

**TRANSFORMATIONAL AND
CHARISMATIC LEADERSHIP
EFFECTS ON PERFORMANCE
OUTCOMES**

**AN ANALYSIS OF LINKING MECHANISMS
AND BOUNDARY CONDITIONS**

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DISSERTATION

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“It is easier to start wars than to end them. It is easier to blame others than to look inward; to see what is different about someone than to find the things we share. But we should choose the right path, not just the easy path” (Barack Obama)

Preface

The notion of this dissertation evolved during my role as a Research Associate in the department of Work and Organizational Psychology at the University of Heidelberg. I was employed in a project named “BiG – Benchmarking in einem Gesundheitsnetzwerk” (benchmarking in a health network), which was conducted in collaboration with the Health and Safety department of the Daimler Corporation. “BiG” is part of the development program run by the Federal Ministry of Education and Research (BMBF) entitled “Work, learn, develop skills – The ability to innovate in the modern world of work”. The project is led by Prof. Dr. Karlheinz Sonntag (University of Heidelberg) and Ursula Spellenberg (Daimler AG) and being coordinated by the German Aerospace Center (DLR).

The objective of “BiG” is to demonstrate how “long-term health management” can be designed and how it can affect employees’ motivation, performance, innovativeness, and health. My particular goal was to determine the influence of leadership processes on employees’ performance and innovativeness. I was interested in analyzing the linking mechanisms and boundary conditions under which this influence unfolds or does not unfold. Thus, I conducted three empirical studies based on ideas developed in project “BiG”. The results of these three empirical studies provide the basis of this dissertation.

Before beginning this dissertation, I would like to thank many people who have directly and indirectly contributed to the development and the completion of this work.

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Björn Michaelis

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List of Abbreviations

β	beta-coefficient
cf.	confer
CFI	comparative fit index
Δ	delta
df	degrees of freedom
Ed./Eds.	editor/editors
e.g.	for example
et al.	et alii
F	statistic used for multiple df numerator and denominator significance tests
ICC	intraclass correlation coefficient
i.e.	that is
M	mean
n.s.	not significant
p	level of significance
p.	page
r	Pearson product-moment correlation coefficient
R ²	squared multiple correlation coefficient
RMSEA	root mean square error of approximation
Rwg	index of interrater agreement
SD	standard deviation
SE	standard error

Abstract

There is an impressive body of research suggesting that transformational and charismatic leadership are positively associated with performance outcomes. The role of linking mechanisms that facilitate the influence of transformational and charismatic leadership and the functioning of boundary conditions, however, is less well-understood. This dissertation is an attempt to address this research gap by providing three empirical studies analyzing linking mechanisms and boundary conditions in the context of transformational and charismatic leadership on the individual and group level of analysis.

This dissertation investigates two different performance outcomes (task and innovation performance) two linking mechanisms (unit cohesion and commitment to change) as well as two distinct boundary conditions (positive affective tone and climate for initiative). Drawing on a sample of 206 units, Study 1 demonstrates that unit cohesion functions as a linking mechanism in the relationship between a transformational leadership climate and units' task performance depending on positive affective tone as a boundary condition. Building on a sample of 196 employees, Study 2 reveals that transformational leadership is an antecedent of commitment to change and that its positive effect on followers' innovation performance depends on a climate for initiative. Study 3 turns to charismatic leadership and explores the relative importance of trust in top management in influencing followers' innovation performance. In a sample of 194 employees, results show that trust in top management has a stronger indirect effect through commitment to change on followers' innovation performance than charismatic leadership.

This dissertation shows that transformational and charismatic leadership have significant impacts on performance outcomes on the individual and group level of analysis. More importantly, the findings contribute to a better understanding of linking mechanisms and boundary conditions in the transformational and charismatic leadership – performance linkage. This dissertation not only provides theoretical reasoning and empirical evidence, but also important practical insights and implications for organizational leaders on how to improve transformational and charismatic leadership effectiveness.

1 Introduction

1.1 Relevance, Research Problem, and Dissertation Focus

1.1.1 Introducing the Concepts of Transformational and Charismatic Leadership

Over the last four decades, leadership scholars and practicing managers have been focused on the search for and identification of those behaviors that increase a leader's effectiveness (cf. Avolio, Walumbwa, & Weber, 2009; Bass & Riggio, 2006). Traditionally, leadership researchers have primarily focused on what Burns (1978) and Bass (1990a) have called transactional leadership. The notion of transactional leadership is founded in an exchange process in which the leader provides rewards in return for followers' efforts. The past twenty years, however, have been dominated by research that focuses on leadership behaviors that make followers more aware of the importance and values of task outcomes, activate their higher-order needs, and induce them to transcend self-interests for the sake of the organization (Bass & Riggio, 2006; Yukl, 2006). These transformational or charismatic leadership behaviors are believed to be superior to transactional leadership because followers feel better about their work and work to perform beyond simple transactions and base expectations (e.g., Avolio, Bass, & Jung, 1999; Bass, 1990b; Conger & Kanungo, 1998).

1.1.2 Research Problem and Relevance

There is an impressive body of research, including a series of meta-analytic studies (e.g., Judge & Piccolo, 2004), suggesting that transformational and charismatic leadership are positively associated with a number of important organizational outcomes across many different types of organizations, situations, levels of analyses, and cultures (Avolio et al., 2009; House & Aditya, 1997; Lowe, Kroeck, & Sivasubramaniam, 1996; Yukl, 2002). However, little is known about the mechanisms that facilitate the influence of transformational and charismatic leadership on performance outcomes and even less about the boundary conditions under which this relationship unfolds or does not unfold. This is surprising, given that scholars have long bemoaned the paucity of research on the boundary conditions that may shape the

underlying mechanisms of the relationship between transformational and charismatic leadership and performance outcomes (e.g. Conger, 1999; Yukl, 1999).

1.1.3 Focus of this Dissertation

Given the absence of empirical research and the lack of guidance provided by the few existing theoretical elaborations on linking mechanisms and boundary conditions on transformational and charismatic leadership and their relation to performance outcomes, there is much to be explored. In particular, transformational and charismatic leadership need to be clearly defined, their linking mechanisms with performance outcomes need to be identified, the boundary conditions under which they become effective need to be specified, and their multilevel nature needs to be clarified.

While I touch on these areas in the literature review (see chapter 1.3), I selected narrowly delineated aspects of transformational and charismatic leadership and integrated them into specifically defined research questions (see chapter 1.3.6) in order to contribute meaningfully to our understanding of transformational and charismatic leadership in organizations. In this dissertation, I primarily focus on transformational and charismatic leadership at the individual and group level of analysis, and their effects on performance outcomes, linking mechanisms, and boundary conditions.

Based on four guiding criteria I selected the constructs to include in the empirical studies of this dissertation: (1) they should be accepted and used by leading scholars in the domain of research or could be conceptualized on the basis of existing literature; (2) they are expected to explain a significant portion of variance in performance outcomes in organizations and are considerate to have a large influence on the hypothesized relationships; (3) they appear to be theoretically well-grounded in terms of their interconnection; (4) they promise to provide practical implications.

Based on these criteria and drawing from pertinent literature, I chose to focus on transformational and charismatic leadership and their effects on task and innovation performance. Researchers agree that innovation performance will become increasingly critical to organizational success, and call for the investigation of this area (e.g., Jung, Wu, & Chow, 2008; Klein & Knight, 2005; Sonntag, Stegmaier, & Michel, 2008). Particularly, I suggest that collective transformational leadership behaviors are antecedents of unit cohesion. I further argue that unit cohesion has an impact on units' task performance, depending on a positive affective tone within the unit as a specific boundary condition. Moreover, I suggest that transformational and charismatic

leadership are associated with higher levels of commitment to change, which in turn enhances followers' innovation performance. Please note that the full rationale behind selecting the particular constructs to be investigated is laid out in the section on the development of specific research questions (see chapter 1.3.6) and the chapters on the empirical studies of this dissertation (see chapters 2, 3, and 4). The empirical studies pertain specifically to the following research questions:

1. *Do collective transformational leadership behaviors influence unit cohesion and thereby facilitate higher levels of units' task performance, depending on the level of positive affective tone?*
2. *Are transformational leadership behaviors associated with higher levels of followers' commitment to change, thereby enhancing innovation performance, depending on the level of perceived climate for initiative?*
3. *Are charismatic leadership behaviors at lower and middle management positions associated with higher levels of followers' commitment to change, thereby enhancing innovation performance?*

By addressing these specific research questions, I hope to advance our understanding on how and when transformational and charismatic leadership enhance individual and group performance outcomes.

1.2 Outline of this Dissertation

1.2.1 Overall Conception

The goal of this dissertation is to learn more about transformational and charismatic leadership and their effects on followers' task and innovation performance. More importantly, this dissertation aims to explore the linking mechanisms that facilitate their influence and the boundary conditions under which this relationship unfolds or does not unfold. I address this goal in three steps, moving from the theoretical to the empirical, and lastly to the practical part.

This dissertation first provides a literature review and theoretical approaches linking transformational and charismatic leadership to performance outcomes to lay the foundation for the empirical part.

In the empirical part, I seek to address distinctly defined research questions about linking mechanisms and boundary conditions of transformational and charismatic leadership effects on followers' task and innovation performance outcomes at the group and individual level of analysis. Specifically, I aim to clarify whether a unit's transformational leadership climate is associated with higher levels of unit cohesion and unit task performance. Additionally, the association between transformational and charismatic leadership and followers' innovation performance is investigated.

Given the applied nature of management science and organizational psychology, this dissertation intends to not only provide theoretical reasoning and empirical evidence of linking mechanisms, boundary conditions, and performance outcomes associated with transformational and charismatic leadership, but also practical insights and implications. Thus, towards the end of this dissertation, I provide a set of practical implications derived both from the theoretical and empirical parts of this dissertation.

1.2.2 Chapter Structure

This dissertation provides a detailed literature review to underline the importance of the above-mentioned research questions. In three empirical studies, I develop testable hypotheses which are derived from these research questions. Towards the end of this dissertation, I discuss and integrate the results of these three studies and elaborate on practical implications. As depicted in Figure 1, the structure is as follows:

Chapter 1, Introduction: The first chapter is meant to show the relevance of the research pursuit and to introduce the reader to the research problem. Before discussing the practical and theoretical contributions of the subsequent research venture, I outline the exact focus of this dissertation and provide the reader with the research questions. I summarize the current state of research on transformational and charismatic leadership, first addressing theoretical elaborations on transformational and charismatic leadership. I then discuss consequences of transformational and charismatic leadership, before turning to identified linking mechanisms and boundary conditions. I describe unresolved research questions and provide insights on theoretical approaches linking transformational and charismatic leadership with performance outcomes. Finally, I summarize the literature review and integrate the insights to develop specific research

questions on transformational and charismatic leadership. At the end of the introduction, I turn to the methodological issues, explaining the rationale behind the research design adopted in this dissertation.

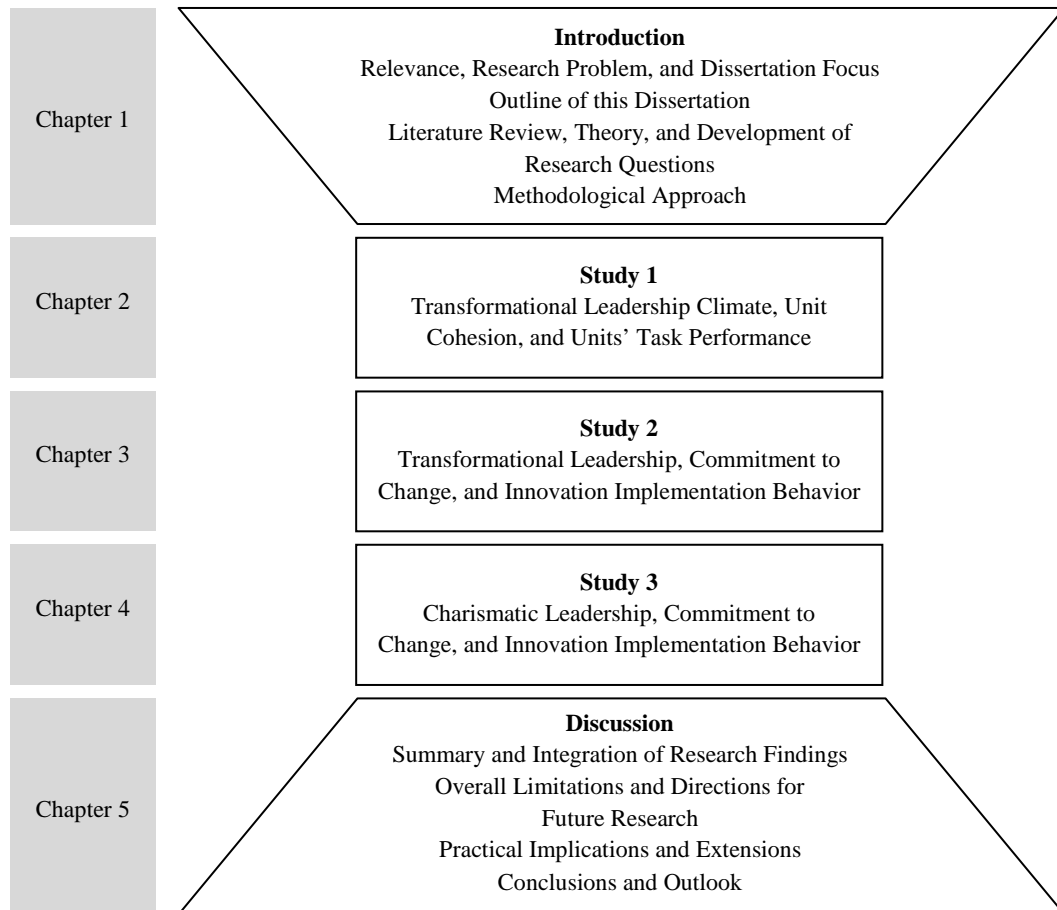


Figure 1. Chapter Structure

Chapter 2, Study 1 on transformational leadership climate, unit cohesion, and units' task performance: This chapter will describe Study 1 in an attempt to resolve the first research question. In particular, I hypothesize that transformational leadership climate acts as an antecedent of unit cohesion which, in turn, leads to higher levels of task performance. I describe a large-scale study within the U.S. military: a total of 8,666 respondents from 206 units provided data on their respective units' transformational leadership climate, unit cohesion, positive affective tone, and task performance within the respective unit. To avoid common source variance, I employed a split sample design, with half of each unit's respondents rating the transformational leadership climate, unit cohesion, and positive affective tone, while the other half rated task performance. The study results in a pattern of moderated mediation for task performance: units' transformational leadership climate indirectly enhances units'

average task performance by fostering unit cohesion under conditions of high but not under conditions of low positive affective tone.

Chapter 3, Study 2 on transformational leadership, commitment to change, and innovation implementation behavior: This chapter describes Study 2 and provides insights into the second research question. The innovation literature has demonstrated the impact of transformational leadership on innovation performances such as creativity, improvement-oriented voice, or organizational innovation. First, I point to a lack of research on transformational leadership effects on another important aspect of innovation performance, namely innovation implementation behavior. Second, I indicate that the mechanisms explaining how and when transformational leadership is related to followers' innovation implementation behavior have likewise not been comprehensively investigated. Thus, I suggest commitment to change as a potential linking mechanism between transformational leadership and followers' innovation implementation behavior. Perceived climate for initiative I suggest as a boundary condition under which the proposed relationship unfolds or does not unfold. Results from a sample of 196 employees working in the automotive industry supported my predictions that commitment to change fully mediated the relationship between transformational leadership and followers' innovation implementation behavior. Further, I found that the nature of this relationship was moderated by followers' levels of perceived climate for initiative. Overall conclusions are drawn, followed by a discussion of the results and reflections on the limitations and practical as well as theoretical implications.

