistics, see Table 5.

Results

Data aggregation and analyses. Correlations (both levels), means, standard deviations (team level) and reliabilities (individual level) for all variables are shown in Table 4. Table 2 and Table 3 show the results of the mediation analyses on the team level as well as cross-level.

To support the aggregation of our team-level constructs, ICC(1) and r_{wg} values were calculated for the respective scales. The r_{wg} values ranged from .78 to .89 and all ICC(1) values were statistically significant, indicating that group membership had a substantial effect on individual ratings (LeBreton & Senter, 2008). Hence, the respective scales were aggregated to the team level by calculating the mean for each team.

Our research model and statistical procedures for testing our hypotheses were the same as in Study 1.

Hypothesis tests. As in Study 1, all hypotheses were supported in Study 2.

Supporting Hypothesis 1 and Hypothesis 2, we found the degree of sharedness of relational models to be positively related to justice perceptions on the team level ($\beta = .35, p = .01$) as well as to perceived relationship conflict on the team level ($\beta = -.29, p = .045$).

Supporting Hypothesis 3a, we found justice perceptions on the team level to be positively related to team cohesion on the team level ($\beta = .85, p < .001$) as well as to participative safety climate on the team level ($\beta = .77, p < .001$) and team commitment on the individual level ($\beta = .55, p < .001$).

Table 5

Means, standard deviations, and correlations of Study 2 variables

Variable	ICC(1)	ICC(2)	r _{WG} (mean)	M	SD	1	2	3	4	5	6
1 Shared relational models	-	-	-	3.05	.41	(-)	.21 ^{***}	-.19 ^{**}	.16 [*]	.27 ^{***}	.18 [*]
2 Justice perception	.20	.50	.83	4.16	.48	.35 ^{**}	(.86)	-.57 ^{***}	.64 ^{***}	.74 ^{***}	.65 ^{***}
3 Relationship conflict	.30	.64	.81	1.78	.59	-.29 [*]	-.70 ^{***}	(.83)	-.52 ^{***}	-.69 ^{***}	-.46 ^{***}
4 Participative safety	.19	.48	.78	4.07	.56	.29 [*]	.77 ^{***}	-.69 ^{***}	(.79)	.73 ^{***}	.64 ^{***}
5 Team cohesion	.38	.71	.89	4.19	.52	.38 ^{**}	.85 ^{***}	-.82 ^{***}	.78 ^{***}	(.87)	.87 ^{***}
6 Team commitment	.80	.33	.67	4.25	.61	.26 [†]	.70 ^{***}	-.49 ^{***}	.67 ^{***}	.69 ^{***}	(.83)

Note: Means and standard deviations are at Level 2 ($N = 48$). Level 1 correlations ($N = 195$) are above the diagonal. Level 2 correlations ($N = 48$) are below the diagonal. For Level 1 correlations, Variable 1 was disaggregated by assigning each member of each group the same value. Reliabilities (Cronbach's alpha) are indicated on the diagonal in parentheses. Please note that some of our hypotheses concern cross-level effects, which are not shown in this table. [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Supporting Hypothesis 3b, we found perceived relationship conflict to be negatively related to team cohesion on the team level ($\beta = -.82, p < .001$), as well as to participative safety climate on the team level ($\beta = -.69, p < .001$) and team commitment on the individual level ($\beta = -.37, p < .001$).

Supporting Hypothesis 3c, we found justice perceptions to be a mediator of the expected indirect relationships between the degree of sharedness of relational models and team cohesion (95% bias-corrected bootstrap CI [.13, .68]), participative safety (95% bias-corrected bootstrap CI [.11, .59]) and team commitment (95% bias-corrected bootstrap CI [.09, .68]). Similarly, we found perceived relationship conflict to be a mediator of the expected indirect relationships between the degree of sharedness of relational models and team cohesion (95% bias-corrected bootstrap CI [.03, .44]), participative safety (95% bias-corrected bootstrap CI [.03, .35]) and team commitment (95% bias-corrected bootstrap CI [.01, .45]).

In order to fully benefit from the added value of a replication study, we calculated overall effect sizes across both studies for all relationships proposed in our hypotheses. In a first step, we merged the data from both studies and analyzed whether the variables' means differed between the two samples (i.e., Study 1 and Study 2). An analysis of variance using the two different samples as the independent variable and the variables in our research model as dependent variables indicated no differences between the two studies⁵. In a second step, we again tested our hypotheses using an hierarchical linear modelling approach (HLM 7,

⁵ Results of the ANOVA comparing the two study samples:

DV shared relational models: $F(1, 86) = .57; p = .454$

DV justice: $F(1, 86) = .46; p = .500$

DV relationship conflict: $F(1, 86) = .04; p = .847$

DV team cohesion: $F(1, 86) = .01; p = .927$

DV participative safety: $F(1, 86) = .00; p = .958$

DV team commitment: $F(1, 334) = 1.62; p = .204$

Raudenbush et al., 2011) that took into account the two different samples. Thus, our statistical model had three levels: an individual level (Level 1), a team level (Level 2) and a study level (Level 3).

The degree of sharedness of relational models was positively related to justice perceptions on the team level (H1; $\beta = .34, p = .001$) as well as perceived relationship conflict on the team level (H2; $\beta = -.33, p = .002$). Justice perceptions on the team level were positively related to team cohesion on the team level (H3a; $\beta = .85, p < .001$) as well as participative safety climate on the team level (H3a; $\beta = .76, p < .001$) and team commitment on the individual level (H3a; $\beta = .53, p < .001$). Relationship conflict was negatively related to team cohesion on the team level (H3b; $\beta = -.77, p < .001$) as well as to participative safety climate on the team level (H3b; $\beta = -.62, p < .001$) and team commitment on the individual level (H3b; $\beta = -.36, p < .001$). Justice perception was a mediator (H3c) of the expected indirect relationships between the degree of sharedness of relational models and team cohesion (95% bias-corrected bootstrap CI [.16; .63]), participative safety (95% bias-corrected bootstrap CI [.13; .53]) and team commitment (95% bias-corrected bootstrap CI [.16; .62]). Similarly, perceived relationship conflict was a mediator (H3c) of the expected indirect relationships between the degree of sharedness of relational models and team cohesion (95% bias-corrected bootstrap CI [-.56; -.13]), participative safety (95% bias-corrected bootstrap CI [-.42; -.09]) and team commitment (95% bias-corrected bootstrap CI [-.43; -.08]).

According to Cohen (1992) these findings correspond to medium (H1, H2) to large (H3a, H3b) effect sizes for the direct relationships between the variables in our hypotheses.

Discussion

The question that drove our research was what can be expected if team members have different perceptions of the fundamental social rules and norms they perceive as “valid” for

regulating interpersonal relationships in their team. Building upon RMT (Fiske, 1992), we operationalized (the extent of) a shared understanding of fundamental social rules and norms in terms of the degree of sharedness of four elemental relational models people use to regulate their social interactions. We proposed that this sharedness is related to perceptions of justice and relationship conflict among team members. We further proposed perceived justice and relationship conflict to be related to various aspects of team viability (i.e., team cohesion, participative safety and team commitment). Results from two analogous field studies supported all hypotheses proposed. The higher the degree of sharedness of relational models within teams, the higher the perceived justice, the less perceived relationship conflict and the higher perceived team viability within teams.

Theoretical Implications

The present research contributes to various strands of research on social relationships in teams.

Implications for relational models research. The present studies contribute to research on RMT by providing empirical support for one of its key assumptions, that conflicting relational models are related to perceptions of (in)justice and relationship conflict (Fiske, 1992; Rai & Fiske, 2011), and extending it to work teams. By rating the relational models they perceive to be valid in their work team, participants in our two studies rated their individual perceptions of which relationship regulation behaviors are appropriate in different domains of social interaction within their work team. Accordingly, the degree of sharedness of relational models reflects team members' degree of shared perceptions concerning which relationship regulation behaviors are appropriate in their team. Combined with our further proposition, derived from the literature on shared mental models (in teams), that the degree of sharedness of relational models varies across work teams, we were able to predict justice perceptions and levels of conflicts within work teams by the degree of sharedness of

relational models. In teams with strongly shared relational models, team members are highly likely to apply the same relational models in social interaction situations. Conversely, in teams with weakly shared relational models, team members are highly likely to apply different and therefore *conflicting* relational models in social interaction situations. RMT proposes that when interaction partners apply different relational models to the same aspect of social interaction (e.g., the exchange of resources or decision-making), this is likely to lead to conflict (Fiske, 1992) and reduced levels of perceived justice among interaction partners (Rai & Fiske, 2011). Our finding that the degree of sharedness of relational models in teams is related to team members' perceptions of justice and relationship conflict supports this core proposition of RMT.

These findings also dovetail with a theoretical paper by Vodosek (2000) applying RMT to the work team context. Building upon the same propositions of RMT that we did in our theoretical rationale, Vodosek proposed (but did not test) a relationship between the similarity of relational models applied by team members and relationship conflict in teams. Our finding that the degree of sharedness of relational models in teams is related to perceived relationship conflict among team members provides empirical support for this proposition.

The present studies' findings also contribute to the small but growing body of research on relational models in organizations. This line of research is still dominated by theoretical works (e.g., Bridoux & Stoelhorst, 2016; Fehr et al., 2015; Giessner & van Quaquebeke, 2010; Mossholder et al., 2011; Rutti et al., 2013; Vodosek, 2000; Wellman, 2017). In contrast, only a small number of empirical studies actually test the propositions derived from RMT in organizational settings (e.g., Boer et al., 2011; Keck et al., 2018; Vodosek, 2009). The present studies contribute to this line of research by revealing the explanatory value of RMT with respect to organizational relevant constructs (i.e., justice, relationship conflict and team viability).

Implications for shared mental models research. The present studies also contribute to and expand the shared mental models literature with regard to both the content domain (by examining shared mental models regarding fundamental aspects of social interaction) and the criterion domain (by examining the effects of shared relational models on affective and motivational outcomes).

Regarding the content domain, research on shared mental models is still dominated by studies focusing on task-related mental models. Many studies on shared mental models are conducted in specific contexts and scenarios, often involving simulations (e.g., Santos, Passos, & Uitdewilligen, 2016) or video games (e.g., Resick, Dickson, Mitchelson, Allison, & Clark, 2010), and highly task-specific measurement tools based on detailed task analyses. While these studies have delivered valuable insights on group processes when dealing with specific tasks, they excluded major parts of interactions within teams and their findings can only be transferred to other areas of activity to a limited extent. The small number of studies that included shared team-related knowledge focus on very specific team characteristics, such as information sharing or mutual trust (e.g., Johnson et al., 2007; Lim & Klein, 2006). Team members' shared mental models regarding *fundamental aspects* of relationship regulation had been largely neglected in research on shared cognition in teams. A few studies included certain aspects of relationship regulation: for example, Lim and Klein (2006) asked participants about certain types of decision-making in their teams (distinguishing between decisions made by the leader and decisions made by the team). However, the questionnaires used in such studies usually neglected other domains of social interaction, such as the allocation of resources or motives for resource exchange, and thus did not cover all possible variants of how people can relate to each other (i.e., the four relational models proposed by RMT).

The present studies expand the content domain of shared mental model research by

examining the sharedness of the four universal and (according to RMT) comprehensively exhaustive models of social interaction in teams. According to RMT (Fiske, 1992), people use the four relational models to regulate *all* types of social interaction. Relational models are neither task-specific nor team-specific and the sharedness of relational models in teams should be relevant in all situations in which team members socially interact. The question of how people see themselves in relation to each other, of how people interpret the relationship between themselves and their interaction partners in different situations at work – not in terms of task accomplishment but in terms of elemental social interaction – is relevant in all types of organizations and settings. The present studies' findings and the fact that the studies used data from different types of teams in various organizations, industries and countries, support this claim.

The present studies also contribute to research on shared mental models with regard to the criterion domain: Empirical studies on shared mental models have largely focused on team processes and team performance as outcomes of shared mental models. Reviewing the empirical research on team mental models, Mohammed et al. (2010) called on scholars “to expand the criterion base by exploring other indicators of team effectiveness (e.g., team creativity, adaptability), affective outcomes (e.g., team commitment, team satisfaction, conflict), and emergent states (e.g., cohesion, psychological safety)” (p.896). The present studies answer this call by focusing on different aspects of team viability (i.e., team cohesion, participative safety climate and team commitment) as outcomes of shared relational models.

Implications for justice research. The present studies also establish a link between RMT and research on justice in the workplace by introducing shared relational models as an antecedent of justice perceptions in teams. Since we assessed team members' justice perceptions on a very abstract level, our findings are particularly relevant for the small but growing body of research on the concept of *overall justice* (Ambrose & Schminke, 2009;

Ambrose et al., 2015). The majority of studies on justice in organizations conducted in recent decades focus on facet-specific justice perceptions (procedural, distributive, informational, interactional), most often building upon Colquitt's (2001) conceptualization of organizational justice. However, in recent years, some studies have provided evidence that these facets of justice do not fully capture the justice phenomenon and can rather be seen as antecedents of a single, more global perception of justice (i.e., overall justice, Ambrose & Schminke, 2009), which mediates their effects on various affective and motivational outcomes (e.g., job satisfaction, commitment or turnover intention). Several scholars (Ambrose et al., 2015; Rupp, Shapiro, Folger, Skarlicki, & Shao, 2017) have pointed out that there may be other antecedents of overall justice perceptions which are not captured by and go beyond the facets of justice usually examined in organizational psychology (i.e., procedural, distributive, informational, interactional justice). Our results indicate that conflicting relational models could be one such additional antecedent of overall justice perceptions.

Implications for conflict research. The present studies' findings also contribute to research on relationship conflict in teams, which is still dominated by a strong focus on conflict as an antecedent of other variables, such as team performance or performance-related behavior (for a meta-analytic overview, see De Dreu & Weingart, 2003; de Wit et al., 2012). The factors which *cause* relationship conflict in teams have received less attention. Relational models theory offers a promising framework for examining and explaining potential antecedents of relationship conflict. As described in the pertinent literature, relationship conflict is caused by interpersonal, non-task-related issues, such as differences in norms and values, and is often accompanied by feelings of irritation, frustration and annoyance (de Wit et al., 2012; Jehn, 1995; Jehn & Mannix, 2001). RMT contains propositions for both the nature of differences in norms and values (i.e., the application of different relational models among interaction partners) and the origin of feelings of irritation

and annoyance (i.e., moral outrage resulting from the violation of a relational model and the moral motive inherent to it). The relationship between the degree of sharedness of relational models in teams and perceived relationship conflict among team members found in both of the present studies provides support for these propositions.

Implications for research on team effectiveness. Finally, the present studies also contribute to general research on team effectiveness. Scholars have argued that team effectiveness refers not only to a team's performance outcomes but also to its potential to maintain team members' satisfaction and willingness to remain in the team (Kozlowski & Bell, 2013). By linking the sharedness of relational models in teams to various aspects of team viability (i.e., team cohesion, participative safety climate and team commitment), the current studies reveal the importance of shared relational models for team effectiveness. Even though we did not assess any team performance outcomes, shared relational models are also likely to affect team performance, since both our mediator variables (i.e., justice perceptions and relationship conflict) and our outcome variables (i.e., team cohesion, participative safety, and team commitment) have been repeatedly linked to team performance.

Limitations

We also need to note several limitations of the study that warrant attention. Due to its cross-sectional design, our study does not allow causal conclusions. Although we think that it is more plausible that different perceptions of relational models in teams affect perceptions of justice and relationship conflict than vice versa, future research would benefit from using longitudinal designs to establish causality. Such research should particularly focus on testing the situational effects (i.e., effects of conflicting relational models in specific social interactive situations) underlying the theoretical rationale used to develop our research model.

Another limitation of the present studies is the use of self-report measures, which hold

the risk of common method bias (P. M. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, the nature of our variables (i.e., shared relational models, justice perceptions, relationship conflict, and team viability) necessitated the use of self-report data. Moreover, we collected data from multiple team members, and the degree of sharedness of relational models among team members (our independent variable) was measured on the team level of analysis by calculating and summing up the r_{wg} values based on the team members' individual responses. Moreover, all variables in our research model except team commitment were aggregated onto the team level, which also reduces common source bias.

A third limitation refers to the sample of Study 1. Seven of the 40 teams were student project teams. The inclusion of student teams, who typically do not spend the same amount of time together as work teams, may have biased our results. Indeed, there is meta-analytical evidence in conflict research that the results of studies in university settings tend to underestimate many effects of team conflict (Poitras, 2012). Furthermore, the majority (73%) of work team members in Study 1 had been working in their teams for less than one year and the average team size was quite small. This relatively short tenure and small team size may have influenced the sharedness of relational models itself as well as the way and extent to which shared relational models affected team members. However, Study 2 replicated all findings of Study 1 with comparable effect sizes in a different sample restricted to work teams with larger team sizes and a longer average team tenure. This replication strengthens our findings and their generalizability.

Future Research

The findings of the present studies suggest several potential avenues for future research.

First, our newly introduced construct (*i.e., shared relational models*) must prove its added value to existing concepts both theoretically and empirically. Hence, future research

examining shared relational models not independently but in combination with existing measures of task-related and team-related mental models in teams is needed to assess which theoretical approach most adequately explains relevant phenomena and effects in different types of team contexts.

Second, future research could examine more distal outcomes of shared relational models in teams, such as team performance or performance-related behaviors. In the present studies, we were interested in very proximal outcomes of shared relational models, and thus focused on perceived justice and relationship conflict as well as on different aspects of team viability (i.e., team cohesion, participative safety climate and team commitment). Future studies could extend our findings by examining relationships between shared relational models and team performance and/or performance-related behaviors in teams. RMT allows linkages between shared relational models and both cooperative behaviors, such as helping behavior or sharing knowledge, and *uncooperative* behaviors, such as knowledge hiding (Connelly et al., 2012). Accordingly, RMT has already been used as a theoretical framework for explaining various aspects of cooperation, including helping behavior (Mossholder et al., 2011) and knowledge sharing (Boer et al., 2011). Moreover, there is ample evidence that perceptions of justice and relationship conflict are related to both cooperative behaviors and counterproductive work behaviors (e.g., Colquitt et al., 2013; Kessler et al., 2013; Naumann & Bennett, 2002; O'Neill et al., 2013). Hence, future research might build on our findings and examine the effects of shared relational models on (un)cooperative behaviors in teams.

Practical Implications

Our study, which provides evidence that the degree of sharedness of relational models relates to justice perceptions, relationship conflict and team viability, offers some practical implications. We will highlight three major issues which we deem most relevant for practitioners: a) team members' degree of shared understanding of relational models itself, b)

the finding that the sharedness of relational models in teams is related to perceived justice and relationship conflict, and c) potential avenues to enhance the sharedness of relational models in teams.

In the present studies, participants rated their perception of what behavior is generally (not only by themselves individually) considered appropriate in social interactions in their team. The first practical implication of our study is that team members do not always have the same perception of the relational models in their team. We think that teams could benefit from becoming aware of potential variability in individual team members' perceptions of relational models and thus social rules and norms in their team and the fact that this variability may have negative consequences. If team members become aware that their individual perception of the relational models in their team does not necessarily coincide with that of their teammates, they may better understand each other's perspectives and may be able to prevent conflicts before they arise.

Team members have individual perceptions and expectations of how social interaction in particular situations should work within their team. If team members' individual expectations for interpersonal interaction do not match, injustice may be perceived and relationship conflict is likely to occur. If team members are aware of these relationships, they may be able to better understand the nature of their (or others') justice perceptions and the origins of relationship conflicts among team members.

It can be further inferred from our studies that improving the sharedness of relational models among team members can reduce the occurrence of unmet expectations about social interactions at work, thereby reducing perceived injustice and interpersonal conflict and improving team viability. The sharedness of relational models could be increased through trainings on interpersonal communication and interaction that foster a common understanding of the social rules and norms (e.g., in terms of the four types of RMs) in particular social

interactive situations (e.g., resource allocation, decision-making rules etc.). Because teams do not necessarily reflect on their behavior spontaneously and without a concrete reason to do so, they could try team coaching (Hackman & Wageman, 2005) that includes guided reflexivity (Tesler, Mohammed, Hamilton, Mancuso, & McNeese, 2018) to reflect on their interactions and identify and solve disagreements. Our findings suggest that if team members manage to get on the same page regarding the application of relational models to particular situations in their team, there should be positive effects on both individual satisfaction and the functioning of the team as a whole.

Linking Chapter 2 and Chapter 3

The studies presented in Chapter 2 explored the consequences of a greater or lesser shared understanding of social rules and norms in teams for various aspects of team viability. In particular, it was proposed that a (greater or lesser) shared understanding of social rules and norms among team members, conceptualized as the degree of sharedness of relational models in teams (shared relational models), is positively related to perceived justice and negatively related to perceived relationship conflict in teams, which are in turn related to participative safety climate, team cohesion and team members' affective commitment to their team.

This chapter contributes to the overall research question of this thesis by introducing the concept of *shared relational models* as a team construct that links two lines of research – one based on relational models theory and one based on shared mental models - and provides empirical evidence for the role of shared relational models as an antecedent of perceived justice and relationship conflict in teams. Hence, it provides support for foundational propositions of relational models theory, in which conflicting relational models are assumed to be a major source of conflicts and justice perceptions.

However, both studies described in Chapter 2 exclusively focused on affective and motivational states in teams; neither Study 1 nor Study 2 examined team members' actual behaviors. Therefore, the aim of the following study is to build on the findings of Studies 1 and 2 to examine the effects of shared relational models on performance-relevant behavior by team members. Specifically, it will be investigated how shared relational models, by determining perceptions of justice and relationship conflict, affect different forms of (un)cooperative behavior in teams.

3. BEING ON THE SAME PAGE ABOUT SOCIAL RULES AND NORMS: EFFECTS OF SHARED RELATIONAL MODELS ON COOPERATION IN WORK TEAMS⁶

Summary

In working teams, each member has an individual understanding of the social rules and norms that underlie social relationships in the team, as well as about what behavior is appropriate and what behavior can be expected from others. What happens if the members of a team are not “on the same page” with respect to these social rules and norms? Drawing on relational models theory (Fiske, 1992), which posits four elemental relational models that people use to coordinate their social interactions, we examined the effects of a common understanding of social rules and norms in teams (i.e., “shared relational models”) on various aspects of cooperative and uncooperative behaviors. We hypothesized that a shared understanding of relational models in a team is positively related to justice perception and negatively related to relationship conflict, which are in turn related to helping behavior and knowledge hiding. We conducted a field study, collecting data from 48 work teams ($N = 195$ total participants) in various organizations, and found support for all proposed hypotheses. Our findings emphasize the importance of a shared understanding of social rules and norms for (un)cooperative behavior in teams, thereby opening a new door for research on relational models in organizations.

⁶ An adapted version of this chapter has been accepted for presentation at the 79th Annual Meeting of the Academy of Management (2019, August) in Boston, Massachusetts, USA. An adapted version of this chapter has been submitted for publication to *Human Relations*.

Introduction

Imagine a team of several scholars who have been invited to present their latest research findings at an important conference in a beautiful part of the world – but there are only enough financial resources for one person to go. Who should go? The person who would benefit most from attending the conference? The person who contributed the most to the research project? The project leader? The person whose “turn” it is to go considering attendance at past conferences? Each of these decisions can be regarded as fair or unfair depending on the underlying moral motives and relational rules. Ideally, the members of a team have similar perceptions, a *shared mental model* (Mohammed et al., 2010) of these (often unspoken) moral motives and relational rules for relationship regulation. However, what are the consequences if team members are *not* on the same page about the social rules and norms within their team?

The present research sheds light on this question. Building upon relational models theory (RMT, Fiske, 1992) as a theoretical framework of relationship regulation, we examine the psychological and behavioral consequences of a greater or lesser shared understanding of social rules and norms (i.e., shared relational models) among team members. Specifically, we examine whether and how this shared understanding is related to cooperative and uncooperative behavior in teams.

There are two emergent lines of research in psychology that can be linked to our research question: research on RMT and research on shared mental models. These two research lines have not been linked yet, nor have the consequences of more strongly or weakly shared relational models for team members’ experience and behavior been addressed empirically so far.

RMT provides a theoretical foundation for understanding social behaviors and offers explanations for the origins and consequences of relational rules and norms. Furthermore,

RMT makes clear predictions regarding justice perception and relationship conflict when different social rules are applied by the interacting individuals (Fiske, 1992). However, empirical studies testing these predictions are still scarce and their results were often not in alignment with the authors' expectations (e.g., Poulson, 2005). Thus, more research is needed to gain empirical support for some of the key assumptions of RMT.

Research on shared mental models (for an overview, see Mohammed et al., 2010; Turner et al., 2014) offers a further promising framework for examining the consequences of a greater or lesser shared understanding of social rules and norms for teamwork. However, previous empirical studies have mainly focused on task-specific aspects of shared mental models in teams, while shared mental models of fundamental social rules and norms for relationship regulation have been largely neglected.

