Leading for Well-Being: A Resource-Based Perspective on Leadership and Employee Well-Being

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ABSTRACT

In this dissertation, I aim to improve the understanding of the complex relationships between leadership and employee well-being. Drawing on conservation of resources (COR) theory, I introduce a resource-based contingency model that views the relationships between leadership and employee well-being as embedded within an employee's personal resources. Across three empirical studies, I use different theoretical and methodological approaches to test the utility of the model and elucidate the ways in which employees' personal resource pools and processes moderate the relationships between perceived leadership and employee well-being.

Study 1 addresses the moderating role of resource gain experiences in terms of psychological detachment in the relationship between transformational leadership and emotional exhaustion. Drawing on COR theory, this study tests the idea that the extra effort associated with transformational leadership can have both resource-generating and resource-depleting effects on employees depending on their resource-replenishing experiences of psychological detachment. Using three-wave survey data from *N* = 214 employees, the results showed that psychological detachment moderated the indirect relationship between transformational leadership and emotional exhaustion via extra effort such that this relationship was negative for employees with high psychological detachment and positive for employees with low psychological detachment. This study challenges the assumption that transformational leadership is universally beneficial to employee well-being and contributes to research on the dark side of transformational leadership.

Study 2 examines employees' perceptions of working conditions associated with resource loss in terms of quantitative and qualitative workload as boundary conditions of the effectiveness of supportive leadership training. This study builds on COR theory to develop and evaluate a supportive leadership training intervention that teaches leaders ways in which they can be supportive of their employees. Intervention effects on employee social and hedonic well-being were evaluated using a cluster randomized controlled trial in 80 childcare centers. Data were collected from employees at baseline (*N* = 496), one month postintervention (*N* = 266), and six months postintervention (*N* =

226). An intent-to-treat analysis showed that the effectiveness of the training in terms of leader-member exchange (LMX) quality and emotional exhaustion depended on employees' quantitative workload at baseline, such that employees with higher levels of quantitative workload benefited more from the intervention. This study advances the understanding of the effectiveness of supportive leadership training and provides organizations with guidance regarding how they can improve employee well-being through leadership training.

Drawing on COR theory, Study 3 examines day-level associations between the affiliation resources provided by the leader and employee well-being in the context of an employee's general perceptions of their LMX relationship. Bayesian multilevel path analysis of daily diary data collected from *N* = 198 employees (768 days) indicated that on days when employees perceived that their leader provided more affiliation resources, they reported higher levels of self-esteem and work engagement and, in turn, experienced higher levels of mastery during after-work time. Additionally, the results showed that employees in high-quality (vs. low-quality) LMX relationships benefitted more from the affiliation resources provided by their leader in terms of work engagement. The findings of this study contribute to research on leadership and employee well-being by advancing the understanding of leadership as a daily phenomenon and providing insights into the role of leadership in promoting employee daily work and nonwork experience and functioning.

Overall, the findings of this dissertation corroborate the assumption that leadership is important for employee well-being but also emphasize the complexity of the associations. By providing an integrative resource-based framework and addressing specific theoretical and methodological challenges found in the extant research on leadership and employee well-being in each of the three studies, I shed light on the various ways in which perceived leadership is related to employee well-being. Based on a general discussion of the implications and limitations of the three studies, I highlight important directions for future research on leadership and employee well-being.

Keywords: leadership, employee well-being, resources, conservation of resources (COR) theory, contingency perspective

ZUSAMMENFASSUNG

Das Ziel dieser Dissertation ist es, ein besseres Verständnis der komplexen Zusammenhänge zwischen Führung und Wohlbefinden zu gewinnen. Auf Grundlage der Conservation of Resources (COR)-Theorie stelle ich ressourcenbasiertes Kontingenzmodell auf, in dem der Zusammenhang zwischen Führung und dem Wohlbefinden der Mitarbeiter:innen in die persönlichen Ressourcen der Mitarbeiter:innen eingebettet ist. In drei empirischen Studien verwende ich verschiedene theoretische und methodische Ansätze, um die Nützlichkeit des Modells zu überprüfen und zu untersuchen, wie individuelle Unterschiede zwischen den Mitarbeiter:innen in ihren persönlichen Ressourcenpools und -prozessen die Zusammenhänge zwischen wahrgenommener Führung und Wohlbefinden moderieren.

In Studie 1 liegt der Fokus auf der ressourcengenerierenden Erfahrung des mentalen Abschaltens als Moderator. Genauer gesagt wird untersucht, ob der Zusammenhang zwischen transformationaler Führung und emotionaler Erschöpfung abhängig ist von der Fähigkeit der Mitarbeiter:innen, mental von der Arbeit abzuschalten. Auf Basis der COR-Theorie wird die Annahme überprüft, dass die mit der transformationalen Führung verbundene zusätzliche Anstrengung für die Mitarbeiter:innen sowohl ressourcengenerierende als auch ressourcenerschöpfende Effekte haben kann, die davon abhängig sind, wie gut die Mitarbeiter:innen nach der Arbeit mental abschalten können. Die Analyse von Daten aus einer Befragung von N = 214 Mitarbeiter:innen zu drei Zeitpunkten zeigt, dass das mentale Abschalten den indirekten Zusammenhang zwischen transformationaler Führung und emotionaler Erschöpfung über die zusätzliche Anstrengung moderiert. Der Zusammenhang ist negativ für Mitarbeiter:innen, die besser abschalten können, und positiv für Mitarbeiter:innen, die weniger gut abschalten können. Diese Studie stellt die allgemeine Annahme in Frage, dass transformationale Führung positive Auswirkungen auf das Wohlbefinden der Mitarbeiter:innenn hat, und trägt zum Verständnis möglicher Schattenseiten transformationaler Führung bei.

In Studie 2 geht es um den moderierenden Einfluss von Arbeitsbedingungen der Mitarbeiter:innen, die deren Ressourcen beanspruchen. Es wird untersucht, inwiefern die wahrgenommene quantitative und qualitative Arbeitsbelastung die Wirksamkeit eines Trainingsprogramms zur unterstützenden Führung beeinflusst. Auf Grundlage der COR-Theorie wurde ein Training entwickelt, in dem Führungskräfte lernen, wie sie ihre Mitarbeiter:innen unterstützen können. Um die Wirksamkeit der Intervention im Hinblick auf das soziale und hedonistische Wohlbefinden der Mitarbeiter:innen zu überprüfen, wurde eine cluster-randomisierte, kontrollierte Studie in 80 Kindertageseinrichtungen durchgeführt, bei der Daten auf Ebene der Mitarbeiter:innen vor Beginn der Intervention (N = 496), einen Monat nach der Intervention (N = 266) sowie sechs Monate nach der Intervention (N = 226) erhoben wurden. Eine Intent-to-Treat-Analyse zeigte, dass die Wirksamkeit des Trainings in Bezug auf die Qualität der Leader-Member Exchange (LMX)-Beziehung und die emotionale Erschöpfung von der wahrgenommenen quantitativen Arbeitsbelastung der Mitarbeiter:innen zu Beginn der Studie abhängig ist. Die Intervention war effektiver für Mitarbeiter:innen mit einer höheren quantitativen Arbeitsbelastung. Diese Studie trägt zum Verständnis der Effekte von Trainings zu unterstützender Führung bei und bietet Organisationen eine Orientierung, wie sie das Wohlbefinden ihrer Mitarbeiter:innen über Führungskräftetrainings verbessern können.

Studie 3 verwendet die COR-Theorie, um Zusammenhänge zwischen den täglich von der Führungskraft bereitgestellten „Zugehörigkeitsressourcen“ und dem täglichen Wohlbefinden der Mitarbeiter:innen im Kontext der wahrgenommenen allgemeinen Qualität ihrer LMX-Beziehung zu untersuchen. Eine Bayes-Mehrebenen-Pfadanalyse von Tagebuchdaten von N = 198 Mitarbeiter:innen (768 Tage) zeigte, dass an Tagen, an denen die Mitarbeiter:innen angaben, dass ihre Führungskraft ihnen mehr „Zugehörigkeitsressourcen“ bereitstellte, sie ein höheres Selbstwertgefühl und Arbeitsengagement sowie ein höheres Maß an Mastery nach der Arbeit erlebten. Darüber hinaus zeigte sich, dass der positive Zusammenhang zwischen „Zugehörigkeitsressourcen“ und Arbeitsengagement stärker war für Mitarbeiter:innen in qualitativ

hochwertigen LMX-Beziehungen. Die Ergebnisse dieser Studie tragen zum Verständnis von Führung als alltägliches Phänomen bei und beleuchten die Rolle von Führungskräften bei der Förderung des täglichen Wohlbefindens der Mitarbeiter:innen bei und nach der Arbeit.

Insgesamt unterstreichen die Ergebnisse dieser Dissertation, dass Führung ein wichtiger Faktor für das Wohlbefinden der Mitarbeiter:innen ist, verdeutlichen aber auch die Komplexität der Zusammenhänge. Durch die Entwicklung eines integrativen ressourcenbasierten Modells und die Auseinandersetzung mit spezifischen theoretischen und methodischen Herausforderungen in der aktuellen Forschung zu Führung und Wohlbefinden trage ich zu einem verbesserten Verständnis der unterschiedlichen Zusammenhänge zwischen wahrgenommener Führung und dem Wohlbefinden der Mitarbeiter:innen bei. Auf Grundlage einer generellen Diskussion der Implikationen und Grenzen der drei empirischen Studien werden wichtige Ansätze für die zukünftige Forschung zu Führung und Wohlbefinden herausgearbeitet.

Schlagwörter: Führung, Wohlbefinden, Ressourcen, Conservation of Resources (COR)-Theorie, Kontingenzperspektive

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LIST OF ABBREVIATIONS

ANCOVA	Analysis of covariance
CFA	Confirmatory factor analysis
CFI	Comparative fit index
COPSOQ	Copenhagen Psychosocial Questionnaire
COR	Conservation of resources
CWO	Chief well-being officer
GTL	Global Transformational Leadership
H	Hypothesis
ICC	Intraclass correlation coefficient
ITT	Intent-to-treat
LMX	Leader-member exchange
MBI	Maslach Burnout Inventory
MCFA	Multilevel Confirmatory Factor Analysis
MLQ	Multifactor Leadership Questionnaire
OCB	Organizational citizenship behavior
PSD	Standard deviation of the posterior distribution
RMSEA	Root mean square error of approximation
SEM	Structural equation modeling
SRMR	Squared root mean residual
UWES	Utrecht Work Engagement Scale
WHO	World Health Organization

PUBLICATIONS

(*) Stein, M., Begemann, V., Gregersen, S., & Vincent-Höper, S. (2023). *Leading for growth: A daily investigation of affiliation resources provided by the leader and nonwork mastery*. Manuscript submitted for publication, Department of Industrial and Organizational Psychology, Universität Hamburg.

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(*) Stein, M., Schümann, M., & Vincent-Höper, S. (2021). A conservation of resources view of the relationship between transformational leadership and emotional exhaustion: The role of extra effort and psychological detachment. *Work & Stress, 35*(3), 241–261. https://doi.org/10.1080/02678373.2020.1832610

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(*) Articles marked with an asterisk are part of the present dissertation. Please note that the versions of the articles included in the dissertation are not the copy of record and may not replicate the authoritative documents published in the journals precisely.

CHAPTER 1: GENERAL INTRODUCTION

Employee well-being is a key challenge for organizations today. With the impact of the COVID-19 pandemic increasing the focus on well-being concerns, many organizations are now attempting to find ways to improve employee well-being. Recently, several companies such as the international law firm Clifford Chance and the professional services giants Deloitte, EY, and Aon decided to address the well-being of their people by appointing chief well-being officers (CWOs) – executive-level leaders who are responsible for promoting employee well-being throughout the company (Burton & Foy, 2022; Mayer, 2022). Although this trend is clearly limited to organizations that have the structures and resources necessary to create executive positions, the idea that leadership is an important approach to the task of improving employee well-being has received a great deal of attention in recent years. Calls for leaders at all levels and in all positions to support the well-being of their employees are ubiquitous, and thousands of popular books and internet postings highlight the importance of leadership for employee well-being.

Indeed, research supports the important role of leadership in influencing employee well-being, demonstrating that "constructive" forms of leadership, such as transformational and supportive leadership, are positively related to various aspects of well-being (K. A. Arnold, 2017; Harms et al., 2017; Montano et al., 2017, 2023; Skakon et al., 2010; van Dierendonck et al., 2004). One of the main arguments proposed to explain the positive effects of leadership on well-being is that constructive leadership behavior – viewed as a resource in its own right – provides employees with contextual and personal resources that benefit their well-being (Inceoglu et al., 2018; Nielsen & Taris, 2019). Consistent with this reasoning, studies have found various types of resources (e.g., self-efficacy, trust, and perceived meaningfulness of work) that mediate the relationships between leadership and well-being (K. A. Arnold, 2017; Inceoglu et al., 2018).

Although this positive resource gain perspective has provided valuable insights into the mechanisms through which leadership affects employee well-being, the benefits of constructive leadership may not always materialize. Meta-analyses have demonstrated that the strength of the

effects varies (Harms et al., 2017; Montano et al., 2017), and several studies have found null and, in some cases, even negative effects (e.g., Corrigan et al., 2002; Nielsen & Daniels, 2012; Rudolph et al., 2022; Stordeur et al., 2001). One explanation for these mixed findings is that the resources that constructive leadership provides to employees are not separate from their existing resources but rather interact with other resources to influence employee well-being. This view is consistent with conservation of resources (COR) theory (Hobfoll, 1989; Hobfoll et al., 2018), which suggests that the value of resources varies across employees as a function of their personal resource pools and processes (Halbesleben et al., 2014). Although this resource-based contingency perspective might help explain why employees differ with regard to the extent to which they benefit from constructive leadership, the role of employee-level factors in moderating the relationships between leadership and employee well-being has largely been overlooked in previous research (K. A. Arnold, 2017; Harms et al., 2017; Inceoglu et al., 2018).

In this dissertation, I aim to address this research gap and delve more deeply into the questions of when and how leadership affects employee well-being by drawing on COR theory (Halbesleben et al., 2014; Hobfoll et al., 2018). COR theory is a valuable framework for understanding the ways in which leadership is related to employee well-being because it acknowledges the complex interdependencies among resources. Across the three empirical studies included in this dissertation, I investigate employee personal resources as moderators of the relationships between constructive forms of leadership and employee well-being from different perspectives: (1) resource-generating recovery experiences (psychological detachment; Study 1), (2) resource-consuming working conditions (qualitative and quantitative workload; Study 2), and (3) general (vs. day-specific) resources available to employees through the resource exchange relationship with their leader (leader-member exchange (LMX) quality; Study 3).[1]

[1] Please note that I use “we” instead of “I” when referring to the studies included in this dissertation because I conducted the studies alongside several coauthors (see Table 1.1).

Recognizing that the relationships between leadership and employee well-being can be conceptualized in various ways, I consider different forms of constructive leadership as perceived by employees as well as multiple employee well-being outcomes. In addition to shedding light on the complex relationships between leadership and employee well-being, each of the three studies addresses specific theoretical and methodological issues that are inherent in the extant research on leadership and employee well-being (Inceoglu et al., 2021; Nielsen & Taris, 2019). Based on three-wave survey data, Study 1 examines the potential detriments to well-being associated with transformational leadership. Study 2 employs a cluster randomized controlled trial design to evaluate the effects of a supportive leadership training on employee well-being. Using a daily diary approach, Study 3 aims to investigate the relationships between day-specific provisions of affiliation resources by the leader and employee work and nonwork experience and functioning.

This dissertation makes several contributions to the literature on leadership and employee well-being. Its main contribution lies in its ability to provide insights into the nature of the relationships between leadership and employee well-being and their moderators by proposing a resource-based contingency model informed by COR theory. By systematically examining moderators at the employee level, I address recent calls for investigations that explore the conditions under which leadership is related to employee well-being (K. A. Arnold, 2017; Inceoglu et al., 2018, 2021). The few studies that have investigated employee factors as moderators of relationships between leadership and employee well-being have focused predominantly on relatively stable attributes such as openness to experience (Hildenbrand et al., 2018) and negative affectivity (Chuang et al., 2012). By focusing on employee personal resources, I draw attention to employee-level moderators of the relationships between leadership and employee well-being, which are more transient and changeable. In addition to increasing theoretical precision, identifying moderators is important to provide nuanced and specific guidelines for practice (Busse et al., 2017; Edwards & Berry, 2010).

Moreover, I contribute to research on the potential costs of transformational leadership to employee well-being (Diebig et al., 2016; Franke & Felfe, 2011; Hildenbrand et al., 2018) by emphasizing the importance of returning to the original core of the transformational leadership model to recognize that the beneficial effects of transformational leadership on employee well-being may not hold for all employees (Study 1). Additionally, I respond to calls for evidence-based leadership training interventions aimed at improving employee well-being by rigorously evaluating the effectiveness of supportive leadership training in this context (Study 2). Specifically, I address the need to understand the specific groups of employees for whom supportive leadership training produces positive results and broaden the scope of employee-level moderators of supportive leadership training effectiveness (e.g., Hammer et al., 2011; Kossek et al., 2019). Finally, I extend the emerging body of research on day-to-day variations in leadership (Kelemen et al., 2020) and provide insights into the day-level associations between the affiliation resources provided by the leader and employee work and nonwork experience and functioning in the context of the general LMX relationship (Study 3).

Studying Leadership in the Context of Employee Well-Being

Although leadership research has traditionally focused on employee motivation and performance(-related) outcomes, scholarly interest in the effects of leadership on employee well-being has increased rapidly in recent years (Inceoglu et al., 2018; Rudolph et al., 2020; Vincent-Höper et al., 2017). Numerous leadership concepts have been examined in relation to employee well-being, including transformational (e.g., K. A. Arnold et al., 2007; Hildenbrand et al., 2018), empowering (e.g., Kim & Beehr, 2018; Rudolph et al., 2022), destructive (e.g., Fors Brandebo et al., 2016), goal-focused (e.g., Perry et al., 2010), participative (e.g., Benoliel & Somech, 2014), passive (e.g., Barling & Frone, 2017; Che et al., 2017), and supportive leadership (e.g., Rafferty & Griffin, 2006; Rooney et al., 2009). Providing evidence for the impact of leadership on employee well-being, several reviews and meta-analyses have demonstrated that constructive forms of leadership are

generally associated with higher levels of employee well-being (K. A. Arnold, 2017; Harms et al., 2017; Inceoglu et al., 2018; Montano et al., 2017, 2023; Skakon et al., 2010).

Constructive leadership is an umbrella term referring to various types of leader behavioral patterns that are considered to have positive effects on followers (e.g., Collins & Jackson, 2015; Nielsen & Taris, 2019).[2] Taxonomies of constructive leadership broadly distinguish among change-oriented leadership behaviors such as communicating a positive vision and encouraging innovative thinking, task-oriented leadership behaviors such as clarifying tasks and planning and prioritizing activities, and relations-oriented leadership behaviors such as supporting employees and recognizing their achievements (e.g., Derue et al., 2011; Yukl et al., 2002). Whereas the main objective of change-oriented and task-oriented leadership behaviors is to encourage higher performance and effectiveness, relations-oriented leadership is more directly focused on benefitting employees (Derue et al., 2011).

Due to its focus on employee well-being as an outcome of leadership, the present dissertation focuses on different leadership concepts that highlight patterns of relations-oriented leadership. The three studies included in this dissertation build on each other by moving from broad, multifaceted leadership constructs to more specific approaches. Study 1 examines transformational leadership, which is the leadership concept that has been studied most frequently in the context of employee well-being (K. A. Arnold, 2017; Vincent-Höper et al., 2017). At the core of the transformational leadership model is the idea that the enactment of four dimensions of transformational leader behavior motivates employees to achieve more than they initially thought was possible (Bass, 1985): (1) Individualized consideration (i.e., the degree to which leaders express concern for their employees), (2) inspirational motivation (i.e., the degree to which leaders convey positive visions and high expectations), (3) intellectual stimulation (i.e., the degree to which leaders

[2] Although I recognize the fact that constructive forms of leadership may not always have positive effects on employees, I decided to use the term “constructive leadership” as it is commonly used in research to distinguish constructive (i.e., generally beneficial leadership behavior) from destructive leadership (i.e., generally harmful leadership behavior).

encourage their employees to think for themselves and identify different ways of solving problems), and (4) idealized influence (i.e., the degree to which leaders act as role models for their employees). Considering these dimensions, it is evident that transformational leadership encompasses both relational and change-oriented sets of leadership behavior (Derue et al., 2011).

In Study 2, I turn to supportive leadership, which is a concept that focuses more specifically on relations-oriented leadership behavior. The idea that leaders are an important source of support for their employees has been studied extensively in the leadership and occupational stress literature. While these different research streams share the common theme that supportive leaders demonstrate care and concern for their employees (e.g., Greene & Schriesheim, 1980; J. S. House, 1981; Rafferty & Griffin, 2006; Yukl et al., 2002), the specific conceptualizations of support from the leader vary widely across studies, including instrumental support (Tucker et al., 2018), emotional support (Munc et al., 2017), family support (Goh et al., 2015; Matthews & Toumbeva, 2015), and autonomy support (Güntert, 2015; ten Brummelhuis et al., 2014). As leaders may support their employees in various ways, Study 2 is based on the conceptualization of supportive leadership as referring to a broad category that includes the provision of (1) emotional support (e.g., listening to problems and expressing understanding), (2) appraisal support (e.g., providing encouragement and recognition), (3) informational support (e.g., offering feedback and task-related information), and (4) instrumental support (e.g., actively assisting employees in performing their work; J. S. House, 1981).

Study 3 examines the provision of affiliation resources by the leader, which is a more specific, day-to-day type of relations-oriented leadership. The leader's provision of affiliation resources is conceptually grounded in LMX theory, which is built on the concept that leader-follower relationships involve ongoing exchanges of resources (Graen & Uhl-Bien, 1995). Drawing on resource theory of social exchange (Foa & Foa, 1974), Wilson et al. (2010) proposed that one type of resource that is exchanged within LMX relationships is affiliation resources, which includes demonstrations of warmth, care, and positive regard. Although research has focused mainly on general perceptions of the quality of LMX relationships (Dulebohn et al., 2012; Martin et al., 2016; Montano et al., 2017),

recent findings indicate that resource exchanges within LMX relationships are transient (Z. Liao et al., 2019) and exhibit daily fluctuations (Ellis et al., 2018). Consistent with this dynamic perspective, Study 3 focuses on daily variations in leader's demonstrations of warmth, care, and positive regard toward their employees.

Overall, empirical studies, although they have mainly been based on cross-sectional research designs, provide evidence for the positive associations between each of these leadership approaches and employee well-being (K. A. Arnold, 2017; Harms et al., 2017; Montano et al., 2017, 2023; Skakon et al., 2010). For example, transformational leadership has been found to reduce strain (Gregersen et al., 2014; Holstad et al., 2014) and burnout (Fernet et al., 2015; Kanste et al., 2007) and to increase positive affective well-being (K. A. Arnold et al., 2007; Tafvelin et al., 2011) and vitality (Nielsen & Daniels, 2012). While the mechanisms underlying these associations have been studied extensively, previous research has largely overlooked the role of moderators of the relationships between leadership and employee well-being (K. A. Arnold, 2017; Inceoglu et al., 2018; Vincent-Höper et al., 2017). This is an important oversight given that employee individual differences can influence how employees respond to leadership (e.g., Howell & Shamir, 2005; N. Li et al., 2013). In this dissertation, I aim to address this research gap by exploring employee-related moderators of the relationships between (1) transformational leadership, (2) supportive leadership, and (3) the affiliation resources provided by the leader and various aspects of employee well-being.

Conceptualizing Employee Well-Being

As well-being is a broad and complex concept, an important consideration for research on leadership and employee well-being is the conceptualization of well-being (Grant et al., 2007; Inceoglu et al., 2018). Well-being has been defined in many ways (Wright et al., 2017). In the present dissertation, I use the definition of well-being as a state of "optimal psychological experience and functioning" (Ryan & Deci, 2001, p. 142) to focus on the psychological aspects of well-being and emphasize the fact that employee well-being is more than the mere absence of negative symptoms.

Psychological well-being is multidimensional in nature and has been described as including hedonic and eudaimonic components (Ryan & Deci, 2001; Ryff & Singer, 2008). Hedonic well-being pertains to experiences of inner pleasure or happiness (Kahneman, 1999) and is often conceptualized in terms of subjective well-being (Fisher, 2014), which comprises high levels of positive affect, low levels of negative affect, and life satisfaction (Diener, 1984). Eudaimonic well-being reflects the "doing well" component of well-being and broadly refers to one's psychosocial functioning, including one's experiences of meaning and growth, the pursuit of self-realization, and the establishment of high-quality interpersonal relationships (Ryan & Deci, 2001; Ryff & Keyes, 1995).

Furthermore, conceptualizations of employee well-being may differ in breadth (i.e., context-free vs. domain-specific components) and temporal scope. While context-free conceptualizations of employee well-being emphasize general experiences and functioning, work-specific conceptualizations focus on employee well-being in the work domain. This distinction is important because context-free well-being is affected by environmental factors and activities in multiple domains (e.g., work, family, and leisure), whereas work-specific well-being is more closely linked to work-related conditions and experiences (Warr, 2013). In terms of temporal scope, it is important to note that well-being changes over longer periods of time (e.g., weeks, months, and years) and fluctuates over shorter time intervals (e.g., days, hours, and minutes; N. P. Podsakoff et al., 2019; Sonnentag, 2015). Accordingly, conceptualizations of employee well-being can be distinguished by their focus on relatively stable (i.e., global) vs. transient (i.e., situational) components of well-being (Warr, 2013). The temporal scope of concepts of well-being has implications not only for the measurement of employee well-being but also for the specific research design (Sonnentag, 2015).

To capture the conceptual breadth of employee optimal psychological experience and functioning, this dissertation examines a broad set of both hedonic and eudaimonic well-being concepts that reflect general and work-related components of well-being. Study 1 examines emotional exhaustion as a work-related component of psychological well-being that reflects

negative feelings of the depletion of one's physical and emotional resources (Maslach et al., 2001). Study 2 includes multiple markers of positive and negative psychological well-being. Based on the conceptualization of social well-being as referring to the quality of one's relationships with others (Grant et al., 2007; Keyes, 1998), this study examines the perceived quality of the employee's resource exchange relationship with the leader (i.e., LMX quality; Graen & Uhl-Bien, 1995) as an aspect of employee well-being. Additionally, Study 2 investigates emotional exhaustion and job satisfaction as aspects of work-related well-being as well as positive affective well-being as a context-free component of psychological well-being.

Study 3 examines self-esteem and work engagement as employee daily well-being outcomes. Self-esteem, which is defined as the degree to which people perceive themselves as being valued and accepted by others (Leary et al., 1995), is indicative of the social functioning component of employee well-being. As a positive affective-motivational state that is characterized by the experience of high levels of energy at work and the investment of oneself into one's work (Kahn, 1990; Schaufeli et al., 2002), work engagement is a multidimensional concept that combines hedonic and eudaimonic components of work-related well-being. Moreover, Study 3 examines off-job mastery experiences – i.e., experiences of personal growth during nonwork time (Sonnentag et al., 2022) – as a day-level outcome of leadership. Although this study uses the original conceptualization of mastery as a recovery experience (Sonnentag & Fritz, 2007), one might argue that mastery reflects an aspect of employee well-being because it overlaps with eudaimonic experiences of growth.

A COR Perspective on the Relationships Between Leadership and Employee Well-Being

COR theory offers a valuable framework for understanding the relationships between leadership and employee well-being because it allows us to integrate various concepts of leadership and employee well-being under the umbrella of resources. As an integrative theory of stress and motivation, COR theory posits that people generally strive to maintain and acquire resources (Hobfoll, 1989). Resources are defined broadly in terms of objects (e.g., tools for work), personal

characteristics (e.g., self-efficacy), and conditions (e.g., social support) that are valued because they facilitate goal attainment (Halbesleben et al., 2014). According to the resource investment principle, employees must invest their resources to prevent resource loss and initiate resource gain (Hobfoll et al., 2018). This notion of resource investment leads to Corollary 1 of COR theory, which posits that employees with stronger resource pools are better positioned to prevent resource loss and initiate resource gain, whereas employees with lower levels of resources are more susceptible to resource loss and less capable achieving of resource gains (Hobfoll, 2011).

Within COR theory, resources are key to understanding the sustenance and promotion of well-being. When employees perceive that their resources are lost or threatened with loss, they experience stress, which can lead to reduced well-being (Hobfoll et al., 2018; Hobfoll & Freedy, 1993). For example, emotional exhaustion represents a primary resource loss outcome of COR theory that reflects the depletion of personal resources (Halbesleben, 2006; Hobfoll & Shirom, 2001). As resources become depleted, employees are likely to experience impaired well-being because they lack the resources they could otherwise invest to offset resource loss and initiate resource gain (Westman et al., 2004). Although the primacy of loss principle of COR theory posits that resource loss is generally more salient (Hobfoll et al., 2018), resource gain is important for the development and maintenance of personal resource surpluses, which, in turn, are associated with the experience of positive well-being (Gorgievski & Hobfoll, 2008; Hobfoll, 1989). For instance, work engagement is viewed as an important outcome of resource gain processes at work that is indicative of a state of excess personal energy resources (Gorgievski & Hobfoll, 2008; Halbesleben et al., 2009).

The propositions of COR theory establish the foundation for understanding why constructive leadership can have beneficial effects on employee well-being. Although the leadership approaches that I examine in this dissertation (i.e., transformational leadership, supportive leadership, and the affiliation resources provided by the leader) differ due to their different emphases on the specific types of resources that leaders provide their employees, they can be conceptualized as social resources according to COR theory. Within the COR framework, social resources are viewed as “the

major vehicle by which individuals' resources are widened outside the limited domain of resources that are contained in the self" (Hobfoll et al., 1990, p. 467). By extending and reinforcing the set of resources available to an employee, constructive leadership offers employees more opportunities to protect against resource loss and initiate resource gain, thereby guarding themselves against ill-being and contributing to improved well-being.