Chapter 4, Study 3 on charismatic leadership, commitment to change, and innovation implementation behavior: This chapter targets Study 3 and aims to provide answers for the third research question. First, I draw on the notions of Bass (1990a) and Conger, Kanungo, and Menon, (2000) who argue that charismatic leaders can also be found at levels below the executive suite and investigate the relationship between charismatic leadership at lower and middle management positions and followers' innovation implementation behavior. Second, I indicate that the linking mechanisms explaining the relationship between charismatic leadership and innovation implementation behavior have not been sufficiently investigated. Thus, I suggest commitment to change as a potential linking mechanism between charismatic leadership and followers' innovation implementation behavior. Additionally, I build on the trust literature and explore the relative importance of trust in top management in

influencing followers' innovation implementation behavior. Results from a sample of 194 employees working in the automotive industry revealed that trust in top management has a stronger indirect effect through commitment to change on followers' innovation implementation behavior than charismatic leadership. This result indicates that sentiments regarding both top management and immediate managers are important and complementary for successful innovation implementation. I conclude by discussing the practical implications, limitations, and directions for future research.

Chapter 5, Discussion: In the final chapter I provide a summary of the key ideas of this dissertation and an overall discussion on the findings. Thereby, I attempt to consolidate and unify the three separate studies. Further, this chapter critically reflects on the overall dissertation, acknowledges limitations, points to major contributions, and provides implications for future research. Finally, I transfer the insights of this dissertation to organizational applications and advice for practitioners.

1.3 Literature Review and Development of Research Questions

1.3.1 Definitions and Different Perspectives in Leadership Research

Over the last decades, much research has been devoted to the field of leadership, always an important topic to scholars in management and organizational psychology. However, the meaning of 'leadership' and what it stands for are different to different people. Leadership definitions and their foci vary in emphasis, whether on leader abilities, personality traits, influence relationships, cognitive versus emotional orientation, individual versus group orientation, and/or appeal to self versus collective interests (Den Hartog & Koopman, 2008). Definitions of leadership can be classified by whether they are primarily descriptive or normative in nature, as well as by their relative emphasis on behavioral style (Den Hartog et al., 1997). Some scholars distinguish leadership from management (e.g., Kotter, 1990) or regard leadership as one of several managerial roles (e.g., Mintzberg & Katz, 1988). Bryman (1992) attempted to consolidate the main ideas of leadership definitions and stated that they all emphasize three main elements: group, influence, and goal. For instance, Katz and Kahn (1978), define leadership as the influential increment over and above mechanical compliance with the routine directives of the organization. Rauch and Behling (1984) define leadership as the process of influencing the activities of an organized group toward goal achievement. In this dissertation I decided to focus on a leadership

definition developed by House & Shamir (1993) because it provides a sound foundation for the concepts of transformational and charismatic leadership. They define leadership as follows: leadership is the ability of an individual to motivate others to forego self interest for a collective vision, and to contribute to the attainment of that vision and to the collective by making significant personal self-sacrifices over and above the call of duty, willingly (House & Shamir, 1993).

Moreover, leadership can be distinguished according to different domains of leadership. Most research on leadership focuses on the leader and is, therefore, leader-centered. However, besides the domain of the leader, one can also focus on the follower or on the relationship between the leader and the follower (Graen & Uhl-Bien, 1995). In the leader-based domain the primary focus lies on leader behaviors and characteristics and their impact on different outcome variables. In the follower-based domain the research focuses on follower characteristics, behaviors, and perceptions or topics such as empowerment (e.g., Hollander, 1992). The relationship-based domain takes the relationship between the leader and the follower as the starting point for research and theory building (Bryman, 1992; Graen & Scandura, 1987). All three domains can focus on different levels of analysis (i.e., individual, dyad, group, or larger collectivities) (e.g., Yammarino & Bass, 1991).

In the following sections I will give an overview of the major developments in the field of leadership research and theory. I will begin with the early beginnings characterized by the trait approach (see chapter 1.3.1.1). I will continue with describing the second major trend in leadership research, the leadership style approach (see chapter 1.3.1.2), before I turn to contingency approaches in leadership research (see chapter 1.3.1.3). Finally, in the last section of this chapter (see chapter 1.3.1.4), I will describe new leadership approaches and embed transformational and charismatic leadership in the development of leadership research.

1.3.1.1 Trait Approach

The early beginnings of leadership research were characterized by the search for ‘the great man’ (Den Hartog & Koopman, 2008). The basic notion of this research was that personal characteristics determine leadership effectiveness and that leaders are born rather than made. Scholars during that time attempted to identify and measure certain traits that distinguished leaders from non-leaders or effective from ineffective ones (Hollander & Offermann, 1990).

As scholars were searching for the ‘great man’ they included three main categories of personal characteristics: first, physical features, such as height, physique, appearance, and age; second, ability characteristics such as intelligence, knowledge, and fluency of speech; and third, personality traits such as dominance, emotional control and expressiveness, introversion-extraversion (Bryman, 1992).

However, due to a lack of empirical evidence for the existence of a leadership trait profile, the search for the ‘great man’ turned out to be hardly provable. This led scholars to a new focus in leadership research, the style approach, which I will discuss in the next section (see chapter 1.3.1.2).

1.3.1.2 Leadership Style Approach

The leadership-style approach shifted the research focus from who leaders are (traits) to what leaders do (behavioral style). The basic notion of this research was that leadership effectiveness depends on the exerted leadership style. Contrary to the trait approach which focused on stable personal characteristics and assumed that these were innate rather than trainable, the style approach implied that effective leadership depends on a behavioral pattern, which can be learned (Den Hartog & Koopman, 2008).

Most research on the style approach was conducted by the Ohio State University and the University of Michigan. Based on a series of questionnaire-based studies, the Ohio State researchers concluded that leadership styles could be best explained as varying along two dimensions, i.e., ‘consideration’ and ‘initiating structure’ (e.g., Fleishman & Harris, 1962). The results of the research conducted by the University of Michigan indicate a similar pattern of behaviors. They found three types of leadership differentiating between task-oriented behavior, relationship-oriented behavior, and participative behavior.

However, like the trait approach, the style approach did not prove to be successful in distinguishing effective from non-effective leaders, probably because of a lack of embracing the situational characteristics that act as moderators of the relationship between leadership and outcome variables. Attempts to address these situational characteristics functioning as possible moderators led to the next main trend in leadership research, the contingency approach, which I will present in the next section (see chapter 1.3.1.3).

1.3.1.3 Contingency Approach

Contingency approaches of leadership were an attempt to solve what researchers saw as deficiencies of the aforementioned leadership approaches (Smith & Peterson, 1988). The basic notion of this leadership approach is that the effectiveness of a certain leadership style is contingent on the situation, assuming that assertive leader behaviors will be effective in some situations but not in others. Particularly influential contingency leadership approaches were the theory developed by Fiedler (1967), which is famous and criticized for its ‘least-preferred-coworker’ (LPC) scale; Hersey and Blanchard’s (1969) situational leadership theory (SLT), which provided a popular basis for leadership training and proposed that leaders should adjust their behavior to the development level of their followers and teams; the normative decision-making model by Vroom and Yetton (1973), which focused on criteria to determine whether or not a leader should involve subordinates in different kinds of decision making; and finally, and probably the most influential and complete contingency theory to date, House’s path-goal theory of leadership (House, 1971; House & Mitchell, 1974), which described leadership as a dyadic process and addressed the question of how leaders affect followers’ motivation and satisfaction (House, 1996).

Even though House’s path-goal theory is deemed to be one of the most complete leadership theories to date, there are several problems associated with it according to Bryman (1992), such as inconsistent findings, using group average methods, no attention to informal leadership, and causality. These problems were a main reason why leadership researchers developed a new leadership paradigm, the new leadership approach, which I will detail in the next section (see chapter 1.3.1.4).

1.3.1.4 New Leadership Approach

Theories of the new leadership approach were an attempt to explain how certain leaders achieve extraordinary levels of follower motivation, admiration, commitment, respect, trust, dedication, loyalty, and performance. Further, their goal was to clarify how some leaders succeed in leading their organization or units to attain outstanding accomplishments, such as the founding and growing of successful entrepreneurial firms or corporate turnarounds (House, Delbecq, & Taris, 1998). These new leaders were described in terms of being: transformational, charismatic, ‘leaders’ (as opposed to managers), transforming, inspirational, visionary, or value-based. Even though there exists a wide array of terms used by different scholars within this approach, there seem to be more similarities than differences in regard to the phenomenon of this type of

leadership approach. The most accepted terms in the leadership literature to describe this leadership approach include transformational and charismatic leadership (e.g., Hunt & Conger, 1999), which will be the subject of further explanations in chapter 1.3.4. Before turning to this chapter, I will provide an overview of multilevel approaches in leadership research (see chapter 1.3.2) and a classification of different perspectives in performance research (see chapter 1.3.3).

1.3.2 Multilevel Approaches in Leadership Research

Scholars in leadership research began to develop multilevel approaches only two decades ago (Dansereau, Alutto, & Yammarino, 1984). The goal of these approaches is to clearly specify the level of analysis at which leadership phenomena theoretically and empirically exist. However, to-date the progress in the development of multi-level theories and the use of multi-level methods is limited (e.g., Yammarino & Dansereau, 2005). Nevertheless, researchers in leadership research agree on multiple perspectives and commonly consider leadership as a multilevel phenomenon (Kozlowski & Klein, 2000; Yammarino, Dansereau, & Kennedy, 2001). In particular, leadership is represented at four different levels of analysis: individual, dyad, group, and organizational.

The individual level of analysis considers leaders as individuals with various traits and personalities who exhibit the same or at least similar behaviors toward all individuals (Dansereau, Graen, & Haga, 1975). For instance, leaders seem to differ in their ability to provide visionary, transformational, or charismatic leadership. This approach suggests that some individuals demonstrate higher levels of visionary, transformational, or charismatic leadership than others. Moreover, the individual level of analysis assumes that there are significant differences in the way individuals express their leadership style and that the source of the difference lies within the person (Yammarino et al., 2001).

The dyad level of analysis focuses on the one-to-one relationship between the leader and the follower. Leadership in dyads occurs when a leader focuses on his or her followers as individuals. These dyads between the leader and the follower are unique relationships and are not dependent on other relationships in the group or the team (Yammarino et al., 2001).

The group, or team, level of analysis focuses on the ‘face-to-face’ relationship among a set of followers and the leader. These group or team dynamics can be captured,

for instance, in terms of a transformational leadership style displayed by the leader toward the entire group or team (Bliese & Halverson, 2002; Bliese, Halverson, & Schriesheim, 2002).

Finally, the organizational level of analysis acknowledges that individuals in organizations can be captured as hierarchically structured “groups of groups”. The notion of this perspective is that organizational members are bound together through a set of shared or common expectations and, consequently, demonstrate a similar set of attitudes and behaviors (Yammarino et al., 2001).

To explore transformational and charismatic leadership effects on performance outcomes, I decided to focus in this dissertation on the individual, dyad, and group level of analysis (see chapter 2, 3 and 4). As Yukl and colleagues (2002) have noted, research on transformational and charismatic leadership has focused too narrowly on dyadic processes, and greater attention to higher levels of analysis is called for. In their view, leadership is not only evident in the relationships between an individual leader and his or her followers, but also collectively experienced by members of a particular work group (e.g. Gavin & Hofmann, 2002). However, little is known about the effects of transformational and charismatic leadership at higher levels of analysis. By focusing on the individual, dyad, and group level of analysis I intended to progress our understanding about the functioning of transformational and charismatic leadership at different levels of analysis. This may help leaders and organizations to further professionalize their interventions in order to increase organizational performance.

1.3.3 Classification and Different Perspectives in Performance Research

Performance research has been an important topic in management studies and organizational psychology over the last 10 to 15 years (Campbell, Dunnette, & Hough, 1990). The interest in performance research stems from organizations’ need of highly performing individuals and groups in order to meet their goals, to deliver the products and services they specialized in and to achieve competitive advantage (Van Scotter, Motowidlo, & Cross, 2000). Despite the significance of individual and group performance, relatively little effort has been made to clarify the performance concept. Nevertheless, scholars agree that performance is composed of an action (i.e. behavioral) and an outcome aspect (Campbell et al., 1990; Campbell, McCloy, Oppler, & Sager, 1993; Kanfer, 1990; Roe, 1999). The behavioral aspect describes the actual behaviors that an individual performs in the work situation, such as assembling parts of

a car engine, selling personal computers, teaching basic reading skills to elementary school children, or performing heart surgery (Sonnentag & Frese, 2002). However, not every behavior is considered in terms of the performance concept, but only behavior that is related to organizational goals. Campbell (1994) notes that “performance is what the organization hired you to do, and do well” (p. 35). Hence, performance is an evaluative and judgmental process and not defined by an utterly objective behavior (cf. Ilgen & Schneider, 1991; Motowidlo, Borman, & Schmit, 1997).

The result or the consequences of an individual’s behavior are considered as the outcome aspect of performance. Outcomes in terms of the above-described behaviors may be the number of engines assembled, sales figures, pupils’ reading proficiency, or the number of successful heart operations (Sonnentag & Frese, 2002). Empirically regarded, the behavioral and outcome aspect are related in many situations, but do not overlap completely. Despite the general agreement that both the behavioral and the outcome aspect have to be differentiated when studying individual and group performance in organizations, there is some debate over which of these two aspects should be labeled ‘performance’ (e.g., Sonnentag & Frese). In this dissertation, I follow recommendations by Campbell and colleagues (1993) and refer to the behavioral aspect when I speak about performance.

1.3.3.1 Task and Contextual Performance

Many different approaches exist in classifying performance outcomes (Sonnentag & Frese, 2002). The most basic differentiation was made by Borman and Motowidlo (1993) who subdivide performance into task and contextual performance. Task performance is regarded as the sum of an individual’s activities that are strictly related and contribute to the organization’s main goals. Contextual performance is regarded as the sum of an individual’s activities that do not contribute directly to the organization’s main goals, but indirectly assist organizational goals by supporting the organizational, social, and psychological environment. These activities include behaviors such as helping coworkers, being a reliable member of the organization, or making suggestions in terms of improving work procedures.

Task performance itself can be distinguished into many different facets. Campbell (1990), for instance, differentiates between eight different performance components. Five of them refer to task performance (cf. Campbell, Gasser, & Oswald, 1996; Motowidlo & Schmit, 1999): (1) job-specific task proficiency, (2) non-job-

specific task proficiency, (3) written and oral communication proficiency, (4) supervision – in the case of a supervisory or leadership position, and (4) management/administration. Contextual performance can also be divided into many different concepts. On a very basic level of contemplation scholars differentiate between two types of behaviors: (1) behaviors which aim at the smooth functioning of the organization as it is at the present moment and (2) proactive behaviors which aim at changing and improving procedures and organizational processes. Behaviors which support a smooth functioning of the organization include organizational citizenship behavior (Organ, 1988), some aspects of organizational spontaneity (e.g., helping coworker, protecting the organization, George & Brief, 1992), and of prosocial organizational behavior (Brief & Motowidlo, 1986).

The proactive behaviors contain concepts important for changing the status quo within the organization and, hence, for innovation performance. These behaviors include creativity (e.g., Shin & Zhou, 2003), voice (e.g., Detert & Burris, 2007), or innovation implementation behavior (e.g., Choi & Price, 2005; Klein & Sorra, 1996).

In this dissertation I investigated task and contextual performance outcomes on the group and individual level of analysis because both concepts are of central relevance for an organization's success (e.g., Campbell et al., 1993; Paauwe & Boselie, 2005). Particularly, in Study 1, I investigated transformational leadership climate's influence on units' task performance; in Study 2 and 3, I examined transformational leadership and its impact on a subdimension of contextual performance, namely innovation implementation behavior.

1.3.3.2 Individual Difference, Situational, and Performance Regulation Perspective

Scholars in performance research have developed various perspectives for studying performance outcomes. On a very basic level, Sonnentag and Frese (2002) differentiate between three different perspectives: (1) an individual differences perspective, which searches for individual characteristics (e.g., general mental ability, personality) as a source for variation in performance, (2) a situational perspective, which focuses on situational aspects as facilitators and impediments for performance, and (3) a performance regulation perspective, which describes performance in terms of a process.

When studying performance under the individual difference perspective, researchers focus on identifying differences between individuals and their underlying factors. The main goal of this perspective is to determine which individuals perform

best. The basic notion is that differences in performance between individuals result from individual differences in abilities, personality and/or motivation.