In the study presented here, we build upon, extend, and link these two lines of research – RMT and shared mental models – by investigating shared relational models. We propose that a shared understanding of social rules and norms among team members is linked to perceived justice and relationship conflict in teams, which are in turn related to various cooperative and uncooperative behaviors. In this study, we focus on two such behaviors: helping and intentionally withholding knowledge (*knowledge hiding*).

Helping and knowledge hiding are two variables of particular interest for organizations. On the one hand, cooperative behaviors such as helping have been repeatedly shown to play a substantial role in team performance (N. P. Podsakoff et al., 2014; N. P. Podsakoff et al., 2009). On the other hand, *uncooperative* behaviors such as knowledge hiding not only lack the positive effects of cooperative behaviors but actually have detrimental effects on social relationships (Connelly & Zweig, 2014) and team performance (e.g., Černe, Nerstad, Dysvik, & Škerlavaj, 2014).

Relational Models Theory

The key question addressed in RMT is quite simple: How do people relate to each other? The theory identifies four fundamental relational models - *communal sharing*, *authority ranking*, *equality matching*, and *market pricing* - which people use to regulate their social interactions. People use these relational models “to plan and to generate their own action, to understand, remember, and anticipate others, to coordinate the joint production of collective action and institutions, and to evaluate their own and others’ action” (Fiske, 2004, p. 3). In a nutshell, relational models allow people to instantly appraise what is appropriate in a given situation requiring social interaction.

Relational models are also the basis of fairness perceptions and moral judgements within relationships. Each relational model encompasses a distinct fundamental moral motive (Rai & Fiske, 2011). The question of what behavior is perceived as appropriate, of what interaction is perceived as fair – regardless of whether this evaluation refers to the way resources are distributed or the way a decision is made within the group - largely depends on the relational model the assessor is applying in a specific situation.

The *communal sharing* model (CS) is based on a perceived common identity. The central motive in this relational model is *unity*, and relationships based on this model are characterized by feelings of solidarity, affiliation and conformity. In a CS relationship, people treat each other as the same; individual attributes and differences among group members fade into the background. When decisions have to be made, members strive to reach consensus within the group. Resources are allocated on the basis of need without keeping track of specific group members’ inputs and outputs. In fact, active accounting of exchanges within the group is perceived as morally reprehensible (Rai & Fiske, 2011).

The *authority ranking* model (AR) is applied when people perceive of each other as in some kind of hierarchical order with respect to a certain dimension (e.g., formal rank,

expertise, seniority). Thus, the underlying moral motive is *hierarchy*. People who are lower in the hierarchical order are expected to show respect and loyalty to people who are higher in the hierarchical order. In turn, higher-ranking people are expected to lead and protect people lower in the hierarchy. Thus, it is socially acceptable for higher-ranking people to make decisions for the whole group (but they are also expected to bear responsibility for these decisions). When resources have to be allocated in an AR relationship, it tends to be socially accepted that higher-ranking people receive more than lower-ranking people.

The *equality matching* model (EM) is based on turn-taking, equivalence and reciprocity. Thus, the underlying moral motive is *equality*. When an equality matching model is applied, people treat each other as equal but distinct individuals and keep track of the balance of contributions in the relationship. When decisions have to be made, all group members' voices have the same weight. When resources have to be allocated in an EM relationship, each individual is eligible for the same share of these resources.

The *market pricing* model (MP) is based on the moral motive of *proportionality* and is characterized by rational economic cost-benefit calculations. When a market pricing model is applied, peoples' actions are guided by a consideration of what they put into and get out of a given relationship. When resources have to be allocated, each individual's share depends on how much this individual has contributed. Thus, the extent of an individual's participation and engagement in a relationship largely depends on the benefits and payoffs he or she can expect from it.

These four relational models are the building blocks of social rules and norms. Put another way, social rules and norms about relationship regulation in teams can be seen as manifestations and combinations of these four relational models, which coordinate and regulate social interactions between team members. The question of what behavior is socially acceptable in team work therefore depends on the relational models that dominate in

specific situations and interactions. In other words, in any specific situation in time one relational model is prevalent; in different situations different relational models can be prevalent; however, certain relational models are more dominant than others in a given relationship or group.

In the last decade, RMT has gained some attention in organizational science. For example, it has been used as a theoretical framework for investigating helping behavior (Mossholder et al., 2011), joint value creation in organizations (Bridoux & Stoelhorst, 2016), leadership emergence (Wellman, 2017), ethical leadership (Giessner & van Quaquebeke, 2010), knowledge sharing (Boer et al., 2011), proactive behavior (Batistič et al., 2016), and interpersonal conflict at work (Frone, 2000; Vodosek, 2000).

The added value of RMT as a theoretical framework for examining human social interactive experiences and behavior in organizations lies in its comprehensive description and explanation of different perceptions of fairness and of the appropriateness of social actions in different social situations and relationships. RMT can explain how and why one and the same behavior can be experienced as either fair or unfair depending on the salient relational model. However, a considerable proportion of the research linking RMT to organizational research is theoretical in nature (Bridoux & Stoelhorst, 2016; Giessner & van Quaquebeke, 2010; Mossholder et al., 2011; Vodosek, 2000; Wellman, 2017) and the number of empirical studies testing the theoretical assumptions derived from RMT is still very low (e.g., Boer et al., 2011; Frone, 2000; Vodosek, 2009).

Shared Relational Models in Teams

In organizational research, there are various conceptualizations of shared cognitions in teams (Turner et al., 2014), such as *shared mental models* or *team mental models*, which have been defined as “team members’ shared, organized understanding and mental representation of knowledge about key elements of the team’s relevant environment” (Mohammed et al.,

2010, p. 879). In recent decades, a growing body of research has demonstrated that shared mental models in teams positively affect team processes and team performance (DeChurch & Mesmer-Magnus, 2010b; Mohammed et al., 2010; Turner et al., 2014).

However, most studies conducted in this field of research, focused on shared mental models regarding concrete aspects of task work. The few studies examining shared mental models of *interactional* aspects of teamwork (e.g., Johnson et al., 2007; Lim & Klein, 2006) focused on specific team characteristics such as generous information sharing, open communication or mutual trust. In contrast, team members' understanding of *fundamental aspects* of social interactions in their team have been largely neglected in empirical research. However, team members not only have a (greater or lesser) shared understanding of how concrete tasks should be solved, but also *about how fundamental social interaction "works" in their team. In other words, team members can vary in the degree to which they share the same mental model about which social behavior is appropriate and which social rules and norms underlie the relationships within the team.* In terms of RMT, team members can have a (greater or lesser) shared understanding about which relational models are applied in which situations in their team. We term this degree of sharedness of relational models within teams *shared relational models*.

Shared Relational Models in Teams, Justice Perceptions, and Conflict

There is typically a high degree of consensus among interaction partners about which relational model is appropriate in a specific social interactive situation (Fiske, 1992).

However, our question of interest is: What is to be expected when people are *not* on the same page about which social rules and norms are appropriate in their working team or, more specifically, what happens when interaction partners apply different relational models to the same social interactive situations related to work group functioning?

Fiske (1992) points out that "adherence to one model [of the four theoretically

specified models] usually violates the standards of any other” (p. 712). In other words, the principles of fairness and justice contained within the different relational models are usually incommensurable with one another. A social action that is strongly encouraged in one relational model is likely to be viewed as wrong in another relational model.

Revisiting the example presented at the beginning of the paper: Imagine a team of several scholars who have been invited to present their team’s latest research findings at an important conference in a beautiful part of the world – but there are only enough financial resources for *one* person to go. A team member who sees the CS model as valid for allocating scarce resources would tend to apply the principle of need and propose that the team member who would benefit most from attending the conference should be the one to go. In the context of a CS relationship, this approach is considered fair and appropriate – even if this team member did not contribute very much to the team’s success. However, a team member who applies an MP model in such situations is likely to perceive this proposal based on a CS model as unfair. Instead, in an MP model, it would be considered fair and consistent for the team member who contributed the most to the team’s success to go to the conference. By contrast, a team member applying an authority ranking model to allocating resources in the team would believe that a fair approach is to send the highest status team member (e.g., the leader or the most experienced member) to the conference. Finally, a team member who perceives an equality matching model as valid in this situation would consider it fair for the decision about who goes to the conference to be made on the basis of turn-taking or drawing lots.

When team members differ in their presumed relational models and thus have fundamentally different moral motives and expect fundamentally different justice principles to be applied (i.e., a low degree of shared relational models), they are highly likely to experience injustice within the team (Connelley & Folger, 2004; Poulson, 2005).

Conversely, when team members agree on what relational models to apply, hold the same moral motives in a particular situation, and thus believe that the same justice principles are appropriate (i.e., a high degree of agreement about relational models), they are highly likely to experience justice within the team.

Hypothesis 1a: The sharedness of relational models in teams is positively related to justice perceptions within teams.

In a similar vein, team members' application of different relational models is likely to lead to relationship conflict in teams. Distinct from task conflict and process conflict, relationship conflict refers to interpersonal, non-task-related disagreements (Jehn, 1995). The more team members see each other as violating the principles underlying the relational models they consider valid for a given aspect of relationship regulation during teamwork, the more tension and aggression they are likely to experience (Fiske, 1992), which should also result in more relationship conflict (Vodosek, 2000).

Hypothesis 1b: The sharedness of relational models in teams is negatively related to perceptions of relationship conflict among team members.

Justice, Relationship Conflict and Helping Behavior

In the hypotheses described above, justice perceptions and relationship conflict are considered consequences of the degree to which relational models are shared among team members. However, they can also serve as antecedents of the quality of subsequent social exchange processes (Cropanzano & Mitchell, 2005).

One form of social exchange that is of particular importance in organizations and thus has been intensively studied in organizational psychology is helping behavior among employees. Helping behavior is typically classified as a form of individual-oriented organizational citizenship behavior ("OCBI"), defined as behaviors that "immediately benefit specific individuals and indirectly through this means contribute to the organization"

(Williams & Anderson, 1991, p. 602). A large body of research has shown positive consequences of helping behavior in organizations (N. P. Podsakoff et al., 2014).

Helping behavior is embedded in the predominant social context and affected by the quality of relationships (Anderson & Williams, 1996). Relationship conflict has been found to be negatively related to various aspects of relationship quality, including trust, cohesion and positive affect, as well as to team members' (interpersonal) citizenship behaviors (de Wit et al., 2012). Thus, we predict the following:

Hypothesis 2a: The higher the perceived relationship conflict among team members, the less helping behavior is perceived in teams.

Injustice perceptions among team members are likely to lead to lower levels of helping behavior as well. When team members perceive social interactions as unfair, they may “learn” that other team members are likely to break the relational rules. Taking a classical social exchange perspective, where resources are exchanged between individuals on basis of implicit rules (Cropanzano & Mitchell, 2005), it can be assumed that people may no longer be willing to invest resources (i.e., time, energy, expertise) in helping other teammates when they cannot be sure that their colleagues won't break the relational rules again. This assumption is supported by empirical findings linking justice perceptions to various forms of cooperative behaviors (e.g., Barclay & Kiefer, 2014; Naumann & Bennett, 2002). Thus, we predict the following:

Hypothesis 2b: The higher the perceived justice in teams, the more helping behavior team members report.

Taken together, this leads to the following prediction:

Hypothesis 2c: The sharedness of relational models in teams is positively and indirectly related to helping behavior in teams via relationship conflict and justice perception.

Justice, Relationship Conflict and Knowledge Hiding

Justice perception and relationship conflict may not only affect *cooperative* behaviors in teams but also behaviors which are explicitly of an *uncooperative* nature. One form of uncooperative behavior that has only gained attention in psychological research in recent years is knowledge hiding, defined as “an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person” (Connelly et al., 2012, p.65). A significant predictor of knowledge hiding is distrust (Černecký et al., 2014; Connelly et al., 2012), which often results from broken obligations. Building upon these findings, scholars have explicitly recommended investigating interpersonal justice and (un-)fair treatment as antecedents of knowledge hiding (Connelly et al., 2012).

From a social-exchange perspective, the sharing of knowledge can be seen as an exchange of resources. Thus, just as in the case of helping, team members who perceive injustice in their team (due to the application of different relational models among team members) may no longer be willing to invest resources in the relationship and thus may intentionally withhold knowledge instead of sharing it with other team members.

Moreover, in reaction to a perceived violation of relational rules, other team members may not only be motivated to withhold resources due to distrust or in expectation that the other person will not reciprocate in the future, but also to punish and harm the transgressor by intentionally withholding knowledge. Generally, people strongly believe that other people should adhere to the relational models they perceive as valid in a social relationship (Fiske, 1992). This concerns not only relationships and interactions in which one is personally involved but also relationships and interactions with third parties one witnesses as an observer. Thus, if a team member perceives a specific relational model (e.g., CS) as valid in his or her team, his or her relationship with another team member who violates this model because he or she is applying another relational model (e.g., MP) will be impaired even if the

violation does not occur in a direct interaction between these two individuals. Instead, merely witnessing the violation of a relational model perceived as valid in a social interactive situation can be sufficient to harm the relationship between the observer and the actor (Fiske, 1992).

Therefore, the application of different relational models in a team (i.e., a low degree of sharedness of relational models) is likely to promote knowledge hiding by causing relationship conflict and perceived injustice. Conversely, such violations and their consequences are less likely to occur where a shared perception of relational social rules and norms exists (i.e., a high degree of sharedness of relational models). Taken together, this leads to the following predictions:

Hypothesis 3a: The higher the perceived relationship conflict among team members, the more knowledge hiding behavior team members report.

Hypothesis 3b: The higher the perceived justice in teams, the less knowledge hiding behavior team members report.

Hypothesis 3c: Shared relational models in teams are negatively and indirectly related to knowledge hiding by team members via relationship conflict and justice perception.

Study 3

Method

Sample and Procedures. To test our hypotheses, we conducted a field study via online questionnaires and collected data from teams working in various organizations and sectors in Germany, Austria, and Switzerland. Altogether, 272 participants from 61 teams participated in the study. However, 48 participants were excluded because they only completed one or two pages of the questionnaire; furthermore, 13 teams (24 individuals) were excluded because fewer than three team members completed the questionnaires.

Consequently, 200 individuals nested in 48 teams remained in our sample. Of these 200 individuals, 5 participants did not fully complete the questionnaires. However, since they broke off their participation close to the end of the questionnaire, and since we deemed their view of the social rules and norms in their team to be valuable, we decided to nevertheless use their data when calculating the degree of sharedness of relational models on the team level. No other data from these participants was included in the study.

Thus, our final sample for hypothesis testing consisted of $N=195$ individuals nested in 48 teams. The number of participants per team ranged from three to eight ($M = 4.44$, $SD = 1.40$). Seventy percent of the participants were female and 82% held a university degree. The sample consisted of individuals from Germany (82%), Austria (9%), Switzerland (6%) and other nationalities (3%). The actual team size reported by the participants ranged from three to 31 ($M = 7.84$, $SD = 4.20$). Seventeen percent of participants had been working in their current team for less than one year, 20% between one and two years, 33% between two and five years, 13% between five and ten years, and 17% for more than ten years.

Measures. Unless stated otherwise, all items were answered on a 5-point frequency scale (ranging from 1 = *strongly disagree* to 5 = *strongly agree*).

Our questionnaire included additional measures which were collected in order to replicate the findings of an earlier study; these variables are reported in Arendt, Kugler, and Brodbeck (2019b, Study 2 of this thesis).

Relational models in teams. The participants' individual perceptions of relational models in their teams, representing the social rules and norms each team member considered valid in their team, were assessed using the relational models scale from Vodosek (2009). It was translated into German by individuals fluent in both German and English. The scale encompasses four subscales, one for each of the four relational models, with four to five items each. A sample item for the CS subscale is "If one of the group members needs

something, other group members give it without expecting anything in return.” All subscales were reliable ($\alpha = .74$ for CS, $\alpha = .84$ for AR, $\alpha = .77$ for EM, and $\alpha = .70$ for MP).

To assess the degree to which relational models were shared among team members, we conducted the following calculations: First, we calculated r_{wg} values for each team on each of the four scales representing the four relational models. r_{wg} is a measure assessing “inter-rater agreement”; in our case, the r_{wg} value was used to specify the amount of agreement among the responding team members. r_{wg} reflects “agreement among judges [i.e., team members] by comparing the observed variance to the variance expected when the judges [i.e., team members] respond randomly” (LeBreton & Senter, 2008, p. 818 - 819; also see Klein & Kozlowski, 2000; Lindell, Brandt, & Whitney, 1999). Second, we summed up the four r_{wg} values for the four relational model scales per team in order to get one overall parameter for the degree of sharedness of relational models within each team.

Justice perception. Team members’ overall justice perceptions were measured with five items adapted from Ambrose and Schminke (2009). A sample item is “In our team, team members are treated fairly”. Cronbach’s alpha was $\alpha = .87$.

Relationship conflict. Relationship conflict in the team was measured with three items from the German version of Jehn’s Intragroup Conflict Scale (Jehn, 1995) taken from Lehmann-Willenbrock et al. (2011). A sample item is “There is much tension among members in my team”. Cronbach’s alpha was $\alpha = .83$.

Helping behavior. Team members’ helping behavior was measured with the OCB-I subscale from Lee and Allen (2002), translated into German by individuals fluent in both German and English. Since we sought to measure team members’ helping behaviors as comprehensively as possible, the items were included twice in order to obtain both self-reported and peer-reported data: First, individuals were asked to indicate their own level of helping behavior (i.e., individual helping). Second, we asked about the extent to which team

members observe helping behavior within their team as a whole (i.e., team helping). Sample items were: “I willingly give my time to help others who have work-related problems” (individual helping) and “Team members willingly give their time to help others who have work related problems” (team helping). The items were answered on a 7-point frequency scale (1 = *strongly disagree* to 7 = *totally agree*). In the individual helping scale, one item exhibited a very low item-total correlation ($r = .25$) and was thus excluded from the scale. Cronbach’s alpha was $\alpha = .74$ for individual helping and $\alpha = .87$ for team helping.

Knowledge hiding behavior. Individuals’ level of knowledge hiding behavior was measured with a German version of the 12-item scale developed by Connelly et al. (2012) translated by Knipfer, Schmid, and Mangold (2016). Since knowledge hiding behaviors are not necessarily noticed by others, the construct was only measured on the individual level. A sample item is “When a co-worker requested knowledge from me, I offered him/her some other information instead of what he/she really wanted”. The items were answered on a 7-point frequency scale (ranging from 1 = *not at all* to 7 = *to a very great extent*). Cronbach’s alpha was $\alpha = .79$.

Research Model. Given the hierarchical nature of our data, our research model has two levels: the individual level (Level 1, $N = 195$ team members) and the team level (Level 2, $N = 48$ teams). The independent variable in our model (i.e., shared relational models) is located on the team level, as it is a function of team members’ agreement about relational models in their teams. The other constructs were assigned to the two levels of our research model on the basis of theoretical considerations and the respective scales’ frames of reference (i.e., Do the items refer to the team as a whole, with the team member answering the question serving as an observer, or do they refer to the team member as an individual?). Justice perception and relationship conflict were conceptualized and assessed as team-level constructs because we were interested in team members’ perceptions of the overall justice

and general level of relationship conflict in their teams. Therefore, these variables were aggregated to the team level. Since helping behavior was assessed twice, once with reference to each individual's own helping behavior and once with reference to helping behavior in the team as a whole, this variable was located on both the team level and the individual level. Given that knowledge hiding involves concealed actions and is not necessarily noticed by others, this construct was conceptualized and assessed on the individual level. Figure 2 represents our proposed mediation model.

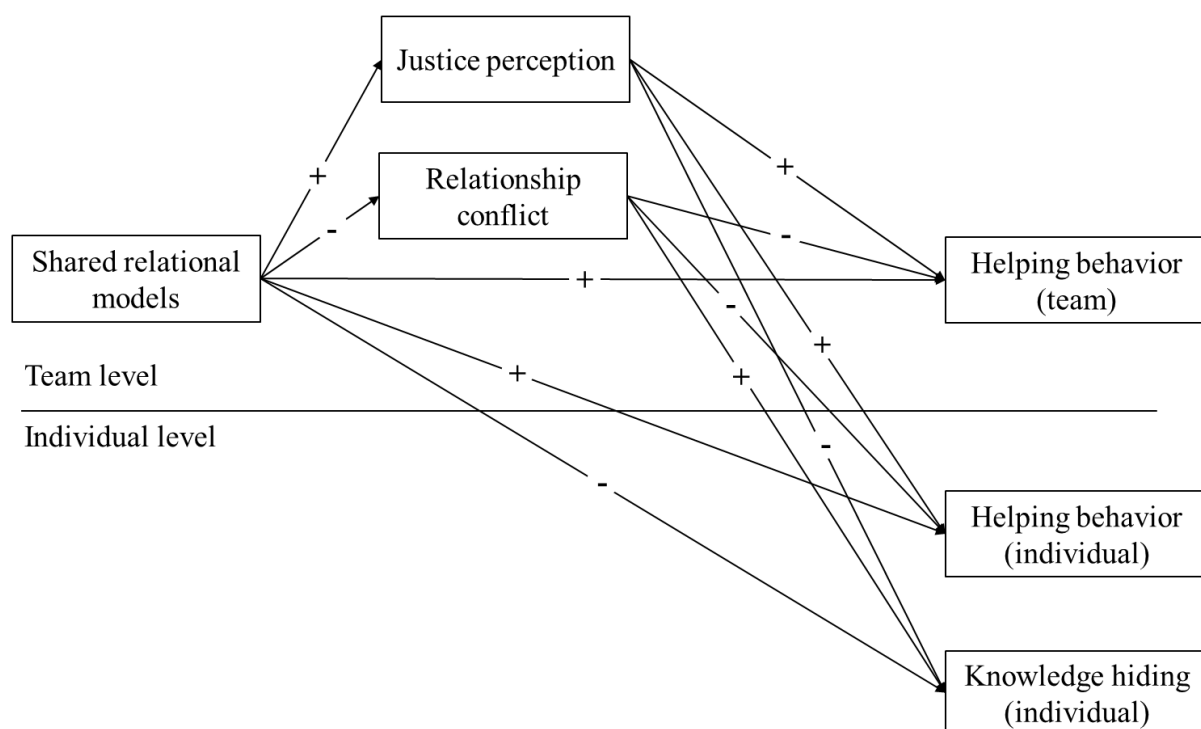


Figure 2: Proposed mediation model for Study 3. Following the recommendations of Zhen Zhang et al. (2009), in the cross-level mediation analyses, the mediator variables (justice perception and relationship conflict) were also included on the individual level as control variables

Results

Data Aggregation and Analysis. In order to assess the appropriateness of aggregating individual-level measures to form our team-level constructs, we calculated

ICC(1) and r_{wg} values for the respective variables. The r_{wg} values ranged from .81 to .88 and all ICC(1) values were statistically significant, indicating that group membership had a substantial effect on individual ratings (LeBreton & Senter, 2008). Hence, we statistically aggregated these scales to the team level.

Following Zhang, Zyphur, and Preacher's (2009) suggestions for cross-level mediation models, we included our mediator variables on both levels (i.e., group mean-centered on the individual level and aggregated on the team level) in order to differentiate within-group variance from between-group variance. We analyzed the mediators on the team level because we were interested in the impact on members of different teams and thus the team-level effects. The individual-level mediators representing the effects within teams were treated as control variables.

Our multilevel hypotheses were tested using the hierarchical linear modelling methodology (HLM7 by Raudenbush et al., 2011). The team-level hypotheses were tested using IBM SPSS 24 and the SPSS program *Process* (Hayes, 2013).

Hypotheses Tests. Correlations, means, and standard deviations for all variables are shown in Table 6. Table 7 and Table 8 show the results of our hypotheses tests, which are described in more detail below.

Supporting Hypothesis 1a, we found shared relational models to be positively related to justice perceptions among team members ($\beta = .44, p = .002$). Supporting Hypothesis 1b, we found shared relational models to be negatively related to perceived relationship conflict in teams ($\beta = -.29, p = .048$). The higher the degree of sharedness of relational models in teams, the more justice and the less relationship conflict was perceived among team members.