Previous research has primarily used this reasoning to explain the positive impact of constructive leadership on employee well-being (e.g., Ellis et al., 2018; Perko et al., 2014; Walsh et al., 2014). Although this perspective has shed light on the mechanisms through which leadership influences employee well-being (Inceoglu et al., 2018), there is little empirical examination of the conditions under which constructive leadership is effective in increasing employee well-being (Nielsen & Taris, 2019). This oversight is problematic because employees may differ in the extent to which they experience resource gain in response to constructive leadership (Inceoglu et al., 2018). In this dissertation, I extend the COR-based perspective to systematically consider the employee-related moderators of the relationships between leadership and employee well-being that may help explain why the positive resource gain effects of constructive leadership may not always materialize for employees.

COR-Based Moderators of the Relationships Between Leadership and Employee Well-Being

The general idea that contingency factors at the employee level influence the effects of leadership on employee outcomes has a long tradition in leadership research. For example, House's (1971) path-goal theory of leadership asserts that the effects of directive, supportive, participative, and achievement-oriented leadership on employee attitudes and work behaviors depend on employee characteristics such as ability and locus of control. Similarly, situational leadership theory posits that the degree to which leaders should engage in task-related vs. relations-oriented behaviors depends on the employee's motivation to perform a specific task as well as the employee's task-specific experience, knowledge, and skills (Hersey & Blanchard, 1988). Extending the contingency perspective, Kerr and Jermier's (1978) substitutes for leadership model focuses on

the role of employee characteristics (e.g., experience, ability, and training, professional orientation, and the need for independence) in neutralizing the effects of a leader's relations- and task-oriented behavior on various outcomes.

Technically, contingency variables can be treated as moderators. A moderator is a third variable Z that influences the nature (i.e., the strength and/or direction) of the relationship between an independent variable X and a dependent variable Y (Aiken & West, 1991). In other words, X and Z have an interactive effect on Y. Whereas classic contingency and situational theories of leadership (e.g., Hersey & Blanchard, 1988; R. J. House, 1971; Kerr & Jermier, 1978) take into account the interaction of leadership (X) and specific sets of employee-related factors (Z) with regard to predicting employee attitudes and performance (Y), the outcome of interest in this dissertation is employee well-being.

By offering an integrative framework, COR theory allows us to systematically consider a wide array of employee-related moderators of the relationships between leadership and employee well-being in relation to resources. Indeed, COR theory suggests a contingent view of the relationships between leadership and employee well-being. According to COR theory, the value of resources differs across individuals depending on their personal experiences and the situational context within which they exist (Halbesleben et al., 2014). This idea of resource fit is reflected in different principles of COR theory (Hobfoll, 2001b), which jointly assert that the extent to which resources are valuable to employees is influenced by their personal resource pools and processes in terms of their existing levels of resources as well as their current experiences of resource gain and loss.

Drawing on this resource-based contingency perspective, I propose an integrative model that views the relationships between leadership and employee well-being as embedded within an employee's personal resources. As shown in Figure 1.1, this resource-based contingency model outlines three mechanisms through which employee personal resources may moderate the relationships between leadership and employee well-being: (1) resource gain experiences, (2) resource loss experiences, and (3) resource pools. Across the three empirical studies included in this

dissertation, I address these different perspectives by examining the role of employee resource-generating recovery experiences in terms of psychological detachment (Study 1), employee resource-consuming working conditions in terms of quantitative and qualitative workload (Study 2), and general (vs. day-specific) patterns of resource provision by the leader in terms of LMX quality (Study 3) as moderators of the relationships between different forms of constructive leadership and employee well-being. As indicated by the arrow included in the model, I focus on the "top-down" influence of leadership on employee well-being over time.

Study 1 draws on COR theory's Corollary 1, which follows from the resource investment principle and posits that those employees with stronger resource pools have more opportunities to prevent resource loss and initiate resource gain, whereas employees with lower levels of resources are more prone to resource loss and less capable of attaining resource gains (Hobfoll et al., 2018). Specifically, this study examines employee psychological detachment as a moderator of the relationship between transformational leadership and emotional exhaustion. Psychological detachment is a core recovery experience (Sonnentag, 2012) that refers to "an individual's sense of being away from the work situation" (Etzion et al., 1998, p. 579). Employees experience psychological detachment when they avoid work-related thoughts during nonwork time (Sonnentag et al., 2022). In the context of COR theory, the experience of psychological detachment implies resource gain because it helps employees replenish and build personal resources by allowing them to mentally "switch off" from work (Sonnentag & Fritz, 2007).

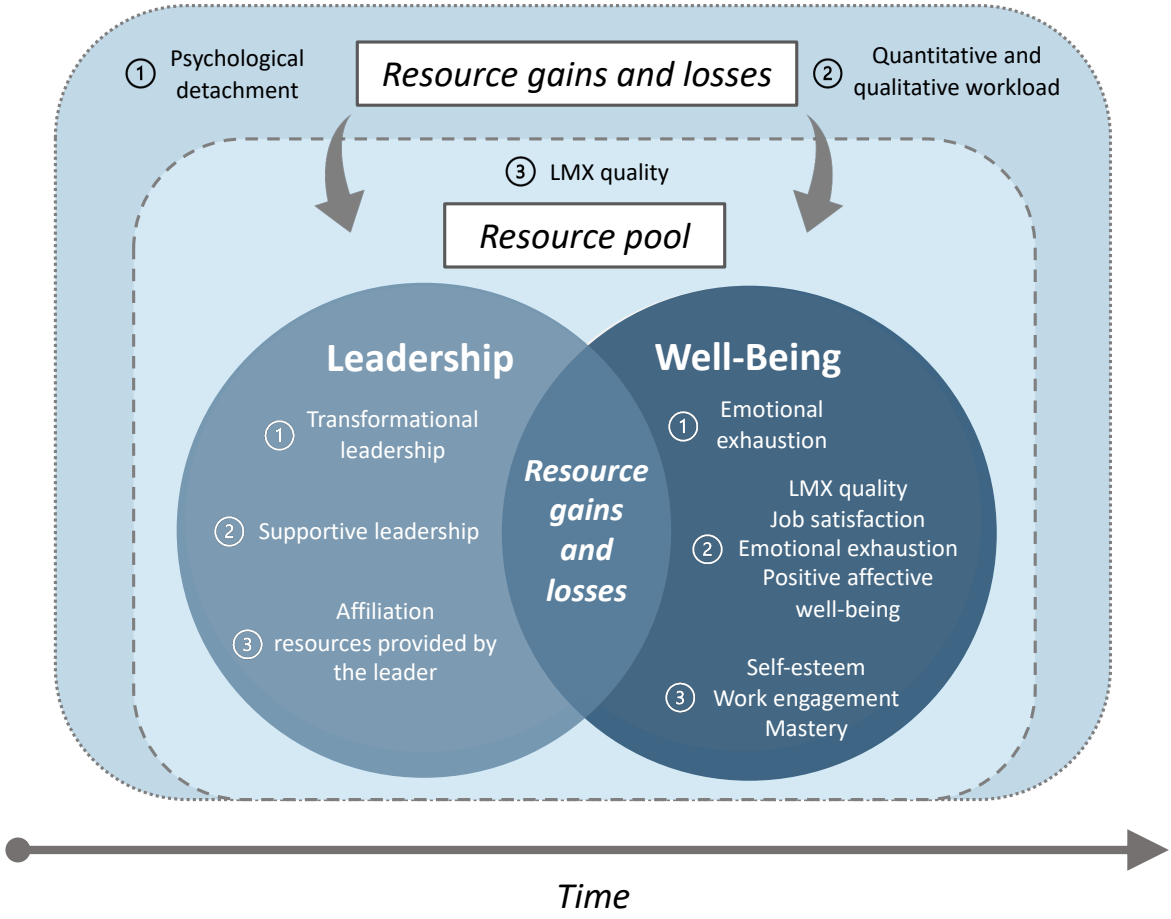
Study 2 applies the resource gain paradox principle of COR theory, which states that resource gain increases in importance in the context of resource loss because individuals are motivated to prevent the loss of resources (Hobfoll et al., 2018). Specifically, this study examines perceived quantitative and qualitative workload as potential employee-related moderators of the effects of supportive leadership training on employee social and hedonic well-being. While high quantitative workload entails that employees have problems completing their work within the time available due to the amount of work they face, high qualitative workload indicates that employees

have problems completing their work because they find their work to be very difficult (Bowling & Kirkendall, 2012). In COR terms, high levels of workload lead to the experience of resource loss by requiring high levels of investment of energy resources while preventing one from gaining additional resources (Bowling et al., 2015).

Study 3 focuses specifically on COR theory's conceptualization of resources as being valued to the extent to which they help individuals fulfil their needs (Halbesleben et al., 2014) to consider the broader relational context of the day-specific affiliation resources provided by the leader. Specifically, this study examines the employee's general perception of LMX quality as a moderator of the indirect relationships between day-specific affiliation resources and mastery experiences via employee self-esteem and work engagement. LMX quality refers to the relatively stable quality of the relationship between employees and their leaders (Graen & Uhl-Bien, 1995). High-quality LMX relationships are based on mutual trust and respect (Graen & Uhl-Bien, 1995) and involve resource exchanges that are characterized by genuine concern for the other (Liden et al., 1997). Within the COR framework, an employee's perception of high LMX quality can be conceptualized as indicative of the extent to which the leader provides resources in accordance with the employee's needs.

Figure 1.1

Conceptual Model: A Resource-Based Contingency Perspective on the Relationships Between Leadership and Employee Well-Being



Note. LMX = leader-member exchange; ① = Study 1; ② = Study 2; ③ = Study 3.

Overview of Studies

As shown in Figure 1.1, I apply the proposed conceptual model in three empirical studies using different concepts of constructive leadership and employee well-being. In addition to examining employee-related moderators of the relationships between leadership and employee well-being from three different COR-based perspectives, each study addresses specific challenges and gaps in the extant research on leadership and employee well-being. Table 1.1 provides an overview of these studies.

In Study 1, I draw attention to the challenges associated with relying on leadership concepts that were originally developed to specify leadership behavior that is effective in increasing employee motivation and performance (Nielsen & Taris, 2019). Despite its focus on motivating employees to perform beyond expectations (Bass, 1985), transformational leadership is the leadership approach that has been used most frequently to examine the relationships between leadership and employee well-being (Inceoglu et al., 2018; Vincent-Höper et al., 2017). Although research generally supports the notion that transformational leadership has positive effects on employee well-being (K. A. Arnold, 2017), this positive perspective is called into question by studies suggesting that transformational leadership may also have costs with respect to employee well-being (e.g., Diebig et al., 2016; Franke & Felfe, 2011; Hildenbrand et al., 2018).

Acknowledging the general criticisms of the conceptualization and measurement of transformational leadership (van Knippenberg & Sitkin, 2013), Study 1 extends this line of research by viewing the original tenet that transformational leaders encourage extra effort from their employees (Bass, 1985) through the lens of COR theory. Drawing on COR theory, this study examines the notion that the extra effort associated with transformational leadership can have both resource-generating and resource-consuming effects on employees depending on their resource-replenishing experiences of psychological detachment. Specifically, psychological detachment may provide employees with the energy resources necessary to capitalize on the extra effort associated with transformational leadership, thus reducing their likelihood of experiencing emotional exhaustion,

whereas the extra effort stimulated by the leader is likely to deplete energy resources and result in increased feelings of emotional exhaustion for employees with low psychological detachment. This study challenges the assumption that transformational leadership is universally beneficial to employee well-being and contributes to research on the potential dark side of transformational leadership for employees.

In Study 2, I respond to calls for more research on the development and evaluation of leadership training interventions aimed at improving employee well-being (Kelloway & Dimoff, 2017; Nielsen & Taris, 2019). This study involves the COR-based development and evaluation of a supportive leadership training that teaches leaders ways in which they can be supportive of their employees. Given the small overall effects of supportive leadership training interventions on employee well-being (e.g., Hammer et al., 2019), it is important to understand the specific groups of employees for whom supportive leadership training is effective. Drawing on COR theory, this study theoretically identifies employee-level quantitative and qualitative workload as moderators of the effects of supportive leadership training on employee social and hedonic well-being. By applying COR theory in this context, Study 2 advances the understanding of the types of outcomes of supportive leadership training and contribute to the task of clarifying the specific groups of employees for whom this type of intervention is effective. In addition, conducting randomized controlled trials to examine the effects of leadership on employee well-being helps advance leadership research by enabling us to avoid the problems associated with endogeneity (Antonakis et al., 2014).

Study 3 examines day-level, within-person associations between the affiliation resources provided by the leader and employee experience and functioning in the broader context of an employee's general perceptions of the quality of their LMX relationship. Most research on leadership and employee well-being has taken a static between-person approach (Inceoglu et al., 2018), thereby neglecting the fact that leadership is inherently dynamic (McClean et al., 2019) and exhibits meaningful daily variations (Kelemen et al., 2020). Adopting a day-level, within-person

perspective, this study aims to investigate daily variations in the extent to which leaders provide their employees affiliation resources during the workday by demonstrating warmth, care, and positive regard. The notion of daily affiliation resources provided by the leader is consistent with the dynamic nature of resources according to COR theory (Halbesleben et al., 2014) and COR-based empirical research, which suggests that interpersonal resources fluctuate on a daily basis (e.g., Halbesleben & Wheeler, 2011).

Drawing on COR theory, Study 3 introduces employee self-esteem and work engagement as personal resources that may explain why the affiliation resources provided by the leader during the workday may promote employee mastery experiences during after-work time. Moreover, this study integrates insights drawn from resource theory of social exchange (Foa & Foa, 1974) to identify the quality of an employee's general LMX relationship as a cross-level moderator of the day-level, within-person associations between affiliation resources and employee self-esteem and work engagement. By distinguishing between the day-specific resources provided by the leader and general perceptions of the LMX relationship, Study 3 improves the understanding of leadership as a daily phenomenon and provide insights into its short-term implications for employee work and nonwork experience and functioning in the context of longer-term resource exchange relationships.

Table 1.1

Overview of Studies 1–3

Aspect	Study 1	Study 2	Study 3
Purpose	Examining the relationships between transformational leadership and emotional exhaustion depending on employee psychological detachment	Examining the effects of a supportive leadership training on employee social and hedonic well-being depending on employee perceived workload	Examining the day-level associations between the affiliation resources provided by the leader and employee well-being depending on an employee's general LMX quality
General contribution	Considering the potential well-being costs associated with "traditional" leadership concepts that have been developed in the context of motivation and performance	Clarifying the effects of leadership training aimed at improving employee well-being and the groups of employees for whom these interventions are effective	Understanding leadership as a daily phenomenon and comprehending its short-term implications for employee work and nonwork experience and functioning
COR perspective on moderator	Resource gain associated with psychological detachment	Resource loss associated with quantitative and qualitative workload	Resource pool associated with general LMX quality
Study design	▪ Three-wave survey data collected from *N* = 214 employees working in various industries ▪ Time intervals of four months between each measurement point	▪ Cluster randomized controlled trial with childcare center directors as training participants ▪ Data collection at baseline (*N* = 496), one-month postintervention (*N* = 266), and six-month postintervention (*N* = 226)	▪ Daily diary study with two daily surveys across five consecutive workdays ▪ Data collected from *N* = 198 employees (768 days) working in various industries
Authors	Maie Stein; Sylvie Vincent-Höper; Marlies Schümann	Maie Stein; Marlies Schümann; Friederike Teetzen; Sabine Gregersen; Vanessa Begemann; Sylvie Vincent-Höper	Maie Stein; Vanessa Begemann; Sabine Gregersen; Sylvie Vincent-Höper

Overall, the purpose of the three studies included in this dissertation is to advance the understanding of the varied and complex relationships between leadership and employee well-being. Recognizing that the relationships between leadership and employee well-being can be conceptualized in many ways, I aim to demonstrate that the proposed resource-based contingency model is useful for understanding the associations between different leadership concepts and multiple forms of employee well-being. By collecting data at multiple measurement points in each of the studies, I answer the call for more research that can overcome the limitations of cross-sectional designs (Nielsen & Taris, 2019) and provide insights into the relationships between leadership and employee well-being over time.

CHAPTER 2: Dissertation_Maie_Stein_Druckversion[3]

Abstract

In this study, we draw on conservation of resources theory to suggest that transformational leaders' encouragement of extra effort in followers might reduce or increase followers' emotional exhaustion depending on their ability to replenish energy reserves. Specifically, we argue that the indirect relationship between transformational leadership and followers' emotional exhaustion via extra effort varies depending on followers' levels of psychological detachment from work. We tested the hypothesized conditional indirect effect model using three-wave data from 214 employees working in various industries. Regression analyses showed that psychological detachment moderated the indirect relationship between transformational leadership and emotional exhaustion through extra effort such that the indirect relationship was negative with high psychological detachment and positive with low psychological detachment. The findings of this study indicate the importance of recognizing that the beneficial effects of transformational leadership in reducing emotional exhaustion may not hold for all followers but are contingent on followers' levels of psychological detachment. Returning to one of the original premises of the transformational leadership model, i.e., that transformational leaders bring about extra effort from followers, contributes to further understanding that transformational leadership might have a dark side for employee well-being.

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[3] This chapter has been published as Stein, M., Schümann, M., & Vincent-Höper, S. (2021). A conservation of resources view of the relationship between transformational leadership and emotional exhaustion: The role of extra effort and psychological detachment. *Work & Stress, 35*(3), 241–261. https://doi.org/10.1080/02678373.2020.1832610.

This chapter is not the copy of record and may not exactly replicate the final, authoritative document published in *Work & Stress*.

Please note that, in accordance with the requirements of *Work & Stress*, we used British (-ise) spelling style in this article.

Introduction

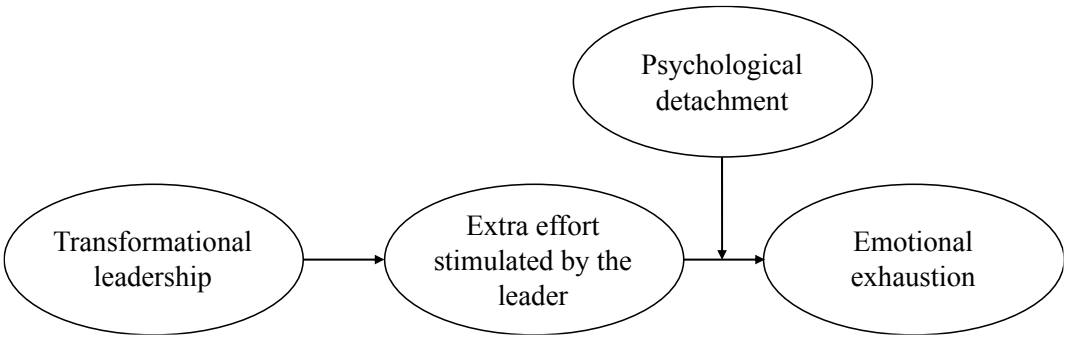
Since its introduction to the field of organizational research, transformational leadership (Bass, 1985) has been known to have a positive effect on employee performance, commitment, and satisfaction (Judge & Piccolo, 2004; Lowe et al., 1996). Several years later, research added employee well-being to the list of favourable outcomes of transformational leadership (Dubinsky et al., 1995; Sivanathan et al., 2004; Sosik & Godshalk, 2000), proposing that transformational leaders reduce the likelihood of employees experiencing emotional exhaustion (e.g., Skakon et al., 2010). The common rationale for expecting a negative relationship between transformational leadership and emotional exhaustion is that transformational leaders are considerate of their followers' higher-level needs, thus reducing followers' feelings of exhaustion (K. A. Arnold, 2017).

This positive lens perspective is called into question by an increasing body of research on the dark side of transformational leadership, which suggests that transformational leadership involves challenging aspects for followers whose association with well-being is less clear (e.g., Diebig et al., 2016; Franke & Felfe, 2011; Hildenbrand et al., 2018). We argue that one of the challenging aspects of transformational leadership for followers is transformational leaders' capacity to bring about extra effort. The idea that transformational leaders raise followers' effort to higher levels is at the core of the transformational leadership model (Bass, 1985). In terms of well-being, followers may not always capitalize on extra effort. When recovery is insufficient and energy resources are not adequately rebuilt, effort expenditure likely depletes energy reserves (Geurts & Sonnentag, 2006), thereby increasing the likelihood of emotional exhaustion. This suggests that whether transformational leadership contributes to reducing or increasing emotional exhaustion may depend on followers' energy-replenishing recovery experiences. Psychological detachment, that is, "switching off" mentally from work during nonwork time, is a key recovery experience that is essential in ensuring sufficient recovery and providing employees with adequate energy reserves from which to draw (Sonnentag & Fritz, 2015).

In this study, we draw on conservation of resources (COR) theory (Halbesleben et al., 2014; Hobfoll, 1989) and combine the original premise of the transformational leadership model that leaders encourage extra effort from followers (Bass, 1985) with research on recovery (Sonnentag, 2012; Zijlstra et al., 2014) to obtain an in-depth understanding of the relationship between transformational leadership and emotional exhaustion. Specifically, we argue that psychological detachment provides followers with the necessary energy reserves to capitalize on transformational leaders' capacity to instill extra effort, thus reducing the likelihood of emotional exhaustion. Conversely, the extra effort stimulated by the leader is likely to drain their followers' energy and result in increased feelings of exhaustion when psychological detachment is low. Figure 2.1 shows the conceptual model.

Figure 2.1

The Conceptual Model



This study seeks to contribute to the literature in three important ways. First, we aim to advance the understanding of how transformational leadership is related to emotional exhaustion. In particular, we add to the literature on the dark side of transformational leadership that emphasizes the potential costs of transformational leadership to employee well-being (e.g., Diebig et al., 2016; Franke & Felfe, 2011; Hildenbrand et al., 2018) and highlight the importance of returning to one of the original ideas of Bass' (1985) transformational leadership model (i.e., transformational leaders encourage extra effort from followers) to consider that transformational leadership may both reduce and increase followers' emotional exhaustion.

Second, we advance the understanding of when transformational leadership is related to emotional exhaustion. The moderating role of follower characteristics has received relatively little attention in research on transformational leadership and well-being (K. A. Arnold, 2017). This study adds to the few studies suggesting that the relationship between transformational leadership and employee well-being is contingent on follower characteristics (e.g., De Hoogh & Den Hartog, 2009; Gregersen et al., 2014; Hildenbrand et al., 2018). While these studies have examined relatively narrow personality traits, we bring together the literature on transformational leadership with research on recovery and examine psychological detachment to shift the focus to understanding moderators in the relationship between transformational leadership and well-being that are more malleable and offer opportunities for change and development. In addition, we complement the contingency perspective by suggesting that followers' characteristics may not only diminish or enhance their favourable responses to transformational leadership but may also give rise to the dark side of transformational leadership. That is, we go beyond the notion that follower characteristics influence the extent to which followers benefit from transformational leadership in terms of well-being and consider that, for some followers, transformational leadership may have costs to well-being.

Third, we apply the principles of COR theory (Hobfoll, 1989) to empirically test the idea that not all resources are inherently valuable and that their value may depend on the existence of other resources (Halbesleben et al., 2014). COR theory offers arguments for both the beneficial and detrimental effects of transformational leaders' capacity to bring about extra effort on followers' emotional exhaustion, indicating that the value of this capacity for followers in terms of their well-being might vary depending on boundary conditions. By suggesting that psychological detachment is one such boundary condition that places value on potential resources, we contribute to the discussion of resource value within COR theory (Halbesleben et al., 2014).

Theoretical Background

Transformational Leadership and Emotional Exhaustion

COR theory (Hobfoll, 1989) states that individuals strive to retain and accumulate resources (i.e., objects, personal characteristics, conditions, and energies) and that the prevention of resource depletion is a key motivational principle. Physical and emotional energy is an essential personal resource underlying individuals' effective functioning and well-being. Energy reserves are of limited capacity and can be depleted through use (Hobfoll, 2002). The depletion of energy becomes evident in the experience of emotional exhaustion, which is at the core of the burnout process (Hobfoll & Shirom, 2001). As an important marker of employee well-being, emotional exhaustion refers to "feelings of being overextended and depleted of one's emotional and physical resources" (Maslach et al., 2001, p. 399). Whereas conceptualizations of burnout also include attitudinal (e.g., depersonalization) and self-evaluation (e.g., professional efficacy) components (Maslach et al., 2001), we focus on emotional exhaustion as the central quality of burnout because of its direct link to an individual's state of energy depletion.

Although transformational leadership originally was not developed in the context of employee well-being, several studies have linked transformational leadership to followers' levels of emotional exhaustion (K. A. Arnold, 2017). Transformational leaders communicate appealing visions and high performance standards, encourage their followers to question their assumptions and identify different ways to solve problems, consider their followers' individual needs, and serve as a role model for their followers (Bass, 1985). The common argument for the expectation that transformational leadership is beneficial to followers' well-being is that transformational leaders recognize and act on their followers' higher-order needs (K. A. Arnold, 2017). Empirical studies that have utilized this positive lens perspective have focused on mediators in the relationship between transformational leadership and well-being that reflect the satisfaction of followers' higher-order needs including meaningfulness, self-efficacy, and trust (e.g., K. A. Arnold et al., 2007; Kelloway et al., 2012; Nielsen & Munir, 2009).

However, the empirical evidence on the relationship between transformational leadership and emotional exhaustion is somewhat equivocal. Although meta-analytical findings generally suggest that transformational leadership is negatively related to followers' levels of emotional exhaustion, the effect sizes are weak to moderate and vary considerably (Montano et al., 2017), with some studies finding no support for an association (e.g., Hetland et al., 2007; Nielsen & Daniels, 2012; Stordeur et al., 2001). In addition, the vast majority of studies have utilized cross-sectional designs to examine the relationship between transformational leadership and followers' emotional exhaustion, making it difficult to draw firm conclusions about the relationship over time. One of the few studies with more than one measurement point demonstrated that transformational leadership was negatively related to employee burnout two weeks later when controlling for the initial level of burnout (Hildenbrand et al., 2018). In a study of 217 municipality workers in Sweden, transformational leadership was found to be negatively related to burnout four months later (Tafvelin et al., 2019). However, this study did not control for the initial level of burnout. Using a longer time lag of one year, a study of 339 health care workers did not find support for an association between transformational leadership and emotional exhaustion when controlling for the initial level of emotional exhaustion (Gregersen et al., 2014). Similarly, the results of a three-wave study of 479 German employees showed that transformational leadership predicted emotional exhaustion neither at seven months nor at 13 months (Scheel et al., 2019).

The Potential Dark Side of Transformational Leadership for Well-Being: The Role of Extra Effort

While research has commonly explored the relationship between transformational leadership and employee well-being through a positive lens (K. A. Arnold, 2017), it has been suggested that transformational leadership also involves aspects that may drain followers' energy (Kranabetter & Niessen, 2017; Niessen et al., 2017). Several scholars have argued that there are inherent challenges for followers in transformational leadership, which may have costs to their well-being (e.g., Diebig et al., 2016; Franke & Felfe, 2011; Hildenbrand et al., 2018; Nielsen & Daniels, 2016). In an early study on the potential dark side of transformational leadership for employee well-

being, Seltzer and colleagues (1989) suspected that transformational leadership might harm well-being because of the higher effort that followers with transformational leaders put into their work roles and revealed a positive association between intellectual stimulation and burnout. Similarly, Diebig and colleagues (2016) theorized that transformational leaders apply pressure to perform among followers by articulating a vision and setting high performance standards, and they found that these aspects of transformational leadership were positively related to followers' hair cortisol as a biological marker of stress. These findings suggest that recognizing the original premises underlying the transformational leadership model may be useful in advancing the understanding of the dark side of transformational leadership for employee well-being.

One idea of the transformational leadership model that may help explain the ambiguous empirical findings on the relationship between transformational leadership and emotional exhaustion is transformational leaders' capacity to encourage extra effort from followers. At the heart of transformational leadership is the leader's ability to "transform" followers and raise their motivation and performance to higher levels (Bass, 1985). Transformational leaders "motivate others to do more than they originally intended and often even more than they thought possible" (Bass & Avolio, 1994, p. 3). As a reflection of followers' high levels of motivation, extra effort is the degree to which a leader encourages followers to put forth exceptional effort and be successful (Bass, 1985). The transformational leadership model implies that transformational leadership is closely related to extra effort, and a large body of research provides empirical evidence for a strong positive relationship (Bycio et al., 1995; DeGroot et al., 2000; Seltzer & Bass, 1990). Therefore, we hypothesize the following:

Hypothesis 1: Transformational leadership is positively related to followers' extra effort stimulated by the leader.

Traditionally, research has utilized measures of extra effort to demonstrate the effectiveness of transformational leadership. In this study, we argue that extra effort might be one of the challenges involved in transformational leadership that facilitates further understanding of why

transformational leadership is not always beneficial to followers' well-being. By taking into account the idea that transformational leaders encourage extra effort from followers, we aim to shift the focus from the positive lens perspective to a more nuanced view of the relationship between transformational leadership and emotional exhaustion that considers both the positive and negative aspects. In particular, we argue that the relationship between followers' extra effort stimulated by the leader and emotional exhaustion is ambiguous, with COR theory providing arguments for both energy-draining and energizing effects.

On the one hand, COR theory states that employing energy depletes it (Hobfoll, 1989), and the depletion of energy resources is likely to result in feelings of emotional exhaustion (Hobfoll & Shirom, 2001). The expenditure of effort draws on an individual's limited energy reservoir. High levels of effort expenditure mean high levels of energy investment, which may eventually result in the depletion of energy reserves (Zijlstra, 1996). From this perspective, the extra effort stimulated by the leader may drain followers' energy reserves, thus increasing feelings of exhaustion. Support for this perspective stems from research on organizational citizenship behaviour (OCB), which suggests that engaging in extra-role behaviour may involve personal costs (Bolino et al., 2013) such as higher levels of burnout (Vigoda-Gadot, 2007).

On the other hand, COR theory also implies that the investment of energy may lead to subsequent gains (Hobfoll, 2011). Extra effort increases the likelihood of performing well and facilitates the achievement of rewarding goals, which is likely to create new energy reserves that outweigh the loss from effort expenditure. This view is consistent with empirical evidence showing that "going the extra mile" at work may actually generate energy (Lam et al., 2016). From this perspective, it is also conceivable that followers' extra effort stimulated by the leader results in lower levels of emotional exhaustion.