The situational perspective focuses on identifying factors in the individuals' environments that stimulate or hinder performance. The main goal of this perspective is to determine in which situations individuals perform best. This perspective concentrates on approaches that focus on workplace factors (Hackman & Oldham, 1976) or motivational aspects (Vroom, 1964), or approaches aiming at improving performance by reward systems or by establishing perceptions of equity and fairness (Adams, 1963; Greenberg, 1990). Research in the leadership domain is primarily conducted under this perspective (Sonnentag & Frese, 2002).

The performance regulation perspective takes a different approach in explaining individual performance. This perspective is less interested in personal or situational predictors of performance, but focuses on the performance process itself. The main questions of this perspective are what the performance process looks like and what happens if someone is 'performing'. Theoretical approaches within this perspective include the expert research approach within cognitive psychology (Ericsson & Lehmann, 1996) and the action theory approach of performance (Frese & Sonnentag, 2000; Frese & Zapf, 1994; Hacker, 1973, 1998).

For this dissertation I selected the situational perspective, because this dissertation aims to explain how situational factors such as transformational and charismatic leadership influence individual and group performance outcomes. Moreover, this perspective is in line with the research tradition to which I want to contribute.

1.3.4 Findings and Unresolved Questions about Transformational and Charismatic Leadership

Over the past 25 years the prevalence of transformational and charismatic leadership in academic and practitioner literature is striking (for reviews, see Avolio et al., 2009; Hunt & Conger, 1999; Yukl, 1999). Although there is an impressive body of research demonstrating the effectiveness of transformational and charismatic leadership, very little research has been conducted that explores the underlying processes and boundary conditions for transformational and charismatic leadership with beneficial work behaviors (Avolio et al., 2009). In addition, scholars have noted that research on transformational and charismatic leadership has focused too narrowly on dyadic processes, and called for greater attention on research exploring higher levels of

analysis (Yukl, 2002). In the following sections, I summarize the most pertinent theoretical explorations of transformational and charismatic leadership, refer to the empirical studies on the consequences, linking mechanisms, and boundary conditions, and finally point to the many unresolved questions about transformational and charismatic leadership, some of which will be addressed in this dissertation.

1.3.4.1 Theoretical Elaborations on Transformational Leadership

Transformational leadership theory has been formulated by Bass and his colleagues (Bass, 1985, 1990a, 1996). Bass (1985) and later his colleague Avolio (Bass & Avolio, 1994) fundamentally built upon Burns' notion of "transformational leadership" with a similar model for organizational leaders. Bass and Avolio's (1994) definition of transformational leadership primarily focuses on the leader's effect on followers and the behavior used to achieve this effect. Followers of transformational leaders feel trust, admiration, loyalty, and respect toward the leader; most importantly, they do more than they are expected to do. Three principal leadership processes are involved to achieve these outcomes (Bass, 1985): (1) these leaders heighten followers' awareness about the importance and value of designated goals and the means to achieve them; (2) they induce followers to transcend their own interests for the sake of the organization; and (3) they stimulate and meet their followers' higher order needs through leadership, the leadership process, and the mission.

Transformational leadership involves different behaviors that are measured with the Multifactor Leadership Questionnaire (MLQ). The MLQ is usually administered to followers who rate how frequently their leader uses each type of behavior. More recently, Felfe (2006) developed a German version of the original MLQ (Bass & Avolio, 1995) which demonstrated support for the overall validation of the transformational leadership scales. Transformational leadership is composed of four dimensions: intellectual stimulation, individualized consideration, individualized influence, and inspirational motivation (Bass & Avolio, 1994). Intellectual stimulation involves challenging followers to re-examine some of their assumptions about the status-quo, encouraging problem reformulation, imagination, intellectual curiosity, and novel approaches. Individualized consideration focuses on followers' development. It involves showing respect and concern about their personal feelings, needs, initiatives, and viewpoints. Idealized influence involves setting an example or acting as a role model for employees to follow. It can be regarded in terms of behaviors and

attributions (Avolio & Bass, 1995). Inspirational motivation refers to identifying new opportunities and developing, articulating, and inspiring in followers a vision of the future.

1.3.4.2 Theoretical Elaborations on Charismatic Leadership

Max Weber (1947) originally formulated the theory of charismatic leadership, in which he described how followers attribute extraordinary qualities (charisma) to the leader. The original theory has been modified and extended multiple times in order to describe charismatic leadership in formal organizations (Conger & Kanungo, 1998; Conger et al., 2000; Shamir, House, & Arthur, 1993). These theories focus on charismatic leadership in terms of leaders influence over followers and the type of leader-follower relationship that emerges (Yukl, 1999).

The most three influential theories on charismatic leadership, and those that have evoked the most research, were formulated by Conger and Kanungo (1988, 1998), House (1977), and Shamir, House, and Arthur (1993). The key behaviors in the Conger and Kanungo theory include articulating an innovative strategic vision, showing sensitivity to member needs, displaying unconventional behavior, taking personal risks, and showing sensitivity to the environment (identifying constraints, threats, and opportunities). The theories developed by House (1977) and Shamir and colleagues (1993) include articulating an appealing vision, emphasizing ideological aspects of the work, communicating high performance expectations, expressing confidence that subordinates can attain them, showing self-confidence, modeling exemplary behavior, and emphasizing collective identity as key behaviors.

The basic notion of Shamir and colleagues' (1993) theory is that charismatic leaders tie the self-concepts of followers to the goals and collective experiences associated with their missions, so that the goals and collective experiences become valued aspects of the followers' self-concepts. The theory hypothesizes that charismatic leadership transforms followers' self-concepts and achieves its motivational outcomes through at least four mechanisms: (1) changing follower perceptions of the nature of work itself; (2) offering an appealing future vision; (3) developing a deep collective identity among followers; and (4) heightening both individual and collective self-efficacy.

The most established questionnaire for testing charismatic leadership is the C-K Scale. Developed by Conger and Kanungo (1998), it demonstrated relatively good

support for the overall measure of charismatic leadership. Additionally, Felfe (2006) developed a German scale to assess charismatic leadership. His validated scale builds on the idealized influence attributed dimension in the MLQ and focuses on the emotional attachment of the follower to the leader.

In the last two sections I described transformational and charismatic leadership separately, thereby, assuming that they are two distinct constructs that are theoretically and empirically distinguishable from one another. This perspective, however, is not shared by all scholars in transformational and charismatic leadership research (e.g., House & Shamir, 1993) because both theories have similar theoretical foundations. For instance, fundamental to the theories of both Bass (1985) and Conger and Kanungo (1998) is the representation and articulation of a vision by the leader (Sashkin, 2004). In this dissertation, however, I followed the perspectives represented by Yukl (1999) and Judge (2005), who consider transformational and charismatic leadership as distinct but partially overlapping processes. This view is corroborated by findings by Rowold and Heinitz (2007), who revealed that transformational and charismatic leadership demonstrate a high convergent validity and criterion validity. They note that “transformational and charismatic leadership both contribute unique variance to subjective performance, over and above the respective other leadership style” (p. 121). However, because of the synonymic use of both constructs by other leadership scholars in previous empirical studies, I will not differentiate between transformational and charismatic leadership in the following sections.

1.3.4.3 Previous Empirical Research on the Consequences of Transformational and Charismatic Leadership

Empirical research on the consequences of transformational and charismatic leadership found a consistent pattern of relationships between transformational and charismatic leadership and performance outcomes (e.g., Avolio et al., 2009). Early research concentrated on self-reports of extra effort, satisfaction with the leader, and perceived leader effectiveness as potential consequences of transformational and charismatic leadership (e.g., Bass & Avolio, 1994; Bryman, 1993). However, many other outcome variables have been demonstrated to be positively influenced by transformational and charismatic leadership, including: trust in the leader (e.g., Podsakoff, MacKenzie, & Bommer, 1996; Podsakoff, MacKenzie, Moorman, & Fetter, 1990); trust in management and coworkers (Conger et al., 2000; Hoyt & Blascovich, 2003); organizational commitment (e.g., Felfe & Gohl, 2002; Podsakoff et al., 1996;

Walumbwa & Lawler, 2003); leader performance (e.g., Yammarino, Spangler, & Bass, 1993); business unit performance (e.g., Howell & Avolio, 1993); follower/work group performance (e.g., Bass, Avolio, Jung, & Berson, 2003; Howell & Frost, 1989); organizational citizenship behavior (e.g., Koh, Steers, & Terborg, 1995; Podsakoff et al., 1990); voice (e.g., Detert & Burris, 2007) innovation performance (e.g., Bono & Judge, 2003); creativity (e.g., Shin & Zhou, 2003); and organizational innovation (Jung, Chow, & Wu, 2003).

In addition to these findings, a meta-analysis conducted by Lowe and colleagues (1996) found that transformational leadership reliably predicts work unit effectiveness, both for follower perceptions (.80) and for objective organizational measures of effectiveness (.35).

1.3.4.4 Previous Empirical Research on Linking Mechanisms and Boundary Conditions

Only recently, research on transformational and charismatic leadership has begun to focus on understanding the linking mechanisms through which these two types of leadership positively influence followers' attitudes, behaviors, and performance. Most studies have examined the linking mechanisms through which transformational and charismatic leadership effects are ultimately realized in terms of performance outcomes (Avolio et al., 2009). Table 1 gives an overview of the types of identified linking mechanisms and provides exemplary studies representing each respective category. Thus far, identified linking mechanisms include: follower attitudes such as commitment, satisfaction, identification, motivation, and perceived fairness (Liao & Chuang, 2007; Piccolo & Colquitt, 2006; Walumbwa, Wu, & Orwa, 2008b); job characteristics such as variety, identity, significance, autonomy, feedback (e.g., Piccolo & Colquitt, 2006); followers' trust such as trust in the leader (e.g., Podsakoff et al., 1990; Wang, Law, Hackett, Wang, & Chen, 2005) and, followers' self and group perceptions in terms of efficacy, potency, and cohesion (e.g., Bass et al., 2003; Bono & Judge, 2003; Schaubroeck, Lam, & Cha, 2007).

Table 1. Overview of Linking Mechanisms in the Relationship between Transformational and Charismatic Leadership and Performance Outcomes

Author	Year	Type of Linking Mechanism	Linking Mechanism(s)	Performance Outcome(s)
Piccolo & Colquitt	2006	followers' attitudes	motivation, commitment	task performance, organizational citizenship behavior
Walumbwa, Wu, & Orwa	2008		identification	job performance
Piccolo & Colquitt	2006	job characteristics	variety, identity, significance, autonomy, feedback	task performance, organizational citizenship behavior
Wang, Law, Hackett, Wang, & Chen	2005	followers' trust	trust in the leader	task performance, organizational citizenship behavior
Podsakoff et al.	1990		trust in the leader	organizational citizenship behavior
Liao & Chuang	2007	followers' self and group perceptions	self-efficacy	service performance
Bass et al.	2003		unit cohesion	unit performance
Bono & Judge	2003		self-concordance	job performance
Schaubroeck, Lam, & Cha	2007		team potency	team performance

Besides these linking mechanisms between transformational and charismatic leadership and performance outcomes, recent research has also examined the boundary conditions under which these two types of leadership are more (or less) effective in predicting follower attitudes, behaviors, and performance. Table 2 gives an overview of the types of identified boundary conditions and provides exemplary studies representing each respective category. Thus far identified boundary conditions include: contextual variables such as the anonymity level of the group (e.g., Sosik, Kahai, & Avolio, 1999); follower dispositions such as self-efficacy (e.g., Zhu, Avolio, & Walumbwa, 2008) networks such as supervisors' informal social networks (e.g., Bono & Anderson, 2005); and cultural orientation such as collectivism and conservation (e.g., Shin & Zhou, 2003; Sosik & Jung, 2002; Walumbwa & Lawler, 2003).

Table 2. Overview of Boundary Conditions in the Relationship between Transformational and Charismatic Leadership and Performance Outcomes

Author	Year	Type of Boundary Condition	Boundary Condition(s)	Performance Outcome(s)
Piccolo & Colquitt	2006	contextual variables	anonymity level of the group	creativity
Zhu, Avolio, & Walumbwa	2008	follower dispositions	self-efficacy	work engagement
Bono & Anderson	2005	networks	supervisors' informal organizational networks	key position in the organization
Sosik & Jung	2002	cultural orientation	collectivism	group performance
Walumbwa & Lawler	2003		collectivism	withdrawal behaviors
Shin & Zhou	2003		conservation	creativity

1.3.4.5 Unresolved Research Questions about Transformational and Charismatic Leadership

Notwithstanding the merits of the theoretical and empirical studies in exploring transformational and charismatic leadership, one must conclude that a number of areas still deserve further attention. First, there remain questions on what determines or predicts transformational and charismatic leadership, or why some leaders engage in transformational and charismatic leadership and others do not. Only a few studies have examined leaders' biographies or the role of followers as predictor variables (Howell & Shamir, 2005).

Second, although significant progress has been made in studying how and when transformational and charismatic leadership are more effective, there remain many unresolved questions regarding the linking mechanisms and boundary conditions for transformational and charismatic leadership with beneficial work behaviors (Avolio et al., 2009). Scholars investigating transformational and charismatic leadership have primarily focused on exploring motivational constructs in their research frameworks, thereby neglecting the underlying psychological processes, linking mechanisms, and boundary conditions through which transformational and charismatic leaders engender followers with higher levels of motivation and performance (Kark & van Dijk, 2007).

Third, Yukl (1999) has bemoaned the paucity of research on investigating both the moderating and mediating mechanisms that simultaneously link transformational

and charismatic leadership to follower outcomes. Until now, only a few studies have explored mediated moderation or moderated mediation models (e.g., De Cremer & Knippenberg, 2002; Walumbwa et al., 2008b).

Fourth, further studies are needed to link transformational and charismatic leadership to other fields of research such as the emerging literature on emotions or innovation. Concerning the field of emotions, there has been a lack of conceptual and empirical research examining the relationships between these two types of leadership and followers' affective states (Bono & Ilies, 2006), although these leadership theories emphasize the emotional attachment of followers to the leader. In terms of linking transformational and charismatic leadership to effective innovation processes our understanding also remains fragmentary. Despite significant progress in understanding transformational and charismatic leaders' roles in fostering followers' creativity (e.g., Shin & Zhou, 2003), improvement-oriented voice (e.g., Detert & Burris, 2007), and organizational innovation (Jung et al., 2003), scholars in innovation research have neglected another important aspect in the innovation process: followers' innovation implementation behavior.

Hence, the goal of this dissertation is threefold. First, I try to extend Bass and Avolio's (1994) transformational leadership theory by explicitly exploring linking mechanisms and boundary conditions simultaneously in one model at higher levels of analysis (see chapter 2). Second, I try to apply transformational leadership theory in the context of innovation research and explore its influence on followers' innovation implementation behavior, thereby investigating linking mechanisms and boundary conditions (see chapter 3). Third, I attempt to extend Shamir and colleagues (1993) theory of charismatic leadership by explicitly testing its practicability in the context of innovation, and investigate its influence on followers' innovation implementation behavior (see chapter 4).

1.3.5 Theoretical Approaches Linking Transformational and Charismatic Leadership with Performance Outcomes

To contribute meaningfully to transformational and charismatic leadership research, a clear understanding and precise description of the theoretical approaches that explain the linkages between these two types of leadership and relevant outcome variables, ought to precede any investigation. Therefore, in the following sections I will present two different theoretical approaches, which have been successfully employed in many empirical and theoretical studies linking leadership variables with attitudes and

behaviors. First, I will describe social identity theory (see chapter 1.3.5.1, Tyler, 1999; Tyler & Blader, 2000), which builds on the relational model of authority developed by Tyler and Blader (2000). Second, I will expose Ajzen's theory of planned behavior (TpB) (see chapter 1.3.5.2, Ajzen, 1985, 1987, 1991), which has been successfully employed in many studies linking attitudes and behaviors (e.g. Conner & Armitage, 1998; Sutton, 1998).

1.3.5.1 Social Identity Theory

Social identity theory (Tyler, 1999; Tyler & Blader, 2000) builds on the relational model of authority (Tyler & Blader, 2000). The model explains why employees demonstrate cooperative or beneficial behaviors towards the group. According to the relational model of authority, employees who feel positive about the group they identify with (e.g., feel pride), work harder for the group's success in order to maintain their favorable identification with the group. Moreover, the model argues that a follower may see the group's status and effectiveness as a source of their own positive self-identity. This leads to motivated followers who try to maintain or even enhance the group's status to maintain and even enhance their own (Moorman & Byrne, 2005). Consequently, they work hard for the success of the group, conform to group rules, and engage in extra-role behavior.