Table 6

Means, standard deviations, and correlations of Study 3 variables

Variable	ICC(1)	ICC(2)	r _{WG} (mean)	M	SD	1	2	3	4	5	6
1 Shared relational models	-	-	-	3.05	.41	(-)	.26***	-.19**	.36***	.12 [†]	-.14*
2 Justice perception	.20	.50	.83	4.16	.48	.44**	(.87)	-.56***	.63***	.32***	-.23**
3 Relationship conflict	.30	.64	.81	1.78	.59	-.29*	-.65***	(.83)	-.56***	-.20**	.29***
4 Team helping	.35	.69	.88	5.39	.77	.55***	.76***	-.72***	(.87)	.50***	-.31***
5 Individual helping	.14	.40	.91	5.82	.44	.23	.53***	-.34**	.64***	(.74)	-.18*
6 Knowledge hiding	.06	.21	.98	1.47	.27	-.31*	-.49***	.45**	-.51***	-.36*	(.79)

Note: Means and standard deviations are at Level 2 ($N = 48$). Level 1 correlations ($N = 195$) are above the diagonal. Level 2 correlations ($N = 48$) are below the diagonal. For Level 1 correlations, Variable 1 was disaggregated by assigning each member of each group the same value. Reliabilities (Cronbach's alpha) are indicated on the diagonal in parentheses. Please note that some of our hypotheses concern cross-level effects, which are not shown in this table. [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 7

Results of mediation analyses (Mediator: Justice perception)

	Mediator: Justice perception (aggregated; team level)			Dependent Variable: Team helping (team level)			Dependent Variable: Individual helping (individual level)			Dependent Variable: Knowledge hiding (individual level)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10		
<i>IV:</i> Shared relational models (team level)	.43 (.15)**	.55 (.24)***	.76 (.15)***	.26 (.19)*	.13 (.08)†	.32 (.07)***	-.01 (.08)	-.16 (.08)*	-.25 (.07)***	-.06 (.08)		
<i>Mediator:</i> Justice perception (aggregated; team level)			.76 (.15)***	.66 (.16)***		.32 (.07)***	.32 (.08)***		-.25 (.07)***	-.23 (.08)**		
<i>Control Variable:</i> Justice perception (group mean-centered; individual level)						.20 (.09)*	.20 (.09)*		-.13 (.09)	-.13 (.09)		

Note. Standardized coefficients are shown; standard errors are included in parentheses. Models 1 - 4 (i.e., single-level relationships on the team level) were

calculated as linear regressions ($N = 48$ on the team level). Models 5 - 10 (i.e., multilevel relationships) were calculated as multilevel linear models with random

intercepts ($N = 48$ on the team level and $N = 195$ on the individual level). † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Supporting Hypothesis 2a, we found relationship conflict on the team level to be negatively related to helping behavior on the team level ($\beta = -.71, p < .001$) as well as on individual level ($\beta = -.25, p < .001$). The more relationship conflict was perceived among team members, the less helping behavior was perceived in teams and the less individual helping behavior was reported by team members. Supporting Hypothesis 2b, we also found perceived justice on the team level to be positively related to helping behavior on the team level ($\beta = .77, p < .001$) as well as on the individual level ($\beta = .32, p < .001$). The higher the perceptions of justice in teams, the more helping behavior was perceived in teams and the more helping behavior was reported by individual team members. Furthermore, using the bootstrapping approach suggested by Hayes (2013) with 20,000 iterations, we found significant indirect team-level effects of sharedness of relational models on helping behavior via relationship conflict (bias-corrected 95% bootstrap CI [.016, .373]) and justice perception (bias-corrected 95% bootstrap CI [.133, .464]). Using the Monte Carlo method of assessing mediation (cf. Selig & Preacher, 2008) with 20,000 replications, we also found the expected indirect effects of shared relational models on individual-level helping behavior via relationship conflict (bias-corrected 95% bootstrap CI [.004, .285]) and justice perception (bias-corrected 95% bootstrap CI [.086, .462]). Thus, Hypothesis 2c was supported by our data.

Supporting Hypothesis 3a, we found relationship conflict on the team level to be positively related to knowledge hiding on the individual level ($\beta = .24, p = .002$). The more relationship conflict was perceived among team members, the more knowledge hiding individual team members reported. Supporting Hypothesis 3b, we found perceived justice to be negatively related to knowledge hiding on the individual level ($\beta = -.25, p > .001$). The higher the perceptions of justice in teams, the less knowledge hiding behavior team members reported. Using the Monte Carlo method for assessing mediations (cf. Selig & Preacher,

2008) with 20,000 replications, we found the expected indirect effects of shared relational models in teams on knowledge hiding behaviors via justice perception (bias-corrected 95% bootstrap CI [-.240, -.288]) and relationship conflict (bias-corrected 95% bootstrap CI [-.175, -.002]). Thus, Hypothesis 3c was also supported.

Discussion

Drawing on predictions derived from RMT, we hypothesized that team members' shared perceptions of social rules and norms, operationalized as the degree of sharedness of relational models in teams, is positively related to perceived justice and negatively related to perceived relationship conflict in teams. We further proposed that perceived justice and relationship conflict in teams is related to helping behavior and knowledge hiding behavior among team members. All hypotheses were supported by our data. The higher the degree of sharedness of relational models within teams, the higher the perceptions of justice, the lower the perceptions of relationship conflict, the more helping behavior was perceived within the team as a whole and reported by individual team members and the less knowledge hiding behavior was reported by team members.

Contribution and Theoretical Implications

The present study makes contributions to several different strands of research, of which we would like to discuss the following in more depth: RMT, shared mental models and cooperative and uncooperative behavior at work.

First, the present study contributes to general research on RMT by providing empirical evidence for some of its core assumptions. In particular, the study supports the proposition that conflicting relational models are an antecedent of injustice perceptions and relationship conflict in teams as well as of (un)cooperative behavior. Note that when participants rated the relational models they considered valid in *their* team, they rated their individual perception of what behavior is considered fair and appropriate in social

interactions in their teams. Accordingly, the degree of sharedness of relational models reflects the degree of agreement in the team members' perceptions of what behavior is considered fair and appropriate within their team. In a team with a high degree of sharedness of relational models, social interactive situations in which team members apply different (conflicting) relational models are less likely to occur than in a team with a low degree of sharedness of relational models. RMT proposes that if team members apply different relational models in the same social interactive situation, perceptions of injustice and social conflict are likely to occur because the application of one model usually violates the 'moral' standards of the other relational models (Fiske, 1992; Rai & Fiske, 2011). The finding that the sharedness of relational models among team members is related to the justice and relationship conflict they perceive in their teams supports this proposition by RMT. The present study's findings also provide empirical support for theoretical propositions made by Vodosek (2000), who conceptually linked the similarity of relational models among team members to intragroup conflicts in work teams. To our knowledge, this argument by Vodosek (2000) has never before been tested empirically.

By focusing on teams within organizations, this study contributes to the relatively young field of research on relational models in organizations. This field of research is currently dominated by purely conceptual works discussing relational models as antecedents or consequences of various aspects of organizational behavior (e.g., Bridoux & Stoelhorst, 2016; Mossholder et al., 2011; Wellman, 2017). However, there is also a need for studies underlining the potential added value of RMT in the organizational work context by *empirically* explaining organizationally relevant constructs, as was done in the present study.

Second, the present study extends research on shared mental models, which has largely neglected mental models concerning the principles for regulating social interactions. A large amount of empirical work in this area has focused on task-oriented aspects of

teamwork in specific types of teams, such as air traffic controllers, military teams or student teams, performing simulation games (Mohammed et al., 2010). These highly specific team types as well as task- and content-specific mental models limit the generalizability of their findings. By shedding light on fundamental aspects of social interaction, the present study extends this field of research and presents a widely applicable and task-independent type of shared mental models, that is, the ‘shared relational models’ that are applied in all types of teams performing all types of tasks with all types of content. RMT posits that people use the four relational models to regulate *all* types of social interactions, regardless of task, content or context. Accordingly, the sharedness of relational models should be relevant in all situations in which team members socially interact and thus in all types of collective tasks, teams, and organizations. By analyzing data from a wide range of teams in different organizations and sectors, the present study supports this claim by providing empirical evidence for the relationship between shared relational models and various aspects of team functioning.

Third, the present study contributes to research on cooperative (i.e., helping behavior) and uncooperative (i.e., knowledge hiding) behaviors at work. Our findings suggest that team members reduce helping behavior and engage in knowledge hiding behavior in reaction to perceived injustice and relationship conflict, which are caused by the application of conflicting relational models resulting from a low degree of sharedness of relational models in teams. This can be interpreted in two ways: First, from a classical social exchange perspective (Cropanzano & Mitchell, 2005), team members who perceive each other as behaving unfair may reduce their investments in exchange processes (i.e., helping and sharing knowledge) with other team members because they consider them to be unreliable exchange partners. This is in line with earlier studies linking perceived justice to helping behavior in teams (e.g., Barclay & Kiefer, 2014; Naumann & Bennett, 2002). Second, team members who perceive unfairness and relationship conflict in their team (due to a low degree

of sharedness of relational models) may refrain from helping and hide knowledge from others in order to punish team members who they perceive as breaking the relational rules. This explanation is in line with RMT (Fiske, 1992), which states that people have a strong desire to punish interaction partners who violate the relational models they perceive as valid in a social interactive situation. From this perspective, refraining from helping behavior and engaging in knowledge hiding behavior can be seen as forms of morally motivated relationship regulation with the intention of sanctioning the violation of relational rules.

Limitations and Directions for Future Research

Our study has several limitations that warrant note when interpreting its results. First, the outcome variables were measured using self-report scales, which hold the risk of common method bias (P. M. Podsakoff et al., 2003). However, due to the fact that knowledge hiding behaviors are not necessarily noticed by others (Connelly et al., 2012), self-report scales are currently the dominant approach in the emergent field of knowledge hiding research. In addition, meta-analytic evidence from studies on counterproductive work behaviors (Berry, Carpenter, & Barratt, 2012), a construct which has some conceptual overlap with knowledge hiding (Connelly et al., 2012), suggests that self-report scales are a viable approach for measuring such constructs. In the case of helping behavior, we included peer-rated data by asking participants to rate not only their own helping behavior but also helping behavior in their team as a whole. Just like the mediator variables, this team-level helping behavior was aggregated to the team level to reduce individual biases.

Second, due to the cross-sectional design of the study, reverse causality cannot be ruled out. Therefore, future research is needed to establish causality using longitudinal or experimental designs. In particular, future studies would benefit from focusing on the application of conflicting relational models in individual social interaction situations, which we argue result from a low degree of sharedness of relational models in teams.

A third potential limitation refers to our conceptualization of shared relational models in teams. The present study only focused on *which* relational models are perceived as valid in teams without taking into account how exactly these relational models are implemented in teams' social interactions. According to RMT, how exactly a specific relational model is put into practice is defined according to specific implementation rules (Fiske, 1992). To give an example: A team may agree that resources should be allocated using the principles of an MP model and thus by calculating each team member's contribution, but still disagree about how exactly to measure contributions – in terms of productivity or in terms of effort? In this example, team members apply the same relational model but have a different understanding of *how* this relational model should be applied in their team. Disagreement on implementation rules is likely to lead to injustice and conflict, not between but within relational models (cf. Poulson, 2005). Thus, future studies could employ more detailed measures of shared relational models that also consider specific implementation rules.

Practical Implications

Inter-employee helping and the transfer of knowledge are crucial for various aspects of organizational performance (N. P. Podsakoff et al., 2014; Wang & Noe, 2010). Moreover, there is ample evidence for the negative effects of relationship conflict in teams (de Wit et al., 2012) and for the positive effects of organizational justice (Colquitt et al., 2013). Thus, from a practitioner's perspective, our findings suggest that team members should strive for a common understanding of the social rules and norms in their team to avoid disagreements and relationship conflict resulting from the application of conflicting relational models. To achieve this, teams could make use of various forms of team coaching (Hackman & Wageman, 2005), including guided team reflexivity (Tesler et al., 2018), to get a sense of the social processes and structures underlying the relationships among team members.

On a more general level, organizations should pay particular attention to the structure of social relations among their employees when trying to foster cooperative behavior such as interpersonal helping, or vice versa, when trying to prevent *uncooperative* behaviors such as knowledge hiding.

Linking Chapter 3 and Chapter 4

The study presented in Chapter 3 built on and extended the findings reported in Chapter 2 by providing evidence that the degree of sharedness of relational models is not only related to perceived justice, relationship conflict and affective and motivational states in teams, but also to (perceived and reported) performance-related behaviors in teams, helping behavior and knowledge hiding among team members.

A shared limitation of all three studies reported in Chapters 2 and 3 is their cross-sectional design, which does not allow unequivocal causal conclusions to be drawn. Although the proposed direction of effects is grounded in theoretical considerations derived from relational models theory, further research establishing causality is needed. A key component of the rationale underlying the studies' hypotheses refers to the incommensurability of the justice principles contained within the four relational models. It was proposed that the lower the degree of sharedness of relational models in a team, the more likely it is that social interactive situations occur in which team members apply different relational models. Since, according to relational models theory, different relational models contain different (conflicting) moral motives, it was proposed that this should lead to perceptions of injustice and relationship conflict among team members. While the previously presented studies revealed significant hypothesis-confirming associations between these variables, the causal relationship between conflicting relational models and justice perceptions in a given social interactive situation was neither observed nor measured.

Therefore, Chapter 4 reports on three studies which address the shortcomings of the previously described studies and provide causal evidence in support of their findings. Three experimental vignette studies are presented, which seek to establish causal evidence for the role of conflicting relational models as an antecedent for (in)justice perceptions and (un)cooperative behaviors towards co-workers.

4. EFFECTS OF RELATIONAL MODEL VIOLATION ON JUSTICE PERCEPTION AND COOPERATIVE BEHAVIORS AT WORK⁷

Summary

Humans are naturally social, and according to relational models theory (RMT, Fiske, 1992), they use cognitively represented and motivationally operative models (i.e., relational models) to structure and understand their social interactions. RMT proposes that fit between the expected and perceived relational model (i.e., RM fit) in a given social interactive situation is related to perceptions of justice, while an RM misfit is related to *injustice* perceptions. The experience of RM fit/misfit is motivationally operative for generating behavior intended to either strengthen a just relationship or transform an unjust relationship. Building on these theoretical considerations, it is argued that RM fit (misfit) is positively (negatively) related to willingness to help and negatively (positively) related to willingness to hide one's knowledge from an interaction partner. Willingness to help and sharing information are of particular practical importance in the context of teamwork and for cooperative relationships in organizations more generally. Three experimental studies ($N_1 = 441$, $N_2 = 620$, $N_3 = 455$) were conducted in which RM fit/misfit was manipulated as an independent variable in three different work scenarios (vignettes). We assessed participants' justice perceptions and willingness to exhibit (un)cooperative behavior (i.e., more or less helping and knowledge hiding) towards their interaction partners. All three experiments confirmed the hypothesized relationships. The results are discussed with respect to the theoretical relevance of RMT for explaining mechanisms underlying justice perceptions, helping behavior and knowledge hiding at work in teams and organizations.

⁷ Study 4 of this chapter has been presented at the 50th Congress of the German Psychological Society (2016, September) in Leipzig, Germany. Study 5 of this chapter has been accepted for presentation at the 11th Conference of the section Work-, Organizational- and Business Psychology of the German Psychological Society (2019, September) in Braunschweig, Germany. Study 6 of this chapter has been presented at the 51th Congress of the German Psychological Society (2018, September) in Frankfurt, Germany.

Introduction

In today's dynamic and knowledge-intensive work environments, organizational success has become increasingly dependent on employees' willingness to exhibit cooperative behavior towards their co-workers and refrain from uncooperative actions (Bridoux & Stoelhorst, 2016; Mossholder et al., 2011). One form of cooperation that has been intensively studied in organizational settings is helping behavior among co-workers (N. P. Podsakoff et al., 2014; N. P. Podsakoff et al., 2009). Scholars have also recently begun to explore employee behaviors that are explicitly *uncooperative* in nature, such as intentionally withholding knowledge (i.e., knowledge hiding, Connelly et al., 2012).

Perceived justice in the workplace is a construct which has been repeatedly linked to both helping behavior (Barclay & Kiefer, 2014) and knowledge hiding (Connelly et al., 2012; Huo, Cai, Luo, Men, & Jia, 2016; Tsay, Lin, Yoon, & Huang, 2014), emphasizing its importance in the workplace. Often, a wide range of different forms of behavior can be perceived as *fair*⁸ from one perspective and unfair from another, leaving room for substantial (mis)alignment in interaction partners' expectations about appropriate behavior in social interactive situations. While a large body of research has shown the consequences of perceived (in)justice among employees (for an overview, see Cropanzano & Ambrose, 2015b), much less is known about the antecedent factors and processes which shape a person's perception of what is fair and unfair in a given social interactive situation and how (mis)alignment among these antecedents relates to helping behavior and knowledge hiding in particular.

Relational models theory (RMT, Fiske, 1992) offers explanations for how antecedent conditions to justice perceptions, including social cognitive and motivational variables and

⁸ As is common in the pertinent literature (e.g., Cropanzano & Ambrose, 2015b), we use the terms *justice* and *fairness* interchangeably.

processes, might be further related to behavioral consequences like helping and knowledge hiding at work. The theory posits the existence of four universal and distinct mental schemata (i.e., *relational models*) which people use to interpret, understand, and regulate their social interactions and make any necessary behavioral adjustments. The four relational models include distinct moral motives (Rai & Fiske, 2011) encompassing distinct principles of fairness (Fiske, 1992; Rai & Fiske, 2011).

In cases of misalignment, that is, when interaction partners apply *different* relational models in a given social interactive situation, they are guided by different moral motives and fairness principles and have different expectations of what behavior is appropriate or fair. Drawing upon RMT, we propose that when interaction partners apply different relational models in *the same social interactive situation*, a misfit occurs between the expected and perceived relational models (i.e., RM misfit), resulting in perceptions of injustice. Perceptions of injustice, in turn, are likely to affect employees' willingness to exhibit (un)cooperative behavior towards their interaction partner.

By linking RMT to justice perceptions in co-worker interactions, the present study aims to contribute to research on justice in the workplace by shedding light on the social cognitive and motivational causes of different, potentially conflicting expectations of what is 'fair'. The present study further aims to contribute to research on RMT by testing some of its core propositions in organizational contexts.

Relational Models Theory

Relational models theory (RMT, Fiske, 1992) posits the existence of four distinct, fundamental mental representations of social relationships (i.e., relational models) that people use to structure and regulate their social interactions. People (often unconsciously) use these relational models "to plan and construct action; to anticipate and interpret others' actions; to encode, process, and remember social experience; to evaluate and sanction their own and

others' action" (Fiske & Haslam, 2005, p.271). Relational models enable people to instantly appraise how they see themselves in relation to others and provide specific information about what behavior is (not) appropriate and (not) acceptable in a given situation. Specifically, each of the relational models contains a specific and distinct underlying moral motive (Rai & Fiske, 2011), which serves as the basis for perceptions of (un)fairness as well as moral outrage. The four relational models are *communal sharing* (CS), *authority ranking* (AR), *equality matching* (EM), and *market pricing* (MP).

When people apply a CS model to an interaction, they see themselves and their interaction partner(s) as sharing a common identity and are guided by feelings of belonging and solidarity. When adopting a CS model, people distribute resources in accordance with the principle of need (i.e., everyone gives what he or she can and receives what he or she needs); when making decisions, they try to reach consensus. In a CS model, people do not keep track of individuals' inputs and outputs; keeping an account of exchanges between interaction partners is perceived as inappropriate and morally reprehensible.

When people apply an AR model to an interaction, they situate each other in a hierarchical order along a certain dimension, such as formal rank, seniority, or expertise. When adopting an AR model, people distribute resources such that each person's share conforms to his/her rank; it is socially accepted that higher-ranking people will receive a larger share than lower-ranking people. When making decisions, it is perceived as appropriate for higher-ranking people to make decisions for the whole group, but they are also expected to bear sole responsibility for these decisions. In an AR model, higher-ranking persons decide on the appropriate level of each individual's contribution; it is sometimes considered fair for higher-ranking persons to contribute less and sometimes considered fair for them to contribute more (in the sense of *noblesse oblige*) than lower-ranking persons.

When people apply an EM model to an interaction, they perceive themselves and their

interaction partner(s) as equal but distinct individuals with exactly the same rights and duties. When adopting an EM model, people distribute resources such that each group member receives exactly the same share; when making a decision, each individual's voice has exactly the same weight. In an EM model, people are expected to keep track of imbalances in support or favors and do their part to balance them out in a similar way.

When people apply an MP model to an interaction, they are guided by rational calculations of their individual inputs and outputs with respect to the relationship. When adopting an MP model, people distribute resources in accordance with the individual contribution of each group member; people who have invested more expect to receive a larger share. Decisions are made on the basis of individuals' inputs and outputs as well as rational cost-benefit calculations of their consequences. In an MP model, it is accepted and even expected for individuals to keep track of each group member's inputs and outputs and to return favors and support in an appropriate (but not necessarily in the same) manner.

These four relational models can be described as the fundamental cognitive building blocks or grammar of the social interactions that make up social relationships. They constitute the cognitive structures through which people interpret, evaluate and sanction the behavior of interaction partners.

While it is possible for people to use different relational models in different domains of a social relationship, research has revealed a tendency for individuals to use the same relational model across multiple domains within a given social relationship, both in dyadic relationships (Haslam & Fiske, 1999) and in groups (Vodosek, 2009). Accordingly, if interaction partners have applied a certain relational model to various domains of their relationship, they should also exhibit a tendency to apply this relational model to other social domains – and to expect their interaction partners to apply this relational model, too. For example, if two (or more) interaction partners have previously applied a CS model when

allocating resources and making decisions, they are likely to also apply a CS model when helping and backing up each other.

Relational Models and Justice Perception

Each of the relational models contains a distinct moral motive and thus different principles and expectations about what is appropriate in different domains of social interaction and in relationships with different people. Thus, the perception of what is right and wrong, of what is fair and unfair is not stable across relationships and situations, but rather highly dependent on the relational model an individual considers valid in a given social interaction (Simpson & Laham, 2015). From the perspective of RMT, the relational rules and norms which people perceive in a social relationship stem from their individual perceptions and expectations of which relational model should be implemented (how) in a given domain within a given relationship.

Behavior that is considered highly appropriate from the perspective of one relational model is often considered highly inappropriate from the perspective of another relational model. For example, imagine that a bonus payment must be distributed among the members of a team. Different distribution mechanisms can appear fair depending on the relational model applied: According to the EM model, everyone should get an equal share; according to the CS model, the person who needs the bonus most should get the most; according to AR model, the person who took on managerial functions should get the most; and according to the MP model, the person who invested the most should get the most.

Because the principles of justice inherent to the four relational models are usually incommensurable with one another, the adoption of different relational models by interaction partners in a given situation is likely to cause perceptions of injustice (Fiske, 1992; Poulson, 2005). This assumption received empirical support from two studies conducted by Arendt et al. (2019b) and Arendt et al. (2019a). They explored the effects of (the extent of) team

members' shared understanding of the relational models in their team on various aspects of team functioning. Specifically, they found a positive relationship between the degree of sharedness of relational models in teams and team members' justice perceptions. The higher the degree to which team members perceived same relational models to be 'valid' in their teams, the greater justice they perceived. An explanation for this finding is that a lower degree of sharedness of relational models in a team means that team members are likely to apply different, *conflicting* relational models in social interactive situations. Building upon this explanation, we propose that conflicting relational models in a given social interactive situation negatively affect the interaction partners' justice perceptions.

We propose that if a given relationship between interaction partners tends to be predominated by a specific relational model and one interaction partner acts in a way that contradicts this relational model, while the other interaction partner *expects to perceive* RM-congruent behavior (hereafter *RM misfit*), the event will be perceived as less fair than an even in which the second interaction partner perceives behavior from the interaction partner congruent with his/her expectations (hereafter *RM fit*).

Thus, we predict the following:

Hypothesis 1: An RM fit leads to higher perceptions of justice in a social interactive situation compared to an RM misfit.

Justice Perceptions and Helping Behavior

In Hypothesis 1, we propose RM fit/misfit to be an antecedent of perceived justice. However, justice perceptions have also been identified as an antecedent of various aspects of social behavior in organizations (Cropanzano & Ambrose, 2015b). In particular, justice perceptions have been repeatedly linked to cooperative behavior at work (Ambrose et al., 2015). One type of cooperative behavior of particular interest to the study of social interactions at work is helping behavior towards co-workers, usually described as individual-

oriented organizational citizenship behaviors (“OCBI”). OCBI have been defined as behaviors which “immediately benefit specific individuals and indirectly through this means contribute to the organization” (Williams & Anderson, 1991, p. 602). In recent decades, helping behavior has been intensively studied in different types organizations, and a growing body of empirical studies have demonstrated its positive effects on various aspects of organizational behavior and performance (for an overview, see Colquitt et al., 2013; N. P. Podsakoff et al., 2014).

Helping behavior - whether at work or in other areas of life - is usually associated with some form of effort on the part of the helper, who provides the person helped with some resource (i.e., time, labor, expertise, knowledge). This exchange of resources occurs with the expectation that the other party (i.e., the interaction partner) will adhere to the rules of the respective relationship, or, in other words, that he/she will behave fairly. When interaction partners are perceived as behaving unfairly, one’s willingness to exchange resources with them is likely to decrease. This assumption is supported by a large number of studies reporting positive relationships between justice perceptions and various forms of cooperative behavior (e.g., Arendt et al., 2019a; Colquitt et al., 2013; Naumann & Bennett, 2002).

Therefore, we predict the following:

Hypothesis 2: The more justice is perceived in a social interactive situation, the higher the willingness to exhibit helping behavior towards the interaction partner(s).

Taken together with Hypothesis 1, this leads to the assumption that an RM fit in a given social interaction, as compared to an RM misfit (hereafter: *RM fit/misfit*), is indirectly related to a greater willingness to exhibit helping behavior towards the interaction partner via justice perceptions as the mediating variable.