Because of this ambiguity, we refrain from assuming an overall relationship between transformational leadership and emotional exhaustion. Rather, we refer to the notion that the effects of transformational leadership may vary depending on the availability of sufficient energetic

resources (Niessen et al., 2017) and extend this idea to followers' recovery experiences. Given that the availability of energy largely depends on an individual's recovery from work (Zijlstra et al., 2014), we argue that followers' recovery experiences are an important boundary condition for the relationship between transformational leadership and emotional exhaustion. To provide an explanation for this idea, we build on the close association between transformational leadership and extra effort and draw attention to the role of psychological detachment in determining how extra effort stimulated by the leader is related to followers' emotional exhaustion.

The Role of Psychological Detachment

The recovery experience of psychological detachment is a core mechanism underlying recovery and is essential to replenishing employees' energy reserves (Sonnentag, 2012). Psychological detachment refers to refraining from work-related activities and mentally disengaging from work (i.e., not thinking about work) during nonwork time (Sonnentag, Binnewies, et al., 2010). Whereas mentally detaching from work allows for depleted energy resources to be replenished, poor psychological detachment drains energy resources and inhibits their restoration (Sonnentag & Fritz, 2015; Sonnentag & Kühnel, 2016).

When energy reserves are not fully replenished, employees return to work in a suboptimal condition and must employ more effort than usual to meet challenges at work (Zijlstra, 1996). Such greater energy expenditure further depletes employees' energy reserves (Zijlstra et al., 2014). This view is consistent with the COR principle of resource loss spirals (Hobfoll, 1989), which suggests that spirals of loss are likely to occur when energy reserves are limited, with each loss leading to the further depletion of energy reserves. Following this line of argument, transformational leaders' encouragement of extra effort is likely to deplete followers' energy reserves when energy resources are not adequately rebuilt. For followers who fail to regain energy because of poor psychological detachment, putting forth extra effort may deplete energy reserves, thus contributing to increased feelings of emotional exhaustion.

Conversely, having adequate energy reserves available prevents effort expenditure from resulting in the depletion of energy reserves (Zijlstra, 1996). When psychological detachment occurs, followers have adequate energy resources available from which to draw at work and are able to exert extra effort without depleting their energy reserves. Hence, leaders' encouragement of extra effort may not result in emotional exhaustion for followers with high psychological detachment. In fact, extra effort may even have an energizing effect for followers with high psychological detachment, thus reducing the likelihood of emotional exhaustion. Another implication of COR theory is that individuals with the ability to invest energy resources are more likely to gain further resources (Hobfoll, 2011). That is, the availability of sufficient energy reserves resulting from psychological detachment allows followers to capitalize on the energizing opportunities associated with extra effort (e.g., the attainment of rewarding goals). When psychological detachment is successful, extra effort may create energy, resulting in reduced levels of emotional exhaustion. Therefore, we hypothesize the following:

Hypothesis 2: Psychological detachment moderates the relationship between extra effort stimulated by the leader and emotional exhaustion such that the relationship is negative with high psychological detachment and positive with low psychological detachment.

Conditional Indirect Effect Model

Contingency theories of leadership suggest that follower characteristics moderate the effects of leadership on followers (e.g., Fiedler, 1964; Kerr & Jermier, 1978). Scholars have applied the contingency perspective to transformational leadership to theorize that followers are likely to differ in their responses to transformational leadership (Howell & Shamir, 2005; Klein & House, 1995). In the nascent research examining the moderators in the relationship between transformational leadership and employee well-being (cf. K. A. Arnold, 2017), several follower characteristics have been shown to moderate the extent to which followers benefit from transformational leadership including openness to experience, neuroticism, and locus of control (De Hoogh & Den Hartog, 2009; Hildenbrand et al., 2018).

In this study, we complement the contingency perspective by suggesting that psychological detachment may not only weaken or strengthen the negative relationship between transformational leadership and emotional exhaustion but may also give rise to the dark side of transformational leadership in the form of "backfire effects." That is, we consider that transformational leadership does not necessarily have beneficial effects in terms of decreasing emotional exhaustion and draw attention to the idea that transformational leadership may have costs to the well-being of some followers. Consistent with this logic, Nielsen and Daniels (2016) have suggested that followers with high levels of presenteeism (i.e., attending work when ill) may be vulnerable to the dark side of transformational leadership, and they found some support for the notion that, over time, transformational leadership is related to higher levels of sickness absenteeism for followers not taking time to recuperate when ill.

We utilize the contingency perspective and combine Hypotheses 1 and 2 to propose that the extra effort associated with transformational leadership results in lower emotional exhaustion for followers with high psychological detachment and contributes to greater exhaustion when followers' psychological detachment is low. Therefore, we hypothesize the following:

Hypothesis 3: Psychological detachment moderates the indirect relationship between transformational leadership and emotional exhaustion through extra effort such that the relationship is negative with high psychological detachment and positive with low psychological detachment.

Method

Participants and Procedure

Data were collected from employees working in various industries in Germany using a three-wave online survey study. Participants were recruited through a panel management and online research company. The requirements for participation included being currently employed, having a direct supervisor, and working more than 20 hours per week. The time intervals between the three measurement points were four months each. Four-month time lags were considered long enough to

mitigate common method variance resulting from memory effects (P. M. Podsakoff et al., 2012) and to increase the likelihood of changes in emotional exhaustion, which has been shown to be relatively stable over time (Taris et al., 2005). The length of the time lag addresses the call for using time lags that are shorter than the common lag of one year (Dormann & Griffin, 2015). Moreover, we settled for these relatively short time lags to avoid high attrition rates.

In total, 995 participants provided complete data at Time 1. A total of 428 of these participants completed the survey at Time 2, yielding a response rate of 43%. To compare participants who participated at Time 1 and Time 2 with those who dropped out after completing the Time 1 questionnaire, we used independent two-tailed *t*-tests and found no significant differences in terms of leadership position ($t(916)$ -0.55, $p = 0.59$) and transformational leadership ($t(915) = -0.23$, $p = 0.81$). At Time 3, we obtained responses from 236 participants who also provided data at Time 1 and Time 2, yielding a response rate of 55%. We compared the employees who participated at Time 2 and Time 3 with those who did not participate at Time 3 and found no differences in terms of leadership position ($t(406) = -0.17$, $p = .86$), working hours ($t(413) = 0.14$, $p = .18$), extra effort ($t(393) = 1.88$, $p = .061$), psychological detachment ($t(417) = 1.65$, $p = .10$), and emotional exhaustion ($t(406) = -0.98$, $p = .33$) between the samples. In addition, Little's (1988) omnibus test indicated that missingness does not depend on the study variables ($\chi^2(7) = 9.66$, $p = .21$), providing further evidence for the notion that attrition is not a biasing factor in the analyses.

We excluded 22 employees from the analyses who reported that their leader had changed between the measurement occasions. Therefore, the final sample comprised 214 employees working in a broad range of industries, including manufacturing (22%), public services (15%), education (13%), services (12%), retail (10%), and financial services (7%). A total of 50% of the participants were female. The mean age was 49.13 years ($SD = 9.21$), the mean tenure was 19.66 years ($SD = 11.00$), and the mean working hours per week was 38.42 hours ($SD = 5.34$).

Measures

Transformational leadership (Time 1)

To assess transformational leadership, we used seven items (α = .95) from the Global Transformational Leadership (GTL) scale (Carless et al., 2000) translated into German using a translation-back translation approach (Brislin, 1970). A sample item is "My direct leader communicates a clear and positive vision of the future." Responses were scored on a 5-point Likert scale ranging from 1 (*never*) to 5 (*very often*). The GTL has been shown to have good convergent validity with the well-established Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1995; Carless et al., 2000). Moreover, high intercorrelations of the subscales of the MLQ (Lowe et al., 1996) and the failure to reproduce the proposed multidimensional structure of the MLQ (Carless, 1998; Heinitz et al., 2005) suggest that using a more parsimonious, unidimensional measure of transformational leadership is qualified.

Extra effort (Time 2)

To align the operationalization of extra effort with its original conceptualization in the transformational leadership model, we used three items (α = .95) from the German version (Felfe, 2006) of the MLQ 5X Short (Bass & Avolio, 1995). A sample item is "My direct leader increases my willingness to try harder." Responses were scored on a 5-point Likert scale ranging from 1 (*never*) to 5 (*very often*).

Psychological detachment (Time 2)

We assessed psychological detachment using four items (α = .96) from the German version of the Recovery Experience Questionnaire (Sonnentag & Fritz, 2007). A sample item is "During nonwork time, I do not think about work at all." Responses were scored on a 5-point Likert scale ranging from 1 (*I do not agree at all*) to 5 (*I fully agree*).

Emotional exhaustion (Time 2 and Time 3)

To measure emotional exhaustion, we used seven items (α = .94 at Time 2 and α = .93 at Time 3) from the German version (Enzmann & Kleiber, 1989) of the Maslach Burnout Inventory (MBI;

Maslach & Jackson, 1981). A sample item is “I feel drained from my work.” Responses were scored on a 7-point Likert scale ranging from 1 (*never*) to 7 (*every day*).

Control Variables

When testing the hypotheses, we considered including several control variables. First, the number of working hours per week may affect the results because longer working hours might be associated with higher emotional exhaustion (Shirom et al., 2010) and a lack of psychological detachment (Siltaloppi et al., 2009). Moreover, we considered controlling for leadership position (i.e., leader versus nonleader) because transformational leadership is suggested as possibly being more prevalent among upper-level leaders (i.e., leaders of employees who are leaders themselves) relative to first-line leaders (i.e., leaders of nonleaders), and the leader’s level might also influence the effectiveness of transformational leadership (Fuller et al., 1996; Lowe et al., 1996). In addition, occupying a leadership role has been suggested as possibly being beneficial to well-being (W.-D. Li et al., 2018). Following recommendations for the use of control variables in statistical analyses (Becker et al., 2016), we conducted the analyses with and without control variables to contrast the findings.

Measurement Models

To evaluate the measurement models of the study variables, we conducted confirmatory factor analysis (CFA) in R version 3.6.1 (R Core Team, 2019) using the lavaan package (Rosseel, 2012). Items were used as indicators of the respective latent factors, and the model parameters were obtained using robust maximum likelihood estimation. We evaluated the fit of two alternative models to test the distinctiveness of transformational leadership and extra effort. In the first (5-factor) model, all items loaded onto their respective latent factors (i.e., transformational leadership, extra effort, psychological detachment, and emotional exhaustion at Time 2 and Time 3). In the second (4-factor) model, the items of transformational leadership and extra effort were loaded onto the same latent factor whereas the other items were loaded onto their respective latent factors. The error terms of identical items of emotional exhaustion at the different measurement points were allowed to covary.

Although CFA showed that the latent factors of transformational leadership and extra effort were highly correlated (r = .73), we found evidence for the distinctiveness of transformational leadership and extra effort stimulated by the leader. Whereas the 5-factor model in which the items of transformational leadership and extra effort loaded onto their respective latent factors yielded good fit with the data ($\chi^2(334) = 688.32$, $p < .001$, CFI = .94, RMSEA = .070, SRMR = .057), the alternative 4-factor model in which the items of transformational leadership and extra effort loaded onto one latent factor obtained a poor fit with the data ($\chi^2(338) = 1035.13$, $p < .001$, CFI = .88, RMSEA = .098, SRMR = .068). A scaled χ^2 difference test indicated that the fit of the 5-factor model was significantly better than the fit of the 4-factor model ($\Delta\chi^2 = 301$, df = 4, $p < .001$). The standardized factor loadings in the 5-factor model ranged from 0.63 to 0.96.

Statistical Analyses

To test the hypotheses, we used the PROCESS macro of Hayes (2017) in SPSS version 26. The conditional indirect effects were tested using bias-corrected 95% confidence intervals with 20,000 bootstrap resamples. We centred all continuous variables at their respective means to enable a meaningful interpretation of the intercept in the regression models. When testing the relationships between extra effort and psychological detachment at Time 2 and emotional exhaustion at Time 3, we controlled for emotional exhaustion at Time 2. Because we controlled for the levels of emotional exhaustion at Time 2 in the conditional indirect effect model, and to avoid multicollinearity issues from the strong association of transformational leadership and extra effort, the direct relationship between transformational leadership at Time 1 and emotional exhaustion at Time 3 was not estimated.

Results

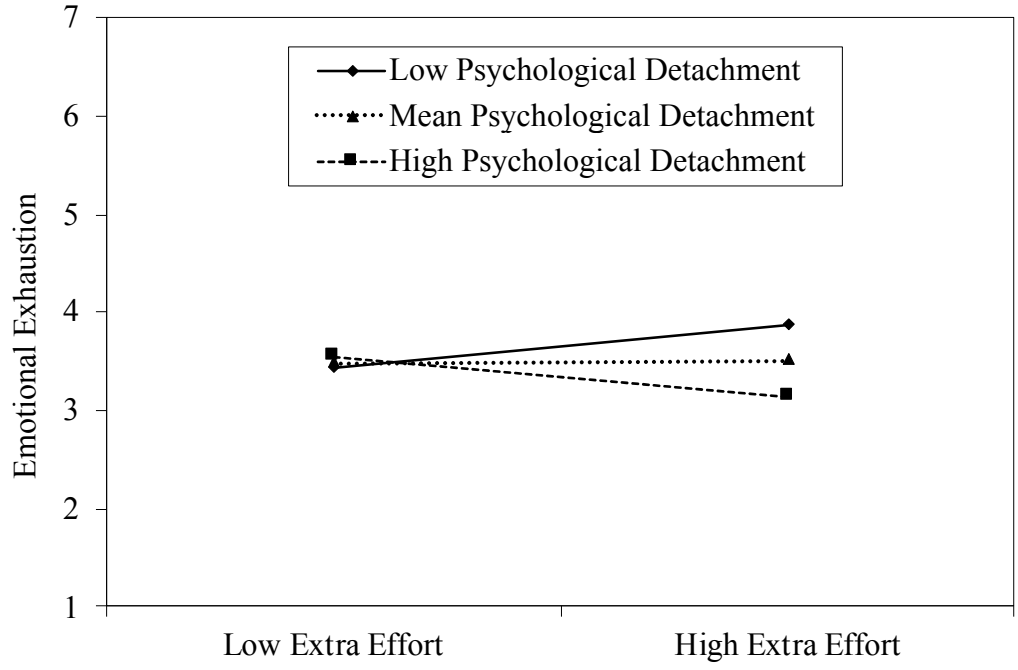
Table 2.1 shows the means, standard deviations, and zero-order correlations of the study variables. The regression analyses showed that the pattern of findings was essentially the same for the models with and without control variables. Therefore, we report only the results of the models without control variables to facilitate the interpretation of the coefficients. Table 2.2 displays the

results of the regression analyses. The results showed that transformational leadership was strongly and positively related to extra effort (*b* = 0.76, *SE* = 0.05, *p* < .001, 95% CI [0.65, 0.86]), providing support for Hypothesis 1. In line with Hypothesis 2, we found that the interaction effect of extra effort and psychological detachment on emotional exhaustion was significant (*b* = -0.19, *SE* = 0.05, *p* < .001, 95% CI [-0.29, -0.09]). Figure 2.2 displays the form of the interaction. An inspection of the simple slopes revealed that the relationship between extra effort and emotional exhaustion was positive and significant for low (-1 *SD*) psychological detachment (*b* = 0.22, *SE* = 0.08, *p* = .01, 95% CI [0.05, 0.38]) and negative and significant for high (+1 *SD*) psychological detachment (*b* = -0.19, *SE* = 0.08, *p* = .012, 95% CI [-0.34, -0.04]). For mean psychological detachment, we found no significant relationship (*b* = 0.01, *SE* = 0.06, *p* = .84, 95% CI [-0.11, 0.13]).

– Insert Table 2.1 about here –

Figure 2.2

The Moderating Effect of Psychological Detachment on the Relationship Between Extra Effort and Emotional Exhaustion



The results of the conditional indirect effect model showed that the indirect relationship between transformational leadership and emotional exhaustion via extra effort was conditional on psychological detachment. When psychological detachment was high (+1 *SD*), the indirect relationship between transformational leadership and emotional exhaustion through extra effort was significant and negative (indirect effect = -0.15, *SE* = 0.05; 95% CI [-0.24, -0.04]). When psychological detachment was low (-1 *SD*), the indirect relationship was significant and positive (indirect effect = 0.16, *SE* = 0.08; 95% CI [0.02, 0.32]). For mean psychological detachment, we found no significant indirect relationship (indirect effect = 0.01, *SE* = 0.05; 95% CI [-0.08, 0.10]). Thus, the results provide support for Hypothesis 3.

– Insert Table 2.2 about here –

Discussion

In this study, we returned to one of the key premises of the transformational leadership model – that transformational leaders encourage extra effort from followers (Bass, 1985) – and argued that considering followers' extra effort stimulated by their leader is useful for understanding transformational leadership's relationship to emotional exhaustion. We theorized that the relationship between extra effort stimulated by the leader and emotional exhaustion is ambiguous and might vary depending on followers' levels of psychological detachment from work. The findings provide support for the model shown in Figure 2.1. Specifically, we found that the indirect relationship between transformational leadership and emotional exhaustion through extra effort is conditional on psychological detachment such that the relationship is negative with high psychological detachment and positive with low psychological detachment.

Theoretical Implications

These findings have important implications for the literature on transformational leadership and employee well-being. First, we advance the understanding of how transformational leadership is related to employee well-being. Although extant research highlights the beneficial effects of transformational leadership on employee well-being, findings on the relationship between

transformational leadership and emotional exhaustion are somewhat equivocal (K. A. Arnold, 2017). Our knowledge of the association between transformational leadership and emotional exhaustion derives almost exclusively from cross-sectional studies, with only a few exceptions (Gregersen et al., 2014; Hildenbrand et al., 2018; Scheel et al., 2019; Tafvelin et al., 2019). To overcome the limitations of cross-sectional designs, we collected data at three measurement points over a period of eight months, thereby addressing the call to employ longitudinal designs to better understand how transformational leadership is related to well-being over time (K. A. Arnold, 2017; Nielsen & Taris, 2019).

Moreover, several scholars have suggested that transformational leadership might involve both energy-creating and exhausting aspects. Whereas previous research on the dark side of transformational leadership has theoretically assumed that motivational mechanisms may account for the ambiguous effects of transformational leadership (Diebig et al., 2016; Franke & Felfe, 2011; Niessen et al., 2017; Seltzer et al., 1989), we show that explicitly considering that transformational leaders elevate their followers' motivation levels in terms of extra effort is helpful to further explore the potential dark side of transformational leadership for well-being. Specifically, we indicate that, in recognition of the original idea of the transformational leadership model, transformational leaders' capacity to bring about extra effort from followers might explain why the relationship between transformational leadership and followers' levels of emotional exhaustion is not so clear.

Second, we contribute to the increasing body of research on boundary conditions in the relationship between transformational leadership and emotional exhaustion. The considerable variability of effect sizes found in recent meta-analyses (Harms et al., 2017; Montano et al., 2017) suggests that moderators exist in the relationship between transformational leadership and emotional exhaustion. In this study, we took an approach to leadership that considers the role of the follower to recognize that the beneficial effects of transformational leadership on well-being may not hold for all followers. More recently, empirical studies have begun to examine follower characteristics in the context of transformational leadership and well-being. However, these studies

have focused on the moderating role of narrow personality traits such as neuroticism, locus of control (De Hoogh & Den Hartog, 2009), and openness to experience (Hildenbrand et al., 2018). By integrating COR theory (Halbesleben et al., 2014; Hobfoll, 1989) with transformational leadership (Bass, 1985) and research on recovery (Sonnentag, 2012; Zijlstra et al., 2014), we revealed that followers' energy-replenishing recovery experiences in terms of psychological detachment moderate the association between transformational leadership and emotional exhaustion. That is, we contribute to the existing research on boundary conditions in the relationship between transformational leadership and well-being by widening the lens to incorporate more malleable characteristics of followers beyond their personality.

While previous studies have shown that the extent to which transformational leadership is beneficial to well-being is contingent on follower characteristics (e.g., De Hoogh & Den Hartog, 2009; Franke & Felfe, 2011; Hildenbrand et al., 2018; Niessen et al., 2017), we found evidence for the notion that follower characteristics may also give rise to the dark side of transformational leadership. That is, follower characteristics may not only weaken or strengthen the negative relationship between transformational leadership and emotional exhaustion but transformational leadership may also have costs to the well-being of some followers. By considering the dark side of transformational leadership for employee well-being, we complement the contingency perspective.

On a more general level, this study provides insights into the idea of resource value within COR theory (Halbesleben et al., 2014). COR theory may be utilized to provide reasoning for positive and negative relationships between the extra effort stimulated by the leader and exhaustion, indicating that it is necessary to define the conditions under which leaders' influence on followers to exert extra effort is valuable to followers' well-being. While it has been argued that a resource may not be inherently valuable and that its value might depend on the other resources with which it is combined (Halbesleben et al., 2014), the complementary issue has not yet received sufficient attention in the existing COR theory literature. This study contributes to the discussion of resource

value by showing that one boundary condition that may place value on potential resources is individuals' replenishment of energy in terms of their psychological detachment.

Practical Implications

In both research and practice, transformational leadership has been hailed as the universal "good mode" of leadership in organizations. The results of this study indicate that organizations and leaders must be aware that transformational leaders' capacity to encourage extra effort from followers may not always be beneficial in terms of well-being but may also come at the expense of followers' well-being. The finding that the beneficial effects of transformational leadership in reducing emotional exhaustion do not hold for followers who find it difficult to "switch off" from work during nonwork time points to the importance of paying closer attention to followers' psychological detachment.

Previous research indicates that psychological detachment is malleable; training programs have been shown to be effective in increasing employees' ability to mentally detach from work (e.g., Hahn et al., 2011). To capitalize on the potential of transformational leadership in reducing emotional exhaustion, organizations should integrate such training into their human resource management programs. In addition, research suggests that leaders can take an active role in facilitating followers' psychological detachment. For example, leaders may support followers in developing individual strategies that facilitate the transition from work to nonwork (e.g., making to-do lists for the next day), assist in setting priorities, and avoid assigning tasks that followers must complete during nonwork time (Sonnentag & Fritz, 2015). Furthermore, leaders are important role models for followers' work-home segmentation behaviour (Koch & Binnewies, 2015). To ensure that followers benefit from transformational leadership in terms of their well-being, this knowledge should be used to complement leadership training.

Limitations and Future Directions

Despite its contributions, this study is not without limitations that must be considered when interpreting the findings. First, all study variables were assessed using self-reports, which may raise

concerns about common method variance (P. M. Podsakoff et al., 2012). In this respect, it is important to note that common method variance is unlikely to inflate interaction effects (Siemsen et al., 2010). In addition, we used data from different measurement points to mitigate the bias due to common method variance. Nonetheless, future studies may avoid concerns about common method variance by using objective measures of actual effort expenditure (e.g., working hours) and well-being (e.g., hair cortisol).

Although we controlled for the previous level of emotional exhaustion, we cannot draw conclusions about the direction of the effects. That is, we cannot rule out the possibility that followers' levels of emotional exhaustion influence their levels of extra effort stimulated by the leader. In support of this reverse causality, Halbesleben and Bowler (2007) found that emotional exhaustion was associated with lower levels of achievement motivation, indicating that exhausted employees might be less motivated to achieve tasks at work. Furthermore, some evidence exists for a reverse causal path from emotional exhaustion to a lack of psychological detachment, suggesting that exhausted employees may find it difficult to mentally detach from work (Sonnentag et al., 2014). We recommend that future studies further investigate the complex interplay over time among transformational leadership, extra effort, emotional exhaustion, and psychological detachment.

Moreover, it is important to recognize that extra effort is not a measure of actual effort expenditure (Fuller et al., 1996). To be energy-consuming, the willingness to exert extra effort must translate into effort expenditure. In other words, followers' reports that the leader brings about extra effort from them do not necessarily mean that they actually expend high levels of (energy-consuming) effort. Taking a closer look at the mechanisms and processes (e.g., long working hours, goal attainment) underlying the relationship between followers' extra effort stimulated by their leader and their levels of emotional exhaustion would be helpful in further understanding this relationship.

Although the different dimensions of Bass' (1985) transformational leadership model (i.e., inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence) have been frequently shown to be highly intercorrelated (Lowe et al., 1996), the theory suggests that some dimensions of transformational leadership might be more strongly related than others to extra effort. Inspirational motivation and intellectual stimulation provide good arguments for expecting particularly high relationships with followers' extra effort. The appealing visions and high-performance expectations inherent in inspirational motivation may challenge followers to demonstrate exceptional effort (Franke & Felfe, 2011). Similarly, intellectual stimulation may result in followers transcending their self-interest for the sake of the group and putting more energy into their work roles (Seltzer et al., 1989). While the use of a global measure of transformational leadership was an attempt to avoid the measurement issues of the MLQ (van Knippenberg & Sitkin, 2013), we were not able to separately examine the relationships with inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence. Future research may address this issue and disentangle the associations of the different dimensions of transformational leadership.

The concept of transformational leadership has been heavily criticized in recent years. Serious concerns have been raised regarding the conceptual definition of transformational leadership, the confounding of transformational leadership with its effects, and measurements of transformational leadership (van Knippenberg & Sitkin, 2013). We agree with many of these concerns and realize that this study is not without problems. In fact, the high association between transformational leadership and followers' extra effort that we found is likely partly the result of these issues. Nonetheless, we believe that the value of this study lies in its effort to draw attention to the idea that the transformation of followers is at the core of transformational leadership. In their review of the transformational leadership literature, Siangchokyoo and colleagues (2020) suggested that one avenue for "reviving" transformational leadership and overcoming its flaws is to revert to the original conceptualizations of the theory and focus on follower transformation. By examining

leaders' encouragement of extra effort in followers, we return to an original proposition of the transformational leadership model about the transformation of followers and highlight the need for clearer theorizing regarding transformational leadership to fully understand its effects on employee well-being.

The stressor-detachment model (Sonnentag & Fritz, 2015) suggests that work-related experiences affect employees' ability to mentally detach from work and that demanding situations at work may hinder successful psychological detachment. Hence, transformational leadership and extra effort might influence followers' levels of psychological detachment. Although the bivariate correlations show that neither transformational leadership nor extra effort was correlated with psychological detachment, future research should examine whether, over time, transformational leadership and extra effort are related to psychological detachment, thus treating psychological detachment as an explanatory mechanism in the relationship between transformational leadership/extra effort stimulated by the leader and emotional exhaustion. Daily diary studies may be a particularly useful methodology for investigating dynamic associations among transformational leadership, extra effort, psychological detachment, and exhaustion.

Of course, psychological detachment is not the only recovery experience that helps employees replenish their energy resources. Other primary recovery experiences are relaxation, mastery, and control during nonwork time (Sonnentag & Fritz, 2007). In this study, we focused on psychological detachment because it is a core recovery experience that has been shown to have particularly strong relationships with employee outcomes (Sonnentag et al., 2017; Sonnentag & Fritz, 2007). To advance the understanding of the role of recovery in determining followers' responses to transformational leaders' generation of extra effort, we encourage future research to examine other recovery experiences.

Conclusion

The aim of this study was to obtain a better understanding of the relationship between transformational leadership and followers' emotional exhaustion. We integrated COR theory

(Hobfoll, 1989) with an original premise of the transformational leadership model (Bass, 1985) and research on recovery (Sonnentag, 2012; Zijlstra et al., 2014) to take into account the idea that transformational leaders' capacity to bring about extra effort from followers may both reduce and increase followers' emotional exhaustion depending on the followers' ability to regain energy reserves through psychological detachment. We proposed and found that the indirect relationship between transformational leadership and emotional exhaustion through extra effort varies depending on followers' levels of psychological detachment. Whereas followers with high psychological detachment benefitted from the extra effort associated with transformational leadership in terms of lower emotional exhaustion, transformational leadership was indirectly related to increased levels of exhaustion through extra effort when followers' psychological detachment was low. The findings indicate that returning to the original ideas of Bass' (1985) transformational leadership model could hold the key to further understanding the bright and dark sides of transformational leadership for employee well-being.

Table 2.1

Means, Standard Deviations, and Bivariate Correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1. Age	49.13	9.21								
2. Sex	0.50	0.50	-0.20**							
3. Working hours per week	38.42	5.33	0.01	-0.34***						
4. Leadership position	0.36	0.48	-0.04	-0.11	0.21**					
5. Transformational leadership (T1)	3.26	0.95	0.13	-0.01	-0.05	0.23***				
6. Extra effort (T2)	3.05	1.03	0.17*	-0.02	-0.09	0.24***	0.70***			
7. Psychological detachment (T2)	3.60	1.07	-0.06	-0.02	-0.05	-0.06	0.12	0.05		
8. Emotional exhaustion (T2)	3.60	1.56	-0.08	0.07	0.07	-0.05	-0.31***	-0.33***	-0.40***	
9. Emotional exhaustion (T3)	3.48	1.52	-0.15*	0.06	0.07	-0.04	-0.27***	-0.27***	-0.41***	0.82***

Note. $N = 214$. Sex: 0 = male, 1 = female. Leadership position: 0 = no leadership position, 1 = leadership position.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2.2

Results of the Regression Analyses

	Extra effort (T2)				Emotional exhaustion (T3)			
	Est	*SE*	*t*	95% CI	*Est*	*SE*	*t*	95% CI
(Intercept)	3.05***	0.05	60.20	[2.95, 3.15]	3.49	0.06	60.92	[3.38, 3.60]
Transformational leadership (T1)	0.76***	0.05	14.08	[0.65, 0.86]				
Emotional exhaustion (T2)					0.77***	0.04	18.00	[0.68, 0.85]
Extra effort (T2)					0.01	0.06	0.20	[-0.11, 0.12]
Psychological detachment (T2)					-0.15*	0.06	-2.48	[-0.26, -0.03]
Extra effort × Psychological detachment					-0.19***	0.05	-3.85	[-0.29, -0.09]

	Conditional indirect effect[a]		
	Est	*SE*	95% CI
Low psychological detachment (-1 *SD*)	0.16	0.08	[0.01, 0.32]
Mean psychological detachment	0.01	0.05	[-0.08, 0.10]
High psychological detachment (+1 *SD*)	-0.15	0.05	[-0.24, -0.04]
Index of moderated mediation	-0.14	0.04	[-0.23, -0.06]

Note. *N* = 214. Leadership position: 0 = no leadership position, 1 = leadership position.