Social identity theory might, therefore, explain why followers of transformational and charismatic leaders show higher levels of performance outcomes. One basic notion of transformational and charismatic leadership theory is that transformational and charismatic leaders tie the self-concepts of followers to the goals and collective experiences associated with their missions so that they become valued aspects of the followers' self-concept. According to social identity theory these processes lead to followers with higher levels of motivation and, consequently, with higher levels of performance outcomes.

1.3.5.2 Theory of Planned Behavior

Ajzen's theory of planned behavior (TpB) (Ajzen, 1985, 1987, 1991) has been successfully employed in many studies linking attitudes and behaviors (e.g. Conner & Armitage, 1998; Sutton, 1998). A review of nine meta-analyses, for instance, which included the TpB or its predecessor, the theory of reasoned action, provides strong evidence that a person's attitudes determine behavioral intention or behavior (Sutton, 1998).

Ajzen's TpB includes three components that determine behavioral intention: attitudes, subjective norms, and perceived behavioral control. Attitudes toward a behavior determine a person's evaluation of that behavior. A person's subjective norms address the perceived social pressure to perform or not perform a behavior. Perceived behavioral control describes a person's perception of the feasibility of performing a behavior. According to TpB, attitudes, subjective norms, and perceived behavioral control determine behavioral intention. Behavioral intention defines the degree to which a person exerts effort to perform a behavior and includes the motivational forces that produce planned behavior. As behavioral intention increases, a person is more likely to perform a behavior.

These elaborations are particularly interesting in the context of transformational and charismatic leadership theory, because transformational and charismatic leaders influence attitudes, subjective norms, and followers' perceived behavioral control through changing followers' perceptions of the nature of the work itself, offering an appealing future vision, developing a deep collective identity among followers, and heightening both individual and collective self-efficacy. Ajzens' TpB might, therefore, explain how transformational and charismatic leaders indirectly influence followers' performance outcomes through affecting the three components in Ajzens' theory that determine behavioral intention (attitudes, subjective norms, and followers' perceived behavioral control). Figure 2 illustrates the theoretical approaches linking transformational and charismatic leadership with performance outcomes.

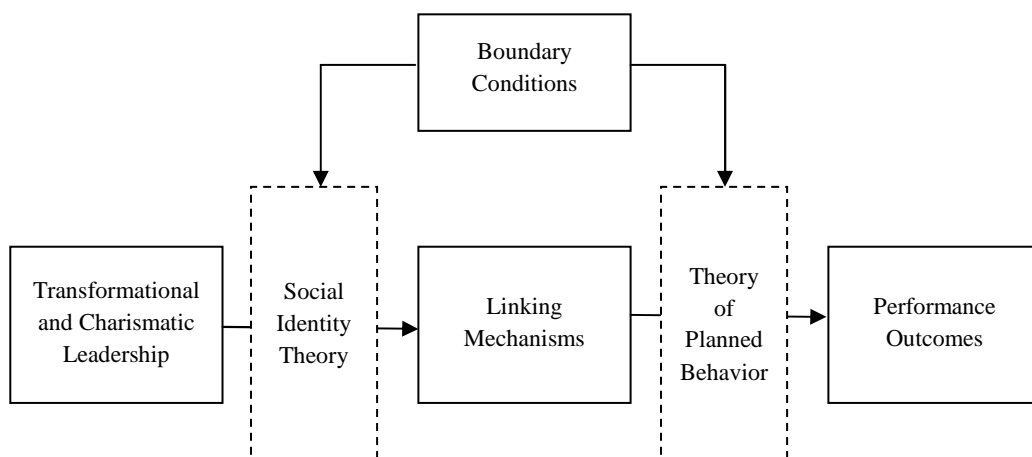


Figure 2. An Integrative Framework Linking Transformational and Charismatic Leadership with Performance Outcomes

1.3.6 Integration and Development of Specific Research Questions

The literature review shows that transformational and charismatic leadership are both highly complex phenomena influencing performance outcomes through multiple linking mechanisms and depending on various boundary conditions. Although we are far from a comprehensive and coherent understanding of the linking mechanisms and boundary conditions of transformational and charismatic leadership effects, particularly at higher levels of analysis, we can build on a substantial body of research on the effectiveness of transformational and charismatic leadership at the individual level of analysis. Particularly, we can draw from an extensive body of research on the consequences of transformational and charismatic leadership, including different types of performance outcomes in the domain of task and innovation performance.

However, scholars have noted that research on transformational leadership has focused too narrowly on dyadic processes, and have called for greater attention to leadership climate studies (Yukl, Gordon, & Taber, 2002). In the view of these scholars, leadership is not only evident in the relationships between an individual leader and his or her followers, but also collectively experienced by members of a particular work group, constituting the group's "shared leadership climate" (e.g. Gavin & Hofmann, 2002: 21); (see also Bliese & Halverson, 2002; Bliese et al., 2002). Further, scholars have long bemoaned the paucity of research on the boundary conditions that may shape the underlying mechanisms of the relationship between transformational and charismatic leadership and performance outcomes (e.g. Conger, 1999; Yukl, 1999).

Additionally, although scholars in innovation research have empirically demonstrated a link between transformational leadership and innovation performance such as creativity (Jaussi & Dionne, 2003; Jung, 2001; Shin & Zhou, 2003), improvement-oriented voice (Detert & Burris, 2007), or organizational innovation (Jung et al., 2003), no research has contributed to an understanding of how transformational or charismatic leadership is related to followers' innovation implementation behavior. This is surprising given that innovation scholars have indicated the theoretical significance of these types of leadership and their potential enhancement of innovation implementation behavior. Further, scholars have long noted the lack of sufficient research on management practices or behaviors promoting innovation implementation behavior (Beyer & Trice, 1978; Klein, Conn, & Sorra, 2001; Klein & Knight, 2005; Tornatzky & Klein, 1982).

The goal of this dissertation is, therefore, to contribute to the literature on transformational and charismatic leadership effects on task performance by exploring the linking mechanisms and boundary conditions on higher levels of analysis (i.e. group level). Further, I want to contribute to the literature on transformational and charismatic leadership effects on innovation performance (i.e. innovation implementation behavior) by exploring the linking mechanisms and boundary conditions on lower levels of analysis (i.e. individual level).

In particular, since transformational leaders typically have the ability to develop a collective attitude and spirit among their employees and to foster collaboration, I seek to explore the role of unit cohesion as a linking mechanism between transformational leadership climate and units' task performance. Further, I suggest units' levels of positive affective tone as a boundary condition under which the suggested relationship unfolds. Positive affective tone reflects the collective feeling of a group (George, 1990). Drawing both on previous research by Bass (1999) and on pertinent findings on lower levels of analysis (Bass et al., 2003), I arrived at the first research question:

1. *Do collective transformational leadership behaviors influence unit cohesion and thereby facilitate higher levels of units' task performance, depending on the level of positive affective tone?*

In addition, I followed up on the appeal for more research on management practices or behaviors promoting innovation implementation behavior (Klein & Knight, 2005), building on the theoretical significance of transformational leadership and its potential enhancement of innovation implementation behavior. Drawing on the rationale provided by Herscovitch and Meyer (2002), amongst others (Fedor, Caldwell, & Herold, 2006b), I identified commitment to change as a potential linking mechanism between transformational leadership and innovation implementation behavior. Finally, in line with Shamir & Howell (1999), I built on the notion that transformational leadership will not be equally effective under all conditions. Hence, I formulated the second research question:

2. *Are transformational leadership behaviors associated with higher levels of followers' commitment to change, thereby enhancing innovation performance, depending on the level of perceived climate for initiative?*

Beyond addressing the significance of transformational leadership in the context of innovation performance, I also investigated the influence of charismatic leadership on followers' innovation implementation behavior. Usually charismatic leadership research places emphasis on leaders at or near the top of the organization (e.g., Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006; Waldman, Javidan, & Varella, 2004) or even at the societal level (e.g., Fiol, Harris, & House, 1999; Seyranian & Bligh, 2008). Conceptual works, however, tend to emphasize multiple hierarchical levels (e.g., Yukl, 1999) and experiments on first-level leader-follower relationships (e.g., De Cremer & Knippenberg, 2002). There is, however, a lack of empirical field studies on charismatic leadership concentrating on lower and middle management positions. Drawing on the notion by Bass (1990a) and Conger, Kanungo, and Menon (2000), who argue that charismatic leaders can also be found at levels below the executive suite, I arrived at the third and last research question:

3. *Are charismatic leadership behaviors at lower and middle management positions associated with higher levels of followers' commitment to change, thereby enhancing innovation performance?*

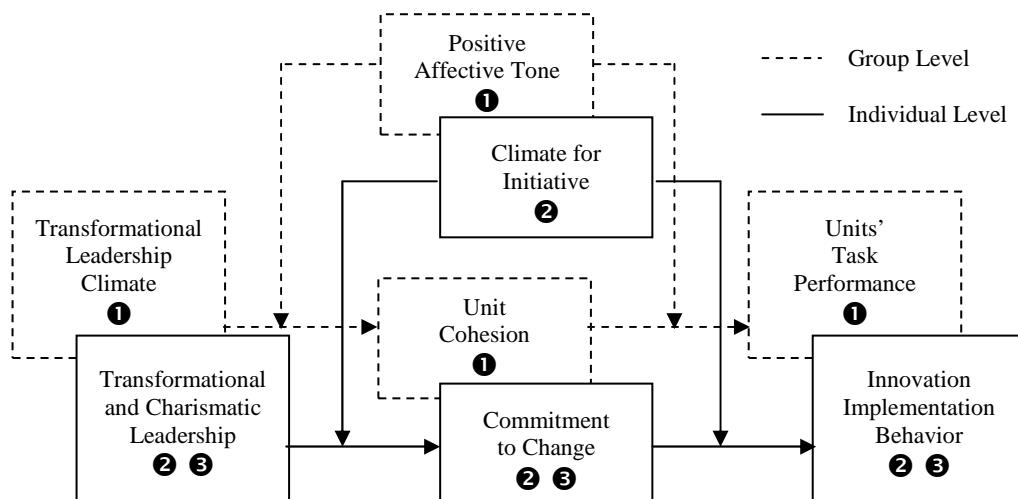


Figure 3. An Integrative Perspective on the Three Empirical Studies on Transformational and Charismatic Leadership Effects

As Figure 3 summarizes, these research questions and the associated studies combine to form an integrated, but not exhaustive understanding of transformational and charismatic leadership effects on task and innovation performance (i.e., units' task performance and innovation implementation behavior), thereby investigating the

linking mechanisms (unit cohesion, commitment to change) and boundary conditions (positive affective tone, climate for initiative) at the individual and group level of analysis.

1.4 Methodological Approach

The methodological approach of a research project needs to be carefully selected, as the choice of a particular research method greatly influences the type of conclusions that can be drawn from the results (Scandura & Williams, 2000). Therefore, scholars need to consider the methodological fit between research question, prior work, research design, and theoretical contributions in order to determine an appropriate research method (Edmondson & McManus, 2007). Even though, “all research strategies and methods are seriously flawed” (McGrath, 1982, p. 70) the value of a scientific endeavor greatly depends on selecting a rigorous and appropriate method.

The literature discusses several criteria for adopting an adequate methodology. Among others, these criteria include the development stages of the underlying theoretical constructs (nascent vs. mature, Edmondson & McManus, 2007), the type of research question posed (open-ended inquiry vs. testing hypothesized relationships, Brewerton & Millward, 2001), the temporal and spatial focus (contemporary vs. historical and global vs. local, Yin, 1994) and the extent of control a researcher has over actual behavioral events (high vs. low, Yin, 1994).

1.4.1 Research Paradigm

Research in social science possesses two fundamental methodological approaches: qualitative and quantitative research (Lawrence, 2004). The goal of qualitative research is to develop theories, explore reality, relate past incidences to contemporary outcomes, and capture authentic experiences (Denzin & Lincoln, 1994). Advantages of such research include rich, holistic, and naturalistic data, allowing particular objects of interest to be observed over a longer period of time and thereby facilitating the exploration and identification of new areas of research (Edmondson & McManus, 2007). Qualitative research, however, also comes along with limited reliability, decreased objectivity, and reduced generalizability (Brewerton & Millward, 2001; Denzin & Lincoln, 1994).

On the other hand, quantitative research’s goal is to test hypothesized relationships deduced from prior theory and research. Quantitative research yields

unambiguous and quantifiable results about relationships between the constructs of interest; high levels of standardization, objectivity, and reliability allow for replication and comparison of various studies; and high generalizability and external validity, as such studies usually rely on samples with numerous organizations representing various sizes, ages, and industries (Hays, 1994). These benefits come at a price: a distal relationship between the researcher and the objects under investigation, the negligence of potentially important contextual and situational factors, and the possibility of random or false findings (Brewerton & Millward, 2001).

Both research methods, qualitative and quantitative, offer several advantages and drawbacks. The researcher, therefore, needs to decide on a proper method for his or her research problem. For this dissertation I selected the research method based on the criteria which I discussed above (Brewerton & Millward, 2001; Edmondson & McManus, 2007; Yin, 1994) and in line with the research tradition to which I want to contribute (Lawrence, 2004).

All theoretical constructs used in this dissertation range from an intermediate to a mature developmental stage. Transformational and charismatic leadership (Bass & Avolio, 1994; Shamir et al., 1993), commitment to change (Herscovitch & Meyer, 2002), unit cohesion (Bass et al., 2003) and climate for initiative (Baer & Frese, 2003) can be regarded as mature constructs and are all well established in the literature. Although positive affective tone has hardly been investigated as a boundary condition, it has been previously established as a linking mechanism and can, thus, be considered as an intermediate construct (Edmondson & McManus, 2007). It is recommended to approach research focusing on intermediate and mature theoretical constructs with a quantitative research methodology (Edmondson & McManus, 2007).

The research questions posed in this dissertation and the relationships between the constructs of interest are theoretically well-grounded. I hypothesize, for instance, that there are relationships between a transformational leadership climate, unit cohesion, and units' task performance, or between transformational leadership, commitment to change, and innovation implementation behavior. These hypotheses are well-grounded in prior theory and research (see chapters 2.2 and 3.2) and are typically pursued using a quantitative research approach (Brewerton & Millward, 2001).

The temporal and spatial focus of this dissertation and the constructs of interest are not restricted to a certain sequence of events or a specific organization or location. Rather, my goal is to obtain universally valid findings by assessing the contemporary

occurrence of the constructs of interest in a heterogeneous sample of individuals and groups. Generalizable and externally valid findings are usually obtained with a quantitative methodology (Brewerton & Millward, 2001; McGrath, 1982).

Moreover, I have little control over the constructs of interests in this dissertation. Field studies in organizations usually preclude any systematic intervention or deliberate variation. Rather, the studies rely on a precise assessment of the constructs of interest, assuming that these constructs vary sufficiently between individuals and groups. This notion not only indicates a quantitative methodology (Brewerton & Millward, 2001; McGrath, 1982) but also restricts the range of study designs admissible for the proposed research questions.

Finally, a quantitative methodology is in alignment with the research tradition to which I would like to contribute (Lawrence, 2004). A deductive and inferential hypotheses-testing approach with formal significance tests is specifically aligned with most research conducted in organizational behavior (Hubbard & Ryan, 2000). Similarly, research on transformational and charismatic leadership has primarily focused on quantitative methodology (e.g., Bass et al., 2003; Bliese, Klein, & Kozlowski, 2000; Walumbwa, Avolio, & Zhu, 2008a).

In sum, a quantitative research paradigm seems to be most appropriate for this dissertation. According to McGrath (1982), this approach has some drawbacks, which I will partially address in chapter 5.2. Next, I focus on the study design that I adopted to empirically explore the constructs of interest.

1.4.2 Study Design

In terms of quantitative study designs the methodological repertoire is large. Two dimensions are appropriate to structure the variety of existing study designs: obtrusiveness vs. unobtrusiveness and universality vs. specificity. For instance, experiments are obtrusive and universal, simulations are obtrusive and specific, field studies are unobtrusive and specific, and sample surveys are unobtrusive and universal (McGrath, 1982). With regard to the criterion they maximize, this connotes that experiments maximize precision, field studies realism, and survey studies generalizability (McGrath, 1982).