Hypothesis 3: In a social interactive situation, perceived justice mediates an indirect relationship between RM fit/misfit and the willingness to exhibit helping behavior towards the

interaction partner(s).

Justice Perceptions and Knowledge Hiding

A specific form of cooperative behavior that is attracting increasing interest from both scientists and practitioners, and which has been repeatedly linked to various forms of organizational performance, is the exchange of knowledge among co-workers. While knowledge sharing has received a great deal of research attention in recent decades (for an overview, see Mesmer-Magnus & DeChurch, 2009; Wang & Noe, 2010; Witherspoon, Bergner, Cockrell, & Stone, 2013), only in recent years have scholars also begun to explore its counterpart, namely knowledge *hiding* (Connelly et al., 2012). Knowledge hiding has been defined as “an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person” (Connelly et al., 2012, p.65). We assume justice perceptions in a social interaction will affect the willingness to engage in knowledge hiding behavior in two ways:

First, as described above for helping behavior, persons who perceive an interaction as unfair may no longer be willing to invest resources (i.e., knowledge) in the relationship with their interaction partner because they cannot be sure that this person will not fail to meet their expectations and break the ‘relational rules’ again.

Second, a person who perceives unfairness in a social interaction may feel the impulse to punish the interaction partner who caused this alleged unfairness by breaking the relational rules of the relationship (Fiske, 1991). From this point of view, knowledge hiding can be understood not only as a refusal to invest but also as a form of punishing the person whose behavior is perceived as unfair. RMT posits that people strongly believe that they and their interaction partner(s) should respect the rules of the relational model they have applied to the social interaction (Fiske, 1992) and that they usually have a strong desire to punish the violation of this relational model (Fiske, 1991). Intentionally withholding knowledge their

interaction partner needs can be one such form of punishment. Thus, we expect that perceived unfairness in a social interaction is related to a higher willingness to engage in knowledge hiding behavior towards the interaction partner(s). The assumed relationship between justice perceptions and the willingness to engage in knowledge hiding behavior also received empirical support in Arendt et al. (2019a), who linked justice perceptions to knowledge hiding among team members.

Thus, we predict the following:

Hypothesis 4: The less justice is perceived in a social interactive situation, the higher the willingness to engage in knowledge hiding behavior towards the interaction partner(s).

Taken together with Hypothesis 1, this leads to the assumption that an RM fit in a given social interaction, as compared to an RM misfit, (*RM fit/misfit*) is indirectly related to a greater willingness to engage in knowledge hiding behavior towards the interaction partner.

Thus, the following prediction is made:

Hypothesis 5: In a social interactive situation, perceived justice mediates an indirect relationship between RM fit/misfit and the willingness to engage in knowledge hiding behavior towards the interaction partner(s).

Study Overview

We conducted three experimental vignette studies⁹ to test our hypotheses in different scenarios. In Study 1 and Study 2, we tested the proposed effects of RM fit/misfit on participants' justice perceptions (H1) and willingness to engage in helping behavior (H2, H3) in a team setting (Study 1) and a dyadic setting (Study 2). In Study 3, we tested the same propositions (H1-H3) in a dyadic setting while further testing the proposed effects on

⁹ In the pertinent literature, the terms *vignette study* and *scenario study* are used interchangeably. In accordance with recent methodological works (e.g., Aguinis & Bradley, 2014; Atzmüller & Steiner, 2010), we use the term *vignette study*.

participants' willingness to engage in knowledge hiding behavior (H4, H5).

Study 4

Method

Sample. Participants were recruited from social networks as well as through a German university's student and graduate mailing lists. As an incentive, participants had the option to take part in a raffle for 150€, and psychology students could receive course credit for their participation. Overall, 502 people participated in the study. Sixty-one participants were excluded from the sample due to a high number of missing values (more than 5%) or not fulfilling the age requirements (a minimum age of 18 years old).

Our final sample consisted of 441 individuals (335 female, 106 male) with an average age of 25.26 years ($SD = 7.31$) and ranging from 18 to 64 years old. The majority of our participants (91.4%) were German and were university students (72.6%).

Design and procedures. We applied an experimental vignette methodology using an online questionnaire. The experimental vignette methodology allows for the investigation of causal relationships and combines the internal validity of an experimental design with the external validity of field research (Aguinis & Bradley, 2014; Atzmüller & Steiner, 2010). The experiment had a 4x4 between-subject design and participants were randomly assigned to one of the 16 combinations of vignettes.

First, the participants were presented with one of four vignettes that included a short description of a fictive working team. Participants were asked to imagine that they worked in this team and that their fellow team members usually behave exactly as described. In each of the four vignettes, the team was described in a manner congruent with one of the four relational models (see Appendix A). The aim of this description was to manipulate the participants' expectations with respect to the relational model that guides social interactions within the described team.

Second, the participants read that one of four different events took place in the team. Specifically, participants learned that a bonus had been paid out and needed to be allocated among the members of the team. In each of the four events, the bonus payment was allocated in accordance with the justice principles inherent to one of the four relational models (see Appendix A). To avoid outcome favorability effects (Skitka, 2002), the participants were only told how the bonus was allocated and not whether or to what degree they themselves would profit from this allocation. Thus, the participants knew which distributional rule was implemented, but not the particular role they would take in the distributional outcome.

After having read the description of the team (i.e., one of four conditions) and the event (i.e., one of four conditions), participants were asked to rate their justice perceptions with respect to the event (i.e., to what degree was the bonus allocated in a fair manner?) as well as their willingness to help other team members in the future.

At the very end, participants were asked directly how appropriate they considered the distribution system for their specific team (when answering this question, participants could read both the team and event descriptions once more). This question (hereafter *perceived degree of fit*) served as a manipulation check.

Stimulus material and measures.

Team description. The four vignettes including team descriptions were formulated based on the relational models scale by Haslam and Fiske (1999) as well as Vodosek's (2009) adaptation of it to the work team context. Each vignette was formulated in accordance with one relational model and addressed the following domains of team work: the distribution of resources, decision making, the allocation of tasks and responsibilities, and the general nature of social relationships in the team (see Appendix A). To ensure that each vignette unequivocally described just one of the four relational models (i.e., CS, AR, EM, MP), the vignettes were independently rated by four experts who were familiar with RMT. All raters

correctly identified the intended relational model for each vignette.

Event vignettes. The event vignettes consisted of two parts, the first of which was identical in all conditions:

“Due to favorable developments, your team will now be provided with an impressive bonus that can be distributed within the team. The team decides that...”

The second sentence ended with a short description of how the team had decided to allocate the bonus. In each condition, the bonus was allocated according to the justice principle underlying one of the four relational models. Thus, the bonus was allocated according to the principle of need in the CS condition, the principle of hierarchy in the AR condition, the principle of equality in the EM condition, and the principle of proportionality in the MP condition (see Appendix A).

Perceived justice. Participants' justice perceptions were measured with seven items adapted from Ambrose and Schminke (2009). A sample item is “I would feel treated fairly”. Cronbach's alpha was $\alpha = .93$.

Helping behavior. Participants' willingness to engage in helping behavior towards their fellow team members was measured with eight items from the OCBI subscale from Lee and Allen (2002). The scale was translated into German by individuals fluent in both German and English. A sample item is “I would willingly give my time to help others who have work-related problems”. Cronbach's alpha was $\alpha = .92$.

Perceived degree of fit (manipulation check). Perceived degree of fit between the two presented vignettes, which served as a manipulation check, was assessed with the item “How suitable did you find the described distribution system for the described team?”

Results

Manipulation check. As a manipulation check, we conducted an independent t-test for the *perceived degree of fit* item. We assumed that the team's decision in the event

condition should be perceived as more appropriate when it applied the same relational model as in the team description as opposed to a different relational model. Levene's test indicated unequal variances ($F = 36.54, p < .01$); thus, the degrees of freedom were adjusted from 439 to 158. The distribution decision was perceived as more appropriate in the fit condition ($n = 82, M = 3.85; SD = 1.11$) in the misfit condition ($n = 359, M = 2.67; SD = 1.52$), $t(157) = 8.10, p < .001, g = 0.81$. This indicates that our RM fit/misfit manipulation was successful.

Hypothesis testing. Correlations, means, and standard deviations of all variables are shown in Table 9.

Table 9

Means, standard deviations, reliabilities and correlations for Study 4

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1 RM fit/misfit	.19	.39	-			
2 Justice	3.27	.91	.27**	(.93)		
3 Helping	3.12	1.22	.08	.40***	(.92)	
4 Perceived degree of fit	2.89	1.52	.30***	.71***	.35***	-

Note: Reliabilities (Cronbach's alpha) are indicated on the diagonal in parentheses. * $p < .05$; ** $p < .01$; *** $p < .001$.

Hypothesis 1 proposed that an RM fit in a social interactive situation leads to a higher perception of justice than an RM misfit. To test Hypothesis 1, we conducted an independent t-test. Levene's test indicated unequal variances ($F = 18.04, p < .01$); thus, the degrees of freedom were adjusted from 439 to 157. Supporting Hypothesis 1, participants in RM fit conditions reported higher perceptions of justice ($M = 3.80; SD = .91$) than participants in RM misfit conditions ($M = 2.96; SD = 1.23$), $t(157) = 6.99, p < .001, g = 0.72$. Participants presented with an event vignette employing the same relational model as the previous description of the team reported higher perceptions of justice than participants presented with

an event vignette employing a different relational model than in the previous description of the team.

Supporting Hypothesis 2, participants' perception of justice was positively related to participants' willingness to engage in helping behavior towards other team members ($r = .40$, $p < .001$). The higher the perception of justice, the higher the participants' willingness to help other team members in the future.

Hypothesis 3 proposed an indirect effect of RM fit/misfit on helping behavior via perceived justice. To test this indirect effect, we created a dummy variable (see Iacobucci, 2012) coded 1 for RM fit and 0 for RM misfit. Then, a mediation analysis was conducted using *process* (Hayes, 2013) with 20,000 bootstrapping iterations. The results revealed a significant indirect effect of RM fit/misfit on willingness to engage in helping behavior via perceived justice (95% CI [.068; .153]), in support of Hypothesis 3. The results of the mediation analysis are depicted in Figure 3.

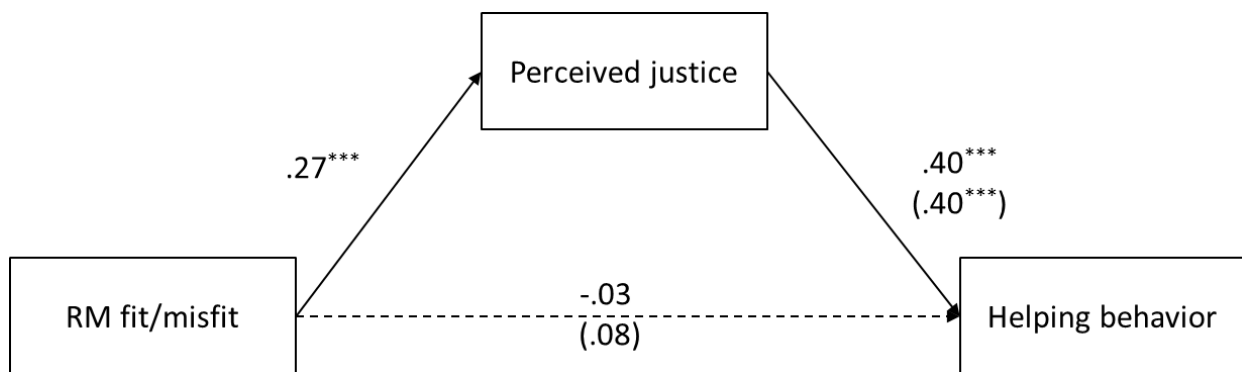


Figure 3: Visualization of mediation analysis for Study 4. Standardized coefficients of estimations are shown. Indirect effect is significant (95% CI [.07; .15]). * $p < .05$; ** $p < .01$; *** $p < .001$.

Study 5

The results of Study 4 supported our propositions regarding the effects of RM fit/misfit in a social interactive situation on justice perceptions and willingness to engage in helping behavior. The purpose of Study 5 was to find additional empirical evidence for these effects in a different scenario while additionally considering the schematic nature of relational models. Relational models are defined as cognitive schemata that affect various social domains, and research on RMT suggests that individuals have a tendency to use the same relational model within a given relationship across diverse social domains (Haslam & Fiske, 1999; Vodosek, 2009). Accordingly, it should not be necessary to explicitly describe every social domain of a given social relationship in order to generate expectations concerning the general application of a specific relational model in a given social interactive situation. In other words: if people informed that social interactions within a given social relationship are predominantly guided by one specific relational model, this should shape their expectations for this relationship across multiple social domains (e.g., decision making, resource allocation, resource exchange).

Method

Sample. Participants were recruited through student and graduate mailings lists of two universities in Germany and Austria. As an incentive, participants had the option to take part in a raffle for 150 €, and psychology students could receive course credit for their participation. Overall, 635 people participated in the study. Fifteen participants were excluded from the sample because they did not fulfill the age requirements (a minimum age of 18 years old).

Our final sample consisted of 620 individuals (425 female, 193 male) with an average age of 23.42 years ($SD = 5.88$) and ranging from 18 to 57 years old. The majority of participants were Austrian (41.8%) or German (39%) and were university students (82.4%).

Design and procedures. Just like in Study 4, we used an experimental vignette design to test our hypotheses.

Our experimental design differed in the following ways from Study 4:

First, the vignettes in Study 4 referred to a dyadic relationship. Thus, we created descriptions of a relationship and an event (i.e., the interaction partner's behavior) that referred to only one fictive colleague. In the course of this, we split the AR model into two separate conditions in which the participant had a lower (AR-) vs. higher (AR+) status than his/her interaction partner. Since our hypotheses refer to conflicts *between* relational models, the logic of our questionnaire made it impossible to directly combine the two AR conditions in the relationship and event description.

Second, while in Study 4 it remained unclear whether and to what degree the participant would share in the scarce resource, the vignettes in Study 5 were described such that each event bore the (fictive) risk that the participant would be disadvantaged in the resource allocation.

Third, we removed the resource allocation domain from our framing vignettes. Similarly to Study 4, we described the relationship in each condition in accordance with one of the relational models, but we did not mention how resources are usually allocated in this relationship (see Appendix B).

Stimulus material.

Description of the relationship. The five vignettes including descriptions of a dyadic coworker relationship were formulated based on the relational models scale by Haslam and Fiske (1999) as well as Vodosek's (2009) adaptation of it. Each vignette was formulated in accordance with relational model and addressed the following domains of a co-worker relationship: decision making, the allocation of tasks and responsibilities, and the general nature of the social relationship between the participant and his/her fictive colleague ("Mr.

Miller”). Unlike in Study 1, how resources are typically distributed in this relationship was not addressed in the description of the relationship. To ensure that each vignette unequivocally described just one relational model, the vignettes were independently rated by six experts who were familiar with RMT. All raters correctly identified the intended relational model for each vignette.

Event vignettes. The event vignettes consisted of two parts, the first of which was identical in all conditions:

You and Mr. Miller are offered the opportunity to take part in a training program that is of great interest to both you and Mr. Miller. However, you are informed that there is only one free spot left and that you and Mr. Miller will have to decide which one of you can participate. You ask Mr. Miller about his position on this. Mr. Miller reacts in the following way:

In all conditions, Mr. Miller argues that he should attend and states that he thinks it would be fair for the study participant to give him the spot in the training program. However, his justification varied across the five conditions in accordance with the moral motive underlying the respective relational model. Thus, his argument is based on the principle of need in the CS condition, the principle of hierarchy in the two AR conditions, the principle of equality in the EM condition, and the principle of proportionality in the MP condition (see Appendix B).

To ensure that each justification reflected the moral motive underlying the intended relational model, the event vignettes were also independently rated by six experts familiar with RMT. All raters correctly identified the intended relational model in each vignette.

Measures. We used the same measures as in Study 4. All items were adapted to the new scenario and referred to the dyadic relationship described in the vignettes. The reliabilities of the scales are shown in Table 10.

Results

Manipulation check. We again used the perceived degree of fit between framing and vignette as a manipulation check and subjected it to an independent t-test. Levene's test indicated unequal variances ($F = 10.45, p < .01$); thus, the degrees of freedom were adjusted from 618 to 597. Mr. Miller's argumentation was perceived as more appropriate ($M = 2.94; SD = 1.12$) in the fit condition than in the misfit condition ($M = 2.65; SD = 1.25$), $t(597) = 3.01, d = 0.24$, indicating that our RM fit/misfit manipulation was successful.

Hypothesis testing. Correlations, means, and standard deviations for all variables are shown in Table 10.

Table 10

Means, standard deviations, reliabilities and correlations for Study 5

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1 RM fit/misfit	.53	.50	-			
2 Justice	2.90	1.01	.13**	(.91)		
3 Helping	3.29	.82	.01	.44***	(.85)	
4 Perceived degree of fit	2.80	1.21	.12**	.68***	.36***	-

Note: Reliabilities (Cronbach's alpha) are indicated on the diagonal in parentheses. * $p < .05$; ** $p < .01$; *** $p < .001$.

Hypothesis 1 proposed that an RM fit in a social interactive situation leads to a higher perception of justice than an RM misfit. To test Hypothesis 1, we conducted an independent t-test. Supporting Hypothesis 1, participants in RM fit conditions reported higher perceptions of justice ($M = 3.03; SD = .99$) than participants in RM misfit conditions ($M = 2.76; SD = 1.02$), $t(618) = 3.37, p < .001, d = 0.27$. Participants presented with an event vignette applying the same relational model as the previous description of the relationship reported

higher perceptions of justice than participants presented with an event vignette applying a different relational model than in the previous description of the team.

Supporting Hypothesis 2, participants' justice perceptions were positively related to their willingness to engage in helping behavior towards their co-worker ($r = .44, p < .001$). The higher the perceived justice, the higher the participants' willingness to help their co-worker in the future.

Hypothesis 3 proposed an indirect effect of RM fit/misfit on helping behavior via perceived justice. We again created a dummy variable (see Iacobucci, 2012) coded 1 for RM fit and 0 for RM misfit and conducted a mediation analysis using *process* (Hayes, 2013) with 20,000 bootstrapping iterations. The results indicated a significant indirect effect of RM fit/misfit on willingness to engage in helping behavior via perceived justice (95% CI [.024; .097]), in support of Hypothesis 1. The results of the mediation analysis are depicted in Figure 4.

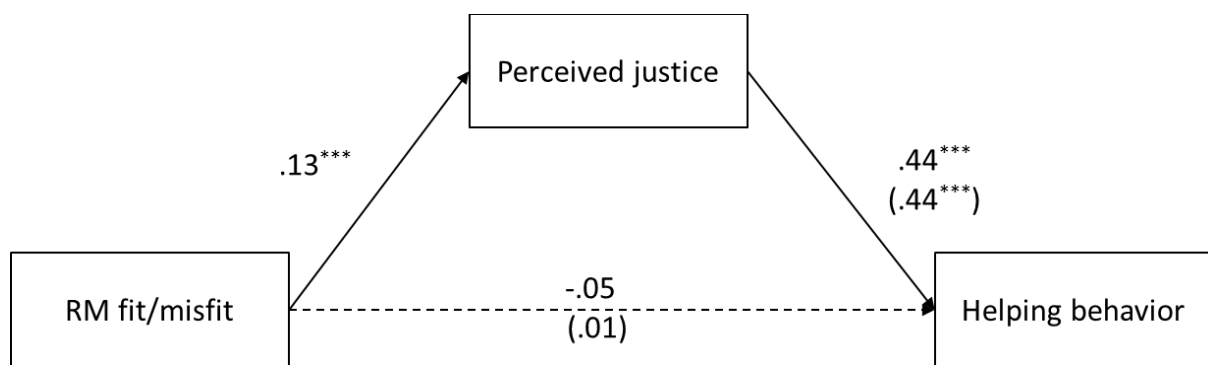


Figure 4: Visualization of mediation analysis for Study 5. Standardized coefficients of estimations are shown. Indirect effect is significant (95% CI [.02; .10]). * $p < .05$; ** $p < .01$;

*** $p < .001$.

Study 6

The aim of Study 6 was to replicate the findings of the previous two studies with a different scenario and to test H4 and H5, i.e., the proposed effect of RM fit/misfit and justice perceptions on participants' willingness to engage in knowledge hiding behavior.

Method

Sample. Participants were recruited through mailings lists of a German university as well as through the authors' personal networks, social media networks and by handing out flyers. As an incentive, participants had the option to take part in a lottery of 150 €, and psychology students could receive course credit for their participation. A total of 459 people participated in the study. Four participants were excluded from the sample because they completed the questionnaire in an unrealistically short time (less than 20% of the average time calculated in test runs.)

Our final sample consisted of 455 individuals (256 female, 199 male) with an average age of 30.01 years ($SD = 12.67$) and ranging from 18 to 76 years old. The majority of participants (96.3%) were German and were university students (51.9%).

Design and procedures. The experimental procedure was the same as in Study 5, except for the usage of different scenario vignettes, the additional assessment of participants' willingness to engage in knowledge hiding behavior and the fact that the description of the relationship also referenced the social domain in which the event took place.

Stimulus material.

Description of the relationship. The five vignettes including descriptions of a dyadic relationship were formulated based on the relational models scale by Haslam and Fiske (1999), its adaption by Vodosek (2009), and descriptions of the four relational models in the pertinent literature (e.g., Fiske, 1992; Fiske, 2004). Each vignette was once again formulated in accordance with one relational model and addressed the following domains of a co-worker

relationship: the distribution of resources, decision making, the allocation of tasks and responsibilities, and the general nature of the social relationship between the participant and his/her fictive colleague (“Mr. Meier”). To ensure that each vignette unequivocally described just one relational model, the vignettes were independently rated by three experts who were familiar with RMT. All raters correctly identified the intended relational model for each vignette.

Event vignettes: The five event vignettes consisted of two parts, the first of which was identical in all conditions:

One day, the following happens: In your team you have successfully driven a project forward for many weeks. You and your team colleague, Mr. Meier, are now offered the opportunity to attend a management board meeting to complete the project. This is an excellent opportunity to present yourself to the management board and receive positive feedback on your performance. Both you and Mr. Meier would like to take on this role. However, since only one person can attend the meeting, Mr. Meier and you will have to decide among yourselves which of you will get to present the positive results. Immediately, Mr. Meier claims the right to attend the meeting, giving the following reasons:

In all conditions, Mr. Meier argues that he should attend and states that he thinks it would be fair for the study participant to allow him to attend the management meeting. However, his justification varied across the five conditions in accordance with the moral motive underlying the respective relational model. Thus, his argument is based on the principle of need in the CS model, the principle of hierarchy in the two AR conditions, the principle of equality in the EM condition, and the principle of proportionality in the MP condition (see Appendix C).

Measures. Justice perceptions and anticipated helping behavior were assessed using

the same measures as in Study 4 and Study 5. The reliabilities of these scales are shown in Table 11.

Knowledge hiding. Participants' anticipated knowledge hiding behavior towards the interaction partner was measured with a German version of the 12-item scale developed by Connelly et al. (2012) translated by Knipfer and Schmid (2019). A sample item is "When Mr. Meier requests knowledge from me, I would offer him some other information instead of what he really wants". One item had a very low item-total correlation ($r = .34$) and was therefore excluded from the scale. Cronbach's alpha for the remaining items was $\alpha = .92$.

Results

Manipulation check. We again used the perceived degree of fit between framing and vignette as a manipulation check and subjected it to an independent t-test. The justification was perceived as more appropriate in the RM fit condition ($M = 2.56$; $SD = 1.25$) than in the RM misfit condition ($M = 2.13$; $SD = 1.14$), $t(453) = 3.78$, $d = 0.36$. This indicated that our RM fit/misfit manipulation was successful.

Hypothesis testing. Correlations, means, and standard deviations for all variables are shown in Table 11.

Table 11

Means, standard deviations, reliabilities and correlations for Study 6

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1 RM fit/misfit	.52	.50	-				
2 Justice	2.46	.91	.20***	(.91)			
3 Helping	4.71	2.80	.14**	.22***	(.83)		
4 Knowledge hiding	1.95	.81	-.07	-.10*	-.41***	(.92)	
5 Perceived degree of fit	2.35	1.22	.18***	.57***	.23***	-.16***	-

Note: Reliabilities (Cronbach's alpha) are indicated on the diagonal in parentheses. * $p < .05$; ** $p < .01$; *** $p < .001$.

Hypothesis 1 proposed that an RM fit in a social interactive situation leads to a higher perception of justice than an RM misfit. To test Hypothesis 1, we conducted an independent t-test. Levene's test indicated unequal variances ($F = 5.82, p < .05$); thus, the degrees of freedom were adjusted from 453 to 450. Supporting Hypothesis 1, participants in RM fit conditions reported higher perceptions of justice ($M = 2.64; SD = .96$) than participants in RM misfit conditions ($M = 2.28; SD = .83$), $t(450) = 4.29, p < .001, d = 0.40$. Participants presented with an event vignette applying the same relational model as the previous description of the relationship reported higher perceptions of justice than participants presented with an event vignette applying a different relational model than in the previous description of the relationship.