[a] Bootstrap results of the conditional indirect relationship between transformational leadership and emotional exhaustion through extra effort at low, mean, and high values of psychological detachment.

*$p < .05$. ***$p < .001$.

CHAPTER 3: STUDY 2 – SUPPORTIVE LEADERSHIP TRAINING EFFECTS ON EMPLOYEE WELL-BEING[4]

Abstract

Drawing on conservation of resources theory, we developed and evaluated a supportive leadership training intervention designed to teach leaders ways to be supportive of their employees. Given the important role of supportive leaders in helping employees deal with excessive workloads, we theorized that the beneficial intervention effects on employee well-being would be particularly evident for employees who perceive higher levels of quantitative and qualitative workloads prior to the intervention. Using a cluster randomized controlled field trial, we tested the effects of the supportive leadership training on employee social well-being in terms of leader-member exchange (LMX) quality and employee hedonic well-being, including positive affective well-being, emotional exhaustion, and job satisfaction. The participants in the training were directors of childcare centers in Germany. To rigorously evaluate the intervention effects at the employee level, we collected survey data at baseline, one month postintervention, and six months postintervention, and we used an intent-to-treat approach to analyze the data. A total of 496 employees from 77 childcare centers provided data at baseline, of whom 266 and 226 employees participated in the one-month and six-month surveys, respectively. Linear mixed-effects models showed that the effectiveness of the intervention in terms of LMX quality and emotional exhaustion varied depending on the employees' baseline perceptions of quantitative workloads, such that employees with higher quantitative workloads benefited more from the supportive leadership training. The findings of this study improve the understanding of the types of outcomes of supportive leadership training and contribute to clarifying for whom supportive leadership training is effective.

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[4] This chapter has been published as Stein, M., Schümann, M., Teetzen, F., Gregersen, S., Begemann, V., & Vincent-Höper, S. (2021). Supportive leadership training effects on employee social and hedonic well-being: A cluster randomized controlled trial. *Journal of Occupational Health Psychology, 26*(6), 599–612. https://doi.org/10.1037/ocp0000300. This chapter is not the copy of record and may not exactly replicate the final, authoritative document published in the *Journal of Occupational Health Psychology*.

Introduction

Recognizing the potential of supportive leadership for improving employee well-being, several intervention studies have focused on training leaders how to be supportive of their employees (e.g., Biggs et al., 2014; Hammer et al., 2011). While the few existing studies evaluating supportive leadership training programs have generally provided evidence for their beneficial effects on employee well-being (e.g., Hammer et al., 2020; Kossek et al., 2019), scholars have emphasized that more theoretically and methodologically rigorous studies are needed (Hammer et al., 2019). In addition to clarifying the outcomes of supportive leadership training, it is important to understand for whom supportive leadership training is effective. Ample research has demonstrated that supportive leaders are particularly important for employees struggling with excessive workloads (e.g., Goh et al., 2015; J. S. House, 1981), indicating that employees' perceptions of workloads might be an important moderator of supportive leadership training effectiveness.

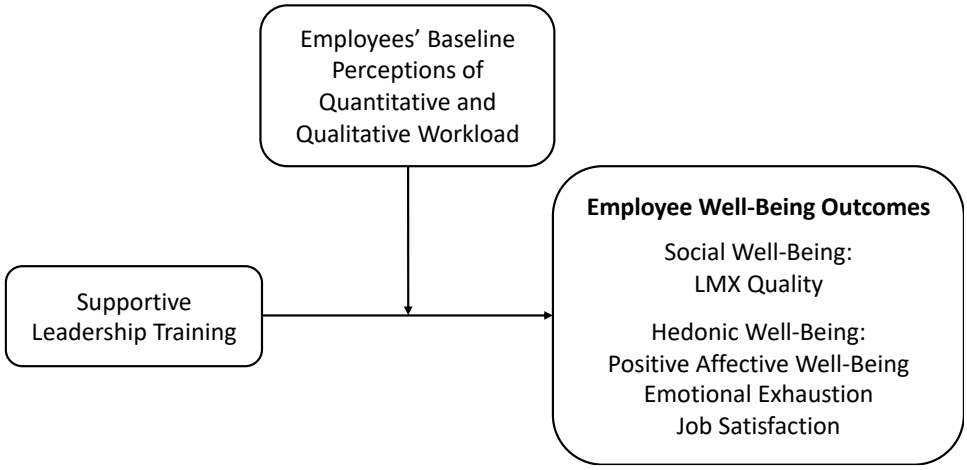
In this study, we aim to clarify the nature and boundary conditions of supportive leadership training effectiveness by using conservation of resources (COR) theory (Hobfoll, 1989) as an underlying framework. Building on COR theory, we argue that the developed supportive leadership training has positive effects on (1) employee social well-being in terms of their perceptions of leader-member exchange (LMX) quality and (2) employee hedonic well-being, including positive affective well-being, emotional exhaustion, and job satisfaction. By proposing that resource gain increases in importance under stressful experiences, the resource gain paradox principle of COR theory (Hobfoll et al., 2018) supports the view that the developed supportive leadership training may have stronger beneficial effects on well-being for employees who perceive higher workloads.

Using a cluster randomized controlled trial, we examine the general effectiveness of the supportive leadership training and its differential effects on the social and hedonic dimensions of employee well-being depending on employees' baseline perceptions of quantitative and qualitative workloads (see Figure 3.1). Three waves of data collection allow us to examine when effects due to the supportive leadership training occur and how long they persist. To obtain realistic estimates of

the supportive leadership training effects, we use an intent-to-treat (ITT) approach in which all employees whose leaders were originally assigned to the intervention are included in the analysis.

Figure 3.1

Study Conceptual Model



This study contributes to the supportive leadership training literature by showing that COR theory adds a novel perspective to the development and evaluation of supportive leadership training. By applying COR theory, we shift the focus from the prevention of negative states (e.g., Hammer et al., 2019) to promoting positive employee well-being through supportive leadership training. Specifically, we extend the outcomes of supportive leadership training by examining the effects on the social and hedonic dimensions of employee well-being. Furthermore, COR theory allows us to identify relevant moderators of supportive leadership training effects on employee well-being. By examining the moderating effects of employees' perceived quantitative and qualitative workloads, we address the need to understand for whom supportive leadership training interventions are effective and broaden the scope of employee-level moderators of supportive leadership training effectiveness (e.g., Hammer et al., 2011; Kossek et al., 2019). Because experiencing excessive workloads is one of the most salient sources of stress for employees (American Psychological Association, 2018), gaining insights into the moderating effects of

employees' workloads on supportive leadership training effectiveness has the potential to benefit a large number of employees.

Finally, we contribute to the LMX literature. Although research points to the importance of leadership behavior for LMX development (Dulebohn et al., 2012), the effects of leadership training on LMX quality have received limited attention (Erdogan & Bauer, 2015). By examining LMX quality as an outcome of supportive leadership training, we improve the understanding of how to influence LMX quality. In terms of practical implications, gaining clarity regarding the effects of supportive leadership training will increase the field's ability to provide organizations with guidance on how to improve employee well-being through leadership training.

Theoretical Background

The underlying conceptual framework for the development and evaluation of the supportive leadership training intervention is COR theory (Hobfoll, 1989). The central tenet of COR theory is that individuals try to acquire and foster resources and that the prevention of resource loss is a key motivational principle. While stress occurs when individuals perceive that their resources are lost or threatened with loss, having a surplus of resources leads to the experience of well-being. Resources are defined in terms of objects, personal characteristics, energies, and conditions that help satisfy individuals' goals and needs (Halbesleben et al., 2014). Supportive social conditions lay the foundation for the prevention of resource loss and the promotion of resource gain. By extending an individual's set of available resources, support from others provides numerous benefits for well-being (Hobfoll et al., 1990).

The role of leaders in providing supportive conditions for employees has received extensive attention in several research areas, including the leadership and occupational stress literature. In their conceptualizations of supportive leadership, the different fields converge on the idea that supportive leaders show care and concern for their employees' needs and well-being (e.g., Greene & Schriesheim, 1980; J. S. House, 1981; Rafferty & Griffin, 2006; Yukl et al., 2002). Consistent with COR theory's proposition that no single form of support is optimal for resource protection and acquisition

(Hobfoll et al., 1990), the current supportive leadership training is based on the conception of supportive leader behaviors as including emotional, appraisal, informational, and instrumental forms of support. Supportive leaders show care and concern for their employees by listening to their employees' problems and expressing understanding, providing encouragement and recognition, giving feedback and task-related information, and actively assisting employees in performing their work (J. S. House, 1981). In developing the supportive leadership training, this comprehensive approach allowed us to include supportive behaviors that are widely applicable and simple to implement for leaders and that, due to their focus on the general work domain, may benefit a variety of employees.

The aim of this study is to test the effects of the developed supportive leadership training on employee well-being. Drawing on the occupational stress literature, previous research has predominantly examined supportive leadership training effects on the negative aspects of employee well-being, such as perceived distress and health impairments (e.g., Hammer et al., 2019; Kossek et al., 2019). COR theory, with its emphasis on resource gain, highlights the importance of considering positive well-being outcomes. To gain insights into the effectiveness of supportive leadership training on the different components of employee well-being, we examine its effects on employee social well-being in terms of their perceptions of LMX quality and employee hedonic well-being, including positive affective well-being, emotional exhaustion, and job satisfaction.

Effects of the Supportive Leadership Training on Employee Social Well-Being

Given the fundamentally interpersonal nature of support, we consider employees' perceptions of the quality of their relationship with their leader to be a key outcome of supportive leadership training. Supporting this view, COR theory states that much of the value of support lies in its capacity to create close interpersonal relationships (Hobfoll, 2001a). According to COR theory, support contributes to the perception of the quality of the relationship by providing a sense of attachment and belonging (Hobfoll et al., 1990).

One theoretical approach that specifically focuses on the quality of the relationship between leaders and employees is LMX (Graen & Uhl-Bien, 1995). LMX theory is built on the concept that leaders form relationships of differing quality with each of their employees. Whereas low-quality LMX relationships are limited to the fulfillment of formal role obligations, high-quality LMX describes positive relationships characterized by mutual trust, respect, and liking. Due to the focus on the quality of the relationship, we view employees' perceptions of LMX quality as an aspect of employee social well-being, which is defined in terms of having positive relationships with others (e.g., Fisher, 2014; Keyes, 1998).

According to LMX theory, leaders may increase LMX quality by providing their employees with various support resources, such as valuable information, active assistance, and attention (Graen & Scandura, 1987). Consistent with this idea, empirical studies, although mainly cross-sectional, have found that leaders may promote higher-quality LMX by showing empathy (Mahsud et al., 2010), giving fair feedback (Sparr & Sonnentag, 2008), and providing work-related information (Gregersen et al., 2016). While these findings indicate that supportive leadership facilitates the development of high-quality LMX, research rigorously testing this assumption is scarce, and knowledge of how to increase the quality of existing LMX relationships is limited (Erdogan & Bauer, 2015). As one of few existing studies, an early intervention study suggested that leadership training has the potential to improve employees' perceptions of LMX quality (Graen et al., 1982). Based on this encouraging finding and the notion of COR theory that support helps create high-quality relationships, we expect that the developed supportive leadership training will have positive effects on employee social well-being in terms of their perceptions of LMX quality.

Hypothesis 1 (H1): Compared with employees whose leaders are in the control group, employees whose leaders are in the supportive leadership training intervention group will report higher levels of LMX quality after the intervention.

Effects of the Supportive Leadership Training on Employee Hedonic Well-Being

In addition to the positive effects of the supportive leadership training on employee social well-being in terms of LMX quality, we expect that the supportive leadership training is beneficial to employee hedonic well-being, including their positive affective well-being, emotional exhaustion, and job satisfaction. Hedonic well-being refers to the subjective experience of inner pleasure and happiness (Fisher, 2014). As a reflection of the positive and negative affective components of hedonic well-being, positive affective well-being denotes an individual's feelings of pleasure and activation (Wright, 2014), whereas emotional exhaustion involves feelings of being depleted of physical and emotional resources (Maslach et al., 2001). Job satisfaction reflects the evaluative aspect of employee hedonic well-being and refers to employees' positive attitudes toward their work (Locke, 1976).

COR theory highlights the important role of support in improving hedonic well-being and derives the benefits of support from its ability to satisfy the individual's need to maintain and acquire resources. By helping individuals prevent resource loss and build resource reserves, support reduces the likelihood of negative affective experiences and promotes positive mental states (Hobfoll et al., 1990). Meta-analytical findings indicate that support from the leader is negatively related to emotional exhaustion (Halbesleben, 2006) and positively related to employees' positive affective states (Halbesleben, 2010) and job satisfaction (Mathieu et al., 2019). Furthermore, intervention studies have offered some support for the effectiveness of supportive leadership training in terms of employees' psychological distress (Kossek et al., 2019), health impairments (e.g., Hammer et al., 2019), and job satisfaction (Hammer et al., 2011). Given these findings, we expect that the developed supportive leadership training will have beneficial effects on employees' positive affective well-being, emotional exhaustion, and job satisfaction.

Hypothesis 2 (H2): Compared with employees whose leaders are in the control group, employees whose leaders are in the supportive leadership training intervention group will report (a)

higher levels of positive affective well-being, (b) lower levels of emotional exhaustion and (c) higher levels of job satisfaction after the intervention.

Baseline Workload as a Moderator of Supportive Leadership Training Effectiveness

Both theoretical arguments and empirical evidence have highlighted the critical role of supportive leaders in helping employees deal with excessive workloads (e.g., Goh et al., 2015; J. S. House, 1981), indicating that a supportive leadership training intervention might specifically address the needs of employees who perceive high levels of workloads. Therefore, we argue that those employees who perceive relatively higher levels of quantitative and qualitative workloads derive more benefits from a supportive leadership training intervention in terms of well-being. High quantitative workloads mean that employees have problems completing their work within the time available because they have too much work to do. High qualitative workloads, in contrast, means that employees have problems completing their work because they find their work to be very difficult (Bowling & Kirkendall, 2012).

COR theory provides support for the expectation that the effectiveness of the supportive leadership training intervention varies according to employees' perceived workloads. The resource gain paradox principle states that the impact of resource gain becomes stronger under stressful experiences because of the individual's need to maintain resource reserves to offset resource loss (Halbesleben et al., 2014). Through the lens of COR theory, experiences of excessive workload are stressful because they threaten one's internal resources (e.g., energies) with loss and prevent one from acquiring additional resources (Bowling et al., 2015).

In the context of COR theory, employees with higher levels of perceived workloads should be more likely to benefit from a supportive leadership training in terms of LMX quality because employees' perceptions of a heavy workload indicate their need for support to prevent resource loss, and the supportive leadership training intervention should contribute to the leader's fulfillment of this need. Considering that the fulfillment of needs is an important basis for relationship functioning (Patrick et al., 2007), the supportive leadership training might have particularly strong

effects on LMX quality for employees who perceive a heavy workloads. Indeed, LMX scholars suggest that employees' perception that their leader meets their critical needs is an important component of high-quality LMX relationships (Liden et al., 1997). Therefore, we hypothesize the following:

Hypotheses 3 (H3) and 4 (H4): The effects of the supportive leadership training will be moderated by employees' baseline perceptions of quantitative workloads (H3) and qualitative workloads (H4), such that the beneficial intervention effect on LMX quality will be stronger for employees with higher workloads. In particular, employees with higher workloads whose leaders are in the intervention group will report higher levels of LMX quality than employees with higher workloads whose leaders are in the control group. This difference will be less pronounced for employees with lower levels of workloads.

In addition, we expect that the positive effects of the supportive leadership training on hedonic well-being are particularly evident among employees who perceive higher levels of workloads. Again, the COR argument for this proposition is that employees with higher perceived workloads experience greater resource loss (Bowling et al., 2015). The supportive leadership training intervention should help minimize the loss of internal resources and facilitate resource gain, and the state of resources influences the levels of positive affective well-being, emotional exhaustion, and job satisfaction (Halbesleben et al., 2014). Several studies provide evidence that the beneficial effects of support from the leader on hedonic well-being are particularly evident for employees experiencing high workloads (e.g., Beehr et al., 2003; Pluut et al., 2018). Therefore, we propose that employees who perceive higher levels of quantitative and qualitative workloads benefit more from the supportive leadership training in terms of positive affective well-being, emotional exhaustion, and job satisfaction.

Hypotheses 5 (H5) and 6 (H6): The effects of the supportive leadership training will be moderated by employees' perceptions of quantitative workloads (H5) and qualitative workloads (H6), such that the beneficial intervention effects on (a) positive affective well-being, (b) emotional exhaustion, and (c) job satisfaction will be stronger for employees with higher workloads. In

particular, employees with higher workloads whose leaders are in the intervention group will report higher levels of positive affective well-being and job satisfaction and lower levels of emotional exhaustion than employees with higher workloads whose leaders are in the control group. These differences will be less pronounced for employees with lower levels of workloads.

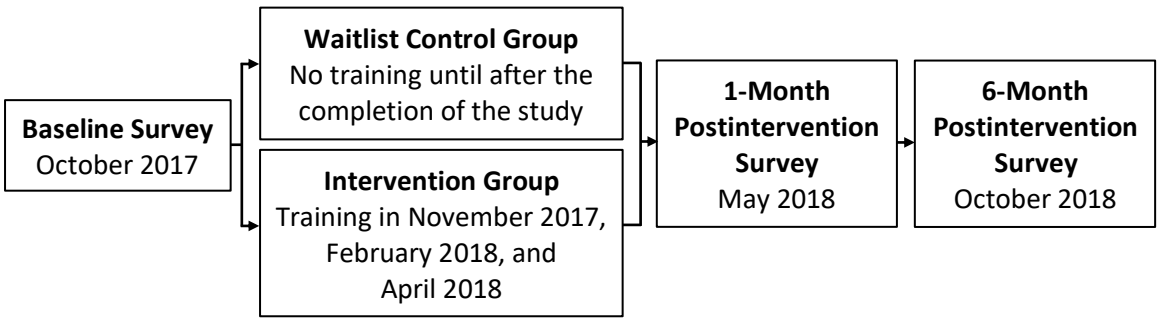
Methods

Research Design

This study was based on a cluster randomized controlled trial funded by the Institution for Statutory Accident Insurance and Prevention in the Health and Welfare Services. Ethical approval was received from the Institutional Review Board of the University of Hamburg. The cluster randomized controlled trial was conducted with childcare centers operated by a nonprofit organization in Germany from 10/2017 to 10/2018. The training participants were the directors of the childcare centers. We randomly selected 80 childcare directors who were randomized into an intervention group (n = 41) and a waitlist control group (n = 39). To evaluate the effectiveness of the supportive leadership training, we used survey data from the employees in the childcare centers. Data were collected one month prior to training, one month after the completion of training, and six months after the completion of training. Figure 3.2 shows an overview of the research design.

Figure 3.2

Overview of the Research Design and Data Collection



Intervention Content and Delivery

In developing the supportive leadership training, we followed recommendations to use multiple delivery methods (e.g., professional input and group discussions) while focusing on practice (Lacerenza et al., 2017). The first training module focused on self-reflection and the advantages of supportive leadership. The leaders were instructed to reflect on their work situation and their leadership role. In addition, they were given a presentation on the importance of being supportive of their employees, and they discussed what they needed to effectively fulfill their leadership role. The second module focused on the leaders' role in creating supportive work environments and specific strategies for how to perform this role. The aim of this session was to provide the leaders with the knowledge and skills to engage in supportive behaviors (e.g., providing information and expressing appreciation). The third module focused on illustrating and practicing strategies for finetuning supportive leader behavior. The leaders were sensitized to the fact that their employees had individual needs, and they were coached through the process of developing strategies for offering support that is tailored to employees' individual needs. Role-playing was used to practice active listening skills and the provision of constructive feedback. Drawing on research showing that goal-setting improves training outcomes (Burke & Hutchins, 2007), the leaders received notebooks to set specific and challenging yet attainable goals for themselves and plan concrete steps to implement the training content in their work. Supplemental Table 3.1 shows more details on the training content.

The three training modules were delivered in three 8-hour sessions by a consultant with expertise in leadership training. The training was conducted off the job at the organization's headquarters. To ensure that the group sizes were manageable, we formed three training groups. The time intervals between the training sessions were 10 to 12 weeks to enable the leaders to apply the training content to their work. To align the intervention process with organizational practices, we implemented a steering group that included internal stakeholders (e.g., human resources managers).

Participants in the Surveys

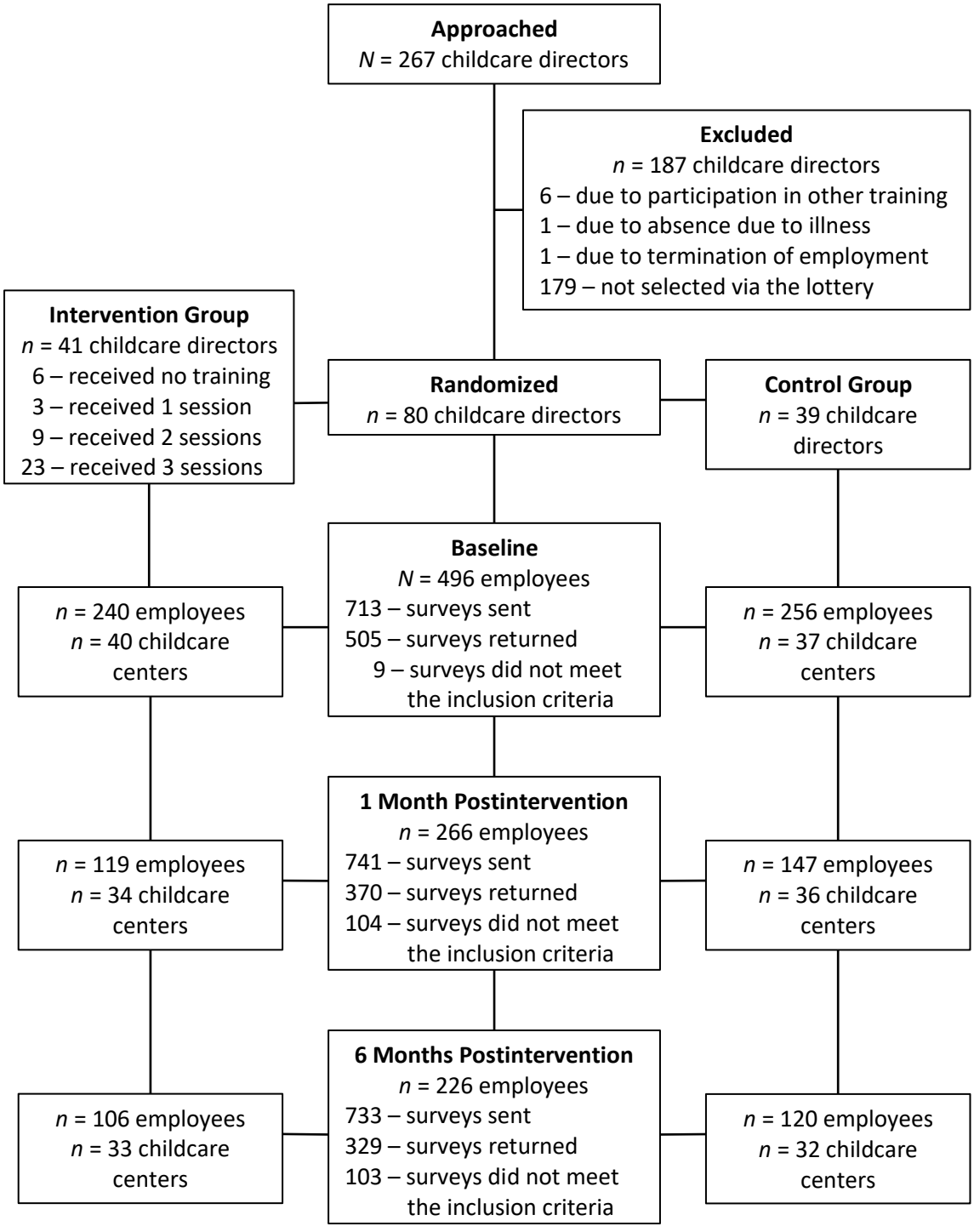
To be included in the analysis, employees had to participate in the baseline survey and provide the individual codes that allowed us to match the surveys. Figure 3.3 shows the CONSORT flowchart. At baseline, 713 employees were invited to participate in the survey, and responses were returned by 505 employees (70.8%), of whom 496 (98.2%) met the inclusion criteria. Of the eligible employees, 266 participated in the one-month survey (53.6%), and 226 participated in the six-month survey (45.6%).

The baseline sample included 240 employees from 40 childcare centers whose directors were in the intervention group and 256 employees from 37 childcare centers whose directors were in the control group. The number of eligible employees in the childcare centers ranged from 1 to 13 (M = 7.32, SD = 2.33). Table 3.1 shows the sociodemographic characteristics of the directors and their employees. The majority of the employees were female (97.8%) and worked full time (57.0%). The mean age was 45.63 years (SD = 11.32), and the mean professional experience was 18.12 years (SD = 11.57). Most of the employees were childcare teachers (61.5%), 23.4% were assistant teachers, 9.9% were kitchen staff, and 5.2% were other employees (e.g., janitors and gardeners). Furthermore, a total of 24.7% of the employees were group coordinators and/or deputy directors.

– Insert Table 3.1 about here –

Figure 3.3

CONSORT Flowchart of the Study



Measures

Employee Well-Being Outcomes

Social Well-Being. We assessed LMX quality using the seven-item LMX-7 scale (Graen & Uhl-Bien, 1995; Schyns, 2002). Sample items included "How would you characterize your working relationship with your leader?" and "How well does your leader understand your job problems and needs?" The responses were scored on a 5-point scale with different labels (e.g., for the sample items, 1 = *extremely ineffective* to 5 = *extremely effective* and 1 = *not at all* to 5 = *a great deal*).

Hedonic Well-Being. Positive affective well-being was measured with the five-item World Health Organization Well-Being Index (WHO-5; Bech, 2004). A sample item was "In the last two weeks, I have felt active and vigorous." The responses were scored on a 5-point scale (1 = *never* to 5 = *all the time*). Five items from the Maslach Burnout Inventory (MBI; Büssing & Perrar, 1992; Maslach & Jackson, 1981) were used to assess emotional exhaustion. A sample item was "I feel burned out from my work." The responses were scored on a 6-point scale (1 = *never* to 6 = *often*). We measured job satisfaction with six items from the Copenhagen Psychosocial Questionnaire (COPSOQ; Kristensen et al., 2005; Nübling et al., 2006). A sample item was "Regarding your work in general, how pleased are you with your work prospects?" The responses were scored on a 5-point scale (1 = *very unsatisfied* to 5 = *very satisfied*).

Baseline Moderators

We assessed quantitative workloads with three items from the COPSOQ (Kristensen et al., 2005; Nübling et al., 2006). A sample item was "How often do you not have time to complete all of your work tasks?" Qualitative workloads were measured with three items developed by Rimann and Udris (1997). A sample item was "The work is too difficult for me." The responses were scored on a 5-point scale (1 = *never* to 5 = *often*).

Statistical Analyses

Analyses were conducted using an ITT approach. That is, we included all employees whose leaders were assigned to the intervention group in the analyses regardless of whether their leaders

completed the training. This approach gives an estimate of the intervention effects under realistic conditions where noncompliance and withdrawal are inevitable. In addition, ITT analysis maintains the benefits of randomization and avoids sample bias and reductions in statistical power (Gupta, 2011).[5]

To test the effects of the supportive leadership training, we used linear mixed-effects models with a random intercept for the childcare centers using the lme4 package (Bates et al., 2015) in R version 4.0.3 (R Core Team, 2019). Consistent with the recommendations of Bodner and Bliese (2018), we computed separate models for the 1-month and 6-month outcomes and used an analysis of covariance (ANCOVA) approach, in which we controlled for the baseline values of the outcome variables. While this approach does not allow for the examination of change relative to baseline, it maximizes the statistical power to detect (moderated) intervention effects. All continuous independent variables in the models were centered at their grand means. To aid in the interpretation of the moderated intervention effects, we used simple slope tests and tested the intervention effects at low (–1 *SD*), mean, and high (+1 *SD*) baseline workload values.

Process Evaluation

To better understand the effects of the supportive leadership training, we evaluated the intervention process using several sources of information, including administrative records of participant attendance at the training, protocols from the steering group meetings, and systematic observations of the training sessions. For a detailed description of the process evaluation, see Supplemental Material 1.

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[5] To provide estimates of the supportive leadership training effects under optimal conditions, we conducted a supplementary per-protocol analysis in which we removed all employees whose leaders (1) were in the intervention group and received ≤ 1 training session or (2) left the childcare center before completion of the study (see Supplemental Tables 3.3–3.6 for the results).

Results

Tables 2 and 3 show the means, standard deviations, and correlations of the study variables for the intervention and control groups. For the results of the attrition analysis, see Supplemental Table 3.2.

– Insert Tables 3.2 and 3.3 about here –

Effects of the Supportive Leadership Training on Employee Well-Being

Table 3.4 displays the results of the models regarding the supportive leadership training effects on social well-being in terms of LMX quality. The intervention effects model showed a significant effect of the supportive leadership training on one-month LMX quality (b = 0.17, SE = 0.08, p = .039). At six months postintervention, the intervention effect was not significant (b = 0.09, SE = 0.09, p = .29). Thus, the results provide partial support for H1.

– Insert Table 3.4 about here –

Tables 3.5–3.7 show the results of the models regarding the intervention effects on employee hedonic well-being. No significant effects of the supportive leadership training were found for hedonic well-being. Thus, H2(a)–(c) were not supported.