Therefore, the study design needs to be carefully adjusted to the proposed research questions and the overall goal of the research endeavor. In the case of this dissertation and the aligned empirical studies I mainly relied on the cooperation of the

individuals and groups willing to participate in the study. To achieve this cooperation, I needed to minimize the obtrusiveness of the study design. That is, the study should not interfere significantly with the daily working processes of participating individuals or groups. Given that participating individuals and groups were functioning in a highly competitive environment, it would be impossible and would be irresponsible to assign individuals and groups randomly to various conditions that may have different effects on their performance. Instead, I had to focus on ways of gathering data on the constructs of interest in the most unobtrusive way and with the least impact on the functioning of participating individuals and groups. According to McGrath (1982), either a field study or survey study design is recommended under these circumstances.

Additionally, my goal was to attain generalizable results that are not restricted to specific individuals, groups, or organizations. Instead, I wanted to contribute to our knowledge on universally valid processes and performance outcomes regarding the functioning of transformational and charismatic leadership. Hence, the study designs applied in this dissertation ought to maximize universality. In such settings, McGrath (1982) suggests laboratory or survey study designs.

In order to combine minimal obtrusiveness with maximal universality, a survey study design seems to be most appropriate for this dissertation. I acknowledge, however, that adopting a survey study design is not free of restrictions and disadvantages. Precision, for example, is reduced. Some of these limitations will be addressed in chapter 5.2. Despite these limitations, the survey study design proved to be most appropriate for my research endeavor.

1.4.3 Measurement and Data Processing

The data for the three empirical studies was collected electronically. I used web-based interfaces to administer the surveys. Participants' responses were stored on servers, and downloaded for the analyses. In order to arrive at defensible results I used regression analysis and structural equation modeling to test the hypotheses (Bollen, 1989; Cohen, Cohen, West, & Aiken, 2003). Initial analyses of all three empirical studies included the usual procedures such as checking internal consistency of measures (Cronbach, 1951), aggregation statistics if necessary (Bliese & Halverson, 2002; Bliese et al., 2000), factor structure (Überla, 1968), and distribution analyses (Hays, 1994). I followed criteria recommended by various scholars (e.g., Cohen et al., 2003): that the data had to be independent and normally distributed, and that the variances had to be

homogenous, in order to conduct parametric statistical tests. Regarding statistical software I worked with SPSS and AMOS 17.0 (SPSS, 2008) and R (Becker, Chambers, & Wilks, 1988). I will provide a precise description of the measures, procedures, and data analyses of each study in its respective chapter.

2 Study 1: Transformational Leadership Climate, Unit Cohesion, and Units' Task Performance

As shown by Figure 4, the first study addresses the research question of whether collective leadership behaviors influence unit cohesion and thereby facilitate higher levels of average units' task performance, depending on the level of positive affective tone.

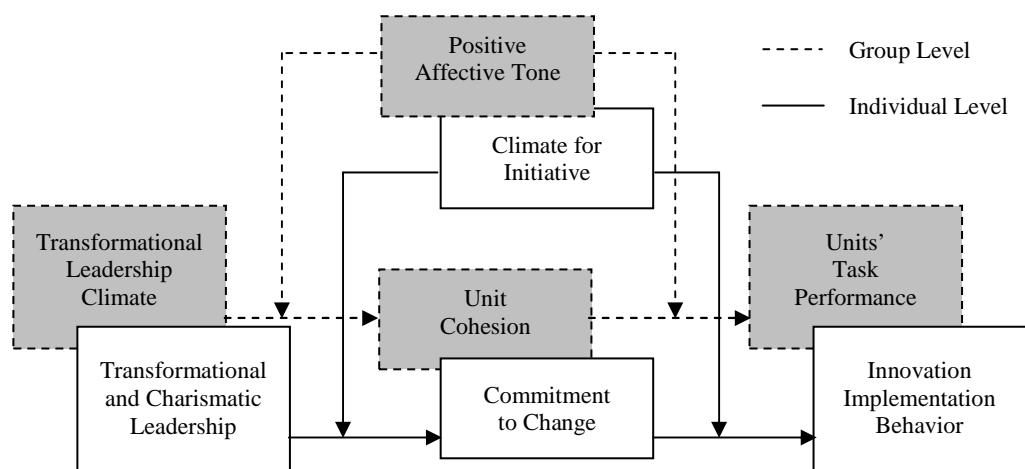


Figure 4. The Design of Study 1

2.1 Introduction, Relevance, and Intended Contributions

Only recently, scholars have begun to discuss leadership as a climate variable reflecting the degree to which different leaders of a work unit direct similar behavior towards their followers (e.g., Bliese & Halverson, 1998, 2002; Bliese et al., 2002; Chen & Bliese, 2002; Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Cole & Bedeian, 2007; Gavin & Hofmann, 2002; Griffin & Mathieu, 1997). A transformational leadership climate, for instance, is characterized by followers who perceive their leaders as commonly engaging in transformational leadership behaviors (Bass, 1985; Burns, 1978). These behaviors include articulating a vision for the future, acting as a role model, and providing individualized support and intellectual stimulation for followers (Avolio & Bass, 1995).

While transformational leadership has generally found a positive association with followers' performance on the individual level (Judge & Piccolo, 2004; Lowe et al.,

1996), scholars have noted that these individual findings cannot easily be generalized to higher levels of analysis. Yukl and colleagues (2002), noting that research on transformational leadership has focused too narrowly on dyadic processes, have called for greater attention to leadership climate studies. In their view, leadership is not only evident in the relationships between an individual leader and his or her followers, but also collectively experienced by members of a particular work unit, constituting the unit's "shared leadership climate" (e.g. Gavin & Hofmann, 2002, p. 21); (see also Bliese & Halverson, 2002; Bliese et al., 2002). However, little is known about the effects of transformational leadership at higher levels of analysis. Understanding more about the functioning of transformational leadership climate may help leaders and organizations to further professionalize their interventions in order to increase collective performance.

Moreover, as Bass noted, "much more explanation is needed about the workings of transformational leadership" (1999, p. 24). We know little about the mechanisms that facilitate the influence of transformational leadership on followers' performance and even less about the boundary conditions under which this relationship unfolds or does not unfold. This is surprising, given that scholars have long bemoaned the paucity of research on the boundary conditions that may shape the underlying mechanisms of the relationship between transformational leadership and performance outcomes (e.g. Conger, 1999; Yukl, 1999).

The suggested study will address these issues by developing and empirically investigating a model of linking mechanisms and boundary conditions in the relationship between transformational leadership climate and units' task performance. In particular, since transformational leaders typically have the ability to develop a collective attitude and spirit among their employees and foster collaboration, I suggest unit cohesion as a mediating mechanism between transformational leadership climate and units' task performance. While previous studies have investigated this relationship at the individual level (Bass et al., 2003), this study is among the first to examine the mediating function of cohesion at the unit level. Further, I inspect units' level of positive affective tone as a boundary condition under which the suggested mediated relationship unfolds. Positive affective tone reflects the collective feeling of a unit (George, 1990). Guided by the notion of Frederickson's (2001) broaden and build theory, I suggest that the inspiring, transubstantiate nature of transformational leadership is more effective in units collectively experiencing a high degree of positive

affective tone. In sum, I suggest a pattern of moderated mediation as depicted in Figure 5, in which the positive effect of transformational leadership climate on units' task performance through unit cohesion is contingent upon the unit's positive affective tone. Subsequent to establishing this theoretical model, I tested the model empirically in a sample of 206 military units, with data provided by 8,666 respondents.

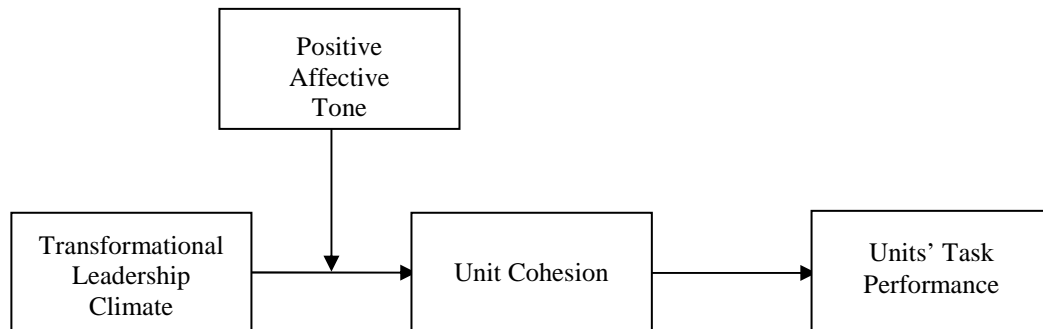


Figure 5. The Moderated Mediation Model of Study 1

2.2 Theoretical Background and Hypotheses Development

2.2.1 Transformational Leadership Climate and Unit Cohesion

I address transformational leadership at the unit level of analysis and, consequently, conceptualize the construct as a climate variable. Therefore, I define transformational leadership climate as the extent to which leaders within the respective unit collectively adopt a transformational leadership style (Menges, Walter, Vogel, & Bruch, 2008). I expect considerable homogeneity in leadership style within a certain unit and considerable differences to other units.

Previous research suggests a positive effect of transformational leadership on cohesion. For instance, transformational leadership has been shown to contribute to cohesion among laboratory groups (Hoyt & Blascovich, 2003), light infantry platoons (Bass et al., 2003), fire rescue personnel (Pillai & Williams, 2004), and work groups in Korean firms (Jung & Sosik, 2002). While these studies document the relationship between transformational leadership and cohesion, they did not investigate transformational leadership as a climate variable.

Unit cohesion refers to unit members' social bonds that develop among those who share common tasks and collective activities. Building on results by Shamir, House, and Arthur (1993) as well as Sosik (1997), I suggest that a transformational

leadership climate will result in followers linking their self-concepts to the collective interests of the unit and in a shared mission among members. Further, I argue that a high level of transformational leadership climate enhances followers' intrinsic values of the shared mission, by connecting effort and unit goals to valued aspects of followers' self-concepts (Fiol et al., 1999; Seyranian & Bligh, 2008). Finally, I expect that high levels of transformational leadership climate will encourage the acceptance among followers and serves to enhance common identification (Piper, Marrache, Lacroix, Richardsen, & Jones, 1983). I expect this shared mission, acceptance, and common identification created by high levels of transformational leadership climate to have a positive effect on unit cohesion.

Hypothesis 1: Transformational leadership climate will be positively associated with unit cohesion.

2.2.2 Unit Cohesion and Unit Performance

Research has devoted considerable attention to cohesion and its influence on the execution of subsequent work processes and outcomes (Beal, Cohen, Burke, & McLendon, 2003; Gully, Devine, & Whitney, 1995). Bass and colleagues (2003), for instance, demonstrated that cohesion had a positive impact on platoon performance. In line with these findings, I argue that unit cohesion will enhance units' task performance. I define units' task performance as a higher-level variable, capturing the performance individuals achieve together in their jobs through working jointly within a certain unit. The rationale for my argument is that the social bonds, or cohesion, among members of a unit lead to higher motivation to perform well. In addition, due to their social bonds, they are better able to coordinate activities for successful performance (Cartwright, 1968; Davis, 1969). Hence:

Hypothesis 2: Unit cohesion will be positively associated with units' task performance.

2.2.3 The Mediating Role of Unit Cohesion

Hypothesis 1 predicts a positive relationship between transformational leadership climate and unit cohesion, and Hypothesis 2 predicts an association between unit cohesion and units' task performance. Together, these hypotheses specify a model in which transformational leadership climate indirectly affects units' task performance by contributing to unit cohesion. Hence, transformational leadership climate serves as an

input and activates resources and core processes crucial to unit functioning which in turn affects units' task performance. Accordingly, I anticipate unit cohesion to mediate the transformational leadership climate – units' task performance relationship.

Hypothesis 3: Unit cohesion will mediate the positive relationship between transformational leadership climate and units' task performance.

2.2.4 The Moderating Role of Positive Affective Tone

In line with Shamir and Howell (1999), I believe that transformational leadership will not be equally effective under all conditions. Rather, contextual factors may have an influence on the proposed transformational leadership climate – unit cohesion linkage. In particular, I expect that this relationship will be contingent on the degree of positive affective tone within the respective unit, since emotions broaden people's momentary thought-action repertoire and build their enduring personal resources (Fredrickson, 2001). If members of a specific unit collectively exhibit high levels of positive affect (i.e., positive affective tone is high), their habitual moods of thinking should be broadened. Followers throughout the unit should then be more flexible, open-minded, and receptive to environmental stimuli. Thereby, they should be able to collaborate more effectively with leaders and absorb the stimulating effects of a transformational leadership climate more successfully.

Therefore, I argue that the mechanism by which transformational leadership climate affiliates followers' self-concepts with the collective interests of the group does not fully unfold within units low on positive affective tone, leading to a comparatively smaller impact of transformational leadership climate on unit cohesion. Hence:

Hypothesis 4a: The positive relationship between transformational leadership climate and unit cohesion will be stronger for units high on positive affective tone than for units low on positive affective tone.

Assuming units' positive affective tone moderates the relationship between transformational leadership climate and unit cohesion, it is also likely that units' positive affective tone will conditionally influence the strength of the indirect association between transformational leadership climate and units' task performance. Taken together, these relationships demonstrate a pattern of moderated mediation

between the study variables, in which transformational leadership climate is positively and indirectly related to units' task performance, through positive affective tone, with the indirect linkage depending on the level of positive affective tone within the respective unit (see Figure 5). Thus:

Hypothesis 4b: Positive affective tone will moderate the positive and indirect effect of transformational leadership climate on units' task performance (through unit cohesion). Specifically, unit cohesion will mediate the indirect effect when positive affective tone is high but not when it is low.

2.3 Description of Study Methods

2.3.1 Data Collection and Sample Descriptions

Data for this study were obtained from United States Army personnel. A total of 9,584 respondents working in 398 different units completed the online version of the DEOMI Organizational Climate Survey (DEOCS) developed by the Defense Equal Opportunity Management Institute (DEOMI, Dansby & Landis, 1991).

Following recommendations by Bliese and colleagues (2002, p. 8), "I used only data from units that contained 10 or more respondents to ensure that I had a reasonable number of respondents". Of the 398 units identified, 206 (52%) met this requirement with a total of 8,666 members. Respondents were primarily male (82%). 72% were between the ages of 22 and 40 years. They represented a wide variety of military functions (Air Force, 1.8%; Army, 30.3%; Coast Guard, 1.9%; Marine Corps, 11.2%, Navy, 54.7%; Other Military Service 0.1%).

2.3.2 Measures

In addition to the traditional DEOCS measures, I asked respondents to complete measures for transformational leadership climate (McColl-Kennedy & Anderson, 2002) and positive affective tone (van Katwky, Fox, Spector, & Kelloway, 2000). All items were answered on a five-point scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). If not stated otherwise all individual respondents' ratings of a particular scale were aggregated with acceptable aggregation statistics (ICC 1 and ICC 2) and all internal consistency estimates (Cronbach's alpha) were in an acceptable range.

2.3.2.1 Transformational Leadership Climate

I employed McColl-Kennedy and Anderson's (2002) measure of transformational leadership climate. A sample item is "Leaders of our unit give personal attention to their subordinates". The items were averaged to compute a score for transformational leadership climate.

2.3.2.2 Unit Cohesion

Unit cohesion was measured with four items developed by Dansby and Landis (1991), addressing the social bond between individuals in a unit and how well unit members collaborate to complete tasks. Respondents were asked to indicate the degree to which their unit works together well as a team or pulls together to get the job done. Item responses were averaged, and I aggregated individual respondents' ratings to form a single unit cohesion score for each unit.

2.3.2.3 Positive Affective Tone

I measured units' positive affective tone by using members' ratings of four items from van Katwky and colleagues' (2000) Job-Related Affective Well-Being Scale (JAWS). The items used in the present study reflect both high and low degrees of positive emotions: "cheerful", "content", "elated", and "satisfied". Unit members indicated the extent to which members of their unit had experienced each emotion at work during the last three months.

2.3.2.4 Unit Task Performance

Units' task performance was measured with four items developed by Dansby and Landis (1991) assessing behavior that focuses directly on or is supportive of task accomplishment. Respondents were asked to indicate to which degree their units' task performance in comparison to similar units is very high.