Supporting Hypothesis 2, participants' justice perception was positively related to their willingness to engage in helping behavior towards their co-worker ($r = .20, p < .001$). The higher the perception of justice, the higher the participants' willingness to help their co-worker in the future.

Hypothesis 3 proposed an indirect effect of RM fit/misfit on helping behavior via perceived justice. We again created a dummy variable (see Iacobucci, 2012) coded 1 for RM fit and 0 for RM misfit and conducted a mediation analysis using *process* (Hayes, 2013) with 20,000 bootstrapping iterations. The results indicated a significant indirect effect of RM fit/misfit on willingness to engage in helping behavior via perceived justice (95% CI [.017; .075]), in support of Hypothesis 3. The results of the mediation analysis are depicted in Figure 3.

Supporting Hypothesis 4, participants' justice perception was negatively related to their willingness to engage in knowledge hiding behavior towards their co-worker ($r = -.10, p = .04$). The higher the perception of justice, the lower the participants' willingness to engage in knowledge hiding behavior towards their co-worker in the future.

Hypothesis 5 proposed an indirect effect of RM fit/misfit on knowledge hiding behavior via perceived justice. A mediation analysis using *process* (Hayes, 2013) with 20,000 bootstrapping iterations revealed a significant indirect effect of RM fit/misfit on willingness to engage in knowledge hiding behavior via perceived justice (95% CI [-.044; -.003]), in support of Hypothesis 5. The results of the mediation analysis are depicted in Figure 5.

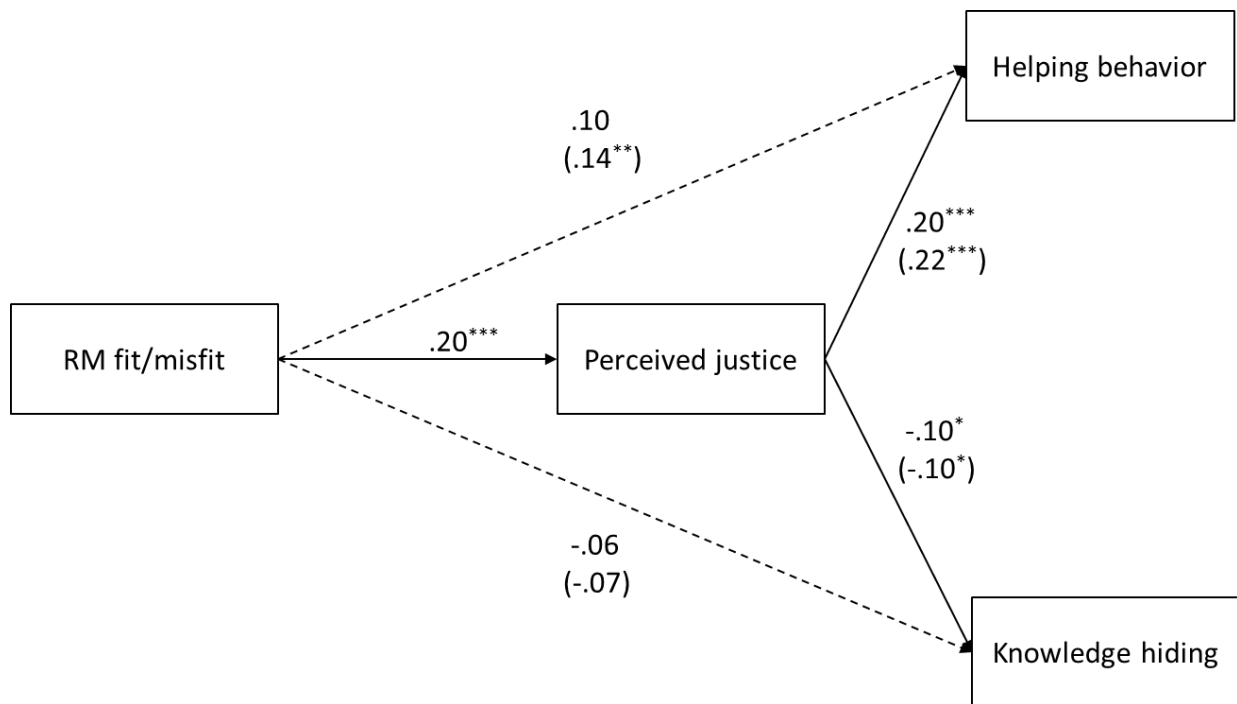


Figure 5: Visualization of mediation analysis for Study 6. Standardized coefficients of estimations are shown. Indirect effects are significant for DV anticipated helping behavior (95% CI [.02; .08]) and DV anticipated knowledge hiding (95% CI [-.044; -.003]). * $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

The present studies explored the effects of a relational model misfit in a given social interactive situation on justice perceptions and subsequently on cooperative (i.e., helping) and uncooperative (i.e., knowledge hiding) behaviors towards co-workers. We proposed that describing a social interactive situation in which a person's fictive interaction partner violates the relational model perceived as predominant in the fictive relationship and that was therefore expected to be applied in the social interactive situation at hand leads to feelings of injustice. Furthermore, we proposed that perceptions of injustice, in turn, are negatively related to willingness to engage in helping behavior and positively related to willingness to engage in knowledge hiding behavior towards the interaction partner.

Overall, three experimental vignette studies provided support for our hypotheses regarding the effects of an RM fit/misfit on justice perceptions (Study 4-6) and willingness to engage in helping (Study 4-6) and knowledge hiding behavior (Study 6).

In Study 4, we presented our participants with a fictive team described in accordance with one of the four relational models. This description sought to evoke participants' expectations about which relational model is usually applied in the team. Since each relational model incorporates a distinct fairness principle, participants' expectations of what behavior is regarded as fair in the team should depend on which relational model was described as predominant in the team. Participants were subsequently presented with the description of a social interactive situation in which the team applies either the expected or a different relational model in order to create fit or misfit between the *expected* and the *perceived* relational model (i.e., RM fit/misfit). The finding that an RM fit leads to higher perceptions of justice than an RM misfit and that higher perceived justice was related to participants' willingness to engage in helping behavior towards the described team supported our theoretical model. It is in line with our proposition that people feel treated unfairly when

co-workers break the 'relational rules' (stemming from the expected relational model) in a social interactive situation and that this perceived injustice leads to a lower willingness to engage in future cooperative behavior in the relationship.

In Study 5, we aimed to find additional empirical evidence for the proposed effects in a different setting in order to confirm the generalizability of our results to different types of social interactive situations. Furthermore, we aimed to take into account the schematic nature of relational models and the tendency to use the same relational model for a given relationship across diverse social domains (Haslam & Fiske, 1999; Vodosek, 2009). The experimental setup was the same as in Study 4 with the exception of two key differences: First, the participants were presented with a description of a different social interactive situation and of a dyadic relationship instead of a team. Second, the description did not include any information about the social domain of the subsequently described event (i.e., the distribution of resources). Since relational models are proposed to be cognitive schemata, perceiving a given relational model to be dominant in a social relationship should lead to the expectation that this relational model will be applied in *all* social domains of this relationship (including social domains on which no information has been made available). The results of Study 5 supported this assumption: Even though the relationship description did not include any information about the allocation of resources, an RM misfit in this social domain led to lower perceptions of justice than an RM fit. As in Study 4, perceived justice was related to willingness to engage in future helping behavior towards one's fictive co-worker.

While Study 4 and Study 5 provided empirical support for the proposed effects of an RM fit/misfit on perceived justice and willingness to engage in cooperative behavior, Study 6 additionally examined effects on study participants' willingness to engage in *uncooperative* behavior. The experimental design was the same as in Study 5 with the exception of this additional dependent variable and a different scenario. As expected, an RM fit led to higher

justice perceptions than an RM misfit. Supporting our hypotheses, perceived justice was both positively related to study participants' willingness to engage in helping behavior and negatively related to their willingness to engage in knowledge hiding behavior toward their interaction partner.

Theoretical Contributions

The results of all three studies provide empirical evidence for a central proposition of RMT (Fiske, 1992; Rai & Fiske, 2011), namely that conflicting relational models lead to perceptions of injustice. In all three studies, we operationalized conflicting relational models by creating a misfit between an expected and a perceived relational model. We manipulated participants' expectations regarding the relational model that is typically applied in the described relationships by describing the relationships as being dominated by just one relational model. The participants then received a situational description in which their interaction partners were described as exhibiting behavior rooted in a relational model that either fit or did not fit their previously manipulated expectation. Consequently, our subjects' expectations either matched or did not match the relational model our subjects perceived (inferred) on the basis of their interaction partner's behavior.

The results of our studies show that an individual's justice perceptions concerning the behavior of an interaction partner in a social interactive situation depends on whether this behavior is in accordance with or in contradiction to the relational model perceived as predominant and thus expected in the relationship. In other words: an individual's justice expectations in a social interactive situation are shaped by the relational background of the respective relationship formed through earlier social interactions.

As the results of Study 5 indicate, the description of the relational model that is typically applied did not have to include a given social domain to raise expectations with respect to this social domain. In the description vignettes for Study 5, participants did not

receive any information about how resources are usually allocated - the social domain of the event vignette. Despite this lack of information on the resource allocation domain, an RM fit/misfit had the same effects as in Study 4 and Study 6 (although the effect sizes were smaller). This indicates that describing a relationship in accordance with a single relational model evoked expectations regarding a broad range of social domains, including those that were not part of the original description. In other words: when a relational model is applied to social interactions in one domain (e.g., decision making), this can evoke expectations that the same relational model will be applied in other social domains (e.g., resource allocation) within the relationship. This finding supports the claim that relational models are cognitive schemata that refer to social interaction in multiple domains (Fiske, 1992) and dovetails with empirical research on RMT that revealed a pronounced tendency for individuals to use the same relational model within a social relationship across various domains (Haslam & Fiske, 1999).

By linking perceived justice in co-worker relationships to willingness to engage in helping behavior towards an interaction partner and willingness to withhold knowledge from an interaction partner, the presented studies also contribute to research on cooperative (i.e., helping) and uncooperative (i.e., knowledge hiding) behaviors at work. The less justice participants perceived in the described social interactive situation, the lower their willingness to engage in future helping behavior and the higher their willingness to engage in future knowledge hiding behavior towards their interaction partner. These results can be interpreted in at least two ways:

First, interaction partners who are perceived as breaking the relational rules and thus evoke perceptions of injustice may be seen as unreliable, causing people to refrain from future interaction and exchange processes with them. This rationale is in line with a 'classical' social exchange perspective in which individuals exchange resources on the basis

of reciprocity and mutually accepted agreements (Cropanzano & Mitchell, 2005). The less reliable people perceive their interaction partner to be, the lower the perceived probability that this person will respect their agreements in future interactions. Consequently, people who perceive injustice in an interaction may no longer be willing to invest resources (i.e., knowledge, time, effort) in the relationship with their interaction partner because they cannot be sure that this person will not fail to meet their expectations and break the ‘relational rules’ again.

Second, our results can be interpreted as implying that interaction partners who break the relational rules and evoke feelings of injustice may cause behavioral responses that (with regard to intention) *go beyond* merely reducing one’s inputs in terms of a rational social exchange process. According to RMT, people expect their interaction partners to respect the rules of the relational model they apply in a social interactive situation (Fiske, 1992). If their interaction partner violates this relational model (in our studies, by applying another and thus conflicting relational model), people have a strong desire to punish this transgression (Fiske, 1991). From this *moral* perspective, reducing helping behavior and hiding knowledge can be seen as a form of punishment and sanctioning behavior towards the interaction partners who have evoked feelings of injustice by breaking the relational rules (see below, Future Research).

By examining the effects of conflicting relational models on justice perceptions and (un)cooperative behaviors, the present studies build upon and extend existing research on conflicting relational models in the workplace. For instance, Vodosek (2000) theoretically discussed the effects of the application of different relational models in teams on intragroup conflict. Intragroup conflict, in turn, has been repeatedly linked to employees’ justice perceptions (for an overview see Shapiro & Sherf, 2015). An empirical study by Arendt et al. (2019a) found the degree of sharedness of relational models in work teams to be related to

perceived justice and (un)cooperative behavior among team members. In this study, it was argued that a high degree of sharedness of relational models would lead to social interaction situations in which team members applied different relational models. Arendt et al.'s (2019a) finding that the degree of sharedness of relational models is positively related to justice perceptions is in line with the results of the present series of studies that RM fit leads to higher perceptions of justice than RM misfit.

Future research

The findings of the present studies suggest several avenues for future research.

As discussed previously, the reduced engagement in helping behavior and higher engagement in knowledge hiding behavior can be interpreted as a form of punishment towards interaction partners who has evoked feelings of injustice by breaking the relational rules. This interpretation is in line with the RMT proposition (Fiske, 1992) that people desire to punish interaction partners who have violated the standards of the relational model they applied to the respective interaction. However, more research is needed to examine the extent to which these behavioral responses actually take place with the intention to punish one's interaction partner. Future research could employ a qualitative approach such as interviews to examine people's own perceptions and attributions of their behavioral reactions to the violation of relational rules.

In the present studies, we intentionally focused on misfit *in general* and not on differences between different combinations of relational models. We did so in order to test the proposition of RMT that *all* relational models should be incommensurable with each other in social interactions within various domains (Fiske, 1992). While all three studies provide consistent support for this proposition, it is reasonable to assume that some combinations of relational models may be more detrimental to social relationships than others (Simpson, Laham, & Fiske, 2016). For instance, the application of an MP model in a social

context in which another person perceives a CS model to be appropriate seems to be perceived as particularly reprehensible (Fiske, 1992; Rai & Fiske, 2011; Simpson et al., 2016; Tetlock, Kristel, Elson, Green, & Lerner, 2000). Adopting an MP model in a (perceived) CS relationship is expected to be much more detrimental to the relationship and cause much more moral outrage than the application of a CS model in a (perceived) MP relationship (Fiske & Tetlock, 1997) or the application of an EM model in a (perceived) CS relationship - two relational models that seem to occur more often in combination with one another (Haslam & Fiske, 1999). Thus, future studies on relational models in organizations could examine whether and to what degree different combinations of expected and perceived relational models are more or less detrimental for future interactions.

Scholars could also try to identify possible moderators of both the effect of RM fit/misfit on justice perceptions as well as the effect of perceived justice on willingness to engage in (un)cooperative behavior. A growing body of research has provided evidence for a trait-like sensitivity toward justice with regard to both (in)justice perceptions as well reactions to injustice (Baumert & Schmitt, 2016; Schmitt, Baumert, Gollwitzer, & Maes, 2010). A recent study examining justice sensitivity in the organizational context identified this construct as a moderator of the effect of workplace stressors on counterproductive working behaviors (Schulte-Braucks, Baethge, Dormann, & Vahle-Hinz, 2018). It seems reasonable that justice sensitivity may also moderate the effect of relational model violations on perceived justice as well as the effect of perceived justice on individuals' sanctioning behavior towards their interaction partners. Thus, integrating justice sensitivity as a moderating variable into our research model may help to further explore the relationships among our studies' variables and could be a promising path for future research.

Limitations

It is commonly suspected that the use of an experimental vignette methodology, in

which participants report imagined expectations and behavior, results in limited generalizability and ecological validity. However, for research on cognitions, work attitudes, expectations and behavioral intentions in the realm of organizational behavior, the field in which our three studies are located, experimental vignettes have not only become an accepted methodology (Aguinis & Bradley, 2014) but have also been meta-analytically shown to not differ significantly from field studies (Shaw, Wild, and Colquitt (2003).

A second issue concerns our samples, which mainly consisted of university students (70% overall), a fact that also affected our participants' average age and level of work experience. Since the scenarios for all three studies referred to an organizational context, these demographic characteristics may have biased our results and may have led to an over- or underestimation of the examined effects, particularly with regard to our outcome variables (i.e., co-worker helping behavior and knowledge hiding). However, we think that these behaviors also play a role in the daily life of university students to a certain extent. For instance, teamwork on student projects is likely to include similar situations in which perceptions of justice play a role and in which individuals have to decide whether to help each other or hide knowledge from their classmates. Nevertheless, future studies would benefit from including more working participants in their samples.

A third limitation of our study concerns the fact that all of the event vignettes presented in the three studies referred to the allocation of some kind of resource (i.e., a bonus, a valuable training program, a valuable opportunity to make a good impression to senior management). We chose this social domain because it allowed us to construct the vignettes in such a way that every misfit between relational models in the framing and the event created a conflict while still ensuring that the vignettes had very similar and consistent descriptions. However, other social domains (e.g., decision making) could be addressed in a similar way, and future research would profit from replicating our results with a more diverse

set of social domains.

Practical Implications

Since both helping behavior and sharing knowledge have been identified as antecedents of various forms of performance-related organizational behavior (N. P. Podsakoff et al., 2014; Wang & Noe, 2010), the results of the present study also have relevance for practitioners.

Our finding that justice expectations result from the relational models an individual expects to be applied in a social relationship may help employees gain a better understanding of their co-workers' different views of what is fair in workplace social interactions. Knowledge of such mechanisms may help practitioners – whether in their role as managers or as employees – become aware of different fairness expectations stemming from earlier events and circumstances that made specific relational models salient. The findings of Study 5 are particularly relevant here: Even though participants in this study did not receive any information regarding resource allocation in the described relationship, they perceived a misfit when their interaction partner applied a conflicting relational model (i.e., a relational model different from the relational model in the relationship description) with respect to this social domain. In other words, fairness expectations in a given domain of a relationship can stem from earlier experiences not directly involving this domain. Since the salience of different relational models at work is proposed to be influenced by aspects of the organizational context, such as the HR system (cf. Batistič et al., 2016; Mossholder et al., 2011), organizations may unwittingly raise expectations regarding relational models and thus unwittingly cause relational model conflicts, which are in turn likely to affect (un)cooperative behavior among employees.

5. GENERAL DISCUSSION

The main goal of my thesis was to investigate the antecedents and consequences of disagreements among co-workers about what behavior ‘is’ (in)appropriate and (un)fair in social interactions. Building upon RMT (Fiske, 1992), which posits that humans regulate their social interactions on the basis of four relational models that include specific expectations about what behavior is fair and appropriate, my research addressed one overall proposition: If co-workers apply different relational models in a social interactive situation, this is likely to cause perceptions of injustice and disagreements and to evoke several affective, motivational and behavioral reactions that negatively affect the respective relationship. This proposition was tested in six studies that operationalized conflicting relational models in different ways and examined them in different settings and with respect to different outcomes. In this section, I summarize the findings of these studies and discuss their implications for research on co-worker interactions.

Summary of Findings

In Study 1 and Study 2, my co-authors and I examined how team members’ shared understanding of which relational models govern social interactions in their team (i.e., shared relational models) is related to various aspects of team functioning. We proposed that members of teams with strongly shared relational models are highly likely to apply the same relational model in social interactions, which should lead to higher perceptions of justice and less perceived relationship conflict. Conversely, we proposed members of teams with weakly shared relational models are highly likely to apply different relational models in their social interactions, which should lead to lower perceptions of justice and more perceived relationship conflict among team members because they perceive each other as breaking the ‘relational rules’. Moreover, since perceived justice and relationship conflict have been repeatedly linked to affective and motivational work outcomes (Ambrose & Schminke, 2009;

de Wit et al., 2012; Mathieu et al., 2008), we proposed that shared relational models are indirectly related to various aspects of team viability. We found empirical support for our hypotheses in field data collected from teams in organizations and universities. The higher the degree of sharedness of relational models in teams, the more justice, the less relationship conflict and the more team viability team members perceived.

Since we expected conflicting relational models to not only lead to perceived (in)justice and relationship conflict but also to evoke *behavioral* reactions in co-worker interactions, in Study 3, we examined how shared relational models are related to (un)cooperative behaviors in teams. We proposed that team members who perceive injustice and relationship conflict in their social interactions (due to the application of conflicting relational models) are likely to not only reduce helping behavior towards their co-workers but also to engage in uncooperative behaviors such as withholding knowledge from one another. From the perspective of RMT, such behavioral reactions can be seen not only as a form of reduced investment in a relationship or a form of retreat from a person who is perceived as breaking the relational rules but also as a form of morally motivated punishment of the transgressor (Fiske, 1992; Rai & Fiske, 2011). We found empirical support for our hypotheses in field data collected from work teams in organizations. The higher the degree of sharedness of relational models in teams, the more likely team members were to engage in helping behavior and the less likely they were to engage in knowledge hiding behavior.

In Study 4 to Study 6, we sought to examine conflicting relational models in certain social interactive situations in order to provide causal evidence for the proposed effects and to complement the correlative findings of the three field studies. Using an experimental vignette methodology, we created fit vs. misfit between an expected and a perceived relational model in imagined co-worker interactions and subsequently assessed participants' justice perceptions as well as their willingness to engage in helping behavior and to hide

knowledge from their imagined interaction partner. The results of the experimental vignette studies supported the proposed causal effect of conflicting relational models on perceived (in)justice and (un)cooperative behavior. In general, the findings from all six studies are consistent with the proposition that the application of conflicting relational models in co-worker interactions is likely to have a negative impact on the respective relationship by causing perceptions of injustice and relationship conflict and by evoking negative affective, motivational and behavioral reactions.

Contribution and Theoretical Implications

The present thesis contributes to numerous strands of research, out of which I will discuss the following in depth: research on RMT, research on justice in the workplace, research on cooperative and uncooperative behaviors at work, and research on shared mental models.

Implications for Research on Relational Models Theory

Since RMT was introduced as a theoretical framework for social relationships and interactions 28 years ago (Fiske, 1991, 1992), it has attracted attention from various research disciplines and has been used to explain and examine human experience and behavior in a large number of life domains (for an overview, see Fiske, 2012; Haslam, 2004). While this research has resulted in an extensive body of findings for various areas of social interaction, some of the main propositions of RMT have only been empirically tested to a limited extent. One of these propositions concerns the incommensurability of the four relational models in actual social interactions, which was examined in all studies making up this thesis.

The foundational proposition derived from RMT is as follows: When interaction partners apply different relational models to a given social interactive situation, this is likely to negatively affect the respective relationship. In this context, the application of *different* relational models is synonymous with the application of *conflicting* relational models

because, according to RMT, *all* relational models and the justice principles embedded in them should be incommensurable with one another (Fiske, 1992) when applied in the same social interactive situation. To test this assumption of the general incommensurability of the four relational models, we investigated the *general* fit (Studies 4, 5 and 6) and *general* sharedness (Studies 1, 2 and 3) of relational models in co-worker interactions rather than specific combinations of relational models.

The operationalization of conflicting relational models differed across the studies making up this thesis. In the first three studies, we did not directly investigate specific social interactive situations in which co-workers apply different relational models. Instead, we adopted an indirect approach by investigating the degree of sharedness of relational models as a team variable, which we assumed to increase the likelihood of occurrence of situations in which interaction partners apply conflicting relational models. We supposed that the more often such situations occur in teams, the more often team members experience injustice, which should be reflected in their *general* perception of justice in the team. Our finding that the degree of sharedness of relational models is related to perceived (in)justice and relationship conflict in teams supports this assumption. However, the first three studies neither observed nor measured the *causal* relationship between conflicting relational models and the degree of justice perceived by co-workers *in a given social interactive situation*. For this reason, the last three studies pursued a different methodological approach that allowed us to examine conflicting relational models in a specific social interactive situation (as independent variable), enabling us to make claims about the causal relationship between conflicting relational models and perceived injustice. The use of the experimental vignette methodology (Aguinis & Bradley, 2014) enabled us to manipulate conflicting relational models in an imagined scenario. Specifically, we created a fit between the relational model study participants expected (due to a previous description of the relationship exclusively in

terms of one relational model) and the relational model participants perceived in the described behavior of their fictive interaction partner (i.e., an RM fit). Our finding that an RM fit lead to greater perceived justice than an RM misfit again supported our proposition regarding the role of conflicting relational models as an antecedent of perceived (in)justice.

Comparing the results, it is noteworthy that although the proposed relationship between (differently operationalized) conflicting relational models and perceived (in)justice was found in all six studies, the effects sizes for this relationship were rather small in the last three experimental studies. This may have been for methodological reasons – the participants in the final three studies had to image themselves in a fictitious relationship and a fictitious situation. However, the smaller effect sizes can also be interpreted from a content perspective. In our vignette studies, we examined individual and isolated social interactive situations in which an interaction partner ‘violates’ a relational model just once. A single event in which an interaction partner behaves inappropriately may in some cases solely lead to feelings of puzzlement and awkwardness (Fiske & Rai, 2015). However, if such violations are experienced *repeatedly* and *consistently*, stronger reactions may arise. This may explain why the effect sizes in the three field studies, in which the study participants’ answers referred to a longer period of time (in which multiple conflictual situations are likely to occur) rather than single, isolated events were considerable larger than in the experimental studies.