– Insert Tables 3.5–3.7 about here –

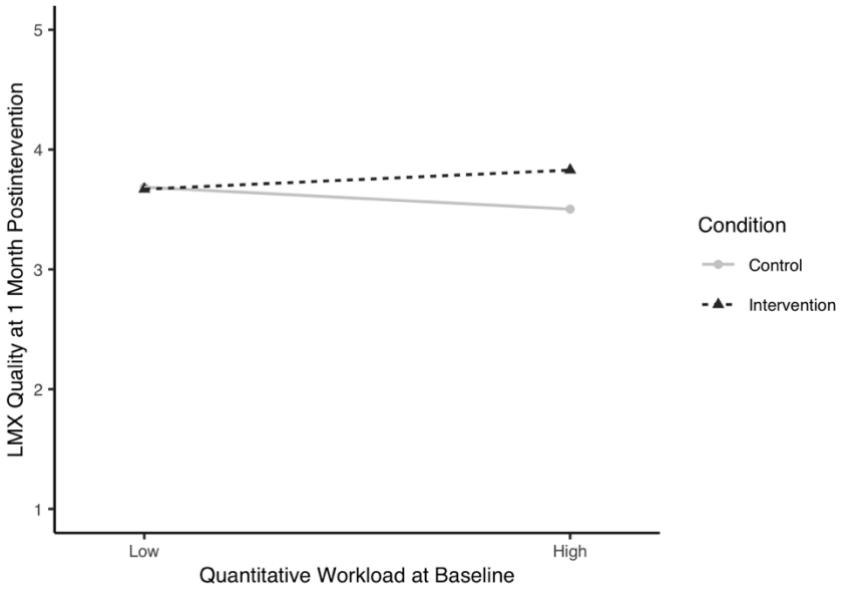
Moderated Effects of the Supportive Leadership Training on Employee Well-Being

The moderated intervention effects model showed that baseline quantitative workload moderated the intervention effect on one-month LMX quality (b = 0.18, SE = 0.08, p = .024). Descriptively, the moderating effect indicated that the supportive leadership training was more effective for the employees with higher quantitative workloads (see Figure 3.4). The simple slope tests showed that the intervention effect was not significant at low levels of quantitative workloads (b = –0.01, SE = 0.11, p = .92), but it was significant and positive at the mean (b = 0.16, SE = 0.08, p = .040) and high (b = 0.33, SE = 0.11, p = .003) levels of quantitative workloads. However, quantitative workload did not moderate the intervention effect on six-month LMX quality (b = 0.10, SE = 0.09, p = .25). Thus, the results provide partial support for H3. Furthermore, we found no

moderating effects of qualitative workload on the intervention effect on one-month LMX quality (*b* = –0.12, *SE* = 0.11, *p* = .29) or six-month LMX quality (*b* = –0.14, *SE* = 0.11, *p* = .23). Thus, H4 was not supported.

Figure 3.4

Moderated Intervention Effect on LMX Quality at One Month Postintervention



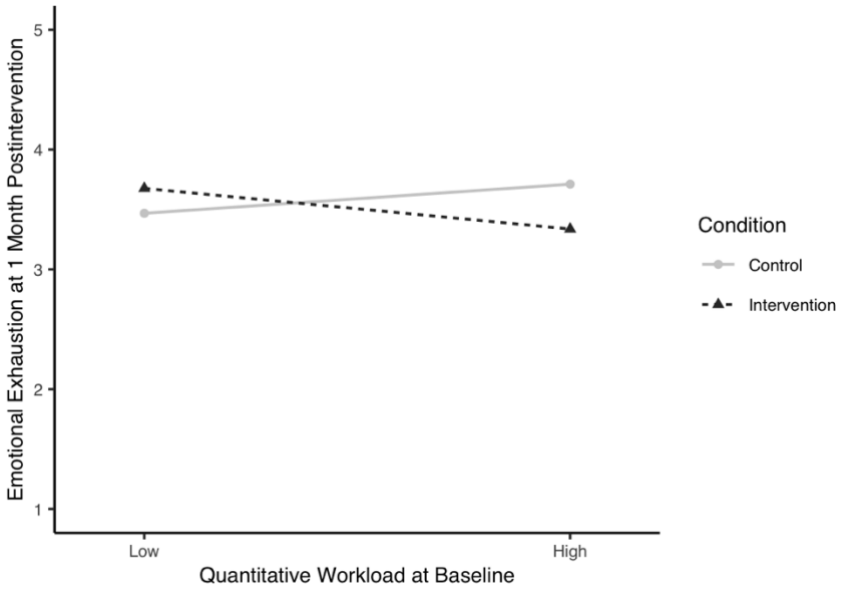
Regarding positive affective well-being, we did not find a moderating effect of baseline quantitative workload on the intervention effect at one month postintervention (*b* = 0.02, *SE* = 0.11, *p* = .88) or six months postintervention (*b* = 0.19, *SE* = 0.11, *p* = .071). In addition, qualitative workload was not a moderator of the intervention effects on positive affective well-being at one month postintervention (*b* = 0.10, *SE* = 0.14, *p* = .48) or six months postintervention (*b* = –0.15, *SE* = 0.13, *p* = .28). Thus, H5(a) and H6(a) were not supported.

However, the results showed that baseline quantitative workload moderated the intervention effect on one-month emotional exhaustion (*b* = –0.31, *SE* = 0.11, *p* = .006). Descriptively, this moderating effect indicated that employees with higher quantitative workloads benefited more from the supportive leadership training in terms of emotional exhaustion (see Figure

3.5). The simple slope tests showed that the intervention effect was significant and negative at high levels of quantitative workloads (b = –0.38, SE = 0.14, p = .009) but not significant at the mean (b = –0.08, SE = 0.09, p = .38) and low (b = 0.21, SE = 0.14, p = .14) levels of quantitative workloads.

Figure 3.5

Moderated Intervention Effect on Emotional Exhaustion at One Month Postintervention

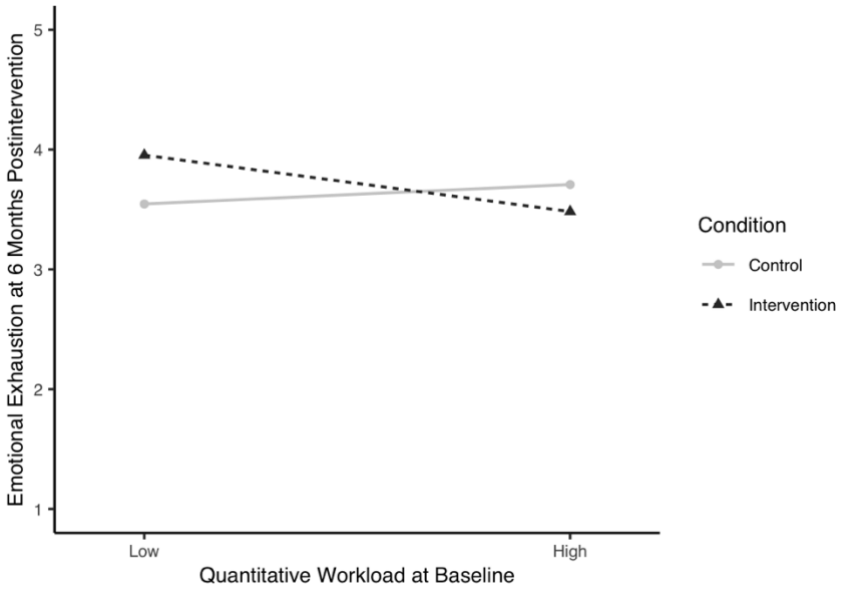


Furthermore, we found that baseline quantitative workload moderated the intervention effect on six-month emotional exhaustion (b = –0.34, SE = 0.13, p = .012). Descriptively, this moderating effect indicated that the supportive leadership training was more beneficial for employees with higher quantitative workloads and less beneficial for employees with lower levels of quantitative workloads (see Figure 3.6). The simple slope tests showed that the intervention effect was significant and positive at low levels of quantitative workloads (b = 0.41, SE = 0.17, p = .014) but not significant at the mean (b = 0.09, SE = 0.11, p = .40), and high (b = –0.23, SE = 0.17, p = .18) levels

of quantitative workloads.[6] Thus, the results provide partial support for H5(b). Qualitative workload did not moderate the intervention effects on one-month emotional exhaustion (*b* = 0.18, *SE* = 0.15, *p* = .21) or six-month emotional exhaustion (*b* = 0.09, *SE* = 0.17, *p* = .59). Thus, H6(b) was not supported.

Figure 3.6

Moderated Intervention Effect on Emotional Exhaustion at Six Months



Baseline quantitative workload did not moderate the intervention effects on one-month job satisfaction (*b* = 0.11, *SE* = 0.07, *p* = .12) or six-month job satisfaction (*b* = 0.11, *SE* = 0.08, *p* = .18). Finally, qualitative workload was not a significant moderator of the intervention effects on job satisfaction at one month postintervention (*b* = 0.00, *SE* = 0.09, *p* = .99) or six months postintervention (*b* = –0.01, *SE* = 0.10, *p* = .91). Thus, we found no support for H5(c) and H6(c).

[6] Note that quantitative workload was a continuous variable and that we tested simple effects at the mean and at 1 *SD* above and below the mean for illustrative purposes. Although the simple effect at high levels of quantitative workloads was not significantly different from zero, the significant interaction effect indicates that the intervention was more beneficial for those with higher (vs. lower) levels of quantitative workloads.

Discussion

Drawing on COR theory (Hobfoll, 1989), this study sought to develop and evaluate a supportive leadership training designed to teach leaders ways to be supportive of their employees. We examined the effects of the supportive leadership training on employee social well-being in terms of LMX quality and employee hedonic well-being, including their positive affective well-being, emotional exhaustion, and job satisfaction. The results showed that the supportive leadership training was effective in terms of LMX quality at one month postintervention. This intervention effect was moderated by employees' baseline perceptions of quantitative workloads, such that the employees with higher quantitative workloads benefited more from the supportive leadership training. While we found no evidence for the general effectiveness of the supportive leadership training in terms of hedonic well-being, baseline quantitative workload moderated the effects of the supportive leadership training on emotional exhaustion, suggesting that the intervention was more effective for employees with higher quantitative workloads and less beneficial for those with lower quantitative workloads. Baseline qualitative workload was not a moderator of supportive leadership training effectiveness.

Theoretical Implications

By providing a randomized controlled trial that rigorously examined the effects of a theoretically and empirically informed supportive leadership training on employee well-being, this study has important implications for the supportive leadership training literature. First, we contribute to supportive leadership training research by illustrating that using COR theory to develop and evaluate a supportive leadership training provides a novel perspective on supportive leadership training frameworks that shifts the focus from the prevention of negative states to the promotion of the positive dimensions of employee well-being through supportive leadership training. The current study extends the well-being outcomes of supportive leadership training by demonstrating positive supportive leadership training effects on employee social well-being in terms of LMX quality. Furthermore, we highlight the value of COR theory in clarifying for whom supportive leadership

training is effective. Given the small overall effects of supportive leadership training on employee well-being (e.g., Hammer et al., 2019), identifying employee-level factors that may facilitate supportive leadership training effectiveness is critical. By showing that supportive leadership training is more effective for employees experiencing higher quantitative workloads, we draw attention to the important role of employees' stressful working conditions in influencing supportive leadership training effectiveness and add to the emerging but scarce research that has examined the employee-level moderators of supportive leadership training effects on employee well-being (e.g., Hammer et al., 2011; Kossek et al., 2019).

Insights from relationship theory (e.g., Colbert et al., 2016) offer potential explanations for the lack of effects of the supportive leadership training on positive affective well-being and job satisfaction and the observation of a possible detrimental supportive leadership training effect on emotional exhaustion among employees who perceived lower levels of baseline quantitative workloads. Relationship scholars have emphasized that, to promote positive states and provide opportunities to thrive in the absence of stressful experiences, it is necessary to move beyond traditional forms of support to include supportive behaviors that satisfy needs for growth and development (Feeney & Collins, 2015). The supportive behaviors included in the training (e.g., giving task assistance and expressing understanding) might primarily target the needs of employees in the context of stressful experiences but might not effectively satisfy the needs for growth and development. Supporting this view, empirical evidence indicates that support may have neutral or even detrimental effects on well-being when it does not address the needs of the recipient (Beehr et al., 2010). Recognizing the importance of support for growth and development may advance the COR-based development of supportive leadership training and strengthen the effects of supportive leadership training in terms of promoting positive well-being.

The moderating effects of quantitative but not qualitative workloads on supportive leadership training effectiveness might indicate the potential limits of supportive leadership training. The developed supportive leadership training focuses on supportive behaviors that are widely

applicable for leaders and is not designed to teach leaders to detect the various work-related problems of their employees and provide support that specifically addresses these problems. Research suggests that an excessive qualitative workload is more damaging than a heavy quantitative workload (Shaw & Weekley, 1985). The generally supportive behaviors included in the training might be useful for leaders in assisting employees dealing with quantitative overload as the less adverse form of workload but may not be strong enough to benefit qualitatively overloaded employees. Effectively assisting employees dealing with high qualitative workloads likely requires more extensive and specific support (e.g., assistance in the development of skills; Bowling & Kirkendall, 2012), which is beyond the scope of supportive leadership training.

Finally, this study has important implications for the LMX literature. While most work has focused on the characteristics of employees, leaders, and their relationships as antecedents of LMX quality (Dulebohn et al., 2012), little is known about deliberate efforts to influence LMX quality (Erdogan & Bauer, 2015). In this study, we moved beyond the primarily descriptive and correlational research on the antecedents of LMX quality by using a field trial. By performing one of the few studies examining LMX quality as an outcome of leadership training (Graen et al., 1982), we expand the understanding of how to improve the quality of existing LMX relationships. Additionally, the observation of a supportive leadership training effect on LMX quality reinforces the argument of LMX theory that support from the leader may drive the development of high-quality LMX (Graen & Scandura, 1987).

Another important point concerns the theoretical understanding of LMX. By viewing LMX quality as part of employee social well-being, we shift the focus from investigating the implications of LMX quality for employee well-being (e.g., Inceoglu et al., 2018) to understanding LMX quality as an outcome that is valuable in and of itself. In addition to offering opportunities for theoretical development in the area of LMX formation, focusing on the examination of LMX quality as an outcome may also improve LMX research on the empirical front by avoiding the endogeneity issues that are associated with the LMX construct (Antonakis et al., 2014).

Limitations and Directions for Future Research

There are several limitations that should be considered. First, we cannot conclusively isolate the factors responsible for the study's inconsistent findings. Insights from the process evaluation indicate that implementation issues may have hindered positive intervention effects.[7] It may have been difficult to detect intervention effects because only slightly more than half of the leaders in the intervention group participated in all three training sessions, and several leaders left the organization during the study. In addition, the organization underwent a restructuring process after the one-month survey. The restructuring was reported to have resulted in stress among the directors, which potentially interfered with the training effects. A refresher training session might have helped strengthen the training effects.

Another potential explanation for the small effects concerns the design of the supportive leadership training. Although research indicates that time-spaced leadership training leads to improved outcomes (Lacerenza et al., 2017), the time intervals of 10 to 12 weeks between the training sessions might have been too long, hindering the participants' ability to recall and build on the content of the previous sessions. Additional research is needed to clarify how supportive leadership training should be designed to produce maximum effects.

Although the process evaluation provided some evidence that the leaders applied the training content to their work, the study was not designed to examine why supportive leadership training influences employee well-being. The supportive leadership training targeted multiple forms of supportive leader behavior, indicating that the intervention effects were disseminated through various mechanisms. The examination of the mechanisms underlying supportive leadership training effects on employee well-being is not straightforward because the effects occur on different levels, with each offering specific challenges. At the leader level, estimates of supportive leadership training effects might not reflect actual changes because self-ratings of leadership are prone to self-

[7] For the results of the process evaluation, see Supplemental Material 1.

perception biases (Fleenor et al., 2010). At the employee level, improvements due to supportive leadership training do not necessarily need to be perceived to exert positive effects on well-being (Bolger et al., 2000). Despite these difficulties, the underlying mechanisms should receive greater attention in future research. The use of a realist evaluation framework that combines quantitative data with in-depth interviews and observations (for an excellent example, see Abildgaard et al., 2020) may help uncover why supportive leadership training is beneficial to employee well-being.

This approach may also shed light on the processes by which supportive leadership training is more effective for employees who perceive higher quantitative workloads. Based on the resource gain paradox principle of COR theory, we theorized that supportive leadership training would be particularly beneficial to employees experiencing heavy workloads because supportive leadership is more salient for them. Another possible explanation is that the supportive leader behaviors included in the training (e.g., actively assisting employees) are particularly applicable for leaders when their employees are struggling with heavy quantitative workloads. Therefore, the impact of the intervention might be stronger for quantitatively overloaded employees because the leaders are more likely to apply the training content to them.

In this study, we used a waitlist control group, which allowed us to account for the confounding effects of changes due to time (e.g., organizational transitions) and simply participating in the study. Future studies should use a waitlist control group in combination with an active control group that receives comparable training to draw stronger conclusions regarding supportive leadership training effectiveness.

Finally, the sample was mostly female, and several childcare teachers reported that they were group coordinators or deputy directors, which may limit the generalizability of the findings. Although we believe that the general knowledge and strategies that the leaders receive in the supportive leadership training will benefit a broad range of employees, future research should test the effects of the current supportive leadership training in other occupational groups and organizational settings.

Practical Implications

This study offers organizations guidance on how to benefit employee well-being via supportive leadership training. Through training at the leader level, supportive leadership training provides a cost-effective way to improve the well-being of a large number of employees. The finding that supportive leadership training is particularly effective for employees with heavy quantitative workloads may help practitioners make optimal decisions regarding the implementation of supportive leadership training. Specifically, the assessment of quantitative workloads can be easily included in a needs analysis, which is vital to ensuring that an intervention addresses the needs of the target group (Bell et al., 2017).

Furthermore, the study offers guidelines on how to develop high-quality LMX. In contrast to other leadership models (e.g., transformational leadership), LMX theory does not specify desirable leadership behaviors but focuses on the quality of the relationship between leaders and employees, making it difficult to provide clear prescriptions for improving LMX quality. By suggesting that organizations may facilitate the formation of high-quality LMX via supportive leadership training, this study helps bridge the theory–practice gap of LMX theory (Erdogan & Bauer, 2015).

Table 3.1

Sociodemographic Characteristics by Condition at Baseline

Variable	Intervention group *M* (*SD*)/%	Control group *M* (*SD*)/%
Leaders		
Age	49.66 (7.73)	51.75 (7.97)
Female	94.7%	100%
Years of working as a childcare director	10.83 (11.63)	15.83 (10.25)
Number of employees	8.73 (2.56)	10.32 (2.97)
Hours spent on leadership activities per week	4.86 (3.09)	5.59 (4.54)
Employees[a]		
Age	45.11 (11.85)	46.13 (10.79)
Female	97.1%	98.4%
Full-time employment	49.0%	50.0%
Years of professional experience	18.98 (11.41)	19.28 (11.28)
Occupation		
Childcare teacher	60.0%	62.9%
Assistant teacher	24.2%	22.7%
Kitchen staff	9.6%	10.2%
Other	6.2%	4.3%
Group leader/deputy directory	24.9%	24.5%
Secondary employment	9.3%	9.4%
Years of working under childcare director		
less than 1 year	24.4%	19.6%
1 to 5 years	40.2%	39.2%
6 to 10 years	15.8%	23.2%
more than 10 years	19.7%	18.0%

Note. Leaders: *n* = 36–38 in the intervention group. *n* = 32–36 in the control group. Employees: *n* = 234–240 whose leaders were in the intervention group. *n* = 244–256 whose leaders were in the control group. [a] Please note that the participants in the training were the leaders and that we used data from employees to evaluate the effectiveness of the supportive leadership training.

Table 3.2

Means, Standard Deviations, and Correlations of the Study Variables by Condition at Baseline

Variable	*M*	*SD*	α	1	2	3	4	5	6
1. LMX quality	3.62	0.83	0.92		.28***	–.32***	.53***	–.26***	–.18**
2. Positive affective well-being	3.31	0.84	0.91	0.37***		–.67***	.58***	–.39***	–.32***
3. Emotional exhaustion	3.51	1.27	0.93	–0.32***	–.66***		–.60***	.54***	.44***
4. Job satisfaction	3.67	0.69	0.85	0.56***	.62***	–.61***		–.41***	–.35***
5. Quantitative workload	2.74	0.90	0.84	–.39***	–.55***	.63***	–.62***		.51***
6. Qualitative workload	1.84	0.72	0.77	–.29***	–.37***	.48***	–.42***	.47***	

Note. *N* = 482–495 employees at baseline. The correlations for the employees whose leaders were in the intervention group (*n* = 230–240) are shown above the diagonal, and the correlations for the employees whose leaders were in the control group (*n* = 246–254) are shown below the diagonal. In computing the correlations, we did not account for the nested data structure.

** $p < .01$ *** $p < .001$

Table 3.3

Means and Standard Deviations of the Outcome Variables by Condition

Variable	Intervention			Control		
	Baseline *n* = 234–240 *M* (*SD*)	1 month *n* = 114–119 *M* (*SD*)	6 months *n* = 105–106 *M* (*SD*)	Baseline *n* = 248–255 *M* (*SD*)	1 month *n* = 145–146 *M* (SD)	6 months *n* = 118–120 *M* (*SD*)
LMX quality	3.73 (0.82)	3.87 (0.79)	3.81 (0.74)	3.52 (0.84)	3.48 (0.82)	3.54 (0.82)
Positive affective well-being	3.42 (0.84)	3.44 (0.83)	3.30 (0.80)	3.22 (0.84)	3.30 (0.88)	3.29 (0.86)
Emotional exhaustion	3.48 (1.25)	3.45 (1.22)	3.65 (1.20)	3.55 (1.30)	3.65 (1.35)	3.70 (1.35)
Job satisfaction	3.71 (0.66)	3.79 (0.62)	3.81 (0.61)	3.64 (0.72)	3.60 (0.75)	3.59 (0.79)
Quantitative workload[a]	2.63 (0.89)	2.58 (0.91)	2.76 (0.86)	2.84 (0.90)	2.90 (0.89)	2.94 (0.97)
Qualitative workload[a]	1.78 (0.69)	1.93 (0.74)	1.96 (0.75)	1.91 (0.74)	2.02 (0.80)	2.00 (0.81)

Note. [a] To test the possibility that the supportive leadership training had effects on employees' perceptions of workloads, we conducted a supplementary analysis in which we used postintervention quantitative and qualitative workloads as outcomes. The results of the supplementary analysis showed no intervention effects on quantitative workload at one month postintervention (b = –0.16, SE = 0.09, p = .090) and six months postintervention (b = –0.03, SE = 0.10, p = .78) or on qualitative workload at one month postintervention (b = –0.003, SE = 0.07, p = .97) and six months postintervention (b = 0.01, SE = 0.09, p = .87).

Table 3.4

Results of the Mixed-Effects Models for Predicting LMX Quality at One Month and Six Months Postintervention

	1-month postintervention				6-months postintervention			
	Intervention effects model		Moderated intervention effects model		Intervention effects model		Moderated intervention effects model	
Effects	Est.	95% CI	Est.	95% CI	Est.	95% CI	Est.	95% CI
Fixed Effects								
Intercept	3.58***	[3.48, 3.69]	3.60***	[3.49, 3.70]	3.61***	[3.49, 3.74]	3.62***	[3.50, 3.74]
Baseline LMX quality	0.74***	[0.66, 0.82]	0.71***	[0.63, 0.80]	0.66***	[0.57, 0.75]	0.64***	[0.55, 0.74]
Condition[a]	0.17*	[0.01, 0.33]	0.16*	[0.01, 0.31]	0.09	[–0.08, 0.27]	0.09	[–0.08, 0.27]
Baseline quant. workload			–0.10	[–0.21, 0.01]			–0.05	[–0.17, 0.07]
Baseline qual. workload			–0.02	[–0.15, 0.11]			0.02	[–0.13 0.17]
Condition × quant. workload			0.18*	[0.02, 0.34]			0.10	[–0.07, 0.28]
Condition × qual. workload			–0.12	[–0.33, 0.10]			–0.14	[–0.37, 0.09]
Random Effects								
Residual variance	0.25		0.24		0.26		0.26	
Intercept variance	0.03		0.03		0.04		0.04	

Note. *N* = 253 employees nested in 70 childcare centers at one month postintervention. *N* = 221 employees nested in 65 childcare centers at six months postintervention. Est. = estimate; 95% CI = profile likelihood confidence intervals; LMX = leader-member exchange; quant. = quantitative; qual = qualitative. [a] 0 = control group; 1 = intervention group. *$p < .05$ ***$p < .001$

Table 3.5

Results of the Mixed-Effects Models for Predicting Positive Affective Well-Being at One Month and Six Months Postintervention

	1-month postintervention				6-months postintervention			
	Intervention effects model		Moderated intervention effects model		Intervention effects model		Moderated intervention effects model	
	Est.	95% CI	Est.	95% CI	Est.	95% CI	Est.	95% CI
Fixed Effects								
Intercept	3.35***	[3.24, 3.46]	3.36***	[3.25, 3.47]	3.36***	[3.24, 3.47]	3.36***	[3.25, 3.47]
Baseline positive affective well-being	0.62***	[0.52, 0.72]	0.57***	[0.46, 0.69]	0.66***	[0.56, 0.76]	0.56***	[0.44, 0.69]
Condition[a]	0.03	[–0.13, 0.20]	0.03	[–0.13, 0.19]	–0.15	[–0.32, 0.01]	–0.15	[–0.31, 0.02]
Baseline quant. workload			–0.01	[–0.14, 0.17]			–0.14	[–0.29, 0.01]
Baseline qual. workload			–0.20*	[–0.37, –0.03]			–0.07	[–0.25, 0.11]
Condition × quant. workload			0.02	[–0.19, 0.22]			0.19	[–0.02, 0.40]
Condition × qual. workload			0.10	[–0.17, 0.36]			–0.15	[–0.41, 0.12]
Random Effects								
Residual variance	0.46		0.45		0.40		0.38	
Intercept variance	0.00		0.00		0.00		0.00	

Note. N = 264 employees nested in 70 childcare centers at one month postintervention. N = 224 employees nested in 65 childcare centers at six months postintervention. 95% CI = profile likelihood confidence intervals. [a] 0 = control group; 1 = intervention group.

*$p < .05$ ***$p < .001$

Table 3.6

Results of the Mixed-Effects Models for Predicting Emotional Exhaustion at One Month and Six Months Postintervention

	1-month postintervention				6-months postintervention			
	Intervention effects model		Moderated intervention effects model		Intervention effects model		Moderated intervention effects model	
	Est.	95% CI	Est.	95% CI	Est.	95% CI	Est.	95% CI
Fixed Effects								
Intercept	3.60***	[3.48, 3.73]	3.59***	[3.46, 3.72]	3.64***	[3.49, 3.78]	3.63***	[3.48, 3.78]
Baseline emotional exhaustion	0.83***	[0.76, 0.90]	0.79***	[0.70, 0.88]	0.76***	[0.68, 0.84]	0.75***	[0.64, 0.86]
Condition[a]	–0.08	[–0.27, 0.11]	–0.08	[–0.28, 0.10]	0.11	[–0.11, 0.33]	0.09	[–0.13, 0.31]
Baseline quant. workload			0.13	[–0.03, 0.30]			0.09	[–0.10, 0.28]
Baseline qual. workload			0.04	[–0.15, 0.22]			0.05	[–0.17, 0.28]
Condition × quant. workload			–0.31**	[–0.54, –0.09]			–0.34*	[–0.61, –0.08]
Condition × qual. workload			0.18	[–0.11, 0.47]			0.09	[–0.25, 0.43]
Random Effects								
Residual variance	0.52		0.49		0.62		0.59	
Intercept variance	0.01		0.02		0.01		0.01	

Note. *N* = 261 employees nested in 70 childcare centers at one month postintervention. *N* = 221 employees nested in 65 childcare centers at six months postintervention. 95% CI = profile likelihood confidence intervals. [a] 0 = control group; 1 = intervention group.

*$p < .05$ **$p < .01$ ***$p < .001$

Table 3.7

Results of the Mixed-Effects Models for Predicting Job Satisfaction at One Month and Six Months Postintervention

	1-month postintervention				6-months postintervention			
	Intervention effects model		Moderated intervention effects model		Intervention effects model		Moderated intervention effects model	
	Est.	95% CI	Est.	95% CI	Est.	95% CI	Est.	95% CI
Fixed Effects								
Intercept	3.65***	[3.56, 3.74]	3.66***	[3.57, 3.75]	3.63***	[3.53 3.73]	3.64***	[3.54, 3.74]
Baseline job satisfaction	0.75***	[0.67 0.83]	0.68***	[0.58, 0.78]	0.75***	[0.67, 0.84]	0.70***	[0.59, 0.81]
Condition[a]	0.08	[–0.05, 0.22]	0.08	[–0.05, 0.21]	0.12	[–0.03, 0.26]	0.11	[–0.03, 0.26]
Baseline quant. workload			–0.10*	[–0.21, 0.001]			–0.11	[–0.22, 0.005]
Baseline qual. workload			–0.04	[–0.15, 0.07]			0.01	[–0.11, 0.14]
Condition × quant. workload			0.11	[–0.03, 0.25]			0.11	[–0.05, 0.26]
Condition × qual. workload			0.00	[–0.18, 0.18]			–0.01	[–0.21, 0.18]
Random Effects								
Residual variance	0.19		0.18		0.19		0.19	
Intercept variance	0.02		0.02		0.03		0.03	

Note. *N* = 260 employees nested in 70 childcare centers at one month postintervention. *N* = 223 employees nested in 65 childcare centers at six months postintervention. 95% CI = profile likelihood confidence intervals. [a] 0 = control group; 1 = intervention group.

*$p < .05$ ***$p < .001$

Supplemental Materials

Process Evaluation Procedure

To evaluate the intervention process, we used several sources of information, including records of participant attendance at the training and administrative information on personnel turnover. In addition, we used protocols from the five steering group meetings between September 2017 and May 2018. Participants in the steering group meetings were representatives of the directors in the intervention group, representatives of employees, and representatives of the quality, human resources, and senior management staff of the organization. After the first training session, we conducted a semistructured interview with the trainer. Interview questions included "What went well with the training session?", "What were problems?" and "How did you perceive the atmosphere in the training groups?" The training sessions were observed by members of the research team. The observers used a systematic checklist to evaluate whether the training content was implemented as planned. Immediately after each training session, we assessed the participants' perceptions of the practical relevance and usefulness of the training content with items developed based on Warr and Bunce (1995). The three items that addressed practical relevance focused on the extent to which participants felt that the training content reflected their job requirements (e.g., "The content of today's session fits well with what I experience in my everyday work."). The three items that addressed usefulness assessed how applicable the participants perceived the training to be to their work (e.g., "I will be able to apply the content of today's session to my everyday work."). The responses were scored on a 4-point Likert scale (1 = *disagree* to 4 = *strongly agree*). Cronbach's alphas were 0.80 for relevance and 0.82 for usefulness.