2.3.2.5 Control Variables

I used a variety of controls to account for alternative explanations of units' task performance. In particular, I controlled for average unit age, because differences in age may influence group performance (e.g. Smith et al., 1994; Tsui & Gutek, 1999). Furthermore, unit size was included as a control variable (Bass, 1990a). Finally, previous research has shown employee attitudes can influence group performance (e.g., Hunter & Thatcher, 2007), so I controlled for unit's organizational commitment with 5

items, job satisfaction with 5 items, and organizational trust with 3 items, as measured in the DEOCS.

2.3.3 Data Analysis

Study hypotheses were assessed at the group level of analysis. First, I tested the simple mediation model suggested in Hypotheses 1 to 3. To address Hypothesis 4a I integrated the moderator variable into the proposed model. Finally, I empirically tested Hypothesis 4b to evaluate the overall moderated mediation model. Prior to the analyses, all continuous measures were grand-mean centered.

To test the simple mediation model suggested in Hypotheses 1 to 3, I employed a procedure developed by Preacher and Hayes (2004), which allowed me to estimate the indirect effect, both with a normal theory approach (i.e., the Sobel test) and with a bootstrap approach. Bootstrapping is desirable, as the distribution of the indirect effect is not normal (Edwards & Lambert, 2007).

To test for moderation (Hypotheses 4a) and for the overall moderated mediation model (Hypotheses 4b), I employed the application described by Preacher, Rucker, and Hayes (2007). This approach involves formal significance tests of the indirect relationship between the predictor and the outcome variable, as transmitted by the mediating variable, at different values of the moderator. In other words, I considered the possibility of a statistical significance of the conditional indirect effect of transformational leadership climate on units' task performance, as transmitted by unit cohesion, at differing values of positive affective tone: the mean, one standard deviation below the mean, and one standard deviation above the mean. In order to test Hypotheses 4a and 4b I followed recommendations of various scholars and applied bootstrap procedures using again an SPSS macro designed by Preacher and colleagues (2007).

2.4 Results and Discussion

2.4.1 Summary of Findings

Supporting Hypothesis 1, transformational leadership climate was positively associated with unit cohesion ($b = .32$, $t = 4.98$, $p < 0.001$), even when taking into account units' organizational commitment, job satisfaction, organizational trust, size, and age. In regard to Hypothesis 2, the relationship between unit cohesion and unit performance

was supported ($b = .27$, $t = 3.23$, $p < 0.01$), even when considering control variables. Finally, transformational leadership climate had an indirect effect on unit performance (0.18), as suggested in Hypothesis 3.

Results regarding Hypotheses 4a indicate that the interaction term between transformational leadership climate and positive affective tone on unit performance was indeed significant ($\beta = .20$, $t = 2.31$, $p < .05$). As shown in Figure 6, the form of these interactions conformed to the predicted patterns, with the transformational leadership climate – unit cohesion linkage being stronger under conditions of high positive affective tone than under conditions of low positive affective tone.

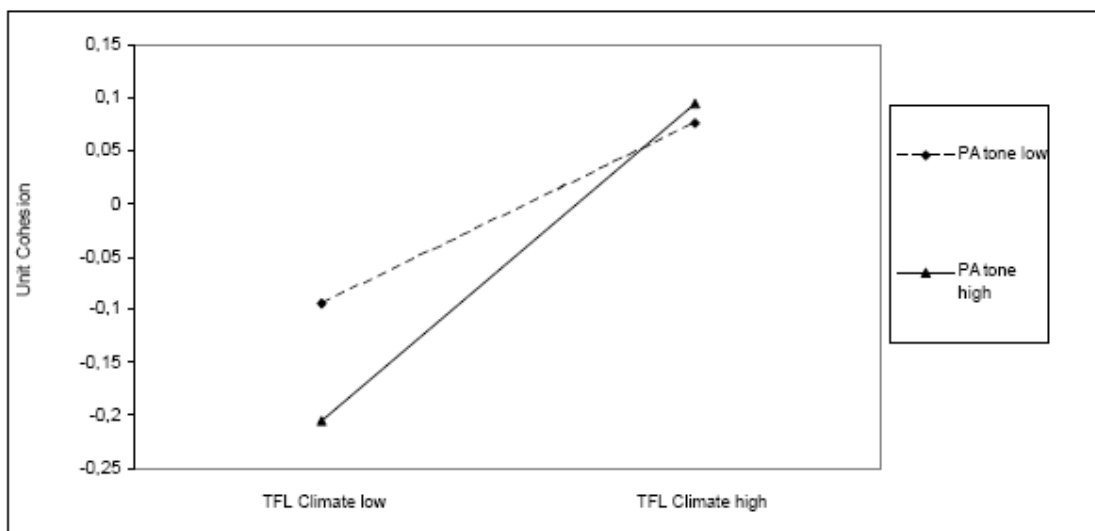


Figure 6. Interaction Effect of Transformational Leadership Climate and Positive Affective Tone on Average Unit Cohesion

I tested Hypothesis 4b by examining the conditional indirect effect of transformational leadership climate on unit performance (through unit cohesion) at three values of positive affective tone: the mean (0.00), one standard deviation above the mean (0.37), and one standard deviation below the mean (-0.37). Both normal-theory based tests and bootstrap contingency intervals estimates showed two of the three conditional indirect effects (based on moderator values at the mean and at -1 standard deviation) were significantly different from zero. Thus, Hypothesis 4b was supported indicating that the indirect positive effect of transformational leadership climate on unit performance through unit cohesion was observed when levels of positive affective tone were moderate or high, but not when units' positive affective tones were low.

2.4.2 Theoretical Contributions

This study offers several contributions to the literature by corroborating and extending prior research in several ways. First, this study is among the first to investigate the effects of transformational leadership climate on performance. I demonstrated that a unit's transformational leadership climate is a meaningful predictor of important unit level variables (i.e., unit cohesion and unit's task performance). Hence, this study moves the fragmentary research in the area of leadership climate forward by identifying theory-based leadership behaviors, which are beneficial for unit and organizational performance.

Second, I contribute to the literature on the role of unit cohesion as a higher-level linking mechanism between transformational leadership climate and units' task performance. The findings suggest that leaders collectively engaging in transformational leadership behavior enhance common identification with group goals and a shared vision, resulting in enhanced unit performance. Therefore, I strengthen the perspective represented by Beal and colleagues (2003) demonstrating that transformational leadership climate leads to unit cohesion, which influences units' task performance (and not vice versa).

Third, I revealed a previously unidentified boundary condition regarding the relationship between transformational leadership climate, unit cohesion, and unit performance. In particular, the results strengthen the perspective depicted by Frederickson (2001): that positive emotions broaden people's momentary thought-action repertoire, thereby making them more flexible, open-minded, and receptive to environmental stimuli. Thus, the results signal that scholars ought to regard units' affective tones when investigating the influence of transformational leadership climate, because the beneficial effects of this type of leadership climate may be more pronounced at the collective level of analysis when a positive affective tone is present.

Finally, the results of a moderating role of positive affective tone in the mediated relationship between transformational leadership climate and units' task performance (through unit cohesion) further clarify the role of contextual moderators within the transformational leadership-performance linkage various scholars have called for (e.g. Conger, 1999; Yukl, 1999). These findings are in line with Shamir and Howell's (1999) notion that transformational leadership may not be "equally applicable to all situations" (p. 278) and enhance our understanding of context factors which shape the impacts of transformational leadership.

2.4.3 Practical Implications

The results of this study imply that transformational leadership is a key leverage point for enhancing unit effectiveness (Kozlowski & Ilgen, 2006). First, both units' cohesion and units' task performance may be enhanced when leaders throughout a unit collectively engage in transformational leadership behaviors. Hence, organizations may want to recruit leaders who possess this leadership ability to assure that units will benefit from these positive relationships.

Second, organizations may also consider investing in transformational leadership training to strengthen the respective leadership behaviors towards the development of a strong transformational leadership climate. Research indicates that at least some of these transformational leadership behaviors are trainable (e.g. Barling, Weber, & Kelloway, 1996). By being trained in idealized influence and inspirational motivation, leaders improve their ability to articulate a shared vision and to motivate followers to identify with common goals. These leader behaviors are most likely to maximize units' cohesion and consequently their performance.

Third, the results also suggest giving attention to the mechanisms and boundary conditions of the transformational leadership climate – units' task performance linkage. The results suggest that organizations need to consider leadership as a dynamic process necessitating adaptive changes in leader behavior, as opposed to treating leadership as a fixed set of static and universal behavioral dimensions. Hence, organizations may foster leaders' adaptability by training them in awareness towards key contingencies that require shifts in leadership behaviors, and by equipping them with the underlying skills needed to help the unit to maintain fit with its task environment and resolve challenges (Kozlowski & Ilgen, 2006).

In sum, the results of this study should encourage organizations to actively engage in establishing a strong transformational leadership climate while simultaneously enabling leaders to identify important aspects of the unit and adapt their leader behaviors accordingly to benefit from the performance enhancing mechanism of unit cohesion.

2.4.4 Limitations and Directions for Future Research

In spite of several methodological strengths, such as sample size and collecting data from two sources to avoid issues of same-source bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), there are limitations specifically yielded to the present study that call

for attention in interpreting the results. First, although I used independent sources of data for the assessment of transformational leadership climate and units' task performance, the individuals who reported on transformational leadership climate also reported on unit cohesion. Based on high inter-rater agreements I aggregated transformational leadership climate and unit cohesion to the group level suggesting that a lack of independence was not a major concern. Still, future studies should look at further separating such assessments, either through time or through the use of separate subsamples.

Second, because this study merely concentrated on unit processes and considered transformational leadership as a climate construct, the approach does not reflect leadership as an individual-level variable, disregarding a leader's behavior toward a particular follower. Future research could address this limitation by capturing transformational leadership at both the individual and group levels of analysis to compare the two for explanatory power (Herold, Fedor, Caldwell, & Yi, 2008).

Finally, the generalizability of the findings is limited because all participants were military employees performing military missions. A replication of the present findings in a civilian organization is necessary in order to confirm and improve its validity. However, I do not expect the results to differ because previous leadership studies have reported high resemblance between civilian and military contexts (Dvir, Eden, Avolio, & Shamir, 2002; Shamir, Zakay, Breinin, & Popper, 1998).

3 Study 2: Transformational Leadership, Commitment to Change, and Innovation Implementation Behavior

As depicted in Figure 7, the second study addresses the research question of whether transformational leadership influences followers' commitment to change and thereby facilitates followers' innovation implementation behavior, depending on the level of their perceived climate for initiative.

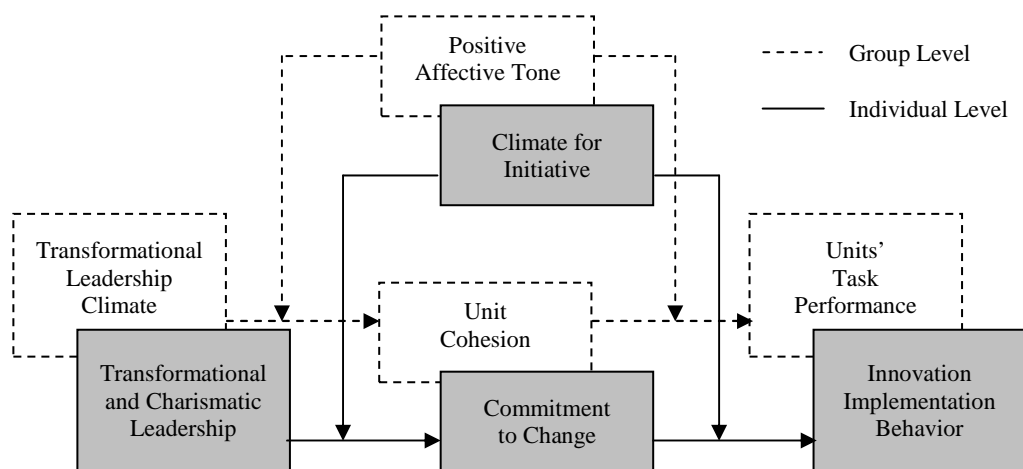


Figure 7. The Design of Study 2

3.1 Introduction, Relevance, and Intended Contributions

Scholars in innovation research equivocally agree that in today's globalized economic environment, organizations are introducing more innovations in technology and business practices than ever before (Yukl, 2006). The implementation failure rate of these innovations, however, has been estimated to be between 50% and 60% (Waterson et al., 1999).

I therefore seek to understand factors that promote employees' innovation performance, namely innovation implementation behavior, which I define as "an individual's consistent and committed use of a particular innovation" (Choi & Price, 2005, p. 84). I refer to an innovation as "a technology or practice that an organization is using for the first time, regardless of whether other organizations have previously used the technology or practice" (Klein et al., 2001, p. 811). In line with (Bass, 1990a) and Waldman and colleagues (2004), I argue that one substantial direct influence on

employees' innovation implementation behavior may be leadership. A particularly promising approach to influencing individual and group reactions to organizational change has come from transformational leadership (Bommer, Rich, & Rubin, 2005; Herold et al., 2008). Podsakoff and colleagues (1990) summarized the similarities among various concepts of transformational leadership by noting that "all of them share the common perspective that effective leaders transform or change the basic values, beliefs, and attitudes of followers" (p. 180). In other words, transformational leadership "transforms" followers, making them more receptive to organizational change (Bommer et al., 2005). Consequently, the connection of this type of leadership with change-relevant factors, such as followers' innovation implementation behavior, seems to run hand-in-hand.

By testing the conceptual scheme depicted in Figure 8, I intend to contribute to the literature on transformational leadership and innovation performance in several ways. First, I followed the appeal for more research on management practices or behaviors promoting innovation implementation behavior (Klein & Knight, 2005) and investigated how transformational leadership relates to followers' innovation implementation behavior. Second, because commitment to change has been identified as an important aspect of behavioral intention to support change (Fedor et al., 2006b; Herscovitch & Meyer, 2002), I examined whether commitment to change mediated this relationship (see Figure 8, Model 1). Finally, in line with Shamir & Howell (1999), I believe that transformational leadership will not be equally effective under all conditions and tested whether individual perceptions of climate for initiative moderated the relationship between transformational leadership and followers' innovation implementation behavior (see Figure 8, Model 2).

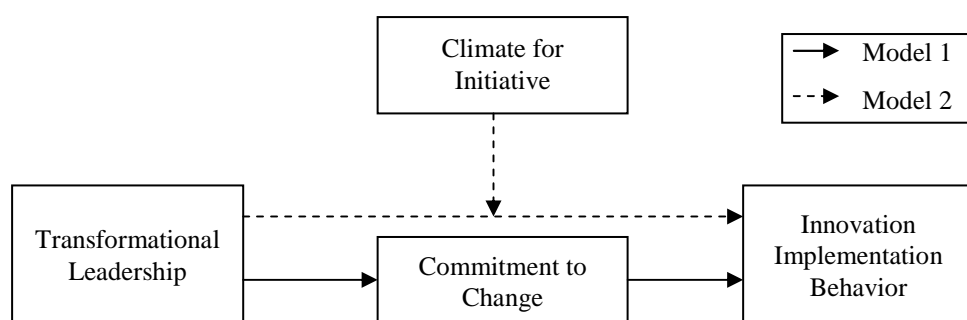


Figure 8. The Proposed Conceptual Scheme of Study 2

3.2 Theoretical Background and Hypotheses Development

3.2.1 Transformational Leadership, Commitment to Change, and Innovation Implementation Behavior

Transformational leadership has been intensively studied in the context of innovation and many studies have demonstrated a link between transformational leadership and innovation processes such as creativity (Jaussi & Dionne, 2003; Jung, 2001; Shin & Zhou, 2003), improvement-oriented voice (Detert & Burris, 2007), or organizational innovation (Jung et al., 2003). However, no study has contributed to an understanding of how transformational leadership is related to followers' innovation implementation behavior.

To study the degree to which transformational leadership influences innovation implementation behavior, I investigated the role of commitment to change in order to explore the linking mechanisms by which this influence occurs. I refer to commitment to change as “a mind-set that binds an individual to a course of action deemed necessary for the successful implementation of a change-initiative” (Herscovitch & Meyer, 2002, p. 475).