By testing core propositions of RMT *in the organizational context*, the present thesis particularly contributes to the small but growing body of research on relational models in the workplace. A large proportion of the work that draws upon RMT to explain organizational behavior is of a purely theoretical nature (e.g., Boer, van Baalen, & Kumar, 2004; Bridoux & Stoelhorst, 2016; Fehr et al., 2015; Giessner & van Quaquebeke, 2010; Mossholder et al., 2011; Rutti et al., 2013; Vodosek, 2000; Wellman, 2017), while the number of empirical

studies testing propositions derived from RMT is very limited (e.g., Boer et al., 2011; Keck et al., 2018; Vodosek, 2009). This imbalance suggests that for many researchers, RMT seems more suitable for stimulating further theory development than for actually empirically testing the hypotheses derived from it. Since RMT provides a very comprehensive theoretical framework for explaining and predicting human experience and behavior in social interactions, it is desirable for scientists to work on developing specific theories of organizational behavior that draw upon this theoretical basis. However, several scholars (e.g., Antonakis, 2017; Kacmar & Whitfield, 2000) have criticized the fact that although organizational psychology is increasingly ‘producing’ new theories from which various propositions for predicting organizational behavior can be derived, the majority of these propositions are never empirically tested - a trend that Antonakis (2017) ironically describes using the term ‘*theorrhea*’. This criticism can also be directed to research on relational models in the workplace. By applying RMT to examine organizational behavior and predict various organizationally-relevant constructs such as justice perception, relationship conflict or cooperative and uncooperative behaviors among co-workers, the present thesis provides *empirical* evidence for the added value of RMT in the organizational work context and thereby demonstrates its ‘practical’ value.

Implications for Justice Research

All of the studies reported in the previous chapters identified co-workers’ perceived justice as a pivotal point of their theoretical rationale. In this way, the present thesis makes several contributions to research on justice in the workplace.

Reviewing the psychological literature on justice from the past few decades, Rupp et al. (2017) critically note that justice research is experiencing an increasing trend towards *reification*, meaning that scholars most often treat the “evolved operationalization of organizational justice as though it represents the actual phenomenon of experiencing justice”

(p.940). In other words, it seems that over time some measurement instruments for organizational justice have become so popular that they have taken on a normative character. This normative character is reflected in both the *facets* of justice that are examined as well as the definition of what procedures ‘are’ fair within these facets. When considering facets of justice in the workplace, scholars most often build upon Colquitt’s (2001) conceptualization of justice, which distinguishes between distributive, procedural, interpersonal, and informational justice. Concerning the definition of what ‘is’ fair, the normative character of this conceptualization of justice becomes evident when reviewing some items from Colquitt’s (2001) organizational justice measure, which is still dominant in this line of research. In this scale, distributive justice is measured with four items, including the following: *Is your (outcome) justified, given your performance?* From the theoretical perspective of RMT, this item (as well as the other three items in this subscale) clearly refers to the justice principle contained in an MP model and thus neglects other forms of distributive justice. This one-sided view of distributive justice as reduced to the equity principle (from the perspective of RMT: the moral motive of proportionality) is widespread in contemporary research. As Rupp et al. (2017) summarize, “we have shifted conceptually from the ways in which allocations can be fairly carried out (Deutsch, 1975) to organizational justice *is* equitable distribution” (p.940). Unfortunately, justice research has failed to go down a number of promising empirical paths which may have provided deeper insights into the phenomenon of individual justice perceptions (Rupp et al., 2017). For instance, by distinguishing between the principles of need, equality and equity, Deutsch (1975, 1985) already provided a taxonomy of different distribution principles decades ago. Despite this, the majority of today’s justice research is limited to the equity principle. RMT integrates the different justice principles postulated by Deutsch into a larger theoretical framework of social relations that also addresses asymmetrical relationships (i.e., the AR model), which were neglected in Deutsch’s

taxonomy. Furthermore, RMT goes beyond the question of how resources are fairly distributed and links relational models as cognitive schemata not only to other domains of social interaction such as decision making, but also to moral psychology and behavioral reactions to perceived injustice and moral transgressions.

In the present thesis, I did not focus on facet-specific perceptions of justice such as procedural, distributive, interpersonal or informational justice or build upon a specific understanding of what behavior is *generally* fair. Instead, I took a more holistic perspective on justice. As Cropanzano and Ambrose (2015a) state, “justice is present when people have what they deserve or have been treated as they deserve to be treated” (p.3). From the perspective of RMT, one’s understanding of how one ‘deserves’ to be treated depends on the relational model one applies in a given social interactive situation. Therefore, I examined co-workers’ *overall* justice perceptions and looked beyond the usual justice facets that predominate in psychological justice research. Research on overall justice has shown that the specific justice facets only partly explain the variance in overall justice perceptions, which raises questions concerning other antecedents of perceived overall justice (Ambrose et al., 2015). By linking conflicting relational models to overall justice perceptions, the present thesis identified one such antecedent, which has, to my knowledge, never before been investigated.

In the present thesis, I exclusively focused on overall justice perceptions in co-worker relationships (i.e., in teams and dyadic relationships). Accordingly, study participants rated perceived justice with regard to co-worker relationships (Studies 1-3) or specific social interactive situations in co-worker relationships (Studies 4-6); how fair they felt treated in general in their organizations was not assessed. However, previous research has shown that perceived justice in co-worker interactions is likely to affect one’s general justice perception regarding the organization as a whole (Lavelle, Rupp, & Brockner, 2007). Therefore, it is

likely that conflicting relational models in co-worker interactions impair not only those specific relationships but also the involved employees' general relationship to their organization as a whole.

Cropanzano, Byrne, Bobocel, and Rupp (2001) divided psychological justice research into two paradigms: an event paradigm and an entity paradigm. While the former refers to the examination of justice perceptions regarding specific events, the latter refers to more global perceptions regarding the perceived justice of social entities (e.g., a team or an organization). Cropanzano et al. (2001) propose that entity judgments are formed based on multiple event judgements. The present thesis combines both perspectives by examining immediate judgements about the perceived justice of an interaction partner's behavior in a specific social interactive situation (Chapter 4) and by examining one's general perception of justice in a team as a whole derived from interactive experiences over a longer period of time (Chapters 2-3). Hence, the results of these studies show that RMT can be a suitable theoretical framework for both paradigms and for examining justice in the workplace from different perspectives.

Implications for Research on (Un)cooperative Behaviors at Work

By linking conflicting relational models to cooperative (i.e., helping behavior) and uncooperative (i.e., knowledge hiding) behaviors among co-workers, my thesis also contributes to these lines of research. Four studies (Studies 3-6) provided evidence for an indirect relationship between conflicting relational models (conceptualized in different ways) and (un)cooperative behaviors among co-workers. First, this relationship was examined indirectly by linking the degree of sharedness of relational models in teams to the extent to which team members report (un)cooperative behaviors in their team (Study 3). Afterwards, three experimental vignette studies (Studies 4-6) provided additional causal evidence for the proposed effects of conflicting relational models (operationalized as fit/misfit between an

expected and a perceived relational model) on (un)cooperative behaviors at work.

While scholars have discussed helping behavior among co-workers from different perspectives and identified different motives for helping (e.g., Spitzmuller & Van Dyne, 2013), a large body of research on helping behavior at work is still strongly influenced by the classical social exchange perspective (for an overview, see Cropanzano & Mitchell, 2005). From this perspective, helping behavior is seen as a part of a rational exchange relationship in which interaction partners keep track of inputs and outputs and that is expected to pay off for all sides. Indeed, the results of my thesis can be viewed and interpreted from this theoretical perspective. From a social exchange perspective, our results suggest that co-workers are less likely to help each other if they do not perceive their interaction partner as a reliable exchange partner and perceive a functioning future exchange of resources as less likely. RMT, however, goes beyond these purely calculative motives. From this perspective, reducing helping behavior is not seen as merely the consequence of a "risk re-evaluation", but rather as a morally motivated behavioral response to the violation of a norm, in other words, as a form of punishing the transgressor.

By examining the effects of *conflicting* relational models on helping behavior among co-workers, the present thesis goes beyond earlier works that mainly discussed main effects of specific relational models in organizations. For instance, Mossholder et al. (2011) linked RMT to organizational climate research and introduced the concept of *relational climates*, which he proposed to result from the organization's HR practices and to indirectly influence the nature of social interactions among co-workers by making specific relational models salient. Mossholder et al. (2011) made several propositions regarding the effects of specific relational climates on the motivation for and occurrence of helping behavior. In contrast, the question of how the application of *conflicting* relational models is related to helping behavior among employees had not previously been addressed.

The present thesis also contributes to research on knowledge hiding in organizations by providing evidence for the role of conflicting relational models, perceived (in)justice and relationship conflict as antecedents of this phenomenon. Scholars have only begun to investigate the intentional withholding of knowledge among co-workers in the last decade, spurred by the works of Webster et al. (2008) and in particular Connelly et al. (2012). In recent years, several studies have been conducted to identify antecedents and consequences of knowledge hiding among co-workers (e.g., Černe et al., 2014; Connelly & Zweig, 2014). By providing empirical evidence for the role of perceived (in)justice as an antecedent of knowledge hiding, the present thesis dovetails with the work of Connelly et al. (2012), who suggested (but did not test) this relationship.

As described above, the relationship between perceived (in)justice and knowledge hiding can be interpreted such that people engage in knowledge hiding behavior as a form of punishment for co-workers who have evoked feelings of injustice by breaking the relational rules. This explanation dovetails with the findings of Connelly and Zweig (2014), who showed that knowledge hidiers are quite aware of the fact that their knowledge hiding behavior may be recognized and harm the respective relationship. While these sanctions are morally legitimated from the perspective of the punisher, the interaction partners who are punished via refused help or withheld knowledge may not even be aware of the rules they unintentionally violated, since they applied a different relational model to the given situation. In such cases, they may perceive what are actually morally motivated sanctions as illegitimate acts of aggression, which “may launch rounds of mutual recrimination” (Fiske, 2004, p.21). This assumption is in line with the findings of Černe et al. (2014), who demonstrated that knowledge hiding behavior is likely to elicit *reciprocal distrust loops*, ultimately resulting in lower group performance. Overall, the present thesis demonstrates that RMT is a suitable theoretical framework for explaining and examining both cooperative

and uncooperative behaviors.

Implications for Research on Shared Mental Models

By examining the sharedness of relational models (Studies 1-3) and their relationship to affective, motivational and behavioral aspects of team functioning, the present thesis makes several contributions to research on shared mental models in teams.

On the *content* level, research on shared mental models in teams is still dominated by a strong focus on task-related mental models. Despite the fact that in the early years of research on shared mental models, several authors theoretically discussed multiple models with different content types that team members need to share (e.g., Cannon-Bowers & Salas, 2001; Cannon-Bowers, Salas, & Converse, 1993), including ones not directly related to task accomplishment, most empirical research conducted in this line of research has examined highly task-focused and task-specific mental models. In contrast, the sharedness of social rules and norms and their cognitive building blocks has been largely neglected in empirical research. Given that relationship regulation and how team members relate to each other play a role in all types of teams in all types of organizations, it is remarkable that research on shared mental models has not yet adequately addressed this aspect of shared cognition.

By examining shared relational models in teams and thus team members' shared understanding of fundamental aspects of social interaction, the present thesis expands the content domain of shared mental model research. RMT (Fiske, 1992) posits that relational models are used to regulate *all* types of social interactions. Therefore, they are relevant for all situations in which people socially interact, independent of team type, task and work context. The question of how people see themselves in relation to each other is relevant in all types of organizations and settings.

The present thesis also expands the content domain of shared mental model research by conceptualizing relational models as *cognitive, affective and motivational* models of

relationships (Fiske, 2004). While several scholars (Cannon-Bowers & Salas, 2001; Mohammed et al., 2010; Mohammed, Klimoski, & Rentsch, 2000) have argued that the shared mental model construct should also include “shared, evaluative belief structures” (Mohammed et al., 2010, p.880), most empirical research has solely examined shared knowledge structures, which are purely cognitive in nature. In contrast, the concept of shared relational models goes beyond most existing conceptualizations of shared mental models in that the four relational models are not purely cognitive but also have an affective and a moral motivational component that affect team members’ experiences and behavior. Relational models are motivational in the sense that people usually have a strong belief that both they and their interaction partners should adhere to the relational models they apply to a given situation (Fiske, 1992; Rai & Fiske, 2011). They are affective in the sense that people who perceive others to have violated a relational model are likely to experience moral outrage and that people who themselves fail to behave in accordance with the relational models they apply in a given situation are likely to experience moral emotions such as guilt or shame (Rai & Fiske, 2011). By providing empirical evidence for the relationship between the degree of sharedness of relational models in teams and perceived (in)justice, relationship conflict and (un)cooperative behaviors among team members, the present thesis supports several of these presumed characteristics of shared relational models.

The present thesis also expands research on shared mental models on the *criterion level*. Empirical research on shared mental models is currently characterized by a strong focus on team processes and team performance as consequences of shared mental models, while other aspects of team effectiveness are largely neglected. In light of this, Mohammed et al. (2010) explicitly encouraged scholars in the field “to expand the criterion base by exploring other indicators of team effectiveness (e.g., team creativity, adaptability), affective outcomes (e.g., team commitment, team satisfaction, conflict), and emergent states (e.g.,

cohesion, psychological safety)” (p.896). By linking shared relational models to perceived justice and relationship conflict, team viability and (un)cooperative behaviors among team members, the present thesis answers this call and demonstrates that team members’ shared understanding of relational models in teams is crucial for various aspects of team functioning.

Limitations and Directions for Future Research

In the present thesis, I provided a series of explanations for *why* perceived injustice due to conflicting relational models is likely to result in reduced helping and increased knowledge hiding. In a nutshell, I provided two main explanations for the proposed and empirically supported effects: The first explanation takes a classical social exchange perspective (for an overview, see Cropanzano & Mitchell, 2005), stating that co-workers who perceive an interaction partner as behaving unfairly and thus as an unreliable exchange partner may reduce their ‘investments’ (effort, time, knowledge...) in the respective relationship. The second explanation takes a moral psychological perspective and is derived from the propositions of RMT. It states that co-workers who perceive an interaction partner as behaving unfairly may reduce helping and engage in knowledge hiding in order to *punish* their interaction partner for breaking the ‘relational rules’. While these explanations may be coherent from a theoretical point of view, it is important to point out that none of the studies in my thesis assessed the *intention* to engage in these behavioral responses. This intentional aspect should be addressed in future studies, which may help to clarify whether, to what extent, and under which circumstances behavioral responses to relational model violations can be understood as a form of intentional punishment of the transgressor. From the perspective of RMT, there are several possible reactions to interaction partners who have broken the relational rules by applying a conflicting relational model. For instance, the offended interaction partner could simply ‘switch’ to another relational model that bears a lower probability of being unfairly treated or exploited and in which future violations may

have less severe emotional consequences. This is in line with theoretical considerations made by Bridoux and Stoelhorst (2016), who proposed that employees who previously applied a CS, AR or EM model in social interactions at work are likely to switch to an MP model if they interpret their firm as behaving in an MP-like manner. However, they further propose that employees who previously applied an MP model are comparatively *less* likely to switch to another relational model when they interpret the firm's behavior as governed by another relational model. Bridoux and Stoelhorst (2016) explain this by noting that perceiving an interaction partner as engaging in trade-offs and cost-benefit analyses in a relationship in which one applies a CS, AR or EM model evokes much stronger emotional reactions than vice versa. Furthermore, once employees have switched to an MP model, they may be *generally* less likely to engage in helping behavior than when applying other relational models (Mossholder et al., 2011). Future studies may wish to use qualitative approaches to gain deeper insights into the motives behind behavioral reactions to relational model violations and perceived injustice.

A further limitation of my thesis refers to the fact that all studies examined conflicts *between* relational models. I chose this approach since conflicts *between* relational models are proposed to be much more detrimental for the respective relationship than conflicts *within* relational models (Fiske, 1992). However, scholars have also discussed that perceptions of injustice and conflicts are likely to occur when interaction partners apply the same relational model but have different understandings of how this relational model should be implemented in a given social interactive situation (i.e., within-model conflicts, Poulson, 2005). RMT posits that how exactly relational models are put into practice in specific social contexts and different types of relationships is defined by specific implementation rules, which are influenced by the cultural setting in which an interaction takes place or the cultural background of the interaction partners (Fiske, 1992). Given that today's working

environments are becoming increasingly culturally diverse, future research may benefit from focusing on disagreements in how specific relational models ‘should’ be implemented in different types of social interactions at work.

The aim of the present thesis was to examine the effects of the application of *conflicting* relational models by interaction partners in the workplace. Accordingly, the studies focused on the interaction between different relational models, not main effects of individual relational models. Nevertheless, RMT and several conceptual works addressing relational models in the workplace provide a series of propositions regarding main effects of specific relational models (e.g., Bridoux & Stoelhorst, 2016; Mossholder et al., 2011). Up to now, these propositions have only been empirically tested to a very limited extent. It would be beneficial to the field if future studies build on this theoretical groundwork by providing empirical evidence for the proposed effects of relational models in the workplace.

In the present studies, we treated teams as single, unified groups of co-workers and thus neglected the fact that a formal team may consist of different informal subgroups which are governed by different relational models. This methodological approach is not unusual in team research. However, future studies could build on research on subgroups within teams (for an overview, see Meyer, Glenz, Antino, Rico, & González-Romá, 2014) to examine how the application of different relational models *in different subgroups* of a team may affect team functioning. For instance, imagine a team in which the social interactions of one subgroup of team members are strongly guided by a CS model, whereas the interactions among other team members are guided by other models (e.g., an EM or MP model). While the members of the CS subgroup may profit from the beneficial aspects of a CS model (e.g., open information sharing and mutual support), they may also make a stronger distinction between in-group and outgroup members. This may negatively affect the functioning of the team as a whole. Moreover, in the case of conflict, the members of the CS subgroup may feel obliged

to defend each other (Fiske, 1992; Rai & Fiske, 2011), which may contribute to the escalation of a conflict that was initially limited to a small number of co-workers. It could be promising for future research to examine how relational models affect such team dynamics.

In the last three studies, we used an experimental vignette methodology to test the proposed causal effects of conflicting relational models on perceived justice and (un)cooperative behaviors. We chose this methodological approach because it allows for controlled manipulation of the independent variable (i.e., certain aspects of the presented situation) but does not require a laboratory setting. In this way, experimental vignette methodology combines the internal validity of an experimental design with the external validity of field research (Aguinis & Bradley, 2014; Atzmüller & Steiner, 2010). As a result of these strengths, experimental vignette methodology has developed into a well-established method in organizational psychology research (for an overview, see Aguinis & Bradley, 2014). Moreover, when discussing the issue of endogeneity in field research (see Antonakis, 2017; Antonakis, Bendahan, Jacquart, & Lalive, 2010; Day, Antonakis, Bendahan, Jacquart, & Lalive, 2014), several scholars have explicitly recommended increased use of this methodological approach in organizational behavior research (e.g., Antonakis, 2017; Lonati, Quiroga, Zehnder, & Antonakis, 2018). However, given the complex dynamics of social relationships and the affective component of fairness perceptions (for an overview, see Cropanzano, Stein, & Nadisic, 2011), it can be assumed that participants who are merely presented with ‘paper people’ - as was done in the present studies - cannot put themselves into the situation to such an extent that the results obtained are fully comparable to their experience and behavior in reality. Scholars have discussed several ways to add more realism to experimental vignette studies, such as the use of actors or virtual reality technology (Aguinis & Bradley, 2014; Antonakis, 2017). Future studies on conflicting relational models in social interactions may benefit from using such technologies to increase the level of

immersion, for instance by presenting participants with video material that includes scripted social interactions (see N. P. Podsakoff, Podsakoff, MacKenzie, & Klinger, 2013) in which relational models are violated.

Building upon our findings on shared relational models in teams, future studies could also focus on team processes that provide an opportunity for teams to get ‘on the same page’ with respect to relational models. *Team reflexivity*, the extent to which team members reflect upon, communicate about, and change the team’s objectives, strategies, and processes (Schippers, West, & Dawson, 2015), could be one such positive influencing factor. A large number of empirical findings emphasize the significance of team reflexivity for various aspects of team performance (for an overview, see Konradt, Otte, Schippers, & Steenfatt, 2016), and scholars have discussed and studied various approaches to developing reflexivity in teams (e.g., Konradt, Schippers, Garbers, & Steenfatt, 2015; Tesler et al., 2018). Although the team reflexivity construct as conceptualized in most studies largely focusses on more task-related behaviors and concrete working procedures (Konradt et al., 2016), it could be extended to include fundamental aspects of team members’ social behavior and relationship regulation.

Future research on relational models in organizations may also benefit from cross-fertilization with another line of research that focuses on implicit expectations and broken obligations: research on psychological contract breach (for an overview, see Zhao, Wayne, Glibkowski, & Bravo, 2007). Both lines of research focus on implicit expectations and an implicit understanding of what behavior and treatment is ‘appropriate’ and on reactions to the breach of perceived obligations. Although the psychological contract concept usually refers to the relationship between employees and their organization as a whole or at least with their leaders, studies on relational models in organizations may benefit from linking up with this line of research regarding potential research questions and methodological approaches.

Twelve years after first publishing RMT, Fiske (2004) attributed a strongly descriptive character to the theory and argued that it would be much more powerful if it allowed statements to be made about *why* and *when* people use certain relational models in their social interactions. Some time has passed since that statement and there have been some attempts to identify factors that make specific relational models salient in organizational contexts. For instance, Mossholder et al. (2011) proposes in a theoretical work that HR practices, such as types of employment or reward systems, have a strong influence on an organization's *relational climate*, which makes specific relational models more salient than others in social interactions among co-workers. As is the case with many other theoretical works on relational models in organizations, these propositions have, to my knowledge, not yet been tested. Future research could build on this theoretical groundwork by identifying and examining factors in the organizational environment that may affect which relational models employees are likely to apply in their social interactions.

Practical Implications

By linking relational models to several aspects of human experience and behavior in the workplace, this thesis offers a number of insights that are relevant for practitioners.

The first practical implication of my thesis concerns the theoretical concept of relational models itself and the role they play for justice perceptions. RMT offers an exhaustive theoretical framework for understanding everyday phenomena in social interactions. This theoretical framework is not only valuable for scholars' scientific examinations of social interactions; it may also help practitioners gain a better understanding of their social environment at work. Knowledge about how interaction partners' expectations, interpretations and judgements are shaped by the relational models they apply in a given situation or a given relationship may help practitioners to better understand and resolve disagreements in co-worker interactions. An understanding of relational models as

the ‘grammar’ of social interaction is particularly helpful in social interactive situations that are *not* smoothly regulated, or in other words, in situations in which one or more interaction partners feel that they have been treated inappropriately and unfairly. This thesis has shown that social interactions in which interaction partners apply different relational models and thus have different understandings of how to relate to each other are very likely to result in perceived injustice and conflict. Being aware of and understanding the cognitive structures underlying such disagreements may help co-workers to better understand their own and others’ expectations and judgements and to resolve conflicts. An understanding of the role of relational models in co-worker interactions is all the more important when considering their role in facilitating cooperative and uncooperative behavior among co-workers. In today’s dynamic and knowledge-intensive work environments, organizational success relies on employees’ willingness to cooperate (Bridoux & Stoelhorst, 2016; Mossholder et al., 2011; Perlow & Weeks, 2002), and well-functioning relationships among co-workers are of great relevance not only for the employees involved but for the organization as a whole.

Practitioners may also benefit from the understanding of relational models as cognitive *schemata* that cover a wide range of social domains. This schematic nature means that the application of a given relational model in one social domain (e.g., when making decisions) easily evokes expectations that the same relational model will be applied in other social domains (e.g., when distributing resources) (see Study 5). In other words, employees’ expectations regarding the use of certain relational models in a given domain of social interactions may stem from earlier experiences in other social domains. Moreover, several scholars (cf. Batistič et al., 2016; Mossholder et al., 2011) have proposed that the salience of different relational models in co-worker interactions may also be influenced by the organizational context, such as the HR system. Hence, organizations may unintentionally make specific relational models salient via their HR practices or digitalized communication

and interaction formats, which in turn has an effect on relationship regulation among co-workers.

Another of this thesis' insights which is also relevant for practitioners concerns *shared relational models* as a team construct. As described in Chapter 2 and Chapter 3, in order to calculate the degree of sharedness of relational models in teams, we asked study participants to report their individual perceptions of what behavior is *generally* considered (and personally considered by themselves) as appropriate in social interactions in their teams. They were not asked about individual traits or preferences but about their perceptions of the social rules and norms in their team as a social entity. The findings of Studies 1 to 3 show that team members do not always have the same perception of these social rules and norms, or in other words, of the relational models they perceive to be 'valid' in their team. This degree of (un)sharedness has enough variance to predict not only perceptions of unfairness and relationship conflicts in teams but also performance-relevant behaviors (i.e., helping and knowledge hiding) among team members. Practitioners may benefit from gaining awareness of this varying degree of sharedness and its role as an antecedent of perceived injustice and conflict among team members. They may benefit from becoming aware that their individual perception of the relational models that apply in their team does not necessarily coincide with other team members' perceptions, and that perceived violations of social rules and norms may simply be caused by the application of different relational models in the team.