Organizational Context of Intervention Implementation

Analysis of the protocols of the steering group meetings indicated that the key stakeholders were committed to the intervention and that senior management was supportive of the intervention process. The human resource manager expressed support of the directors in the intervention group by giving an opening speech in the first training session. The organization's

project management was well organized in terms of information and communication. Human resources management provided the necessary resources to implement and evaluate the intervention (e.g., assistance in organizing the surveys). Organizational records showed that two directors from the intervention group and six directors from the control group left the organization during the study. Although we have no data on turnover rates at the employee level, the organization noted that turnover was a problem and that multiple employees left the organization before completing the postintervention surveys. After completion of the one-month postintervention survey, the organization underwent a transition period in which new organizational structures were implemented. Specifically, the organization added a middle management level above the director level and changed its reporting structure. The steering group meeting protocols revealed that organizational restructuring resulted in a great deal of uncertainty and stress among the directors.

Reach of the Training

Although participation was mandatory, not all directors assigned to the intervention group participated in the training. Six directors (15%) participated in none of the training sessions, and three directors (7%) participated in only one training session. Nine directors (22%) participated in two training sessions, and 23 directors (56%) participated in all three training sessions. The reasons for nonparticipation included absence due to illness, vacation, termination of employment, and important professional responsibilities that required the presence of the directors in the childcare centers (e.g., staffing difficulties). The directors assigned to the waitlist control group did not take part in the training until after the completion of the study.

Intervention Fidelity and Experiences of the Training

Inspection of the fidelity checks revealed that the key content of the training was covered in all training groups and that there was little variation in the delivery of the training content across training groups. The reactions of the leaders (N_1 = 35 at the first session, N_2 = 27 at the second session, and N_3 = 29 at the third session) showed that they found the training to be relevant (M_1 =

3.30, SD_1 = 0.56; M_2 = 3.38, SD_2 = 0.58; and M_3 = 3.33, SD_3 = 0.45) and useful (M_1 = 3.11, SD_1 = 0.55; M_2 = 3.44, SD_2 = 0.51; and M_3 = 3.25, SD_3 = 0.48). Analysis of the interview with the trainer revealed that the trainer perceived the leaders' motivation to learn and readiness for change to be high. Additionally, the trainer noted that the initial doubts and concerns about the training that several participants had expressed at the beginning were quickly resolved and that the group climate was characterized by openness and trust. After completion of the training, representatives of the directors in the steering group found that the practical relevance of the training and the useful tools that it provided helped them implement the training content in their everyday work. However, they also reported that time constraints made it difficult for them to recall and apply what they had learned.

Supplemental Table 3.1

Summary of the Training Content

Module 1: Self-Reflection and Advantages of Supportive Leadership	Module 2: Knowledge and Skills for Engaging in Supportive Behavior	Module 3: Practice and Finetuning of Supportive Leader Behaviors
(1) Start of the session: Welcoming the participants Icebreaker games to get to know each other Clarifying participants' expectations of the training Clarifying the objectives of the training Introducing the training logs (2) Interactive lecture on the conceptualization and value of well-being (3) Group discussion on leaders' everyday stressors and resources including their influence on well-being	(1) Start of the session: Refreshing the content of Session 1 Reflection and discussion on goal progress and successes and challenges in implementing the training content (2) Interactive lecture on how leaders may create supportive work environments: giving clear information providing constructive feedback enabling participation giving tangible assistance expressing understanding and appreciation	(1) Start of the session: Refreshing the content of Session 2 Reflection and discussion on goal progress and successes and challenges in implementing the training content (2) Interactive lecture on the importance of understanding employees' individual behaviors, goals, and needs (3) Interactive lecture on how leaders may provide clarity through information and give recognition and constructive feedback

Note. A full description of the training content can be obtained from the first author upon request.

Supplemental Table 3.1 (continued)

Summary of the Training Content

Module 1: Self-Reflection and Advantages of Supportive Leadership	Module 2: Knowledge and Skills for Engaging in Supportive Behavior	Module 3: Practice and Finetuning of Supportive Leader Behaviors
(4) Interactive lecture on the important role of leaders in influencing employee well-being (5) Interactive plenary session on different supportive resources for dealing with stressful experiences at work (6) Group discussion on how leaders may effectively support their employees and what they need to fulfill their leadership role (7) Closing of the session: Questions and feedback Goal setting using the training logs	(3) Practical exercise including the development of an action plan to be more supportive of employees (4) Group discussion on what supportive behaviors the leaders already engage in (5) Closing of the session: Questions and feedback Goal setting using the training logs	(4) Practical exercise and group discussion on how leaders may offer support that is tailored to employees' individual needs (5) Practical exercise and group discussion including a role-playing session with peer feedback for practicing active listening skills and the provision of constructive feedback to employees (6) Closing of the session: Questions and feedback Goal setting using the training logs Summary and farewell

Note. A full description of the training content can be obtained from the first author upon request.

Supplemental Table 3.2

Attrition Analysis: Independent t-Tests

	Responders		Nonresponders			
	M	*SD*	*M*	*SD*	*t*	*df*
One month postintervention						
Age	45.54	11.46	45.74	11.17	–0.20	484.01
Years of professional experience	18.22	11.53	18.00	11.65	0.20	461.28
Conditiona	0.45	0.50	0.53	0.50	–1.75	483.08
LMX quality	3.64	0.83	3.60	0.83	0.62	470.03
Positive affective well-being	3.35	0.85	3.27	0.83	1.05	482.95
Emotional exhaustion	3.52	1.27	3.51	1.28	0.05	480.56
Job satisfaction	3.70	0.70	3.63	0.69	1.10	479.78
Quantitative workload	2.75	0.93	2.73	0.87	0.19	489.63
Qualitative workload	1.86	0.71	1.83	0.74	0.39	475.00
Six months postintervention						
Age	46.43	10.34	44.97	12.05	1.45	491.68
Years of professional experience	19.30	11.20	17.11	11.81	2.07*	470.55
Conditiona	0.47	0.50	0.50	0.50	–0.60	479.00
LMX quality	3.71	0.83	3.54	0.83	2.26*	469.00
Positive affective well-being	3.37	0.84	3.27	0.85	1.31	479.38
Emotional exhaustion	3.58	1.32	3.46	1.24	1.03	463.15
Job satisfaction	3.71	0.71	3.64	0.67	1.08	461.74
Quantitative workload	2.78	0.94	2.71	0.86	0.90	461.82
Qualitative workload	1.91	0.73	1.79	0.71	1.82	472.62

Note. Welch's *t*-tests were used. *n* = 266 responders and *n* = 230 nonresponders at one month postintervention. *n* = 226 responders and *n* = 270 nonresponders at six months postintervention.

[a] 0 = control group; 1 = intervention group.

*$p < .05$

Supplemental Table 3.3

Per-Protocol Analysis: Results of the Mixed-Effects Models for Predicting LMX Quality

	1-month postintervention				6-months postintervention			
	Intervention effects model		Moderated intervention effects model		Intervention effects model		Moderated intervention effects model	
	Est.	95% CI	Est.	95% CI	Est.	95% CI	Est.	95% CI
Fixed Effects								
Intercept	3.50***	[3.39, 3.60]	3.50***	[3.41, 3.60]	3.53***	[3.41, 3.66]	3.53***	[3.41, 3.66]
Baseline LMX quality	0.78***	[0.70, 0.87]	0.75***	[0.67, 0.84]	0.75***	[0.65, 0.85]	0.74***	[0.63, 0.85]
Condition[a]	0.18*	[0.03, 0.34]	0.17*	[0.03, 0.33]	0.15	[–0.04, 0.33]	0.14	[–0.04, 0.33]
Baseline quant. workload			–0.08	[–0.18, 0.03]			0.002	[–0.14, 0.14]
Baseline qual. workload			–0.11	[–0.24, 0.02]			–0.12	[–0.30, 0.07]
Condition × quant. workload			0.19*	[0.04, 0.35]			0.04	[–0.17, 0.24]
Condition × qual. workload			–0.03	[–0.24, 0.18]			0.09	[–0.19, 0.36]
Random Effects								
Residual variance	0.21		0.20		0.23		0.22	
Intercept variance	0.03		0.02		0.02		0.03	

Note. *N* = 217 employees nested in 62 childcare centers at one month postintervention. *N* = 145 employees nested in 53 childcare centers at six months postintervention. 95% CI = profile likelihood confidence intervals. [a] 0 = control group; 1 = intervention group.

*$p < .05$ ***$p < .001$

Supplemental Table 3.4

Per-Protocol Analysis: Results of the Mixed-Effects Models for Predicting Positive Affective Well-Being

	1-month postintervention				6-months postintervention			
	Intervention effects model		Moderated intervention effects model		Intervention effects model		Moderated intervention effects model	
	Est.	95% CI	Est.	95% CI	Est.	95% CI	Est.	95% CI
Fixed Effects								
Intercept	3.34***	[3.22, 3.46]	3.34***	[3.22, 3.46]	3.35***	[3.22, 3.49]	3.35***	[3.22, 3.48]
Baseline positive affective well-being	0.64***	[0.53, 0.75]	0.60***	[0.47, 0.73]	0.70***	[0.58 0.82]	0.61***	[0.45, 0.76]
Condition[a]	0.006	[–0.18, 0.19]	0.01	[–0.17, 0.19]	–0.15	[–0.35, 0.05]	–0.14	[–0.33, 0.06]
Baseline quant. workload			0.02	[–0.14, 0.18]			–0.06	[–0.24, 0.12]
Baseline qual. workload			–0.23*	[–0.41, –0.05]			–0.18	[–0.40, 0.05]
Condition × quant. workload			0.07	[–0.15, 0.29]			0.13	[–0.11, 0.38]
Condition × qual. workload			0.10	[–0.18, 0.39]			–0.11	[–0.44, 0.22]
Random Effects								
Residual variance	0.45		0.43		0.37		0.35	
Intercept variance	0.005		0.001		0.00		0.00	

Note. *N* = 225 employees nested in 62 childcare centers at one month postintervention. *N* = 149 employees nested in 53 childcare centers at six months postintervention. 95% CI = profile likelihood confidence intervals. [a] 0 = control group; 1 = intervention group.

*$p < .05$ ***$p < .001$

Supplemental Table 3.5

Per-Protocol Analysis: Results of the Mixed-Effects Models for Predicting Emotional Exhaustion

	1-month postintervention				6-months postintervention			
	Intervention effects model		Moderated intervention effects model		Intervention effects model		Moderated intervention effects model	
	Est.	95% CI	Est.	95% CI	Est.	95% CI	Est.	95% CI
Fixed Effects								
Intercept	3.62***	[3.49, 3.76]	3.62***	[3.48, 3.75]	3.67***	[3.50, 3.83]	3.66***	[3.49, 3.82]
Baseline emotional exhaustion	0.82***	[0.74, 0.90]	0.76***	[0.68, 0.87]	0.80***	[0.70, 0.90]	0.75***	[0.62, 0.89]
Condition[a]	–0.07	[–0.29, 0.13]	–0.08	[–0.30, 0.12]	0.05	[–0.21, 0.30]	0.04	[–0.21, 0.29]
Baseline quant. workload			0.20*	[0.02, 0.37]			0.13	[–0.10, 0.36]
Baseline qual. workload			–0.02	[–0.21, 0.17]			0.12	[–0.17, 0.41]
Condition × quant. workload			–0.39***	[–0.62, –0.16]			–0.28	[–0.59, 0.04]
Condition × qual. workload			0.26	[–0.05, 0.56]			–0.10	[–0.54, 0.33]
Random Effects								
Residual variance	0.48		0.45		0.59		0.57	
Intercept variance	0.03		0.03		0.00		0.00	

Note. *N* = 222 employees nested in 62 childcare centers at one month postintervention. *N* = 146 employees nested in 53 childcare centers at six months postintervention. 95% CI = profile likelihood confidence intervals. [a]0 = control group; 1 = intervention group.

*$p < .05$ ***$p < .001$

Supplemental Table 3.6

Per-Protocol Analysis: Results of the Mixed-Effects Models for Predicting Job Satisfaction

	1-month postintervention				6-months postintervention			
	Intervention effects model		Moderated intervention effects model		Intervention effects model		Moderated intervention effects model	
	Est.	95% CI	Est.	95% CI	Est.	95% CI	Est.	95% CI
Fixed Effects								
Intercept	3.63***	[3.54, 3.72]	3.63***	[3.54, 3.72]	3.59***	[3.50, 3.69]	3.60***	[3.50, 3.69]
Baseline job satisfaction	0.78***	[0.69, 0.86]	0.72***	[0.62, 0.84]	0.79***	[0.70, 0.89]	0.74***	[0.61, 0.86]
Condition[a]	0.06	[–0.07, 0.20]	0.06	[–0.07, 0.20]	0.16*	[0.02, 0.30]	0.16*	[0.02, 0.30]
Baseline quant. workload			–0.08	[–0.18, 0.03]			–0.09	[–0.21, 0.04]
Baseline qual. workload			–0.05	[–0.17, 0.07]			–0.07	[–0.22, 0.09]
Condition × quant. workload			0.07	[–0.07, 0.22]			0.09	[–0.09, 0.26]
Condition × qual. workload			0.06	[–0.13, 0.24]			0.12	[–0.11, 0.36]
Random Effects								
Residual variance	0.18		0.17		0.17		0.16	
Intercept variance	0.02		0.02		0.001		0.005	

Note. N = 222 employees nested in 62 childcare centers at one month postintervention. N = 146 employees nested in 53 childcare centers at six months postintervention. 95% CI = profile likelihood confidence intervals. a 0 = control group; 1 = intervention group.

*$p < .05$ ***$p < .001$

CHAPTER 4: STUDY 3 – DAILY AFFILIATION RESOURCES PROVIDED BY THE LEADER AND MASTERY[8]

Abstract

Purpose: Although research suggests that nonwork mastery improves employee well-being and performance, surprisingly little is known about the role of leaders in helping employees experience mastery during nonwork time. Drawing on conservation of resources theory and resource exchange perspectives, we adopt a day-level, within-person perspective to examine how affiliation resources provided by the leader affect employee nonwork mastery experiences.

Design/Methodology/Approach: We collected daily diary data from 198 employees (768 days), and we tested the proposed model using Bayesian multilevel path analysis.

Findings: The results showed that on days when employees perceived that their leader provided more affiliation resources, they reported higher levels of self-esteem and work engagement and, in turn, experienced higher levels of mastery during after-work time. Furthermore, we found that employees with high (vs. low) leader-member exchange (LMX) quality benefitted more from the affiliation resources provided by their leader in terms of work engagement.

Practical Implications: The findings suggest that leaders can improve employee daily experience and functioning through seemingly ordinary demonstrations of affiliation.

Originality: This study advances the leadership and work recovery literatures by emphasizing the importance of considering the implications of day-to-day resources provided by the leader for employee recovery. By examining the interplay of dynamic, day-level provisions of resources and static, between-person differences in LMX quality, we advance the understanding of LMX as a dynamic phenomenon and provide a more nuanced view of the value of affiliation resources provided by the leader to employee experience and functioning.

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Introduction

Mastery[9] – the experience of personal growth during nonwork time – is a core recovery experience that emerges from off-job activities that include challenges and opportunities for learning (Sonnentag et al., 2022). By providing a sense of achievement and proficiency, mastery helps employees unwind from work and replenish and build personal resources (Sonnentag & Fritz, 2007). The value of mastery experiences has been supported by several studies, which have indicated that mastery improves employee well-being and performance (Steed et al., 2021). For example, mastery in the evening has been found to increase high-activated positive affect the next morning as well as next-day proactive work behavior (Ouyang et al., 2019).

Despite their benefits for both employees and organizations, employee mastery experiences are not necessarily easy for leaders to promote because the engagement in mastery-related activities is resource consuming (Sonnentag et al., 2008). Relationship research has emphasized that interpersonal resources lay the foundation personal growth experiences (Feeney & Collins, 2015), suggesting that leaders might help their employees experience mastery by providing them with resources at work. Indeed, research in the area of work recovery has indicated that employees with generally higher levels of aggregate sets of job resources, including perceived supervisor justice, are more likely to experience mastery (Kinnunen et al., 2011; Kinnunen & Feldt, 2013). Although these findings provide some support that resources provided by the leader increase mastery, we know little about the implications of specific short-term, within-person resource provisions by the leader for employee mastery experiences. This is an important oversight because mastery is a dynamic experience that varies within employees across workdays (Ouyang et al., 2019).

In this study, we investigate how leaders affect employee mastery on a daily basis by adopting a day-level, within-person perspective on specific resources provided by the leader. We propose that the affiliation resources provided by the leader during the workday may increase

[9] Please note that, unless otherwise noted, we use the term mastery to refer to mastery during nonwork time as a recovery experience.

employee mastery experiences during after-work time. According to leader-member exchange (LMX) theory (Graen & Uhl-Bien, 1995), affiliation resources are an important type of interpersonal resources that leaders provide their employees by demonstrating warmth, care, and positive regard (Wilson et al., 2010). Although most LMX studies have focused on general perceptions of LMX (e.g., Dulebohn et al., 2012), the notion that provisions of affiliation resources by the leader fluctuate within employees from day to day is consistent with LMX theory's conceptualization of resource exchanges as being dynamic (Graen & Uhl-Bien, 1995) and recent research, which has demonstrated that resource exchanges within LMX relationships are subject to short-term fluctuations (Z. Liao et al., 2019).

Drawing on conservation of resources (COR) theory (Hobfoll et al., 2018), we identify employee personal resources as an underlying process explaining why the affiliation resources provided by the leader during the workday may increase employee mastery experiences during after-work time. Specifically, we focus on self-esteem and work engagement as personal resources because they represent primary resource gain outcomes within COR theory (Halbesleben et al., 2009; Hobfoll et al., 1990) that reflect positive feelings about oneself in relation to others (i.e., self-esteem) and one's work (i.e., work engagement). We expect that on days when employees perceive that their leader provides relatively more affiliation resources, they experience higher levels of self-esteem and work engagement and, in turn, are more likely to engage in mastery experiences during after-work time.

We further suggest that the extent to which employees benefit from affiliation resources depends on the quality of an employee's general LMX relationship. By integrating insights from resource theory of social exchange (Foa & Foa, 1974), which states that people attribute more value to affiliation resources that are provided by high-quality relationship partners, we posit that the day-level, within-person associations between affiliation resources and self-esteem and work engagement are stronger for employees who have high-quality (vs. low-quality) LMX relationships with their leader. Figure 4.1 shows the conceptual model.

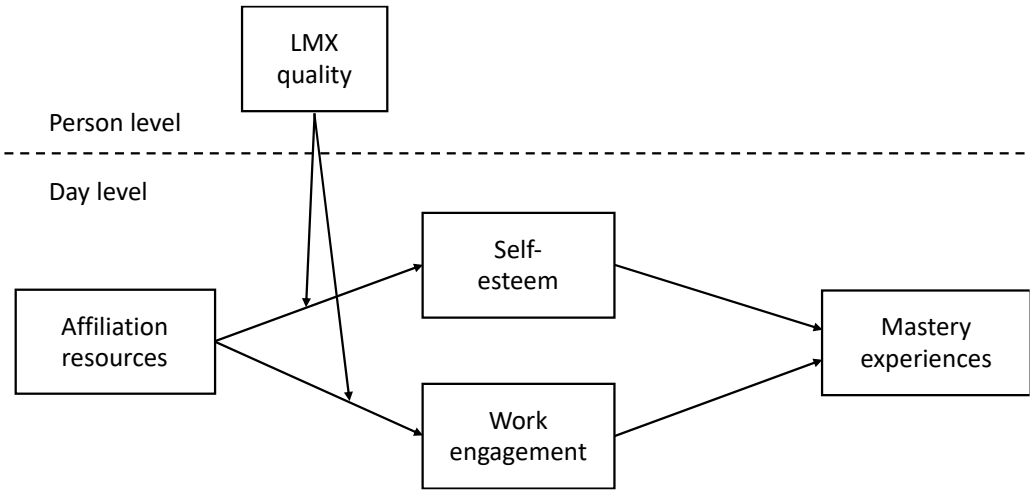
This study contributes to the leadership and work recovery literatures in several ways. First, we advance the understanding of the implications of leadership for employee experience and functioning by considering the role of day-to-day resource provisions by the leader in improving employee recovery experiences. In doing so, we not only address the call for more investigations on leadership and employee nonwork outcomes (Kossek et al., 2023), but also contribute more broadly to work recovery research by introducing affiliation resources provided by the leader as a potential way to increase mastery. While most research has focused on examining the consequences of mastery (Steed et al., 2021), insights into the day-level antecedents of mastery are important because the high positive activation associated with mastery in the evening translates to the next workday, thereby promoting active states and work behaviors (Ouyang et al., 2019)

Second, we advance the understanding of why affiliation resources affect mastery. By focusing on self-esteem and work engagement, we identify an employee's personal resources as a key process through which affiliation resources are related to mastery. In doing so, we shift the focus from understanding personal resources as outcomes of recovery experiences (Steed et al., 2021) to clarifying the extent to which personal resources are able to promote recovery.

Third, we contribute to LMX research by adopting a day-level perspective that allows us to distinguish between dynamic, within-person differences in resource exchanges and static, between-person differences in resource exchange relationships. Despite growing consideration that LMX is dynamic in nature (e.g., Z. Liao et al., 2019), most LMX studies have used static, between-person approaches that tend to disregard variations in the level of resource exchanges and conflate the exchange relationship with the exchange of resources (Cropanzano & Mitchell, 2005). By examining day-level, within-person associations between affiliation resources provided by the leader and subsequent personal resource generation within the broader context of an employee's general LMX quality, we advance the understanding of LMX as a dynamic phenomenon and provide a more nuanced view of the relative value of specific resources provided by the leader to employees.

Figure 4.1

Conceptual model



Theoretical Background and Hypotheses

While previous research has primarily used COR theory to understand the outcomes of mastery (e.g., Ouyang et al., 2019), COR theory is also useful for explaining how and why affiliation resources provided by the leader are related to mastery. The basic tenet of COR theory is that people are motivated to maintain and acquire resources, which are defined in terms of objects, personal characteristics, energies, and conditions that help satisfy goals and needs (Halbesleben et al., 2014). To maintain their current resources and gain additional resources, employees must invest resources. The corollary of these principles is that resource gains increase the likelihood of further gains: As employees gain resources, they are able to invest their excess resources to obtain additional resources (Hobfoll et al., 2018).

While mastery builds personal resources (e.g., self-efficacy; Sonnentag & Fritz, 2007), employees must engage in nonwork activities that involve challenges and learning opportunities if they are to experience mastery. For instance, employees may experience mastery when they do sports or learn an instrument. The engagement in these activities requires the investment of personal resources (Sonnentag & Fritz, 2007). As such, employees are more likely to experience

mastery when they have excess personal resources because they have greater opportunity to invest their resources in mastery-related nonwork activities.

COR theory emphasizes that interpersonal resources are an important catalyst for personal resource generation because they extend and strengthen one's pool of resources (Hobfoll et al., 1990). LMX scholars have used the term affiliation resources to refer to interpersonal types of resources that leaders may provide their employees by demonstrating warmth, care, and positive regard (Wilson et al., 2010). Given the dynamic nature of leader-follower interactions, we argue that the extent to which leaders provide affiliation resources likely varies from day to day, which is consistent with research showing that LMX is subject to daily within-person variations (Ellis et al., 2018). Based on COR theory, we argue that these daily variations in affiliation resources may influence employee mastery experiences. However, we suggest that the affiliation resources provided by the leader during the workday will not in and of itself generate mastery experiences but rather serve to increase self-esteem and work engagement, which, in turn, helps employees experience mastery during after-work time.

Affiliation Resources, Self-Esteem, and Mastery

COR theory states that one important function of interpersonal resources is to increase self-esteem (Hobfoll et al., 1990). Although self-esteem has a trait component that reflects relatively stable, general self-evaluations, self-esteem also has a state component that is responsive to situational changes. State self-esteem is viewed as an internal marker of the degree to which people perceive themselves as valued by others (Leary et al., 1995).

We expect that the affiliation resources provided by the leader during the workday constitute a source of self-esteem for employees because they convey a sense that one is valued. On days when leaders demonstrate warmth, care, and positive regard, they signal to their employees that they are valuable to them, which likely leads to positive self-evaluations. Indeed, day-specific support from the leader (e.g., assistance with problems at work) was found to increase day-specific self-esteem (Xanthopoulou et al., 2009).

We further suggest that on days when employees perceive higher levels of self-esteem, they are more likely to experience mastery. High levels of self-esteem motivate individuals to engage in behavior that helps them reach a higher level of proficiency (Deci & Ryan, 1995), suggesting that employees with high self-esteem might engage in mastery-related nonwork activities as a way to extend themselves. Furthermore, on days when their self-esteem is high, employees might be more confident about succeeding (Gardner & Pierce, 1998), which might encourage them to engage in challenging mastery-related activities that inherently involve the risk of failure. Consistent with these arguments and findings, we expect the following:

H1: Day-specific affiliation resources provided by the leader are positively related to day-specific mastery experiences via self-esteem.

Affiliation Resources, Work Engagement, and Mastery

In addition to promoting self-esteem, we draw on COR theory to argue that affiliation resources have an energizing potential with respect to increasing work engagement, which, in turn, facilitates mastery during after-work time. As an important outcome of resource gain processes at work, work engagement reflects a state of excess personal energy resources (Halbesleben et al., 2009) that is characterized by the experience of high levels of energy at work as well as strong involvement and immersion of oneself in the work (Schaufeli et al., 2002). Indeed, experiences of work engagement have been found fluctuate within employees across days as a function of changes in the level of resources at work (Sonnentag, Dormann, et al., 2010).

Affiliation resources may fuel work engagement because they affirm an employee's sense of connectedness, thereby enhancing the psychological conditions employees must meet to engage in their work. When employees feel connected with others, they are more likely to feel comfortable expressing themselves and engage in their work (Kahn & Heaphy, 2013). Furthermore, on days when employees experience that their leader provides them affiliation resources, they are more likely to perceive their interactions with their leaders as positive. Positive interactions at work are energizing, which leads employees to approach work positively and become engaged (Owens et al., 2016). In

line with this reasoning, studies have shown that employees are more engaged on days when they perceive more interpersonal resources in the form of support from others at work (e.g., Sonnentag et al., 2020).

The experience of work engagement implies high levels of positive activation, which is likely to be transferred to nonwork time (Daniel & Sonnentag, 2014). Positive activation, in turn, facilitates the engagement in skill development activities (Fredrickson, 2001), suggesting that employees who are highly engaged during the workday are likely to engage in personal growth experiences during after-work time. Additionally, engaged employees are more likely to accomplish their work (Xanthopoulou et al., 2009), thus releasing personal resources that can be invested in mastery-related nonwork activities. As such, we suggest that on days when employees experience high levels of work engagement, they are more likely to experience mastery during after-work time. Combining this argument with our previous theorizing, we expect the following:

H2: Day-specific affiliation resources provided by the leader are positively related to day-specific mastery experiences via work engagement.

The Role of LMX Quality

Resource exchange perspectives allow us to identify LMX quality – i.e., the relatively stable quality of the leader-follower exchange relationship (Graen & Uhl-Bien, 1995) – as a moderator of the proposed indirect relationships via self-esteem and work engagement. According to resource theory of social exchange (Foa & Foa, 1974), affiliation is a highly particularistic resource in that its value is closely linked with the nature of the individual's relationship with the resource provider. Specifically, people attribute more value to affiliation resources that they receive from someone with whom they have a high-quality relationship.

Based on this notion, we argue that employees in high-quality LMX relationships benefit more from affiliation resources in terms of self-esteem and work engagement than do employees in low-quality LMX relationships. First, employees with high LMX quality likely perceive their leader's demonstrations of warmth, care, and positive regard as signals of social worth and connectedness

because their relationship with their leader is built on trust and respect (Graen & Uhl-Bien, 1995) and their resource exchanges are characterized by genuine concern for the other (Liden et al., 1997). In contrast, employees in low-quality LMX relationships might suspect that their leader's provision of affiliation resources is motivated by self-interest because their exchange relationship with the leader is limited to formal role descriptions (Uhl-Bien & Maslyn, 2003). Consequently, they might be less likely to attribute such positive treatment to themselves, and therefore receive less benefit in terms of self-esteem and work engagement.

Second, affiliation resources might be more consequential for employees with high-quality LMX because resources are more valued when they fulfil a need (Halbesleben et al., 2014). In high-quality LMX relationships, leaders may specifically provide affiliation resources on days when their employees need them because they are aware and act upon their needs (Graen & Uhl-Bien, 1995). As such, employees with high-quality LMX should benefit more from the affiliation resources provided by the leader during the workday in terms of self-esteem and work engagement than employees with low-quality LMX:

H3: The positive relationships between day-specific affiliation resources provided by the leader and (a) self-esteem and (b) work engagement are moderated by LMX quality, such that these relationships are stronger when LMX quality is high (vs. low).

Combining Hypotheses 1–3, we propose that LMX quality moderates the indirect day-level, within-person relationships between affiliation resources and mastery via self-esteem and work engagement:

H4: The positive indirect relationships between day-specific affiliation resources provided by the leader and mastery experiences via (a) self-esteem and (b) work engagement are stronger when LMX quality is high (vs. low).

Method

Sample and Procedure

We used an online panel provider to collect data from employees who worked at least 30 hours per week and had a leader with whom they regularly interacted. Eligible participants were invited to complete two surveys each day for five consecutive workdays, i.e., Monday to Friday. In the afternoon survey, participants reported the extent to which their leader provided affiliation resources during the workday. The average start time of this survey was 04:16 pm. In the evening survey, participants reported their levels of self-esteem, work engagement, and mastery. The average start time of this survey was 09:03 pm. In the week after the daily surveys were administered, participants completed a one-time survey that assessed general LMX quality.