Research by various scholars (e.g., Herscovitch & Meyer, 2002) found that commitment to change contributes to the prediction of change-relevant behavior. I therefore assume that followers with high levels of commitment to change are more likely to exhibit innovation implementation behavior. Moreover, according to Herscovitch and Meyer (2002) and Sonntag and Michel (2009), environmental factors such as transformational leadership exert influence on change-relevant behavior such as innovation implementation behavior via influencing commitment to change. Thus, I predict:

Hypothesis 1: Leaders' transformational leadership is positively related to followers' innovation implementation behavior.

Thus far, I argued that transformational leadership contributes to commitment to change, which in turn contributes to innovation implementation behavior. Therefore, I directly tested this theorized mediating role of commitment to change:

Hypothesis 2: Followers' commitment to change mediates the positive relationship between transformational leadership and followers' innovation implementation behavior.

3.2.2 Transformational Leadership, Climate for Initiative, and Innovation Implementation Behavior

Scholars in innovation research have identified contextual factors to be a critical contingency in contributing to followers' innovation implementation behavior (Baer & Frese, 2003). In line with Shamir & Howell (1999), I believe that transformational leadership will not be equally effective under all conditions. Rather, contextual factors may have an influence on the proposed transformational leadership - innovation implementation behavior linkage. In particular, I argue that climate for initiative - "which refers to formal and informal organizational practices and procedures guiding and supporting a proactive, self-starting, and persistent approach toward work" - conceptualized by Baer and Frese (2003, p. 48), is particularly relevant to leadership and innovation implementation behavior.

I argue that the relationship between transformational leadership and followers' innovation implementation behavior varies as a function of followers' perceived climate for initiative: those who perceive high levels of climate for initiative generally respond more favorably to leader behaviors because they believe that top management and peers encourage and work effectively toward the goals of change initiatives (Morrison & Phelps, 1999). Moreover, they believe that setbacks and failures are tolerated by leaders and top management, hence reducing high levels of uncertainty during change initiatives. Those who perceive low levels of climate for initiative feel helpless and victim to the innovation (Baer & Frese, 2003) and, consequently, may not respond as favorably to transformational leader behaviors. Thus I predict:

Hypothesis 3: Followers' perceived climate for initiative moderates the relationship between transformational leadership and followers' innovation implementation behavior in such a way that for followers perceiving higher levels of climate for initiative, transformational leadership has a stronger, positive relationship with innovation implementation behavior than for followers perceiving lower levels of climate for initiative.

3.3 Description of Study Methods

3.3.1 Data Collection and Sample Description

Data were collected from a multinational automotive corporation located in Germany. This automotive corporation had introduced a new computer software based on the company's e-mail program and developed to support team and project tasks. A successful implementation of this software implied a "paperless office" that could be achieved through information technologies and new work procedures. For instance, employees were prompted to use this software for their audit trails, calendar, address and meeting administration, filing, and absence planning.

All employees in this sample held R&D jobs and were in lower and middle management positions. The questionnaire administration took place by e-mail contact. Employees received a link that allowed them to access the online questionnaire. I received usable responses from 198 of the possible 270 employees, which represents a 73% net response rate. The average age of the responding employees was 43. A majority of the respondents were male (89%), held lower-level management positions (78%), had been with the company for more than 10 years (65%), and reported college-level education (technical college degree, 40%; university degree, 32%; completed apprenticeship, 10%).

3.3.2 Measures

If not already available, I created German versions of all measures by following Brislin's (1980) translation-back-translation procedure. All items were assessed on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). If not stated otherwise all internal consistency estimates (Cronbach's alpha) were in an acceptable range.

3.3.2.1 Transformational Leadership

I used a German version of the Multifactor Leadership Questionnaire (MLQ) Form 5X-Short (Avolio & Bass, 1995) developed by Felfe and Goihl (2006), which has four items for each sub dimension of transformational leadership: idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individual consideration. Since prior research demonstrated that the dimensions failed to reveal discriminant validity and the single second-order factor

comprises the variance in the leadership dimensions, I decided to average the 20 items to a single transformational leadership index, which I used for statistical analyses.

3.3.2.2 Commitment to Change

I assessed followers' commitment to change with an adapted four-item scale, developed by Herscovitch and Meyer (2002), that focuses on followers' felt obligation to support the change-initiative. Sample items are, "I feel a sense of duty to work toward this change," and, "It would be irresponsible of me to resist this change".

3.3.2.3 Climate for Initiative

I measured individual perceptions of climate for initiative with a seven-item scale, developed by Baer and Frese (2003). Sample items include, "The employees in our company actively address problems," and, "Whenever there's a chance to become actively involved, the employees in the company do so".

3.3.2.4 Innovation Implementation Behavior

I assessed followers' innovation implementation behavior with an adapted version of a six-item scale from Choi and Price (2005). Sample items are, "I heavily use this innovation at work," and, "I use this innovation for task-related communication".

3.3.2.5 Control Variables

I used a variety of controls to account for alternative explanations of followers' commitment to change and innovation implementation behavior. Several studies (e.g. Judge, Thoresen, Pucik, & Welbourne, 1999; Oreg, 2003, 2006) have found that individual differences, including personality and various demographic variables, factor into followers' commitment to change and innovation implementation behavior. Data were therefore collected on age, gender, education, management level, and employees' resistance to change. Change processes have often been described as suffering under employees' resistance to change (Coch & French, 1948; French & Bell, 1995). Consequently, I used nineteen items to assess this construct. Sample items are, "I generally consider changes to be a negative thing," and, "When I am informed of a change of plans, I tense up a bit".

3.3.3 Data Analysis

I conducted hierarchical regression analysis to test the hypotheses. In line with Aiken and West (1991), I centered any variable which was used as a component of an interaction term. In order to test Hypothesis 1, which postulates that transformational leadership is positively related to followers' innovation implementation behavior, and Hypothesis 3, postulating that perceived climate for initiative moderates the relationship between transformational leadership and followers' innovation implementation behavior, I entered the control variables: transformational leadership, perceived climate for initiative, and the interaction of transformational leadership and perceived climate for initiative.

In order to test Hypothesis 2, which postulates a mediating role of commitment to change, I followed Baron and Kenny's (1986) three-step procedure to test for mediation. The requirements for at least partial mediation are as follows: (1) the predictor variable should be significantly related to the mediator variable; (2) the predictor variable should be related to the criterion variable; (3) the mediating variable should be related to the criterion variable with the predictor variable in the equation. Additionally, if the predictor variable has a non-significant beta weight in the third equation, there is full mediation.

3.4 Results and Discussion

3.4.1 Summary of Findings

In support of Hypothesis 1, transformational leadership was positively related to followers' innovation implementation behavior ($\beta = .18, p < .05$). A significance of the change in the multiple squared correlation coefficient (ΔR^2) associated with the transformational leadership and perceived climate for initiative interaction ($\Delta R^2 = .03, \beta = .16, p < .05$), supports Hypothesis 3. Figure 9 demonstrates the predicted relationship of the two-way interaction using the procedures outlined by Aiken and West (1991).

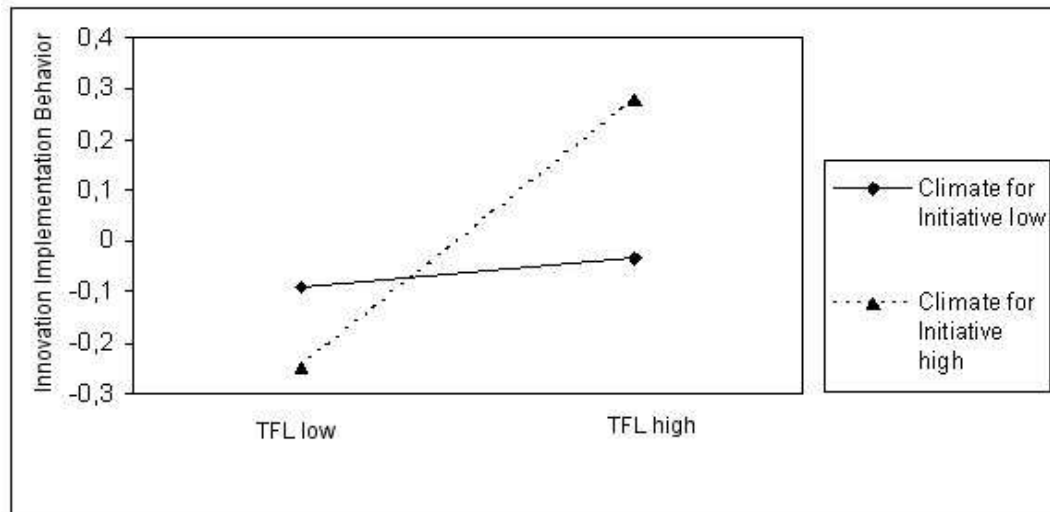


Figure 9. Interaction Effect of Transformational Leadership and Climate for Initiative on Followers' Innovation Implementation Behavior

The three requirements for mediation to test Hypothesis 2 were supported as follows: (1) transformational leadership was positively related to followers' commitment to change ($\beta = .21, p < .01$), even when taking into account respondents' age, gender, education, management level, and resistance to change; (2) transformational leadership had a significantly positive relationship with followers' innovation implementation behavior ($\beta = .16, p < .05$), even when considering control variables; (3) I introduced commitment to change into the regression equation and demonstrated that it is indeed positively related to followers' innovation implementation behavior ($\beta = .24, p < .001$). The decreased and non-significant coefficient for transformational leadership ($\beta = .10, p = n.s.$) indicates that commitment to change fully mediates the relationship between transformational leadership and followers' innovation implementation behavior.

In sum, I found transformational leadership to be positively associated with followers' innovation implementation behavior (acceptance of Hypothesis 1). I also found that commitment to change plays a mediating role between transformational leadership and followers' innovation implementation behavior (acceptance of Hypothesis 2). Finally, I found that followers' perceived climate for initiative moderates the positive relationship between transformational leadership and followers' innovation implementation behavior (acceptance of Hypothesis 3).

3.4.2 Theoretical Contributions

This study offers several contributions. First, this study was the first to investigate the relationship between transformational leadership and followers' innovation implementation behavior. Notably, Krause (2004) examined the effects of influence-based leadership on followers' innovation implementation behavior and found a positive relationship. Herold, Fedor, Caldwell, and Yi (2008) found a positive relation between transformational leadership and change commitment. I found that transformational leadership is also strongly related to followers' innovation implementation behavior and consequently identified another leadership construct, which plays an important role in promoting followers' innovation implementation behavior.

Second, and foremost, this study contributed to an understanding of the linking mechanisms by which transformational leadership is related to followers' innovation implementation behavior. Klein and Sorra (1996) emphasized the role of commitment to change as a mechanism by which situational factors relate to followers' innovation implementation behavior. However, no studies have empirically tested this relationship in actual work settings. Thus, I contributed to the innovation literature by empirically testing a commitment to change perspective, explaining the relationship between transformational leadership and followers' innovation implementation behavior.

Finally, in revealing the moderating role of followers' perceived climate for initiative, this study contributed to the literature by using an interactional approach to provide a more precise understanding of the boundary conditions in the relationship between transformational leadership and followers' innovation implementation behavior. Moreover, in line with Mumford (2002) I observed a conspicuous lack of empirical research on the link between leadership and innovation incorporating contextual variables. Until now, innovation research has concentrated on the interaction between transformational leadership and change-specific leader behaviors (e.g. Herold et al., 2008) and between transformational leadership and followers' personality traits (e.g. Shin & Zhou, 2003).

3.4.3 Practical Contributions

This study implies that there are two ways to increase followers' innovation implementation behavior. First, given the consistent interactions between transformational leadership and perceived climate for initiative, I argue that systematic

efforts to enhance individual perceptions of a climate for initiative is particularly important to companies that want to promote followers' innovation implementation behavior. Being aware of moderators helps managers to identify the organizational contexts in which transformational leadership is most likely to enhance innovation implementation behavior, and those in which such enhancement is unlikely to occur. Moderators that enhance innovation implementation behavior, such as a perceived climate for initiative, should be promoted by integrating them into organizations' reward systems.

Second, the results also suggest that companies should invest in transformational leadership training and in the selection of supervisors with this leadership style before initiating the implementation of innovations. Research indicates that at least some of these transformational leadership behaviors are trainable (e. g. Barling et al., 1996). By being trained in idealized influence and inspirational motivation, leaders improve their ability to articulate a vision and to become more effective role models (Aiken & West, 1991). More specifically, by training leaders' capability to act as role models in terms of using new innovations and demonstrating the value of these innovations, a company is most likely to maximize followers' commitment to change, which in turn leads to innovation implementation behavior.

3.4.4 Limitations and Directions for Future Research

Despite a study setting characterized by a high failure rate regarding the implementation of new technologies and practices and several encouraging results to overcome this, it is important to recognize that some limitations remain. First, the amount of explained variance (11 percent) in followers' innovation implementation behavior by the focal study variables including controls and the interaction term was relatively small. Innovation implementation behavior may therefore be evoked by multiple additional influencing variables, which have not been investigated in this study.

Second, the generalizability of the findings is limited, as data were selected from one company in the automotive industry and participants were working in the R&D division. Although this sample helped to control for industry and division effects, employees working in different industries and divisions may respond to innovations in different ways (Krause, 2004).

Third, additional linking mechanisms and boundary conditions could be integrated into future investigations. As indicated by Klein and Sorra (1996), innovation-relevant skills and knowledge are also critical for innovation implementation behavior. Prior research has suggested that supervisory behaviors enhance employees' skills and knowledge, which in turn results in higher levels of innovation implementation behavior (Krause, 2004). Thus, future research might investigate skill and knowledge development as linking mechanisms in regard to transformational leadership and innovation implementation behavior.

4 Study 3: Charismatic Leadership, Commitment to Change, and Innovation Implementation Behavior

The third study turns to the research question depicted in Figure 10, of whether charismatic leadership is associated with higher levels of commitment to change and in turn enhances followers' innovation implementation behavior. Additionally, I build on the trust literature and explore the relative importance of trust in top management in influencing followers' commitment to change and innovation implementation behavior.

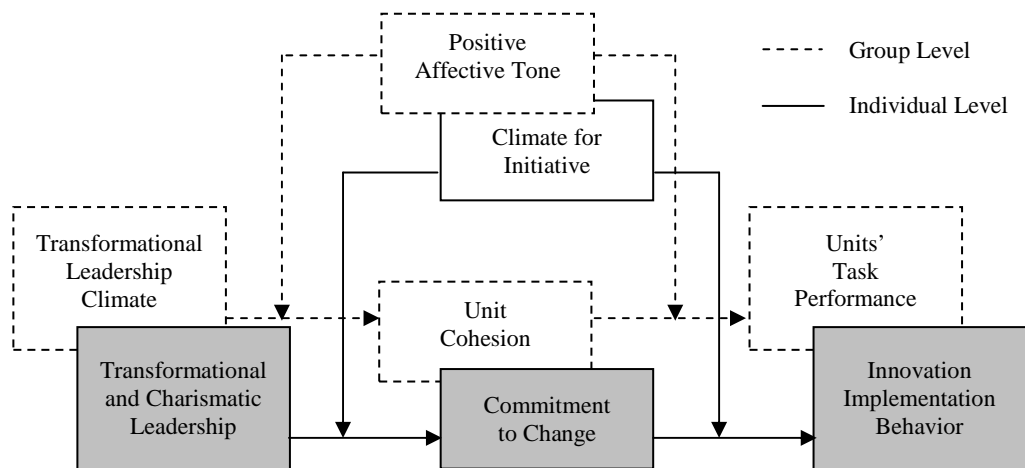


Figure 10. The Design of Study 3

4.1 Introduction, Relevance, and Intended Contributions

Innovation performance describes a process consisting of many aspects. Particularly critical for the success of a specific innovation seems the process of innovation implementation by which employees become capable and committed to use a particular innovation. Innovation implementation requires innovation adoption - "a decision, typically made by senior organizational managers, that employees within the organization will use the innovation in their work" (Klein & Sorra, 1996, p. 1055). Implementation failure occurs when, regardless of this decision, employees do not engage in the innovation as frequently or as consistently as required for the potential benefits of the innovation to be realized (Klein & Sorra, 1996).