Given the negative predicted effects of relational model conflicts, co-workers – whether in dyadic relationships or in teams – may profit from striving for a common understanding of the relational models to be applied in their social interactions. The question of how co-workers see themselves in relation to each other is often not openly reflected upon, but doing so could help to clarify mutual expectations and role understandings. A first step in reaching a higher degree of sharedness of relational models could consist of actively

reflecting on and thematizing relational models in social relations at the workplace. As previously discussed, research on team interventions offers some proven techniques that could help team members ‘get on the same page’ regarding relational models in co-worker relationships. For instance, work teams could make use of different forms of team coaching (Hackman & Wageman, 2005), such as guided reflexivity (Tesler et al., 2018), to reflect on their interactions and identify each other’s (possibly conflicting) expectations stemming from the relational models they apply to social interactions among team members.

At this point, apart from a few exceptions (e.g., Winkler, 2019), RMT has not yet made its way into managerial practice. This may be due to the fact that until a few years ago the theory had relatively little resonance in organizational behavior research and that the number of empirical articles on relational models in the workplace is very limited. By linking conflicting relational models to constructs of high practical relevance (e.g., perceived justice and (un)cooperative behaviors), the present thesis and the studies contained therein seek to contribute to the establishment of RMT both in organizational research and in the realm of practical application.

Conclusion

This thesis began with the question of what are the consequences when co-workers have different understandings of what behavior ‘is’ appropriate and fair in their social interactions. In order to shed light on this question, the first thing that was needed was a suitable theoretical framework that comprehensively describes how people relate to each other. RMT (Fiske, 1992) offers such an exhaustive theoretical framework for describing social interactions. Building upon this theoretical perspective, I conducted a series of studies in which I examined the role of conflicting relational models in co-worker interactions as an antecedent of a wide range of organizationally-relevant constructs. By linking conflicting relational models in co-worker interactions to perceived (in)justice and team conflicts, to

affective and motivational outcomes and, last but not least, to cooperative and uncooperative behaviors among co-workers, this thesis reveals the relevance of relational models in the workplace and opens the door for future studies investigating organizational behavior from this theoretical perspective.

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Appendix A: Chapter 2

Scales and Items (Studies 1-2)

Instruction *Im Folgenden geht es um die Zusammenarbeit in Ihrem Team.
Stellen Sie sich bitte die Zusammenarbeit mit den anderen Mitgliedern Ihres Teams vor.*

Relational Model Scale (Vodosek, 2009)

translated by Arendt, Barysch, Funk & Kugler (2016)

CS_1	Das Team fällt Entscheidungen gemeinsam, indem es einen Konsens anstrebt.
CS_2	Die Teammitglieder haben tendenziell sehr ähnliche Einstellungen und Werte.
CS_3	Das Sprichwort "Einer für alle, alle für einen" gilt für die Mitglieder des Teams.
CS_4	Die Teammitglieder haben viele Dinge gemeinsam, was sie im Wesentlichen gleich macht.
CS_5	Wenn ein Teammitglied etwas braucht, dann geben es ihm die anderen Teammitglieder, ohne dass sie etwas im Gegenzug erwarten.
AR_1	Ein Mitglied des Teams gibt den Ton an.
AR_2	Ein Mitglied des Teams leitet die Arbeit der Gruppe an, während die anderen Teammitglieder größtenteils das tun, was ihnen gesagt wurde.
AR_3	Ein Mitglied des Teams übernimmt tendenziell die Führung.
AR_4	Ein Mitglied des Teams trifft die Entscheidungen und die anderen Teammitglieder stimmen gewöhnlich nur zu.
EM_1	Die Teammitglieder teilen Sachen gewöhnlich in gleich große Teile auf.
EM_2	Die Teammitglieder wechseln sich bei Aufgaben oft ab.
EM_3	Wenn die Teammitglieder zusammenarbeiten, teilen sie die Arbeit gewöhnlich gleichmäßig auf.
EM_4	Die Teammitglieder stellen sicher, dass der Arbeitsaufwand der Gruppe gleichmäßig verteilt ist.
EM_5	Das Team fällt Entscheidungen durch einfache Mehrheitsbeschlüsse.
MP_1	Die Teammitglieder kalkulieren ihren persönlichen Gewinn und handeln entsprechend.
MP_2	Die Teammitglieder teilen Sachen danach auf, wie viel sie investiert oder beigetragen haben.
MP_3	Das Team fällt Entscheidungen nach Kosten-Nutzen-Überlegungen.
MP_4	Die Teammitglieder investieren nur so lange in die Gruppe, wie es sich für sie lohnt.

Scales and Items (Studies 1-2)

Instruction *Inwieweit treffen die folgenden Aussagen auf die Zusammenarbeit in Ihrem Team zu?*

Relationship Conflict (Lehmann-Willenbrock, Grohmann, & Kauffeld, 2011)

rc_1 In meinem Team gibt es viele zwischenmenschliche Spannungen.

rc_2 Die Teammitglieder werden bei der Arbeit häufig ärgerlich.

rc_3 In meinem Team gibt es viele emotionale Konflikte.

Participative Safety (Brodbeck, Anderson, & West, 2000)

ps_1 Wir stehen in häufigem gegenseitigem Austausch.

ps_2 Es gibt im Team echtes Bemühen Information innerhalb der ganzen Arbeitsgruppe zu teilen.

ps_3 Wir halten als Team zusammen.

Justice (Ambrose & Schminke, 2009)

translated and adapted by Arendt, Barysch, Funk & Kugler (2016)

j_1 Ich empfinde die Zusammenarbeit in unserem Team als gerecht.

j_2 In unserem Team werden Teammitglieder gerecht behandelt.

j_3 Alle Mitglieder unseres Teams orientieren sich an gemeinsamen ethischen und moralischen Standards.

j_4 In unserem Team werden Gerechtigkeitsprinzipien eingehalten.

Team Cohesion (Kauffeld, 2001)

tc_1 Wir reden offen und frei miteinander.

tc_2 Wir bringen alle wichtigen Informationen in unser Team ein.

tc_3 Wir fühlen uns untereinander verstanden und akzeptiert.

tc_4 Einige denken zu viel an sich selbst.

tc_5 Es gibt Konkurrenz zwischen den Teammitgliedern.

tc_6 Die Teammitglieder helfen sich gegenseitig, wenn einer in Zeitnot gerät.

tc_7 Einzelne Teammitglieder versuchen sich - auf Kosten anderer - in den Vordergrund zu drängen.

tc_8 Wir fühlen uns als ein Team.

Scales and Items (Studies 1-2)

Team Commitment (Xue, Bradley & Liang, 2011)translated by Arendt, Barysch, Funk & Kugler (2016)

ms_1 Ich fühle mich als Teil meines Teams.

ms_2 Wenn ich die Möglichkeit hätte, die gleiche Arbeit noch einmal in einem Team zu erledigen, würde ich eigentlich in meinem Team bleiben.

ms_3 Wenn ich die Möglichkeit hätte, die gleiche Arbeit in einem anderen Team zu erledigen, würde ich lieber in ein anderes Team wechseln.

Appendix B: Chapter 3

Scales and Items (Study 3)

Instruction *Im Folgenden geht es um die Zusammenarbeit in Ihrem Team.
Stellen Sie sich bitte die Zusammenarbeit mit den anderen Mitgliedern Ihres Teams vor.*

Relational Model Scale (Vodosek, 2009)

translated by Arendt, Barysch, Funk & Kugler (2016)

CS_1	Das Team fällt Entscheidungen gemeinsam, indem es einen Konsens anstrebt.
CS_2	Die Teammitglieder haben tendenziell sehr ähnliche Einstellungen und Werte.
CS_3	Das Sprichwort "Einer für alle, alle für einen" gilt für die Mitglieder des Teams.
CS_4	Die Teammitglieder haben viele Dinge gemeinsam, was sie im Wesentlichen gleich macht.
CS_5	Wenn ein Teammitglied etwas braucht, dann geben es ihm die anderen Teammitglieder, ohne dass sie etwas im Gegenzug erwarten.
AR_1	Ein Mitglied des Teams gibt den Ton an.
AR_2	Ein Mitglied des Teams leitet die Arbeit der Gruppe an, während die anderen Teammitglieder größtenteils das tun, was ihnen gesagt wurde.
AR_3	Ein Mitglied des Teams übernimmt tendenziell die Führung.
AR_4	Ein Mitglied des Teams trifft die Entscheidungen und die anderen Teammitglieder stimmen gewöhnlich nur zu.
EM_1	Die Teammitglieder teilen Sachen gewöhnlich in gleich große Teile auf.
EM_2	Die Teammitglieder wechseln sich bei Aufgaben oft ab.
EM_3	Wenn die Teammitglieder zusammenarbeiten, teilen sie die Arbeit gewöhnlich gleichmäßig auf.
EM_4	Die Teammitglieder stellen sicher, dass der Arbeitsaufwand der Gruppe gleichmäßig verteilt ist.
EM_5	Das Team fällt Entscheidungen durch einfache Mehrheitsbeschlüsse.
MP_1	Die Teammitglieder kalkulieren ihren persönlichen Gewinn und handeln entsprechend.
MP_2	Die Teammitglieder teilen Sachen danach auf, wie viel sie investiert oder beigetragen haben.
MP_3	Das Team fällt Entscheidungen nach Kosten-Nutzen-Überlegungen.
MP_4	Die Teammitglieder investieren nur so lange in die Gruppe, wie es sich für sie lohnt.

Scales and Items (Study 3)

Instruction *Inwieweit treffen die folgenden Aussagen auf die Zusammenarbeit in Ihrem Team zu?*

Relationship Conflict (Lehmann-Willenbrock, Grohmann, & Kauffeld, 2011)

rc_1 In meinem Team gibt es viele zwischenmenschliche Spannungen.

rc_2 Die Teammitglieder werden bei der Arbeit häufig ärgerlich.

rc_3 In meinem Team gibt es viele emotionale Konflikte.

Justice (Ambrose & Schminke, 2009)

translated and adapted by Arendt, Barysch, Funk & Kugler (2016)

j_1 Ich empfinde die Zusammenarbeit in unserem Team als gerecht.

j_2 In unserem Team werden Teammitglieder gerecht behandelt.

j_3 Alle Mitglieder unseres Teams orientieren sich an gemeinsamen ethischen und moralischen Standards.

j_4 In unserem Team werden Gerechtigkeitsprinzipien eingehalten.

j_5 In unserem Team werden (unausgesprochene) Verträge eingehalten.

Individual Helping Behavior (Lee & Allen, 2002)

translated by (Kunz et al., 2016)

Instruction *Bitte geben Sie an, wie häufig Sie die folgenden Verhaltensweisen gegenüber Ihrem Team zeigen.*

ocb_1 Ich helfe anderen, wenn diese abwesend waren.

ocb_2 Ich wende freiwillig Zeit auf, um anderen bei arbeitsbezogenen Problemen zu helfen.

ocb_3 Ich richte meine Urlaubswünsche an der Arbeitsplanung von Kollegen aus.

ocb_4 Ich scheue keine Mühen, damit sich neue Mitarbeiter im Team wohlfühlen.

ocb_5 Ich zeige aufrichtiges Interesse und Anteilnahme gegenüber meinen Kollegen, selbst unter höchst beanspruchenden beruflichen und privaten Umständen.

ocb_6 Ich wende Zeit auf um anderen bei arbeitsbezogenen oder privaten Problemen zu helfen.

ocb_7 Ich unterstütze andere bei ihren Aufgaben.

ocb_8 Ich teile persönliches Eigentum mit anderen, um diese bei ihrer Arbeit zu unterstützen.

Scales and Items (Study 3)

Knowledge Hiding (Connelly, Zweig, Webster, & Trougakos, 2012)

translated by (Knipfer & Schmid, 2019)

Instruction *Die folgenden Aussagen beziehen sich auf den Wissensaustausch innerhalb Ihres Teams.
Denken Sie bitte an Situationen, in denen ein/e Kollege/in von Ihnen Informationen anfragt, um eine Einschätzung vorzunehmen. Geben Sie bei jeder Aussage an, wie häufig Sie das beschriebene Verhalten zeigen.*

Wenn ein/e Kollege/in bei mir Wissen anfragt,...

kh_01_eh	...behaupte ich zu helfen, beabsichtige das aber nicht wirklich.
kh_02_eh	...erkläre ich mich bereit zu helfen, gebe aber anstatt der angefragten Information eine andere Information weiter.
kh_03_eh	...sage ich, dass ich helfen würde, aber zögere die Weitergabe der Information so lange wie möglich hinaus.
kh_04_eh	...biete ich eine andere Information an als die, die eigentlich angefragt wurde.
kh_05_pd	...behaupte ich, dass ich diese Information nicht kenne.
kh_06_pd	... sage ich, dass ich das nicht weiß, obwohl ich es weiß.
kh_07_pd	...gebe ich vor, dass ich nicht verstehe, worüber sie/er spricht.
kh_08_pd	...sage ich, dass ich mich mit diesem Thema nicht gut auskenne.
kh_09_rh	...erkläre ich, dass ich die Information weitergeben würde, es aber nicht darf.
kh_10_rh	...erkläre ich, dass die Information vertraulich ist und der Zugriff den Mitgliedern eines bestimmten Projekts vorbehalten ist.
kh_11_rh	...sage ich, dass mein/e Vorgesetzte/r es nicht erlaubt, diese Information zu teilen.
kh_12_rh	...sage ich, dass ich ihre/seine Frage nicht beantworten werde.

Team Helping Behavior translated by (Kunz et al., 2016)

Instruction *Abschließend geht es nochmals nicht mehr allein um Sie, sondern um Ihr Team als Ganzes.
Bitte geben Sie an, wie häufig die folgenden Verhaltensweisen allgemein in Ihrem Team gezeigt werden.*

ocb_t_1	Die Mitglieder meines Teams helfen anderen Teammitgliedern, wenn diese abwesend waren.
ocb_t_2	Die Mitglieder meines Teams wenden freiwillig Zeit auf, um einander bei arbeitsbezogenen Problemen zu helfen.
ocb_t_3	Die Mitglieder meines Teams richten ihre Urlaubswünsche an der Arbeitsplanung von Kollegen aus.

Scales and Items (Study 3)

ocb_t_4	Die Mitglieder meines Teams scheuen keine Mühen, damit sich neue Mitarbeiter im Team wohlfühlen.
ocb_t_5	Die Mitglieder meines Teams zeigen aufrichtiges Interesse und Anteilnahme gegenüber ihren Kollegen, selbst unter höchst beanspruchenden beruflichen und privaten Umständen.
ocb_t_6	Die Mitglieder meines Teams wenden Zeit auf, um anderen Teammitgliedern bei arbeitsbezogenen oder privaten Problemen zu helfen.
ocb_t_7	Die Mitglieder meines Teams unterstützen einander bei ihren Aufgaben.
ocb_t_8	Die Mitglieder meines Teams teilen persönliches Eigentum mit anderen Teammitgliedern um diese bei ihrer Arbeit zu unterstützen.

Information Material for Acquisition of Participants (Study 3)

TEAMSTUDIE 2017

KOOPERATION IN ARBEITSTEAMS STUDIE I



Zusammenfassung:

Gesucht werden?

Berufstätige Personen, die an Ihrem Arbeitsplatz in einem Team mit mindestens drei Personen arbeiten.

Wofür?

Eine wissenschaftliche Studie zum Thema Kooperation in Arbeitsgruppen.

Was ist zu tun?

Sie und weitere Mitglieder Ihres Teams füllen je einen Onlinefragebogen aus. Dies nimmt lediglich 12-15 Minuten in Anspruch.
Die Teilnahme ist bis 31. August möglich.

Ist die Teilnahme anonym?

Selbstverständlich. Eine Zuordnung der Datensätze zu Einzelpersonen oder bestimmten Teams ist zu keinem Zeitpunkt der Untersuchung möglich.

Was haben die Teilnehmer davon?

Bei Interesse erhalten Sie eine umfangreiche Ergebnismeldung, in der Sie über Inhalt, Ergebnisse und praktische Implikationen der Studie informiert werden.
Darüber hinaus werden unter allen interessierten Teilnehmern 3 x 50 Euro verlost.

Wie kann ich teilnehmen?

Schreiben Sie mir eine E-Mail an johannes.arendt@lmu.de.

Im Anschluss erhalten einen Link zum Onlinefragebogen über den Sie und Ihr Team teilnehmen können.

KONTAKT

Sie wollen an dieser Studie teilnehmen?
Sie benötigen weitere Informationen, um zu einer Entscheidung zu kommen?
Sie haben sonstige Fragen, Bedenken oder Anregungen?

Schreiben Sie mir an

johannes.arendt@lmu.de

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN
LEHRSTUHL WIRTSCHAFTS- UND
ORGANISATIONSPSYCHOLOGIE

JOHANNES.ARENDT@LMU.DE

Information Material for Acquisition of Participants (Study 3)

KOOPERATION IN ARBEITSTEAMS

HINTERGRUND

In der Arbeitswelt der heutigen Zeit ist es unabkömmlich, dass Menschen sich an ihrem Arbeitsplatz gegenseitig unterstützen und kooperieren. Ob es nun darum geht, spontan für einen Kollegen einzuspringen, das eigene Wissen mit anderen zu teilen oder neue Mitarbeiter bei der Einarbeitung zu unterstützen – der Erfolg einer Organisation hängt zu einem nicht unerheblichen Teil davon ab, dass die eigenen Mitarbeiter bereit sind, auch über ihre formalen Rollen hinaus, Zeit und Ressourcen aufzuwenden um einander zu unterstützen.

Die Frage, unter welchen Umständen und sozialen Rahmenbedingungen Teammitglieder einander am Arbeitsplatz helfen – oder sich eben nicht helfen – ist daher seit geraumer Zeit Gegenstand wissenschaftlicher Forschung.

ZIEL DIESER STUDIE

Diese Studie wird im Rahmen eines Forschungsprojekts am Lehrstuhl Wirtschafts- und Organisationspsychologie der Ludwig-Maximilians-Universität München durchgeführt und untersucht die Auswirkungen gemeinsam erlebter sozialer Regeln und Normen auf die Zusammenarbeit in Arbeitsteams. Die zentrale Fragestellung ist, wie sich ein geteiltes Verständnis elementarer Beziehungsregeln auf das soziale Verhalten des einzelnen Individuums gegenüber anderen Teammitgliedern auswirkt.

DURCHFÜHRUNG

In dieser Untersuchung werden Daten von Arbeitsteams aus verschiedenen Unternehmen und Branchen erhoben. Dabei ist es notwendig, dass jeweils mehrere (im Idealfall alle) Mitglieder der teilnehmenden Teams – mit Ausnahme der Führungskraft – einen Onlinefragebogen ausfüllen.

ABLAUF

Interessierte Teams erhalten nach Kontaktierung des Untersuchungsleiters eine E-Mail mit einem individuellen Link über den die einzelnen Teammitglieder an der Umfrage teilnehmen können. Die Fragebögen können bis 31. August ausgefüllt werden.

UMFANG

Das einmalige Ausfüllen des Onlinefragebogens nimmt pro Teammitglied 12-15 Minuten in Anspruch.

RÜCKMELDUNG

Die Teilnehmerinnen und Teilnehmer dieser Studie erhalten auf Wunsch nach Abschluss der Untersuchung eine detaillierte Rückmeldung in der sie über Inhalt, Ergebnisse und praktische Implikationen der Studie informiert werden.

DATENSCHUTZ & ANONYMITÄT

Die Erfassung und Auswertung der Daten erfolgt unter absoluter Wahrung der Anonymität aller Beteiligten. Eine Zuordnung der Datensätze zu Einzelpersonen oder bestimmten Teams ist zu keinem Zeitpunkt der Untersuchung möglich.

IHRE UNTERSTÜTZUNG

Der Erfolg dieser Studie steht und fällt mit der Anzahl der Teilnehmerinnen und Teilnehmer. Sie können einen wertvollen Beitrag zum Gelingen dieses Forschungsvorhabens leisten, wenn Sie an dieser Studie teilnehmen und mehrere (möglichst alle) Mitglieder Ihres Teams dazu animieren, ebenfalls teilzunehmen.

NUTZEN

Mit Ihrer Teilnahme an dieser Studie leisten Sie einen wichtigen Beitrag zur Arbeits- und Organisationspsychologischen Grundlagenforschung.

Durch die (optionale) Rückmeldung der Studienergebnisse erhalten Sie selbst zudem aufschlussreiche Informationen über die Zusammenarbeit in Teams und Einflussfaktoren auf kooperatives Verhalten am Arbeitsplatz.

Als zusätzlicher Anreiz zur Teilnahme werden zudem unter allen interessierten Teilnehmern dieser Studie 3 x 50 Euro verlost.

Sie haben Interesse, mit Ihrem Team an dieser Studie teilzunehmen?

Schreiben Sie mir an:

Johannes.arendt@lmu.de

Appendix C: Chapter 4

Team Description Vignettes (Study 4)

Instruction	<p>Im Folgenden wird Ihnen ein fiktives Team beschrieben. Stellen Sie sich bitte vor, Teil dieses Teams zu sein. Gehen Sie dabei davon aus, dass sich das beschriebene Team genauso wie dargestellt verhält und versuchen Sie, sich möglichst lebhaft in die Situation hineinzusetzen.</p>
CS	<p>Anfallende Aufgaben versteht Ihr Team als kollektive Verantwortlichkeit, zu der jeder von Ihnen so viel beiträgt, wie er kann. Individuelle Beiträge werden nicht nachverfolgt oder spezifiziert, denn Sie arbeiten als Team. Sie und Ihre Kollegen sehen sich als eine Gemeinschaft, die ähnliche Einstellungen und Werte hat. Ihr Team hat gemeinsame Traditionen, Sie fühlen sich mit Ihren Kollegen eng verbunden und unterstützen sich gegenseitig. Das Wohl des anderen ist genauso wichtig wie das eigene und wenn Sie Hilfe benötigen, tut jeder sein Möglichstes, um Ihnen zu helfen. Diese Hilfe erhalten Sie, ohne dass Gegenleistung von Ihnen gefordert wird.</p> <p>Entscheidungen werden in Ihrem Team nach dem Konsensprinzip getroffen. Stehen Entscheidungen an, so wird in Ihrem Team also so lange diskutiert, bis alle Mitglieder einverstanden sind. Zudem nutzen Sie die Ressourcen, die Ihnen als Team von Ihrer Organisation zur Verfügung gestellt werden, gemeinschaftlich im Team. Individuelle Ansprüche spielen in Ihrem Team keine Rolle.</p>
AR	<p>Anfallende Aufgaben werden von einem bestimmten Teammitglied dirigiert und verteilt, während Sie und Ihre Kollegen die Anweisungen dieser Person befolgen. In dem Team ist die Verantwortung unterschiedlich verteilt und es sind somit Hierarchien erkennbar. Sie nehmen Ihren Teamchef auf einer anderen Ebene als sich selbst wahr, da er auch derjenige ist, der mehr Verantwortung als Sie und Ihre Kollegen trägt. Ihr Teamchef führt das Team fachlich oder disziplinarisch. Er unterstützt und fördert Sie und Ihre Kollegen.</p> <p>Entscheidungen werden in Ihrem Team grundsätzlich von Ihrem Teamchef getroffen. Ihre Kollegen und Sie stimmen mit diesem Entscheidungsprozess überein. Zudem werden die Ressourcen, die Ihnen als Team von Ihrer Organisation zur Verfügung gestellt werden, in Ihrem Team nach Rang und Verantwortlichkeit verteilt. Ihr Teamchef erhält dementsprechend aufgrund seiner höheren Stellung einen größeren Anteil als Sie.</p>
EM	<p>Anfallende Aufgaben werden so unter Ihnen und Ihren Kollegen verteilt, dass jedes Teammitglied gleich viel zu leisten hat. Wenn Sie eine Aufgabe Ihres Kollegen übernehmen, erwarten Sie, dass Ihr Kollege in absehbarer Zeit ebenfalls eine Ihrer Aufgaben für Sie erledigt. Wenn Ihr Kollege Ihnen einen Gefallen erweist oder Hilfe leistet, fühlen Sie sich entsprechend verpflichtet, ihm einen gleichwertigen Gefallen zu erweisen oder ihm bei Gelegenheit ebenfalls zu helfen. In dem, was Sie füreinander tun, versuchen Sie immer, ein möglichst ausgewogenes Verhältnis beizubehalten.</p> <p>Entscheidungen werden in Ihrem Team nach Mehrheitsbeschluss getroffen. Stehen Entscheidungen an, bevorzugt Ihr Team also diejenige Alternative, die die meiste Zustimmung erhält. Zudem werden die Ressourcen, die Ihnen als Team von Ihrer Organisation zur Verfügung gestellt werden, so verteilt, dass jeder möglichst den exakt gleichen Anteil erhält.</p>
MP	<p>Zur Erledigung anfallender Aufgaben tragen Sie und Ihre Kollegen genau so viel bei, wie es sich für Sie lohnt. Von der Zusammenarbeit erwarten sich alle Teammitglieder einen individuellen Gewinn. Dieser Nutzen der Teamarbeit wird mit den Kosten, wie dem geleisteten Aufwand oder der investierten Zeit, abgewogen. Entscheidungen werden in Ihrem Team anhand der Abwägung von Gewinn und Kosten getroffen.</p> <p>Bei Entscheidungen wird also jeder Beitrag als eine Investition gesehen, die sich lohnen sollte. Zudem werden die Ressourcen, die Ihnen als Team von Ihrer Organisation zur Verfügung gestellt werden, so verteilt, dass jeder im Team einen Anteil entsprechend seiner Leistung oder Investition erhält.</p>

Event Description Vignettes (Study 4)

Instruction

Aufgrund günstiger Entwicklungen wird Ihrem Team nun ein stattlicher Bonus zur Verfügung gestellt, der im Team verteilt werden kann.