We matched the surveys, and we removed days when participants did not engage in interactions with their leaders. This approach resulted in a sample of 198 employees (53% female) who provided data for a total of 768 days (*M* = 3.9 per person). The mean age of participants was 43.5 years (*SD* = 11.4), and their mean tenure was 13.7 years (*SD* = 11.6). The participants worked in a variety of industries, with the majority working in public administration (18.7%), manufacturing (12.1%), and services (10.1%). The mean working hours per week were 38.5 (*SD* = 3.43).

Measures

The items for the daily measures were scored on a five-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

Affiliation Resources

We assessed affiliation resources provided by the leader using the German translation (Steinmann et al., 2016) of three items developed by Kalshoven et al. (2011), which we adapted for daily assessment. A sample item was “Today, my leader showed interest in how I feel and how I am doing”. The average Cronbach’s alpha coefficient was .89.

Self-Esteem

To assess self-esteem, we used three items taken from a measure of self-esteem in the work domain (Pierce et al., 1989), and we adapted these items for daily assessment. A sample item was "Today, I felt that I am valuable". The average Cronbach's alpha coefficient was .90.

Work Engagement

We used three items from the state version of the Utrecht Work Engagement Scale (Breevaart et al., 2012) to measure state work engagement. A sample item was "Today, I felt strong and vigorous at my job". The average Cronbach's alpha coefficient was .88.

Mastery

We assessed mastery using three items from the Recovery Experience Questionnaire adapted for daily assessment (Sonnentag et al., 2008). A sample item was "Tonight, I learned new things". The average Cronbach's alpha coefficient was .75.

LMX Quality

We measured LMX quality in the one-time survey using the LMX-7 scale (Graen & Uhl-Bien, 1995). A sample item was "How well does your leader understand your work-related problems and needs?" Responses were scored on a 5-point Likert scale with differing labels (e.g., from 1 = *not a bit* to 5 = *a great deal*). Cronbach's alpha coefficient was .89.

Control Variables

We controlled for day-specific working hours because longer workdays may allow employees to have more time to engage in interpersonal resource exchanges while limiting time for recovery. Additionally, longer workdays can be fatiguing, which may undermine experiences of self-esteem and work engagement. Similarly, we controlled for day-specific time pressure because time pressure may increase task focus in interactions while limiting exchanges of affiliation resources. In addition, time pressure can be a challenging experience that fuels work engagement (Kronenwett & Rigotti, 2020) and may also increase self-esteem because it offers opportunities to prove one's worth. However, on days when time pressure is high, employees may find it difficult to disengage

from work and initiate recovery activities (Sonnentag & Fritz, 2007). We measured time pressure using three items developed by Semmer et al. (1999), which we adapted for daily assessment (e.g., "Today, at work, I was required to work quickly"). The average Cronbach's alpha coefficient was .94.

Multilevel Confirmatory Factor Analysis (MCFA)

To evaluate the measurement model, we conducted MCFA using robust maximum likelihood estimation. We found that the proposed five-factor model had a good fit ($\chi 2 = 260.23$, df = 192, $p < .001$, CFI = .98, RMSEA = .021, SRMRWithin = .029, SRMRBetween = .050) and that this model fit the data better than alternative models. The full results of the MCFA are available at: https://osf.io/pr5av/?view_only=a0056f4ea13540f0be974de6bb5fb867.

Statistical Analyses

To test the hypotheses, we conducted multilevel path modelling in Mplus 8.2 (Muthén & Muthén, 2017) using Bayesian Markov chain Monte Carlo estimation and RW Gibbs sampling with default noninformative priors and 20,000 iterations. We decomposed the day-level variables into their within and between components and modelled the effects at both levels. Due to this decomposition, the day-level variables are implicitly centered at the person mean. We tested the cross-level interactions using the random coefficient prediction method. For simplicity, we used fixed slopes to model the effects of self-esteem and work engagement on mastery. To evaluate the indirect effects, we computed Bayesian 95% credibility intervals.

Results

Table 4.1 displays the descriptive statistics of the study variables. Table 4.2 presents the results of the multilevel path model. As the pattern of findings was essentially the same for the models including and not including control variables, we report only the results of the model not including the control variables.

– Insert Table 4.1 here –

H1 predicted that day-specific affiliation resources would be positively related to day-specific mastery via self-esteem. The results showed that affiliation resources were positively related

to self-esteem (γ = 0.11, 95% CI [0.04, 0.19]), which, in turn, was positively related to mastery (γ = 0.18, 95% CI [0.06, 0.30]). Providing support for H1, the indirect effect was 0.02 (PSD = 0.01, 95% CI [0.01, 0.04]).

H2 predicted that day-specific affiliation resources would be positively related to day-specific mastery via work engagement. As expected, we found that affiliation resources were positively related to work engagement (γ = 0.08, 95% CI [0.04, 0.19]), which, in turn, was positively related to mastery (γ = 0.15, 95% CI [0.03, 0.27]). Providing support for H2, the indirect effect was 0.01 (PSD = 0.01, 95% CI [0.001, 0.03]).

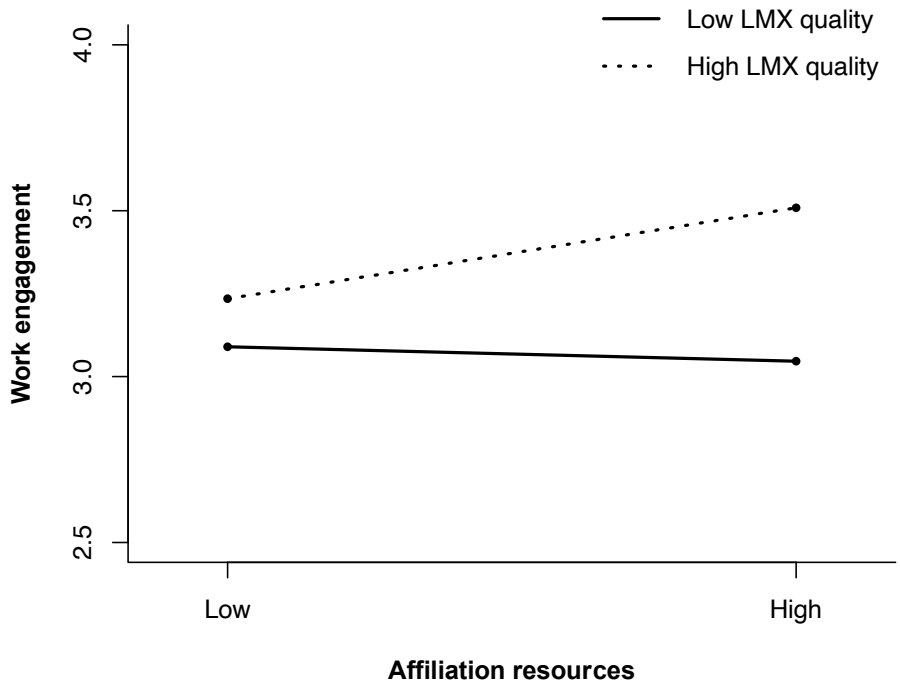
H3 predicted that the positive relationships between day-specific affiliation resources and (a) self-esteem and (b) work engagement would be stronger when LMX quality was high (vs. low). Contrary to this prediction, we found no evidence for the cross-level moderating effect of LMX quality on the relationship between affiliation resources and self-esteem (γ = -0.02, 95% CI [-0.14, 0.10]). Therefore, we did not calculate conditional indirect effects to test H4(a).

However, we did find that LMX quality was a significant cross-level predictor of the day-level relationship between affiliation resources and work engagement (γ = 0.16, 95% CI [0.06, 0.27]). As shown in Figure 4.2, the positive relationship was stronger for employees with high (+1 *SD*) LMX than for employees with low (-1 *SD*) LMX, providing support for H3(b). The results of the simple slopes tests showed that affiliation resources were positively related to work engagement at high LMX (γ = 0.20, PSD = 0.05, 95% CI [0.10, 0.29]) but nonsignificant at low LMX (γ = -0.03, PSD = 0.05, 95% CI [-0.13, 0.07]). Providing support for H4(b), the indirect effect of affiliation resources on mastery via work engagement was positive and significant at high LMX (estimate = 0.03, PSD = 0.01, 95 % CI [0.004, 0.06]) but not significant at low LMX (estimate = -0.003; 95 % CI [-0.02, 0.01]).

– Insert Table 4.2 here –

Figure 4.2

Moderating effect of LMX quality on the day-level (i.e., within-person) relationship between affiliation resources and work engagement



Discussion

In this study, we examined the ways in which the affiliation resources provided by the leader during the workday are related to employee mastery during after-work time. We found that on days when employees perceived that their leader provided more affiliation resources, they reported higher levels of self-esteem and work engagement and, in turn, experienced higher levels of mastery during after-work time. In addition, we found varying day-level relationships between affiliation resources and work engagement depending on LMX quality at the between-person level. The positive day-level, within-person relationship between affiliation resources and mastery via work engagement was stronger for employees with generally higher LMX quality.

Theoretical Implications

This study advances both the leadership and work recovery literatures by suggesting that seemingly ordinary demonstrations of affiliation by the leader during the workday may have implications for employees that are relevant beyond the work domain to include nonwork mastery. Specifically, we respond to the call for more investigations that shift the work-centric focus of leadership research to employee nonwork outcomes (Kossek et al., 2023) by highlighting the importance of considering associations between leadership and employee recovery experiences. Furthermore, previous research on recovery from work has focused on static between-person relationships between aggregate sets of job resources and mastery (Kinnunen et al., 2011; Kinnunen & Feldt, 2013). By adopting a day-level, within-person perspective, we offer insights into the work-related factors and psychological processes that account for daily variations in mastery. An understanding of why employees may experience mastery on some workdays but not on others is important in light of research indicating that daily variations in mastery influence employee active states and work behaviors (Ouyang et al., 2019). Additionally, the focus on associations between affiliation resources and mastery addresses the call for investigations that pay greater attention to the role of the social context in recovery (Sonnentag et al., 2022).

Moreover, this study has implications for LMX research. While previous studies have mostly examined general patterns of LMX (Dulebohn et al., 2012), we demonstrate that affiliation resources provided by the leader exhibit meaningful within-person variation across workdays, thereby furthering the understanding of LMX as a dynamic phenomenon. Specifically, 42.3% of the variance in affiliation resources were attributable to within-person factors. By focusing on daily variations in specific resources provided by the leader within LMX relationships, we extend previous research that has examined daily variations in LMX quality (Ellis et al., 2018) and episodic exchanges of aggregate sets of resources (Z. Liao et al., 2019).

We also advance LMX research by speaking to the importance of considering the relational dynamics involved in resource exchanges. We found that LMX quality at the between-person level

strengthens the positive day-level, within-person relationship between affiliation resources and work engagement. By focusing on affiliation as a highly particularistic resource (Foa & Foa, 1974), we expand on previous research regarding the cross-level moderating effects of LMX quality on leader-follower resource exchanges. In their episodic study, Liao et al. (2019) did not find that LMX quality moderated the effect of leader resource contribution on employee work engagement, which might be due to their use of an overall measure of resource provision, which did not differentiate between particularistic and universalistic resources.

Interestingly, we found no evidence for the moderating effect of LMX quality on the relationship between affiliation resources and self-esteem. We theorized that employees with low LMX quality might not experience their leader's provision of affiliation resources as genuine because their exchanges with the leader tend to be characterized by self-interest (Uhl-Bien & Maslyn, 2003). However, they may perceive that the provision of affiliation resources is a useful way for their leader to fulfil a goal, which is likely to lead to the experience that they are – at least in some way – valuable to their leader, thus resulting in positive self-views. At the same time, employees with low LMX quality may perceive the provision of affiliation resources as an attempt to exert control over them. According to self-determination theory (Deci & Ryan, 1995), perceived external control may undermine the motivational potential of affiliation resources in terms of increasing work engagement. This perspective complements research informed by social exchange, which has focused on felt obligation as a mechanism that links leader-follower resource exchanges with work engagement (Z. Liao et al., 2019).

Limitations and Directions for Future Research

Despite its contributions, we acknowledge that this study is not without limitations. One limitation is the correlational and self-reported nature of the data, which raises concerns regarding common method variance and reverse causality. We tried to mitigate these concerns by separating the assessments in time and by decomposing the relationships into their within and between components. Moreover, several constructs involve subjective experiences that are not directly

observable for others. For affiliation resources and LMX quality, future research might include leader reports to offer insights into the motives underlying the resource provisions.

Furthermore, we note that the work-related activation involved in work engagement might also impede nonwork experiences (Halbesleben et al., 2009). For example, on days when employees are highly engaged at work, they may find it difficult to (mentally) disengage from their work and relax during nonwork time. Future research is necessary to understand the potential recovery trade-offs associated with work engagement.

Based on COR theory, we focused on self-esteem and work engagement, thereby neglecting other processes underlying the relationship between affiliation resources and mastery. Recent research has highlighted the importance of affect in LMX (Tse et al., 2018), indicating that both high- and low-arousal emotions are involved in LMX processes (Tse & Troth, 2013). However, theory is inconclusive about the roles of high- vs. low-arousal positive emotions in facilitating mastery. Broaden-and-build theory (Fredrickson, 2001) emphasizes that individuals are motivated to engage in exploration activities when they experience high-arousal emotions such as joy and inspiration, whereas serenity – a low-arousal emotion – functions to create the urge to savor one's current circumstances. In contrast, the secure base for exploration concept (Feeney & Collins, 2015) suggests that low-activated positive affect might lay the foundation for personal growth. In this view, affiliation resources might help employees feel comfortable at work, which, in turn, might encourage them extend themselves in the nonwork domain. To explore these possibilities, we invite scholars to examine differential affective processes that explain why affiliation resources provided by the leader affect employee mastery.

Practical Implications

As nonwork time is an increasingly important value for employees (Twenge et al., 2010), organizations should find ways of optimizing the nonwork experiences of their employees. Research has shown that recovery-specific training helps employees improve their recovery experiences (Hahn et al., 2011). By highlighting the role of affiliation resources provided by the leader in the

promotion of mastery, we suggest that leaders are a promising target of interventions to improve employee recovery. Training programs may sensitize leaders to the value of day-to-day demonstrations of affiliation and teach them simple behaviors that allow them to demonstrate warmth, care, and positive regard, such as asking employees how they are feeling. As a complementary approach, organizations may help leaders engage in these behaviors by managing their workload (Stein et al., 2020).

Furthermore, the findings highlight the importance of LMX relationship quality. Leaders should be aware that their day-to-day resource provisions may have different effects on employee work and nonwork outcomes depending on their general LMX quality. To assist leaders in developing high-quality LMX relationships with their employees, organizations should offer leadership training programs (e.g., Stein et al., 2021).

Table 4.1

Descriptive Statistics and Correlations

Variable	*M*	$SD_{Between}$	SD_{Within}	Within-person variance (%)	1	2	3	4	5	6	7
1. LMX quality	3.60	0.69			(.89)						
2. Affiliation resources	2.99	0.85	0.72	42.3%	.60***	(.89)	.15***	.13***	.05	-.04	.02
3. Self-esteem	3.50	0.71	0.53	35.5%	.44***	.57***	(.90)	.32***	.17***	.03	.07
4. Work engagement	3.22	0.79	0.50	29.1%	.46***	.51***	.67***	(.88)	.15***	.00	.09*
5. Mastery	2.56	0.68	0.68	49.5%	.17*	.37***	.46***	.42***	(.75)	-.08*	.12***
6. Working hours	8.44	0.68	0.91	63.9%	-.17*	-.12	-.03	-.07	-.05	-	.12***
7. Time pressure	2.21	0.85	0.84	49.3%	-.16*	-.04	-.01	-.01	.06	.18**	(.94)

Note. Correlations below the diagonal are between-person correlations (N = 198). Correlations above the diagonal are within-person correlations (N = 768). The percentage of variance within persons was calculated as (within-person variance) / (between-person variance + within-person variance). Cronbach's α coefficients are shown on the diagonal.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4.2

Results of the Bayesian Multilevel Path Model

	Self-esteem			Work engagement			Mastery		
Independent variable	Est.	PSD	95% CI	Est.	PSD	95% CI	Est.	PSD	95% CI
Intercept	3.50*	0.05	[3.40, 3.51]	3.22*	0.05	[3.11, 3.32]	2.56*	0.05	[2.46, 2.67]
Level 1 (day level)									
Affiliation resources	0.11*	0.04	[0.04, 0.19]	0.08*	0.03	[0.04, 0.19]	0.03	0.04	[-0.05, 0.11]
Self-esteem							0.18*	0.06	[0.06, 0.30]
Work engagement							0.15*	0.06	[0.03, 0.27]
Residual variance	0.24	0.02	[0.21, 0.27]	0.22	0.02	[0.20, 0.26]	0.44	0.03	[0.39, 0.49]
R^2	0.09	0.03	[0.05, 0.15]	0.09	0.02	[0.05, 0.14]	0.05	0.02	[0.02, 0.08]
Level 2 (person level)									
LMX quality	0.11	0.10	[-0.09, 0.31]	0.23	0.11	[-0.002, 0.44]			
Affiliation resources	0.48*	0.09	[0.31, 0.67]	0.42*	0.10	[0.23, 0.62]	0.08	0.10	[-0.11, 0.26]
Self-esteem							0.35*	0.14	[0.09, 0.63]
Work engagement							0.12	0.11	[-0.10, 0.33]
Residual variance	0.29	0.04	[0.22, 0.38]	0.41	0.05	[0.32, 0.52]	0.33	0.05	[0.24, 0.44]
R^2	0.43	0.07	[0.29, 0.56]	0.35	0.07	[0.23, 0.49]	0.31	0.07	[0.18, 0.45]
Cross-level interaction									
Affiliation resources x LMX quality	-0.02	0.06	[-0.14, 0.10]	0.16*	0.05	[0.06, 0.27]			
Slope residual variance	0.05	0.02	[0.02, 0.09]	0.02	0.01	[0.01, 0.06]			
R^2	0.02	0.05	[0.00, 0.19]	0.35	0.19	[0.05, 0.79]			

Note. Est. = unstandardized regression coefficient. PSD = standard deviation of the posterior distribution. CI = Bayesian credibility interval. *95% CI excluding zero. R^2 represents total variance explained.

CHAPTER 5: GENERAL DISCUSSION

In this dissertation, I set out to improve the understanding of the ways in which leadership is related to employee well-being. Drawing from COR theory (Hobfoll, 1989; Hobfoll et al., 2018), I introduced a model in which the relationships between leadership and employee well-being are embedded within an employee's personal resources. This resource-based contingency model outlines three ways in which employee personal resources may moderate the relationships between leadership and employee well-being: (1) resource gain experiences, (2) resource loss experiences, and (3) resource pools. Across three empirical studies, I tested the utility of the model using different theoretical perspectives and methodological approaches. Recognizing that both leader and employee well-being can be conceptualized in various ways, I examined the moderating role of employee personal resources in the relationships between different forms of constructive leadership as perceived by employees and multiple aspects of employee well-being.

Study 1 addressed the proposed moderating role of resource gain experiences by examining psychological detachment as a moderator of the relationship between transformational leadership and emotional exhaustion. Using three-wave survey data (N = 214 employees), the results showed that psychological detachment moderated the indirect relationship between transformational leadership and emotional exhaustion via extra effort such that this relationship was negative for employees with high psychological detachment and positive for employees with low psychological detachment. The findings of this study challenge the assumption that transformational leadership is universally beneficial to employee well-being and shed light on the potential dark side of transformational leadership for employee well-being.

Study 2 involved the COR-based development and evaluation of a supportive leadership training designed to teach leaders ways in which they can be supportive of their employees. Intervention effects on employee social and hedonic well-being were evaluated using a cluster randomized controlled trial in 80 childcare centers. Data were collected from employees at baseline (N = 496), one-month postintervention (N = 266), and six-month postintervention (N = 226). An

intent-to-treat analysis showed that the effectiveness of the training in terms of LMX quality and emotional exhaustion varied depending on employee perceived quantitative workload at baseline such that employees with higher levels of quantitative workload benefited more from the intervention. Baseline qualitative workload was not a moderator of the effects of the supportive leadership training on employee well-being. This study addresses the moderating role of employee resource loss experiences and advances the understanding of the nature and boundary conditions of the effects of supportive leadership training on employee well-being.

Study 3 examined the day-level, within-person associations between affiliation resources provided by the leader and employee well-being in the broader context of employees' general perceptions of the quality of their LMX relationship. Multilevel analysis of daily diary data collected from 198 employees (768 days) indicated that on days when employees perceived that their leader provided more affiliation resources, they reported higher levels of self-esteem and work engagement and, in turn, experienced higher levels of mastery during after-work time. Additionally, the results showed that LMX quality at the between-person level moderated the day-level, within-person relationship between affiliation resources and work engagement such that employees in higher-quality LMX relationships benefitted more from the affiliation resources provided by their leader. This study focuses on the employee's resource pool as a moderator of leadership-employee well-being relationships and provides insights into the day-to-day role of leaders in supporting employee work and nonwork experience and functioning.

Theoretical Implications

In addition to the specific theoretical implications of the studies that I discussed in the previous chapters, the integration of the findings reveals a set of broader implications that are relevant to research on leadership and employee well-being. Overall, this dissertation corroborates the notion that leadership is important for employee well-being but also highlights the complexity of the associations between leadership and employee well-being. By emphasizing the importance of considering the associations between leadership and employee well-being in the context of an

employee's personal resources, I challenge universal assumptions regarding the impact of leadership and employee well-being and extend the growing body of evidence suggesting that not all employees benefit equally from constructive forms of leadership (e.g., Hildenbrand et al., 2018; Holstad et al., 2014; Walsh & Arnold, 2020).

I used COR theory as a guiding theoretical perspective to systematically consider the employee-related moderators of the relationships between leadership and employee well-being. By offering a unifying resource-based framework, COR theory facilitates the integration of various employee-related factors under the umbrella of resources, thereby allowing us to avoid arbitrary collections of isolated moderating variables. As such, I extend classic contingency models of leadership (e.g., Hersey & Blanchard, 1988; R. J. House, 1971; Kerr & Jermier, 1978), which are limited to specific sets of leadership concepts and employee-related variables (e.g., ability, professional orientation, and the need for independence).

The resource-based contingency model provides guidance for future research on leadership and employee well-being regarding the choice of moderators and may be used to integrate findings concerning the nature and boundary conditions of the associations between leadership and employee well-being. In addition to illustrating three ways of thinking about the moderators of the relationships between leadership and employee well-being (i.e., resource gain, resource loss, and resource pools), the employee-related variables that were identified as moderators in the three studies can be distinguished based on their domains (i.e., work vs. nonwork) and foci (i.e., intrapersonal, interpersonal, and environmental): psychological detachment (Study 1) refers to an intrapersonal nonwork experience, workload (Study 2) concerns an experience related to the work environment, and LMX quality (Study 3) reflects an interpersonal work-related experience.

The consideration of both work and nonwork domains is in line with Inceoglu et al.'s (2021) microscope–macroscope framework, which borrows from contextual leadership theory to illustrate the impact of contextual features on the relationships between leadership and employee well-being. However, the microscope–macroscope framework as well as contextual models of leadership

consider only factors that are external to the individual (e.g., Liden & Antonakis, 2009; Oc, 2018; Osborn et al., 2002). While Oc's (2018) model of contextual leadership comprises factors related to who is being led, it is important to note that the employee-related moderating variables examined in this dissertation are not included in the "who" dimension of this model. As part of the omnibus context, the "who" dimension pertains to occupational and demographic features and configurations that characterize whole groups of employees (Oc, 2018) rather than the characteristics and experiences of individual employees. As such, the proposed resource-based contingency model extends contextual models of leadership by more fully capturing the different foci of employee-related factors that influence the relationships between leadership and employee well-being.

Moreover, the proposed resource-based contingency model contributes to research on leadership and employee well-being by extending more static input-mediator-output frameworks that have been commonly used to examine the relationships between leadership and employee well-being (Inceoglu et al., 2018). Specifically, the three studies illustrate that the categorization of variables as predictors, mediators, moderators, and outcomes overlaps and may differ depending on the perspective being used. For example, Study 1 examined employee recovery experiences in terms of psychological detachment as a moderator of the relationship between leadership and employee well-being, whereas Study 3 focused on employee mastery-related recovery experiences as an outcome of leadership. Furthermore, Study 2 examined perceived LMX quality as a social well-being outcome of the supportive leadership training, whereas Study 3 treated LMX quality as a moderator of the relationships between day-to-day affiliation resources and employee well-being. This flexibility is an important advantage of using COR theory as an overarching framework because it offers a dynamic, process-oriented perspective that allows the complexity of the relationships between leadership and employee well-being to be explored.

Interestingly, the results of the three studies did not provide support for several moderating effects. Although I am cautious about overemphasizing these results due to the potential

methodological reasons for nonsignificant interaction effects (Murphy & Russell, 2017), the arguments used to explain these findings are based on the common theme of need fulfillment. The underlying idea is that the beneficial effects of constructive forms of leadership on employee well-being might materialize to the extent that they fulfill the specific needs of employees. Indeed, previous research has indicated that psychological need satisfaction mediates the relationships between leadership and employee well-being (e.g., Ellis et al., 2018; Kovjanic et al., 2012; Tuin et al., 2021). To shed light on the conditions under which leadership behaviors fulfill the needs of employees, I encourage researchers to pay greater attention to employee needs in studies of leadership and employee well-being.

I also contribute to the COR literature more broadly by addressing the issue of resource value. Although it has been argued that the value of resources might depend on the other resources with which they are combined, resource value has not yet received sufficient attention in the extant COR theory literature (Halbesleben et al., 2014). To provide a more nuanced understanding of the differential value of resources, I responded to the call to combine COR theory with narrower theories to explain the nature of resource gains and losses more precisely (Hobfoll et al., 2018). Specifically, the studies combined COR theory with (1) the transformational leadership model and theoretical perspectives on work recovery, (2) theorizing drawn from the social support literature, and (3) LMX theory and insights drawn from resource theory of social exchange.

In this regard, it is important to note that COR theory provides relatively straightforward arguments for the moderating effects of psychological detachment in Study 1 (resource investment principle) and workload in Study 2 (resource gain paradox principle). However, the COR arguments for the moderating role of LMX quality in Study 3 are weaker, as COR theory is silent regarding the identity of the resource provider in determining resource value. As part of the explanation of the proposed moderating effect of LMX quality on the relationships between affiliation resources and employee well-being, we relied on the conceptualization of resources offered by COR theory and

speculated that high-quality LMX maximizes the fit between the resources needed by the employee and the resources provided by the leader.

This idea of resource fit closely resembles the propositions of person-environment (PE) fit theory. Indeed, scholars have suggested that the PE-fit construct can be integrated into COR theory by identifying PE-fit as an assessment of whether one has the resources necessary to meet the demands of the work environment (Wheeler et al., 2013). However, there are important differences between COR theory and PE-fit paradigms in the conceptualization and operationalization of resource fit (Hobfoll, 2001b).

Previous PE-fit research on leadership has commonly used needs-supplies fit approaches to consider the degree to which employees' psychological needs are fulfilled by supplies received from the leader (e.g., Lambert et al., 2012; Marstand et al., 2017; Tepper et al., 2018). This approach is based on commensurate constructs of needs and supplies, which reflect the same content dimension (Edwards et al., 1998). For example, Tepper et al. (2018) examined the interaction between transformational leadership needed and transformational leadership received with regard to their impacts on employee affective, attitudinal, and behavioral outcomes. In two daily diary studies, they found that employees experienced higher levels of positive affect on days when transformational leadership received fit the transformational leadership needed (compared to days on which there was deficiency or excess).

By adopting this needs-supplies fit perspective in Study 3, I could have examined the implications of the (mis-)fit between daily affiliation resources needed and received for employee daily well-being. Although this approach may have offered more direct support for the notion that the affiliation resources provided by the leader have greater impact on employee well-being on days when they satisfy employee needs, the challenge is that this approach relies on the premise that employees assess their needs accurately, without providing insights into the contextual characteristics that influence the assessments of those needs. By examining LMX quality at the between-person level, Study 3 sheds light on the role of the relational context surrounding the day-

specific affiliation resources provided by the leader. Future research might build on the findings of this dissertation and combine COR and PE-fit perspectives to explore the complex interaction between day-specific leadership needs-supplies fit and general patterns of leadership with respect to their impacts on employee well-being.

Finally, the present dissertation contributes to research on leadership and employee well-being by broadening the scope of employee well-being outcomes. Previous research on leadership and employee well-being has typically focused on hedonic forms of well-being, with many studies examining employee job satisfaction (Judge & Piccolo, 2004; Kuoppala et al., 2008) or affective well-being (Harms et al., 2017). Eudaimonic forms of well-being have received considerably less attention (Inceoglu et al., 2018). By focusing on a broad, multidimensional conceptualization of well-being, I was able to include multiple indicators of hedonic and eudaimonic well-being in this dissertation. The findings of the three empirical studies included in this work highlight the importance of considering the impact of leadership on employee hedonic and eudaimonic well-being in both work and nonwork domains.

However, the investigation of employee mastery experiences during nonwork time not only addresses the call for greater recognition of the impact of leadership on employee nonwork outcomes (Kossek et al., 2023), but also highlights issues pertaining to the conceptualization of well-being more broadly. Although mastery was originally introduced as a recovery construct (Sonnentag & Fritz, 2007), I have argued that mastery can also be viewed as an aspect of employee eudaimonic well-being due to its focus on personal growth experiences. Similarly, we departed from the original conceptualization of LMX quality as a relational leadership construct (Graen & Uhl-Bien, 1995) in Study 2 by providing arguments to support the notion that LMX quality reflects an aspect of employee social functioning. These conceptual overlaps demonstrate that the broad conceptualization of well-being on which this dissertation relies poses the risk of being overly inclusive, thereby introducing ambiguity with respect to the integration of findings regarding relationships between leadership and employee well-being.

Indeed, there is an ongoing debate regarding the meaning and conceptualization of well-being (Fisher, 2014; Martela & Sheldon, 2019). Researchers have criticized the fact that the vagueness of the eudaimonic well-being concept has led to an ever-expanding list of constructs that mixes intentions, behaviors, and experiences (Martela & Sheldon, 2019; Sheldon, 2018). To provide conceptual clarity, Martela and Sheldon (2019) suggested dividing well-being into a "doing well" component that includes eudaimonic motives and activities and a "feeling well" component that includes experiences of psychological need satisfaction and subjective well-being. In their eudaimonic activity model (EAM), the satisfaction of the basic needs for autonomy, competence, and relatedness is construed as the most parsimonious common core of the eudaimonic well-being concept and the central mechanism underlying the effects of eudaimonic motives and activities on subjective well-being. The distinction between "doing well" and "feeling well" is important to consider the creation of virtuous cycles of well-being. According to the EAM, the pursuit of eudaimonic goals and activities leads to satisfying psychological experiences, which, in turn, maintain and reinforce eudaimonic goals and activities (Sheldon, 2018).