CS

Im Team wird entschieden, dass dieser Bonus entsprechend der individuellen Bedürfnisse verteilt wird. (Beispiel: Das Teammitglied, das unverschuldet in eine finanzielle Notlage geraten ist, erhält einen größeren Anteil.)

AR

Im Team wird entschieden, dass dieser Bonus entsprechend der Zugehörigkeit zu einer Hierarchiestufe verteilt wird. (Beispiel: Der Teamchef erhält den größten Anteil.)

EM

Im Team wird entschieden, dass dieser Bonus entsprechend der individuellen Leistung verteilt wird. (Beispiel: Das Teammitglied, das den größten Beitrag geleistet hat, erhält den größten Anteil.)

MP

Im Team wird entschieden, dass dieser Bonus entsprechend der individuellen Leistung verteilt wird. (Beispiel: Das Teammitglied, das den größten Beitrag geleistet hat, erhält den größten Anteil.)

Scales and Items (Study 4)

Instruction	<i>Beurteilen Sie nun, wie Sie die beschriebene Verteilung der Bonuszahlung in diesem spezifischen Team empfinden würden.</i>
Overall Justice (adapted from Ambrose and Schminke, 2009)	
j1	Ich würde diese Verteilung für gerecht halten.
j2	Ich würde mich fair behandelt fühlen.
j3	Ich würde diese Verteilung als fair betrachten.
j4	Bei dieser Verteilung würden Gerechtigkeitsprinzipien eingehalten.
j5	Bei dieser Verteilung würde das Team seinen Prinzipien treu bleiben.
j6	Bei dieser Verteilung würden (unausgesprochene) Verträge eingehalten.
j7	Bei dieser Verteilung würden im Team Regeln konsequent angewandt.
Instruction	<i>Bitte geben Sie vor dem Hintergrund des beschriebenen Teams und der Verteilung der Bonuszahlung an, wie wahrscheinlich es wäre, dass Sie nach diesem Ereignis in Ihrem beschriebenen Team die folgenden Verhaltensweisen zeigen würden..</i>
Helping Behavior (Lee & Allen, 2002) translated by (Kunz et al., 2016)	
ocb_1	Ich wäre bereit meine Zeit aufzuwenden, um anderen bei der Lösung arbeitsrelevanter Probleme zu helfen.
ocb_2	Ich würde anderen helfen, wenn diese abwesend waren.
ocb_3	Ich würde mein persönliches Eigentum mit anderen teilen, um diesen bei ihrer Arbeit zu unterstützen.
ocb_4	Ich würde andere bei der Erfüllung ihrer Pflichten unterstützen.
ocb_5	Ich würde aufrichtiges Interesse und Anteilnahme gegenüber meinen Kollegen zeigen, selbst unter höchst beanspruchenden beruflichen oder privaten Umständen.
ocb_6	Ich würde meine Arbeitsplanung an den Urlaubswünschen von anderen MitarbeiterInnen ausrichten.
ocb_7	Ich würde keine Mühe scheuen, damit sich neue MitarbeiterInnen in unserem Team wohlfühlen.
ocb_8	Ich würde Zeit aufwenden, um andere bei arbeitsbezogenen sowie arbeitsfremden Problemen zu helfen.
Perceived degree of fit (manipulation check)	
pf	Wie passend fanden Sie das Verteilungssystem für Ihr beschriebenes Team?

Team Description Vignettes (Study 5)

Instruction	Im Folgenden wird Ihnen ein fiktiver Arbeitskollege, Herr Müller, und Ihre Beziehung zu diesem beschrieben.
	Stellen Sie sich bitte vor, mit Herrn Müller zusammenzuarbeiten. Gehen Sie dabei davon aus, dass Ihre Beziehung zu ihm genau so ist, wie nachfolgend beschrieben und versuchen Sie, sich möglichst lebhaft in die beschriebene Situation hineinzusetzen.
	Ihre Beziehung zu Herrn Müller lässt sich wie folgt beschreiben:
CS	Anfallende Aufgaben verstehen Sie in dieser Beziehung als kollektive Verantwortlichkeit, zu der jeder von Ihnen so viel beiträgt, wie er kann. Individuelle Beiträge werden nicht nachverfolgt oder spezifiziert, denn Sie arbeiten als Team. Sie und Herr Müller sehen sich als Gemeinschaft, die ähnliche Einstellungen und Werte hat. Sie haben gemeinsame Traditionen; Sie fühlen sich einander eng verbunden und unterstützen sich gegenseitig. Das Wohl des anderen ist genauso wichtig wie das eigene und wenn einer von Ihnen Hilfe benötigt, tut der andere sein Möglichstes, um ihm zu helfen. Diese Hilfe wird geleistet, ohne dass eine Gegenleistung gefordert wird. Entscheidungen werden in dieser Beziehung nach dem Konsensprinzip getroffen. Stehen Entscheidungen an, so diskutieren Sie so lange, bis beide einverstanden sind.
AR+	Anfallende Aufgaben werden in der Regel von Herrn Müller dirigiert, während Sie dessen Anweisung befolgen. Die Verantwortung zwischen Ihnen und Herrn Müller ist unterschiedlich verteilt und eine Hierarchie ist erkennbar. Sie nehmen Herrn Müller auf einer anderen Ebene als sich selbst wahr, da er auch derjenige ist, der mehr Verantwortung als Sie trägt. Herr Müller unterstützt und fördert Sie. Entscheidungen werden von Herrn Müller getroffen.
AR-	Anfallende Aufgaben werden in der Regel von Ihnen dirigiert, während Herr Müller Ihre Anweisungen befolgt. Die Verantwortung zwischen Ihnen und Herrn Müller ist unterschiedlich verteilt und eine Hierarchie ist erkennbar. Sie nehmen Herrn Müller auf einer anderen Ebene als sich selbst wahr, da Sie auch derjenige sind, der/die mehr Verantwortung als Herr Müller trägt. Sie fördern und unterstützen Herrn Müller. Entscheidungen werden von Ihnen getroffen.
EM	Anfallende Aufgaben werden so unter Ihnen und Herrn Müller verteilt, dass jeder von Ihnen gleich viel zu leisten hat. Wenn Sie eine Aufgabe von Herrn Müller übernehmen, erwarten Sie, dass er in absehbarer Zeit ebenfalls eine Ihrer Aufgaben für Sie erledigt. Wenn Herr Müller Ihnen einen Gefallen erweist oder Hilfe leistet, fühlen Sie sich entsprechend verpflichtet, ihm einen gleichwertigen Gefallen zu erweisen oder ihm bei Gelegenheit ebenfalls zu helfen. In dem, was Sie füreinander tun, versuchen Sie immer, ein möglichst ausgewogenes Verhältnis beizubehalten. Wenn Entscheidungen getroffen werden, zählt jede Stimme gleichviel; kommt es dabei zu keiner Übereinkunft lösen Sie oder Sie treffen Entscheidungen abwechselnd.
MP	Zur Erledigung anfallender Aufgaben tragen Sie und Herr Müller genau so viel bei, wie es sich für den Einzelnen lohnt. Von der Zusammenarbeit erwarten Sie sich beide einen individuellen Gewinn. Dieser Nutzen der Zusammenarbeit wird mit den Kosten, wie dem geleisteten Aufwand oder der investierten Zeit, abgewogen. Entscheidungen werden anhand der Abwägung von Gewinn und Kosten getroffen. Bei Entscheidungen wird also jeder Beitrag als eine Investition gesehen, die sich lohnen sollte.

Event Description Vignettes (Study 5)

Stellen Sie sich nun bitte folgendes Szenario vor:

Instruction Ihnen und Herrn Müller wird angeboten an einer Weiterbildungsmaßnahme teilzunehmen, die sowohl Sie, als auch Herrn Müller außerordentlich interessiert. Es wird Ihnen allerdings mitgeteilt, dass es nur noch einen freien Platz gibt, und Sie und Herr Müller untereinander ausmachen müssen, wer von Ihnen teilnehmen kann. Sie fragen Herrn Müller, wie er dazu steht.

Herr Müller reagiert wie folgt:

CS Herr Müller spricht sich dafür aus, dass er teilnimmt, da er diese Weiterbildung für anstehende Projekte benötigt. Er fände es fair, wenn Sie ihm daher den Platz in der Weiterbildungsmaßnahme überlassen würden.

AR+ Herr Müller spricht sich dafür aus, dass er teilnimmt, da er im Tagesgeschäft deutlich mehr Verantwortung trägt und mehr Entscheidungen zu treffen hat als Sie. Er fände es fair, wenn Sie ihm daher den Platz in der Weiterbildungsmaßnahme überlassen würden.

AR- Herr Müller spricht sich dafür aus, dass er teilnimmt, da er im Tagesgeschäft in der Regel Ihre Anweisungen ausführt und Ihnen „den Rücken freihält“. Er fände es fair, wenn Sie ihn im Gegenzug fördern würden, indem Sie ihm den Platz in der Weiterbildungsmaßnahme überlassen würden.

EM Herr Müller spricht sich dafür aus, dass er teilnimmt und Ihnen dafür bei der nächsten vergleichbaren Fortbildung den Vortritt lässt. Er fände es dadurch fair wenn Sie ihm den Platz in der Weiterbildungsmaßnahme überlassen würden.

MP Herr Müller spricht sich dafür aus, dass er teilnimmt, da er in letzter Zeit deutlich mehr Überstunden gemacht und in die Arbeit investiert hat als Sie. Er fände es fair, wenn Sie ihm daher den Platz in der Weiterbildungsmaßnahme überlassen würden.

Scales and Items (Study 5)

Instruction *Beurteilen Sie nun bitte, wie Sie Herrn Müllers Vorschlag empfinden würden:*

Overall Justice (adapted from Ambrose and Schminke, 2009)

- | | |
|----|--|
| j1 | Ich würde diesen Vorschlag für gerecht halten. |
| j2 | Ich würde mich fair behandelt fühlen. |
| j3 | Ich würde diesen Vorschlag als fair betrachten. |
| j4 | Bei diesem Vorschlag würden Gerechtigkeitsprinzipien eingehalten. |
| j5 | Mit diesem Vorschlag würde mein Kollege den Prinzipien unserer Beziehung treu bleiben. |
| j6 | Bei diesem Vorschlag würden (unausgesprochene) Verträge eingehalten. |
| j7 | Bei diesem Vorschlag würden die Regeln unserer Beziehung konsequent angewandt. |

Instruction *Bitte geben Sie vor dem Hintergrund der beschriebenen Beziehung und Herrn Müllers beschriebener Reaktion an, wie wahrscheinlich es wäre, dass Sie in Zukunft gegenüber Herrn Müller die folgenden Verhaltensweisen zeigen.*

Helping Behavior (Lee & Allen, 2002)

translated by (Kunz et al., 2016)

- | | |
|-------|--|
| ocb_1 | Ich wäre bereit meine Zeit aufzuwenden, um Herrn Müller bei der Lösung arbeitsrelevanter Probleme zu helfen. |
| ocb_2 | Ich würde Herrn Müller helfen, wenn dieser abwesend war. |
| ocb_3 | Ich würde mein persönliches Eigentum mit Herrn Müller teilen, um diesen bei seiner Arbeit zu unterstützen. |
| ocb_4 | Ich würde Herrn Müller bei der Erfüllung seiner Pflichten unterstützen. |
| ocb_5 | Ich würde aufrichtiges Interesse und Anteilnahme gegenüber Herrn Müller zeigen, selbst unter höchst beanspruchenden beruflichen oder privaten Umständen. |
| ocb_6 | Ich würde meine Arbeitsplanung an den Urlaubswünschen von Herrn Müller ausrichten. |
| ocb_7 | Ich würde keine Mühe scheuen, damit sich Herr Müller in unserem Team wohlfühlt. |
| ocb_8 | Ich würde Zeit aufwenden, um Herrn Müller bei arbeitsbezogenen sowie arbeitsfremden Problemen zu helfen. |

Perceived degree of fit (manipulation check)

- | | |
|----|---|
| pf | Wie passend empfinden Sie Herrn Müllers Vorschlag für Ihre Beziehung? |
|----|---|

Team Description Vignettes (Study 6)

	<p>Im Folgenden werden Sie ein Szenario kennenlernen, bei dem Sie sich in die Rolle eines Mitarbeiters bzw. einer Mitarbeiterin in einem Unternehmen hineinversetzen sollen. Versuchen Sie, sich die Situation bildhaft vor Augen zu führen.</p>
Instruction	<p>Im Anschluss werden Sie gebeten, sich Ihr Verhalten in diesem Szenario vorzustellen. Bedenken Sie, dass es sich nicht um eine Bewertung Ihrer eigenen Erfahrungen aus dem Berufs- oder Alltagsleben handeln wird, sondern ausschließlich um Ihre Einschätzung der hier präsentierten Situation.</p> <p>Bitte stellen Sie sich nun vor, in besagtem Unternehmen beschäftigt zu sein. Sie arbeiten in Ihrer Abteilung gemeinsam mit einigen KollegInnen an verschiedenen Projekten. Das Unternehmens- und Arbeitsklima zeichnet sich dabei überwiegend durch folgendes Leitbild aus:</p>
CS	<p>Aufgaben, die für Ihr Team anfallen, werden von Ihnen und Ihrem Kollegen Herrn Meier gemeinschaftlich erledigt. Jeder von Ihnen trägt so viel dazu bei, wie jeweils individuell möglich ist. Rücksichtnahme und gegenseitige Unterstützung stehen bei Ihnen im Vordergrund. Deshalb kann es beispielsweise auch passieren, dass Sie von Zeit zu Zeit mehr leisten und helfen als Herr Meier, oder umgekehrt, ohne dass einer von Ihnen deshalb besser bezahlt oder entlohnt würde als der jeweils andere. Werden Entscheidungen getroffen, wird so lange darüber diskutiert, bis ein Konsens zwischen Herrn Meier, Ihnen und den weiteren KollegInnen erreicht wurde, bis Sie also alle einverstanden sind. Wichtiger als individuelles Fortkommen ist Herrn Meier und Ihnen das Fortkommen des Teams als Ganzem.</p> <p>Schlüsselbegriffe, die Ihr Team charakterisieren sind Gemeinschaftlichkeit, Ähnlichkeit, Teilen, Einheit, Solidarität, Anteilnahme, Selbstlosigkeit und Konsens.</p>
AR+	<p>Aufgaben, die für das Team anfallen, werden abhängig von Ihrer Rolle im Team verteilt. Ihr Kollege, Herr Meier, übernimmt mehr Verantwortung als Sie und leitet deshalb viele Projekte selbstständig an. Hierarchie und Verantwortung stehen bei Ihnen im Vordergrund. Er ist bereit, besonders großen Einsatz und Engagement in seinem Beruf zu zeigen und wird dafür von Ihnen und den weiteren KollegInnen respektiert. Herr Meier wird für seine Arbeit höher entlohnt als Sie. Im Gegenzug erwarten Sie durch Herrn Meier eine gute Förderung und die Bereitschaft, auch für unangenehme Entscheidungen die Verantwortung zu tragen.</p> <p>Schlüsselbegriffe, die Ihr Team charakterisieren sind: Autorität, Rang, Hierarchie, Vorgesetzter, Anführer, Unterordnung, Respekt, und Macht.</p>
AR-	<p>Aufgaben, die für das Team anfallen, werden abhängig von der Rolle im Team verteilt. Sie übernehmen mehr Verantwortung als Ihr Kollege, Herr Meier, und weitere Team-Mitglieder und leiten deshalb viele Projekte selbstständig an. Hierarchie und Verantwortung stehen bei Ihnen im Vordergrund. Sie sind bereit, besonders großen Einsatz und Engagement in Ihrem Beruf zu zeigen und werden dafür von Herrn Meier und den weiteren KollegInnen respektiert. Sie werden für Ihre Arbeit höher entlohnt als Herr Meier. Im Gegenzug erwartet dieser durch Sie eine gute Förderung und von Ihnen die Bereitschaft, auch für unangenehme Entscheidungen die Verantwortung zu tragen.</p> <p>Schlüsselbegriffe, die Ihr Team charakterisieren sind: Autorität, Rang, Hierarchie, Vorgesetzter, Anführer, Unterordnung, Respekt, und Macht.</p>

Team Description Vignettes (Study 6)

EM Anfallende Aufgaben werden so unter Ihnen, Ihrem Kollegen Herrn Meier und den weiteren Team-Mitgliedern verteilt, dass jeder gleich viel zu leisten hat. Gleichgewicht und Gleichheit sind Ihnen allen wichtig. Wenn Sie Herrn Meier helfen, erwarten Sie in absehbarer Zeit eine gleichwertige Gegenleistung von ihm. Bei Abstimmungen oder Entscheidungen sind Ihre Stimme und die von Herrn Meier gleich viel wert. Sie und Herr Meier werden für Ihre geleistete Arbeit gleichwertig entlohnt.

Schlüsselbegriffe, die Ihr Team charakterisieren sind: Gleichwertigkeit, Angleichung, Ausgewogenheit, Balance, Gegenseitigkeit und Sich-Abwechseln.

MP Zur Erledigung anfallender Aufgaben tragen Sie und Ihr Kollege Herr Meier genau so viel bei, dass es sich für Sie beide rentiert. Von der Zusammenarbeit erwarten Sie sich einen individuellen Gewinn. Wenn Sie mehr Zeit und Mühe in ein Projekt investieren als Herr Meier, haben Sie auch ein Anrecht darauf, mehr als Herr Meier vom Projekterfolg profitieren zu dürfen. Nach diesem Prinzip werden Gewinne, Boni und sonstige Belohnungen – abhängig von der konkreten Arbeitsleistung – womöglich ganz unterschiedlich auf Herrn Meier und Sie aufgeteilt.

Schlüsselbegriffe, die Ihr Team charakterisieren sind Verhältnismäßigkeit, Verhältnis, Kosten-Nutzen-Rechnung, Wirtschaft, Anteil, Angemessenheit, und sich-auszahlen.

Event Description Vignettes (Study 6)

Instruction	<p>Eines Tages geschieht folgendes:</p> <p>Sie haben im Team gemeinsam über einige Wochen hinweg ein Projekt erfolgreich vorangetrieben. Ihnen und Ihrem Team-Kollegen, Herrn Meier, wird nun angeboten, an einem Vorstandstreffen zum Projektabschluss teilzunehmen. Dies stellt für Sie eine hervorragende Möglichkeit dar, um sich vor den Vorständen auszuzeichnen und positive Rückmeldungen für die eigene Arbeitsleistung zu erhalten.</p> <p>Sowohl Sie selbst als auch Herr Meier wollen diese Aufgabe sehr gerne übernehmen.</p> <p>Da jedoch nur eine Person an der Sitzung mitwirken darf, müssen Herr Meier und Sie untereinander ausmachen, wer den freien Platz besetzen und die erfreulichen Resultate vorstellen darf.</p> <p>Sogleich erhebt Herr Meier Anspruch auf seine Sitzungsteilnahme, wobei er dies wie folgt begründet:</p>
CS	Herr Meier fände es fair, wenn er hingehet, weil er in den letzten Wochen nicht viele Gelegenheiten hatte, um sich auszuzeichnen. Gern würde er diese Chance nun wahrnehmen.
AR+	Obwohl Sie das Projekt inhaltlich entscheidend mitgestaltet haben, fände Herr Meier es fair, wenn er selbst hingehet. Denn aufgrund des hohen Maßes an Verantwortung, die er für das Gelingen des Projekt trägt, wäre er der geeignetere Ansprechpartner für den Vorstand.
AR-	Herr Meier fände es fair, wenn Sie ihn hingehen lassen, weil die Teilnahme an der Sitzung für ihn eine optimale Förderungs- und Weiterentwicklungsmöglichkeit darstellt.
EM	Herr Meier fände es fair, wenn er hingehen darf, weil er dafür Ihnen – im Sinne des Vorteilsausgleichs – bei nächster Gelegenheit den Vortritt lassen würde.
MP	Herr Meier fände es fair, wenn er hingehet. Sein besonderer Einsatz für das Projekt habe es verdient, mit der Teilnahme an der Vorstandssitzung angemessen entlohnt zu werden.

Scales and Items (Study 6)

Instruction *Beurteilen Sie nun bitte, wie Sie Herrn Meiers Vorschlag empfinden würden:*

Overall Justice (adapted from Ambrose and Schminke, 2009)

j1	Ich würde diesen Vorschlag für gerecht halten.
j2	Ich würde mich fair behandelt fühlen.
j3	Ich würde diesen Vorschlag als fair betrachten.
j4	Bei diesem Vorschlag würden Gerechtigkeitsprinzipien eingehalten.
j5	Mit diesem Vorschlag würde mein Kollege den Prinzipien unserer Beziehung treu bleiben.
j6	Bei diesem Vorschlag würden (unausgesprochene) Verträge eingehalten.
j7	Bei diesem Vorschlag würden die Regeln unserer Beziehung konsequent angewandt.

Instruction *Bitte geben Sie vor dem Hintergrund der beschriebenen Beziehung und Herrn Meiers beschriebener Reaktion an, wie wahrscheinlich es wäre, dass Sie in Zukunft gegenüber Herrn Meier die folgenden Verhaltensweisen zeigen.*

Helping Behavior (Lee & Allen, 2002)

translated by (Kunz et al., 2016)

ocb_1	Ich wäre bereit meine Zeit aufzuwenden, um Herrn Meier bei der Lösung arbeitsrelevanter Probleme zu helfen.
ocb_2	Ich würde Herrn Meier helfen, wenn dieser abwesend war.
ocb_3	Ich würde mein persönliches Eigentum mit Herrn Meier teilen, um diesen bei seiner Arbeit zu unterstützen.
ocb_4	Ich würde Herrn Meier bei der Erfüllung seiner Pflichten unterstützen.
ocb_5	Ich würde aufrichtiges Interesse und Anteilnahme gegenüber Herrn Meier zeigen, selbst unter höchst beanspruchenden beruflichen oder privaten Umständen.
ocb_6	Ich würde meine Arbeitsplanung an den Urlaubswünschen von Herrn Meier ausrichten.
ocb_7	Ich würde keine Mühe scheuen, damit sich Herr Meier in unserem Team wohlfühlt.
ocb_8	Ich würde Zeit aufwenden, um Herrn Meier bei arbeitsbezogenen sowie arbeitsfremden Problemen zu helfen.

Scales and Items (Study 6)

Instruction *Bitte geben Sie vor dem Hintergrund der beschriebenen Beziehung und Herrn Meiers beschriebener Reaktion an, wie wahrscheinlich es wäre, dass Sie in Zukunft gegenüber Herrn Meier die folgenden Verhaltensweisen zeigen.*

Wenn Herr Meier Wissen bei mir anfragt...

Knowledge Hiding (Connelly, Zweig, Webster, & Trougakos, 2012)

translated by (Knipfer & Schmid, 2019)

kh_1	...würde ich behaupten, zu helfen, das aber nicht wirklich beabsichtigen.
kh_2	...würde ich mich bereiterklären zu helfen, anstatt der angefragten Informationen aber eine andere Information weitergeben.
kh_3	...würde ich sagen, dass ich helfen würde, dann aber die Weitergabe der Information so lange wie möglich hinauszögern.
kh_4	...würde ich eine andere Information anbieten als die, die eigentlich angefragt wurde.
kh_5	...würde ich behaupten, dass ich diese Information nicht kenne.
kh_6	...würde ich sagen, dass ich das nicht weiß, obwohl ich es weiß.
kh_7	...würde ich vorgeben, dass ich nicht verstehe, worüber er spricht.
kh_8	...würde ich sagen, dass ich mich mit diesem Thema nicht gut auskenne.
kh_9	...würde ich erklären, dass ich die Information weitergeben würde, es aber nicht darf.
kh_10	...würde ich erklären, dass die Information vertraulich ist und der Zugriff den Mitgliedern eines bestimmten Projekts vorbehalten ist.
kh_11	...würde ich sagen, dass mein Vorgesetzter / meine Vorgesetzte es nicht erlaubt, diese Information zu teilen.
kh_12	...würde ich sagen, dass ich seine Anfrage nicht beantworten werde.

Perceived degree of fit (manipulation check)

pf Wie passend empfinden Sie das Vorgehen von Herrn Meier für Ihre Beziehung?