This perspective further highlights the importance of considering employee need satisfaction in studies of leadership and employee well-being. Moreover, adopting the EAM in future research on leadership and employee well-being might be useful with regard to acknowledging the fact that leaders may support their employees in engaging in eudaimonic goals and activities. A stronger focus on the "doing well" component of well-being attributes a more active role to employees in the leadership-employee well-being equation, thereby offering the opportunity to explore the role of leadership in improving employee well-being in ways that are self-sustaining and self-reinforcing.

Drawbacks of "Traditional" Leadership Constructs

The findings of Study 1 contribute to the general discussion of the potential drawbacks of relying on "traditional" leadership constructs in research on leadership and employee well-being (e.g., Nielsen & Taris, 2019). Despite the criticisms of transformational leadership (van Knippenberg

& Sitkin, 2013), I believe that it is important to consider this concept in the present dissertation, as it remains the dominant perspective in research on leadership and employee well-being (K. A. Arnold, 2017; Inceoglu et al., 2018). Although I certainly cannot solve the issues pertaining to the conceptualization and measurement of transformational leadership, I hope that the findings of this work can provide some impetus for future research on leadership and employee well-being by supporting the view that transformational leadership is not a panacea but rather involves costs to employee well-being (e.g., Diebig et al., 2016; Franke & Felfe, 2011; Hildenbrand et al., 2018).

Importantly, issues of conceptualization and measurement are not limited to transformational leadership. The entire research field of "healthy leadership" has been criticized for using unclear conceptualizations and confounding leadership with its intended effects on employee well-being (Rudolph et al., 2020). As a potential way forward, Rudolph et al. (2020, p. 17) suggested that researchers should try to establish the unique role of "healthy leadership" constructs "above-and-beyond established leadership constructs." Although many concerns regarding "healthy leadership" constructs are certainly legitimate, I would caution against this recommendation due to recent critiques of virtually all established leadership style constructs (e.g., empowering, servant, and authentic leadership, consideration and initiating structure, and abusive supervision; Fischer & Sitkin, 2023) as well as the LMX construct (Gottfredson et al., 2020).

In their review, Fischer and Sitkin (2023) called for leadership research to be reoriented by distinguishing clearly among the intentions underlying leadership behaviors, displayed leadership behaviors, and the realized effects of leadership. Additionally, they advocated a configurational approach that focuses on patterns of distinct aspects of leadership rather than unitary umbrella constructs. I believe that this approach might also help advance research on leadership and employee well-being. Instead of trying to identify broad patterns of "good" leadership that are universally beneficial to employee well-being (Nielsen & Taris, 2019), researchers should focus on more specific categories of "ordinary" leadership. While I attempted to move in this direction in

Study 3, I invite future research to expand on this work and investigate how specific types of day-to-day leadership behaviors influence employee well-being.

Leadership Training Interventions Aimed at Improving Employee Well-Being

Study 2 has broader implications for research on leadership training designed to improve employee well-being. While research has frequently used COR theory to understand the relationships between leadership and employee well-being (e.g., Inceoglu et al., 2018; Perko et al., 2016; Stein et al., 2020), this study demonstrates that the principles of COR theory add a useful perspective on the development and evaluation of leadership training aimed at improving employee well-being. By combining the results of the randomized controlled trial with the findings of the process evaluation, Study 2 addresses the call for more research that rigorously evaluates the effects of leadership training aimed at improving employee well-being (Nielsen & Taris, 2019).

Moreover, the findings of Study 2 enrich the understanding of the specific groups of employees who benefit from leadership training aimed at improving employee well-being. Research indicates that the effectiveness of interventions designed to improve employee well-being depends largely on the extent to which the intervention meets the needs of the target group (Biron et al., 2009; Briner & Walshe, 2015). By identifying employee quantitative workload as a boundary condition of the leadership training effects, this study sheds light on the settings in which leadership training interventions are effective in improving employee well-being (Nielsen & Taris, 2019) and emphasizes the importance of considering employee experiences pertaining to the work context as an indication of their needs for leadership training aimed at improving employee well-being.

Considering the accelerated shift to virtual work arrangements in organizations that has occurred over the past three years, it seems important to revisit the findings regarding the reach of the supportive leadership training. Although the organization in which the study was conducted was very supportive of the intervention, they allowed only about one-third of their leaders to participate in the training program. This decision was partly due to concerns regarding cost-efficiency because the training program required leaders to participate in three full-day training sessions during

working hours. The fact that the leaders were absent from regular work for three full days while participating in the training might also explain why only about half of the participants attended all three training sessions. Process evaluation indicated that several leaders cancelled their attendance in one or more training sessions due to staffing difficulties in the childcare centers.

In terms of training design, it is important to note that the intervention study was conducted from 2017–18, i.e., before the COVID-19 pandemic forced many employees into virtual work. Following recommendations regarding the design of effective leadership training (Lacerenza et al., 2017), we developed the supportive leadership training in the form of a face-to-face training program. In their meta-analysis, Lacerenza et al. (2017) found that virtually-based leadership training was less effective in terms of training transfer than traditional face-to-face leadership training. However, they defined virtual training programs as training conducted in settings in which no instructor is present, and they suggested that virtual training programs might result in less transfer because they offer fewer opportunities for demonstration and practice.

Today's widespread use of video conferencing in organizations offers the opportunity to deliver instructor-led leadership training in synchronous (i.e., real-time) virtual settings. This training delivery method maintains the advantages of face-to-face settings regarding demonstration, practice, and immediate feedback, while improving cost-efficiency. A great deal of the content of the supportive leadership training, such as the interactive lectures and group discussions (see Supplemental Table 3.1), can be delivered effectively via video conferencing. Delivering parts of the supportive leadership training in synchronous virtual settings offers the advantage of allowing for more but briefer training sessions, which might be easier for leaders to integrate into their day-to-day work, thereby facilitating increased participation and transfer of training. I therefore recommend that future research should pay greater attention to delivery methods other than traditional face-to-face training and self-guided computer-based training to design leadership training in ways that can have the greatest effects on employee well-being.

Daily Leadership and Employee Well-Being

Beyond the implications for research on LMX and work recovery that I discussed in the previous chapter, the findings of Study 3 set the stage for a deeper understanding of daily leadership and employee well-being in a broader sense. Moving beyond traditional between-person approaches to leadership, research has recently begun to consider daily within-person variations in leadership (Kelemen et al., 2020; Ohly & Gochmann, 2017). However, most daily diary studies on leadership and employee well-being have examined broad categories of leadership, such as transformational leadership (e.g., Breevaart et al., 2014; Diebig et al., 2017), ethical leadership (e.g., Bormann, 2017), and supportive leadership (e.g., Blanco-Donoso et al., 2017; Yulita et al., 2017).

This approach is problematic because these concepts reflect relatively stable patterns of leadership behavior, which are not necessarily appropriate for day-to-day situations. Indeed, Bass (1990) argued that transformational leadership is necessary in turbulent times but inappropriate in many day-to-day situations. Similarly, several leadership behaviors that have been included in the category of supportive leadership are appropriate only when employees experience problems (e.g., assistance in getting the job done; Blanco-Donoso et al., 2017), and many ethical leadership behaviors are focused directly on managing ethical issues (e.g., discussing business ethics; Bormann, 2017), thus calling into question the ability of these constructs to reflect daily leadership practices.

By examining daily variations in the affiliation resources provided by the leader, Study 3 addresses the call for more investigations that capitalize on the opportunity to use diary studies to provide insights into the short-term implications of specific, day-to-day leadership behaviors (Kelemen et al., 2020). The results showed that affiliation resources provided by the leader exhibit meaningful within-person variations across workdays and that these variations have substantive implications for employee daily well-being. Moreover, the finding concerning the interaction between the day-specific affiliation resources provided by the leader and LMX quality at the between-person level extends research on daily leadership by providing insights into the interaction

between daily, within-person variations in leadership and general, between-person aspects of leadership (Kelemen et al., 2020).

However, it is important to note that the measurement of affiliation resources was not straightforward. Due to the lack of validated scales, we decided to use items drawn from the people-orientation subscale of a questionnaire for assessing ethical leadership (Kalshoven et al., 2011) that fit the conceptualization of affiliation resources (Foa & Foa, 2012; Wilson et al., 2010) and were appropriate for day-level assessment. Future research might conduct event-contingent experience sampling studies in which leaders and employees describe the content and contexts of their interactions to develop taxonomies of day-to-day leadership and zoom in on the specific leadership behaviors that account for daily variations in employee well-being.

Practical Implications

In today's rapidly changing and fast-paced workplaces, employee well-being is an important concern. According to Gallup's State of the Global Workplace Report, an alarming 44% of employees worldwide reported that they experienced significant stress the previous day, and only one-third of employees are thriving in terms of their overall well-being (Gallup, 2022). Given these insights, finding ways of improving employee well-being is imperative – both on moral grounds and from a business perspective. The benefits of employee well-being for an organization's bottom lines are compelling. There is not only evidence that employee well-being represents the foundation of organizational performance (e.g., Guest, 2017; Whitman et al., 2010) but also that organizational practices aimed at improving employee well-being can help organizations attract and retain valued talent. The American Psychological Association's 2022 Work and Well-Being Survey reported that eight in 10 workers in the United States say that employer-provided support for well-being is an important consideration in their future job decisions (American Psychological Association, 2022).

This dissertation provides several actionable recommendations for organizations seeking to address the challenge of improving employee well-being. Overall, the results emphasize the importance of making organizations aware of the critical role of leadership in employee well-being,

but they also indicate that employees may not benefit equally from constructive forms of leadership. As such, I challenge universal recommendations to promote employee well-being by exhibiting certain leadership behaviors and highlight the need to take a holistic approach to employee well-being that encompasses the personal resources of employees.

To support current and future leaders in their tasks of managing employee well-being, organizations should offer formal leadership training. This recommendation is consistent with research on leadership training, which has shown that specific leadership behaviors can be effectively acquired and improved through training (Lacerenza et al., 2017). Indeed, leadership training is a cost-effective way for organizations to improve employee well-being (Kelloway & Barling, 2010) because training a small number of leaders has the potential to produce positive effects for a large number of employees. Unfortunately, the design and implementation of effective leadership training programs aimed at improving employee well-being in organizations is not straightforward, as there are relatively few evidence-based solutions (Kelloway & Barling, 2010; Nielsen & Taris, 2019). By describing an evidence-based supportive leadership training program, this dissertation provides guidance to organizations regarding how to improve employee well-being via leadership training.

As in the supportive leadership training that was developed in Study 2, leadership training programs should sensitize leaders to the fact that there is no “one-size-fits-all” approach to the task of improving employee well-being and that they must complement the existing resources of their employees to effectively promote employee well-being. Leaders should learn how to pay closer attention to the needs of their employees and provide leadership that specifically addresses these needs. Although probably the most obvious way in which leaders can understand the needs of their employees is to ask them, this dissertation suggests that leaders should also be trained to attend to more subtle cues pertaining to the personal resources of employees, such as experiences of psychological detachment, workload, and LMX quality.

As shown in Study 3, promoting employee well-being is a day-to-day part of leadership. Therefore, leadership training designed to improve employee well-being should teach leaders specific behaviors in which they can engage on a daily basis and include practices that can be used to implement these behaviors in everyday leadership activities. Daily behavior tracking exercises can be used to assist leaders in applying the behaviors that they have learned in leadership training in their day-to-day work environments (e.g., Brady et al., 2021; Hammer et al., 2019).

In addition to providing leadership training, organizations play an important role in creating the conditions necessary for leaders to support employee well-being (Stein et al., 2020). Considering the increasing adoption of remote work arrangements, organizations and leaders should recognize the challenges of maintaining employee well-being in virtual settings. Although research on virtual leadership remains in its infancy, Bell et al. (2023) argued that relations-oriented leadership is particularly important for employees who work in virtual settings because virtual work poses threats to employee well-being such as social isolation and stress due to the blurring of boundaries between the work and nonwork domains. Despite the increased need for relations-oriented leadership, it may be more difficult for leaders to effectively engage in relations-oriented behavior in virtual settings due to the reduction in social cues in technology-mediated interactions (Brown et al., 2021; C. Liao, 2017). Organizations should therefore provide leaders with adequate time and resources (e.g., technical equipment) to enable them to effectively demonstrate relations-oriented leadership and closely attend to employee concerns and well-being in virtual settings.

However, the finding that employees may respond to constructive forms of leadership in different ways depending on their personal resources suggests that providing leaders with the resources necessary to support employee well-being is not sufficient. Organizational practices aimed at improving employee well-being via leadership should also include employees and acknowledge the active role that employees play in leadership and its consequences for their well-being. To maximize the positive effects of constructive leadership on employee well-being, organizations and

leaders should encourage employees to view leadership as a two-way process in which they can proactively provide their leaders with feedback and communicate their needs.

Furthermore, the consideration of the interaction between constructive leadership and the personal resources of employees emphasizes the value of interventions that optimize employee resource gain experiences and minimize resource loss experiences. Although the findings of this dissertation cannot address such interventions directly, organizations may offer individually-focused occupational health interventions designed to build personal resources (Gilbert et al., 2018), such as training programs addressing recovery (e.g., Hahn et al., 2011; Karabinski et al., 2021), resilience (e.g., Vanhove et al., 2016), mindfulness (e.g., Bartlett et al., 2019), and stress management (e.g., Estevez Cores et al., 2021; Tetrick & Winslow, 2015). These individually-focused interventions should be complemented by interventions designed to change working conditions (e.g., by increasing job control and social support; Fox et al., 2022) to support employees' personal resource gain by providing resourceful work environments and limiting the loss of resources by reducing stressful working conditions.

Limitations and Directions for Future Research

Despite its strengths, this dissertation also has limitations that highlight important directions for future research. To provide guidance for future research, I developed the proposed model further by including several ideas that may help advance the understanding of the ways in which leadership influences employee well-being. Figure 5.1 displays the extended resource-based contingency model.

First, in the three studies, I used only employee self-report data on both leadership and employee well-being. Although subjective perceptions are a critical component of leadership processes, self-report ratings of leadership are subject to biases (Keller Hansbrough et al., 2015) and can give rise to common method variance and endogeneity issues (Antonakis et al., 2010). To overcome these concerns and disentangle the mutual influences of perceived and actual leadership,

recent research has recommended the adoption of study designs that combine self-report and behavioral measures of leadership (Hemshorn de Sanchez et al., 2022).

For instance, future research on leadership and employee well-being might combine employee and leader self-reports regarding their momentary interactions and well-being with audio recordings of those interactions captured via unobtrusive, electronically activated recorders. These real-time audio recordings can be used to code and analyze the verbal behaviors of leaders and employees during their interactions, including affective expressions (see Meinecke et al., 2017 for an example). Furthermore, future research might capitalize on recent developments in speech emotion recognition (Schuller, 2018) and use machine learning algorithms to automatically recognize affective expressions during leader-follower interactions from speech signals. Although one of the challenges faced by researchers would be to ensure compliance with ethical requirements and find organizations that agree to participate in studies that include such extensive and potentially sensitive data collection, recent research using student samples indicates that combining experience sampling data with audio recordings can provide intriguing insights into the role of day-to-day social interactions in well-being (Sun et al., 2020).

The collection of intensive longitudinal data regarding both leader and employee behavior might also help researchers embrace the role of employees more fully in future studies on leadership and employee well-being. While I acknowledged that employees are an important part of leadership by examining employee-related moderators, leadership is a dynamic, interactive process in which leaders and employees mutually influence each other (e.g., McClean et al., 2019; Morgeson et al., 2010; Uhl-Bien, 2006). As such, the employee's well-being may influence the interactions with the leader, which, in turn, can impact employee (and leader) well-being. This view is consistent with the literature on leadership and emotional contagion, which indicates that leadership and affective phenomena are closely intertwined (Clarkson et al., 2020; Tee, 2015). As previous research has shown that team meetings provide an excellent context for observing interpersonal affective processes (e.g., Lehmann-Willenbrock et al., 2017), I encourage researchers to explore the dynamic

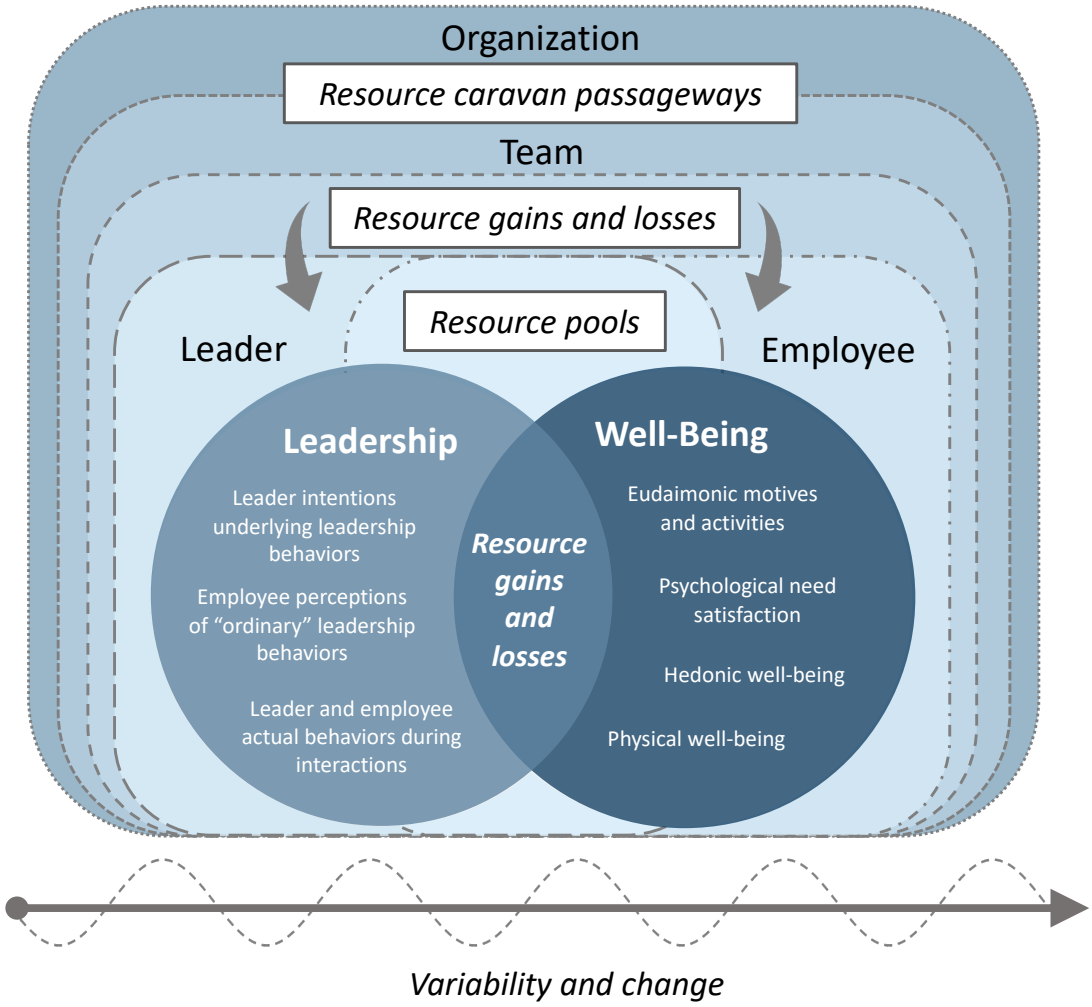
and complex interactions between employee and leader behaviors and well-being in meeting contexts.

Another limitation concerns the set of moderators examined in this dissertation. Whereas the three studies focused on psychological detachment, workload, and LMX quality, I recognize that various other employee-related factors may moderate relationships between leadership and employee well-being. Future research might examine additional employee-related moderators by drawing on the proposed resource-based contingency model. The model allows researchers to view multiple employee-related factors (e.g., individual characteristics, working conditions) through the lens of resources, thereby guiding the choice of relevant moderators of the relationships between leadership and employee well-being. As the choice of moderators should be driven by theoretical considerations that are closely aligned with the leadership and employee well-being constructs under investigation, it is challenging to provide recommendations for specific moderators that should be examined in future research. However, I echo the call for greater recognition of the interaction between leadership and employee nonwork domains (Kossek et al., 2023) and recommend future research to build on the findings of this dissertation to examine the moderating role of employee nonwork experiences (e.g., family-related recovery experiences and demands for managing family and personal life roles) in further detail.

Furthermore, I did not directly test the proposed mechanisms through which the personal resources operate as moderators (i.e., resource gain, resource loss, and resource pools). Resource gain and loss are dynamic processes that lead to ongoing fluctuations and changes in the level of resources (Halbesleben et al., 2014). Regarding psychological detachment and workload, I merely assumed the role of resource gains and losses in this context based on conceptual arguments but did not examine short-term variability or longer-term changes in resource levels. Future research should examine the temporal dynamics of employee personal resources by utilizing study designs that allow for the measurement of variability and change in resource levels (e.g., episodic experience sampling studies; Z. Liao et al., 2019).

Figure 5.1

Extended Model: A Resource-Based Contingency Perspective on the Relationships Between Leadership and Employee Well-Being



It is also worth noting that I examined relationships between leadership and psychological well-being, thereby neglecting the physical components of well-being. Physical well-being refers to bodily experiences and functioning (Grant et al., 2007) such as somatic symptoms (e.g., neck pain or headache) and sleep quality. Despite increasing recognition of the impact of leadership on employee physical well-being (Inceoglu et al., 2018), studies have mostly relied on employee self-reports of bodily experiences and functioning (e.g., M. Arnold & Rigotti, 2021; Matick et al., 2022). Future research might deepen the understanding of the impact of leadership on employee physical well-being by including more objective indicators of physical well-being. For example, researchers might

use wearable sensors to collect data on sleep duration (e.g., Sianoja et al., 2020) or heart rate variability as measures of bodily stress (e.g., Baethge et al., 2020; Parker et al., 2020).

Finally, I focused on the relationships between leadership and employee well-being within the context of the personal resources of employees. However, the factors that influence the effects of leadership exist at multiple organizational levels (Oc, 2018). To embrace the multilevel embeddedness of relationships between leadership and employee well-being, I suggest expanding the proposed resource-based contingency model by including resources at the leader, leader-employee dyad, team, and organizational levels. Indeed, the consideration of resources at multiple levels is consistent with COR theory's ecological view of resources (Hobfoll, 2001b). According to the COR concept of resource passageways in organizations, resources exist within social and environmental "conditions that either foster and nurture or limit and block resource creation and sustenance" (Hobfoll et al., 2018, p. 107).

Resources at the leader level can be included in research on leadership and employee well-being in various ways. Recent research indicates the importance of considering leader well-being (Barling & Cloutier, 2017; Kaluza et al., 2020). For example, poor leader sleep quality has been associated with more daily abusive behaviors, which, in turn, has been shown to be connected to lower levels of employee unit work engagement (Barnes et al., 2015). In an additional study that is not part of the present dissertation (Stein et al., 2020), we considered the leader's resource context by adopting a crossover perspective on leader workload. The results of this study suggest that quantitative workload at the level of leaders may have implications for employee well-being by restricting the extent to which leaders exhibit supportive leadership.

Considerably less evidence is available regarding the moderating role of leader personal resources. One exception is Tafvelin et al.'s (2019) multilevel study, which used data from leaders and employees to examine the relationship between transformational leadership and employee burnout. Although they found that leader vigor and peer support strengthen the negative relationships between transformational leadership as perceived by employees and employee

burnout, they primarily provided arguments to support the direct effects of leader vigor and peer support on transformational leadership. That is, they explained why leader vigor and peer support improve the leader's ability to exhibit transformational leadership.

Indeed, it seems likely that leader personal resources do not influence the relationships between leadership and employee well-being directly but rather through their behavioral implications. For example, one possible explanation for the moderating effect of leader vigor reported by Tafvelin et al. (2019) is that the experience of vigor increases leader positive affective expressions during interactions with employees. Consistent with evidence indicating that leader affective displays influence evaluations of leadership (van Knippenberg & van Kleef, 2016), leader positive affective displays might lead employees to evaluate leadership behaviors more positively, thereby strengthening their positive impact on employee well-being. Future research might explore this idea by using more objective indicators of leadership to avoid conflating different types of leader behaviors and their evaluations.

Contextual moderators at the team and organizational levels have also rarely been examined in research on leadership and employee well-being (Inceoglu et al., 2021). In their multilevel, time-lagged study, Boekhorst et al. (2021) investigated the interplay of leader caring behavior and team caring climate and found that the positive relationship between leader caring behavior and employee-rated leader role overload is stronger when team caring climate is lower. Although post-hoc analyses indicated that team caring climate did not significantly moderate the relationships between leader caring behaviors and employee affective responses (i.e., vitality and guilt), the nonsignificant results might be due to the fact that the team-level sample size (N = 72) was relatively small for detecting cross-level interaction effects. I encourage future research to further investigate team and organizational climates to take into account the embeddedness of relationships between leadership and employee well-being within emergent social contexts.

To examine the moderating role of team- and organizational-level resources at the appropriate level of analysis, future research should utilize more multilevel theorizing and study

designs. In addition to providing insights into the cross-level moderating effects of team and organizational resources on the individual-level relationships between leadership and employee well-being, the adoption of multilevel approaches may help improve the understanding of the relationships between leadership and employee well-being at and across multiple levels. While the multilevel nature of leadership is widely acknowledged (Fischer et al., 2017; Wang et al., 2014), well-being has traditionally been conceptualized as an individual-level phenomenon (Oades & Dulagil, 2016). However, recent research on group affect in organizations (Barsade & Knight, 2015) and organizational affective tone (Knight et al., 2018) highlights that team and organization members tend to experience similar affective states. Future research on leadership and employee well-being might build on this work to explore the role of leadership in the emergence of collective experiences of well-being at the team and organizational levels.

Conclusion

In the present dissertation, I introduced a resource-based contingency model informed by COR theory to examine the ways in which different forms of constructive leadership, as perceived by employees, are related to employee well-being. The three empirical studies included in this dissertation address multiple gaps in the literature on leadership and employee well-being and illustrate the ways in which different research designs and analytical approaches can be employed to obtain insights into relationships between leadership and employee well-being. Overall, the three studies demonstrate the utility of drawing on the proposed resource-based contingency framework to improve the understanding of the relationships between leadership and employee well-being. Additionally, the results of the studies can be translated into several practical recommendations for organizations and leaders regarding ways of improving employee well-being through leadership, including the provision of training programs for leaders and employees and work design. In future research, scholars should extend this work by integrating more holistic views of leadership and employee well-being and by examining more dynamic relationships between leadership behavior and employee well-being at multiple levels of analysis.

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APPENDIX

Author Contribution Statement

Study 1

Stein, M., Schümann, M., & Vincent-Höper, S. (2021). A conservation of resources view of the relationship between transformational leadership and emotional exhaustion: The role of extra effort and psychological detachment. *Work & Stress, 35*(3), 241–261. https://doi.org/10.1080/02678373.2020.1832610

I was involved in planning the study and supervising the data collection. I conceived of the presented conceptual ideas, formulated the specific research aims, and developed the theory. Furthermore, I prepared and analyzed the data, and I interpreted the results. With input from my co-authors, I drafted the manuscript, revised it in response to the reviewer comments, and wrote the response letters.

Study 2

Stein, M., Schümann, M., Teetzen, F., Gregersen, S., Begemann, V., & Vincent-Höper, S. (2021). Supportive leadership training effects on employee social and hedonic well-being: A cluster randomized controlled trial. *Journal of Occupational Health Psychology, 26*(6), 599–612. https://doi.org/10.1037/ocp0000300

I was involved in designing the leadership training intervention, and I contributed to the design and implementation of the intervention study. Moreover, I was involved in the data collection. I conceived the conceptual ideas and the specific research questions addressed in this study, and I developed the theory. Furthermore, I processed the data and performed the data analyses. In consultation with my co-authors, I interpreted the results. With input from my co-authors, I wrote the manuscript, revised it in response to the reviewer comments, and I drafted the response letters.

Study 3

Stein, M., Begemann, V., Gregersen, S., & Vincent-Höper, S. (2022). *Leading for growth: A daily investigation of affiliation resources provided by the leader and nonwork mastery* [Manuscript submitted for publication]. Department of Industrial and Organizational Psychology, Universität Hamburg.

I devised and planned this study, and I conceived the conceptual ideas. Furthermore, I planned and supervised the data collection, and I prepared and analyzed the data. With input from my co-authors, I interpreted the results, and I drafted the manuscript.

I confirm that all authors have approved the author contribution statement.

_____ _____

Date Maie Stein

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Eidesstattliche Erklärung nach *(bitte Zutreffendes ankreuzen)*

☐ **§ 7 (4) der Promotionsordnung des Instituts für Bewegungswissenschaft der Universität Hamburg vom 18.08.2010**

☐ **§ 9 (1c und 1d) der Promotionsordnung des Instituts für Psychologie der Universität Hamburg vom 20.08.2003**

Hiermit erkläre ich an Eides statt,

1. dass die von mir vorgelegte Dissertation nicht Gegenstand eines anderen Prüfungsverfahrens gewesen oder in einem solchen Verfahren als ungenügend beurteilt worden ist.
2. dass ich die von mir vorgelegte Dissertation selbst verfasst, keine anderen als die angegebenen Quellen und Hilfsmittel benutzt und keine kommerzielle Promotionsberatung in Anspruch genommen habe. Die wörtlich oder inhaltlich übernommenen Stellen habe ich als solche kenntlich gemacht.

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Institut für Psychologie

Erklärung gemäß *(bitte Zutreffendes ankreuzen)*

☐ **§ 4 (1c) der Promotionsordnung des Instituts für Bewegungswissenschaft der Universität Hamburg vom 18.08.2010**

☐ **§ 5 (4d) der Promotionsordnung des Instituts für Psychologie der Universität Hamburg vom 20.08.2003**

Hiermit erkläre ich,

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