In the present study I address this issue by examining charismatic leadership (e.g. Bass, 1985, 1990b; Waldman et al., 2004) and employees' trust in top

management (e.g. Whitener, Brodt, Korsgaard, & Werner, 1998) and how they affect employees' innovation implementation behavior. Further, I concentrated on identifying linking mechanisms by which charismatic leadership and trust in top management are related to innovation implementation behavior. Specifically, because commitment to change has been identified as an important aspect of behavioral intention to support change (Fedor, Caldwell, & Herold, 2006a; Herscovitch & Meyer, 2002), I examine the effects of charismatic leadership and trust in top management on employees' commitment to actual changes and their innovation implementation behavior.

By testing these linkages, I contribute to the innovation literature in three ways. First, I investigated how charismatic leadership is related to followers' innovation implementation behavior. Second, I examined how trust in top management is related to followers' innovation implementation behavior. Third, I tested whether affective commitment to change mediated these relationships.

4.2 Theoretical Background and Hypotheses Development

4.2.1 Affective Commitment to Change and Innovation Implementation Behavior

In order to explain why affective commitment to change might be related to employees' innovation implementation behavior, I applied Ajzen's Theory of Planned Behavior (TpB) (Ajzen, 1985, 1987, 1991) which I introduced in chapter 1.3.5.1. Ajzen's theory has been successfully employed in many studies linking attitudes and behaviors (e.g. Conner & Armitage, 1998; Jimmieson, Peach, & White, 2008; Sutton, 1998). A review of nine meta-analyses for instance, which included the TpB or its predecessor, the Theory of Reasoned Action, provided strong evidence that a person's attitudes determine behavioral intention (Sutton, 1998). Additionally, I applied a social exchange explanation in order to explain why charismatic leadership and employees' trust in top management might be related to followers' innovation implementation behavior. Social exchange theories (e.g. Adams, 1963; Blau, 1964; Gergen, 1969; Homans, 1961) describe how social relationships are based on the exchange of benefits between parties. If we consider charismatic leadership and trust in top management as a perceived benefit for employees, social exchange theories suggest that employees will be motivated to reciprocate that benefit (Gouldner, 1960) for instance through commitment to change and innovation implementation behavior.

4.2.2 Charismatic Leadership and Innovation Implementation Behavior

As described in chapter 1.3.4.2, charismatic leadership theory focuses on emotions and values, and acknowledges the importance of symbolic behavior and the role of the leader in making events meaningful for followers. Charismatic leaders transform followers' needs, values, preferences, and aspirations. They motivate followers to make personal sacrifices in order to achieve the mission articulated by the leader and "to perform above and beyond the call of duty" (House, Spangler, & Woycke, 1991 p. 364). Followers' motivation becomes less driven by self-interest and is shifted towards serving the interests of the larger collective.

Charismatic leadership research usually emphasizes leaders at or near the top of the organization (e.g., Agle et al., 2006; Waldman et al., 2004) or even at the societal level (e.g., Fiol et al., 1999; Seyranian & Bligh, 2008). Conceptual works, however, tend to emphasize on multiple hierarchical levels (e.g., Yukl, 1999) and experiments on first-level leader-follower relationships (e.g., De Cremer & Knippenberg, 2002). The latter perspective implies that not only top executives, but also non-executives at lower management levels, can motivate followers by articulating a compelling vision or by providing a behavioral role model. Therefore, I followed Bass (1990a) and Conger and colleagues (2000) who argue that charismatic leaders can also be found at levels below the executive suite and investigated charismatic leadership at lower and middle management positions.

Fiol et al. (1999) summarizes the similarities among various concepts of charismatic leadership by noting that all of them share the common perspective that "effective leaders articulate visions that are based on normative ideological values, offer innovative solutions to major social problems, stand for nonconservative if not radical change, and generally emerge and are more effective under conditions of social stress and crisis" (p. 450). In other words, charismatic leadership causes followers to be more receptive to organizational change. Consequently, followers of charismatic leaders are likely able to recognize the need for the use of a particular innovation and develop high levels of affective commitment to change.

According to Ajzen's TpB, an increase of affective commitment to change (behavioral intention) contributes to the prediction of change-relevant behavior. Building on this notion, I argue that followers with high levels of affective commitment to change are more likely to exhibit innovation implementation behavior. Subsequently,

I argue that charismatic leadership contributes to affective commitment to change, which, in turn, contributes to innovation implementation behavior. Thus:

Hypothesis 1. The positive relationship between charismatic leadership and followers' innovation implementation behavior is mediated by followers' affective commitment to change.

4.2.3 Trust in Top Management and Innovation Implementation Behavior

Trust has been defined as a willingness to be vulnerable to others, based on the prior belief that others are trustworthy (Mayer, Davis, & Schoorman, 2007; Mishra, 1996; Sitkin & Roth, 1993). Based on this definition, I conceptualized trust in top management as an attitude held by employees toward the leadership of the organization that indicates a willingness to be vulnerable to top management (Korsgaard, Sapienza, & Schweiger, 2002). Research demonstrates that trust in top management provides employees with an understanding of management's good intentions (Harvey, Kelloway, & Duncan-Leiper, 2003). Employees who trust their top management believe in the value of the innovation and think that they and the organization will benefit from it; consequently, trust in top management should enhance followers' affective commitment to change.

Moreover, according to the social exchange theory, the relationship between the organization and followers consists on the one hand of followers' perceptions of organization obligations (i.e., what they believe the organization has promised) such as advancement opportunities, training, and job security, and on the other hand their perceived obligations towards the organization (i.e., what they believe they owe the organization in return) such as loyalty, hard work, and commitment (Robinson, Kraatz, & Rousseau, 1994). Specifically, when followers feel high levels of trust in top management, they are more willing to cooperate within and have greater attachment to this exchange relationship (Whitener et al., 1998), leading to higher levels of affective commitment to change.

Building on the notion of Ajzen's TpB I argue that followers with high levels of affective commitment to change are more likely to exhibit innovation implementation behavior. Subsequently, I argue that trust in top management contributes to affective commitment to change, which, in turn, contributes to innovation implementation behavior. Thus:

Hypothesis 2. The positive relationship between trust in top management and followers' innovation implementation behavior is mediated by followers' affective commitment to change.

4.3 Description of Study Methods

4.3.1 Sample Description and Data Collection Procedures

Data were collected from a multinational automotive corporation located in Germany. This automotive corporation had introduced a new computer software based on the company's e-mail program and developed to support team and project tasks. A successful implementation of this software implied a "paperless office" that could be achieved through information technologies and new work procedures. For instance, employees were prompted to use this software for their audit trails, calendar, address and meeting administration, filing, and absence planning.

All employees in the sample held R&D jobs and were in lower and middle management positions. I received usable responses from 194 of the possible 270 employees, which represents a 72% net response rate. Respondents were working in ten different teams within two departments, namely, truck vehicle testing (40%) and truck vehicle systems (60%). The mean age of the responding employees was 43 (SD = 9.11). A majority of the respondents were male (89%), held lower level management positions (78%), had been with the company for more than 10 years (65%), and reported college-level education (technical college degree, 40%; university degree, 32%; completed apprenticeship, 10%).

4.3.2 Measures

If not already available, I created German versions of all measures by following Brislin's (1980) translation-back-translation procedure. All items were assessed on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). If not stated otherwise all internal consistency estimates (Cronbach's alpha) were in acceptable range.

4.3.2.1 Charismatic Leadership

I used the German version of the Multifactor Leadership Questionnaire (MLQ), Form 5X-Short (Avolio & Bass, 1995), developed by Felfe and Gohhl (2002), which has four

items for the charismatic leadership scale. Employees were asked to refer to their direct workgroup leader. Items assessed the degree to which followers admired their leader for his or her outstanding skills and abilities or to which degree their leader inspired them. Sample items included, “The leader to whom I report impresses and fascinates me with his or her unique personality,” and, “The leader to whom I report is consistently able to inspire me”.

4.3.2.2 Trust in Top Management

I assessed trust in top management with an adapted three-item scale, developed by Cook and Wall (1980). Sample items included, “I feel confident that top management will always treat me fairly,” and, “Top management would try to gain an advantage by deceiving workers” (reverse-scored).

4.3.2.3 Affective Commitment to Change

I assessed affective commitment to change with a six-item scale, developed by Herscovitch and Meyer (2002), concentrating on followers’ affect experienced during the change initiative. Sample items were, “I believe in the value of this change,” and, “I think that management is making a mistake by introducing this change” (reverse-scored).

4.3.2.4 Innovation Implementation Behavior

I assessed followers’ innovation implementation behavior with an adapted version of a six-item scale from Choi and Price (2005). Sample items included, “I heavily use this innovation at work,” and, “I use this innovation for task-related communication.”

4.3.2.5 Control Variables

Given the critical role of followers’ characteristics in the leadership process, particularly charismatic leadership (Conger & Kanungo, 1988; Conger et al., 2000), participants’ age and gender were assessed.

In addition, employees’ hierarchical levels might influence their ratings of the study variables. Charismatic leadership, for instance, occurs to a greater extent at higher hierarchical echelons (Shamir et al., 1993), and employees may tend to rate their job characteristics more favorably the higher their hierarchical positioning (Robie, Ryan, Schmieder, Parra, & Smith, 1998).

Finally, prior research indicates that employees' department affiliation might influence their innovation implementation behavior (Krause, 2004). Consequently, department affiliation was included as a control variable.

4.3.3 Data Analysis

I conducted the data analyses utilizing structural equations modeling (AMOS 16.0). I followed Anderson and Gerbing's (1988) widely recommended procedure and assessed the discriminant validity of the study variables (i.e., a conformatory factor analysis of the measurement model), prior to assessing the fit of the overall structural model. Consistent with other researchers (e.g., Bommer et al., 2005) I included four dummy-coded control variables to the measurement and structural model. Further, I applied an approach described by Marsh, Antill, and Cunningham (1989) and resorted items randomly into item parcels, to gain an adequate sample size-to-parameter ratio. I used a χ^2/df ratio test, a root mean square error of approximation (RMSEA) index, and a comparative fit index (CFI) to assess the fit of the different models to the data. A χ^2/df ratio less than three indicates an acceptable model fit (Kline, 1998). A RMSEA below .08 and a CFI above .09 (Cunningham, 2006; DiLalla, Tinsley, & Brown, 2000) indicate that the specified model fits well with the observed data.

4.4 Results and Discussion

4.4.1 Summary of Findings

The fit indices for the proposed model fulfilled above described criteria ($\chi^2 = 134.39$; $df = 69$; $p < .001$; $\chi^2/df = 1.95$; $RMSEA = .07$; $CFI = .92$), revealing that the data were consistent with the proposed model. Figure 11 shows the pathway estimates for the hypothesized model indicating that all assumed paths were significant. Specifically, affective commitment to change was positively linked to charismatic leadership ($\beta = .18$, $p < .05$) and trust in top management ($\beta = .33$, $p < .001$), and it was also linked significantly positively to innovation implementation behavior ($\beta = .36$, $p < .001$). For significance testing of the indirect effects postulated in the mediation hypotheses, I followed recommendations by MacKinnon, Fairschild, and Fritz (2007). As postulated in Hypothesis 1, commitment to change mediates the relation between charismatic leadership and innovation implementation behavior (indirect effect = .06; $p < .001$). As suggested in Hypothesis 2, commitment to change also mediates the relation between

trust in top management and innovation implementation behavior (indirect effect = .12; $p < .001$).

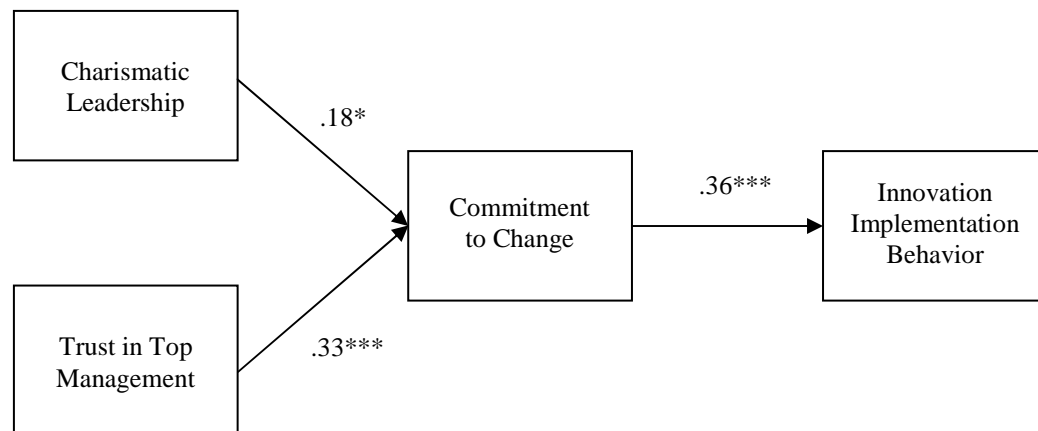


Figure 11. Pathway Estimates for the Hypothesized Model of Study 3

4.4.2 Theoretical Contributions

Overall, findings contribute to several research streams. First, this study revealed that charismatic leadership is related to innovation implementation behavior and, consequently, identified another leadership construct that plays an important role in promoting followers' innovation implementation behavior. It is important to recognize that the present study has moved the fragmentary research on innovation implementation behavior (Klein & Knight, 2005) forward by identifying theory-based leadership behaviors, which are beneficial for innovation implementation behavior.

Second, the findings contribute to the rich research stream on trust within organizations (e.g., Colquitt, Scott, & LePine, 2007; Lewicki, Tomlinson, & Gillespie, 2006; Schoorman, Mayer, & Davis, 2007). This study is among the first to demonstrate that followers' trust in top management is related to innovation implementation behavior. Only a few studies exist that investigate trust in top management in the field of innovation research. In particular, Korsgaard et al. (2002) demonstrated the importance of trust in top management while planning change initiatives. However, I have extended prior research in demonstrating that trust in top management is related to the aspect that determines the ultimate success of change-initiatives: innovation implementation behavior.

The third and most important contribution of this study is that it identified linking mechanisms by which charismatic leadership and trust in top management are related

to innovation implementation behavior. By investigating charismatic leadership and trust in top management simultaneously in one model, I revealed that trust in top management has a stronger indirect effect through affective commitment to change on innovation implementation behavior than does charismatic leadership. This result indicates that sentiments regarding both top management and immediate managers are important and complementary for successful innovation implementation. However, it also shows that trust in top management might be even more important, because of its stronger relation to followers' affective commitment to change.

4.4.3 Practical Implications

Given the consistent positive effects of trust in top management, I argue that systematic efforts to enhance this factor are particularly important to companies that want to promote innovation implementation behavior. In order to enhance trust in top management, it should be integrated into the organizations' reward system, leadership guidelines, and company policies. Supervisors could be evaluated by their followers, for instance, on how trustworthy they seem.

Findings corroborate the notion that charismatic leadership is essential for organizations (Bass & Riggio, 2006). Results suggest that companies should invest in leadership training and in the selection of charismatic supervisors before initiating the implementation of innovations. Research indicates that charismatic leadership behaviors are trainable (e. g. Barling et al., 1996). By being trained in idealized influence, for example, leaders improve their ability to articulate a vision and to become more effective role models (Awamleh & Gardner, 1999). More specifically, by training leaders' capability to act as role models in terms of using new innovations and demonstrating the value of these innovations, leaders are most likely to maximize followers' affective commitment to change, which, in turn, leads to innovation implementation behavior.

In addition, by showing affective commitment to change as a mediator, findings indicate that managers need to consider the linking mechanisms by which charismatic leadership and trust in top management are related to innovation implementation behavior. This may lead to a better ability to guide the impact of these influences to proper psychological processes, resulting in higher levels of innovation implementation behavior.

4.4.4 Limitations and Directions for Future Research

Although this study found several encouraging results, the current findings also have several limitations. First, the generalizability of results is limited because participants came from one company in the automotive industry and were working in the R&D division. One might argue, for instance, that employees working in R&D divisions are particularly open to innovations because they have innovation-relevant knowledge and higher levels of autonomy, which leads to innovation implementation behavior (Krause, 2004).

Second, the results indicate that trust in top management is more strongly related to affective commitment to change than is charismatic leadership. However, trust in top management might be only more important because it matches the level most responsible for the change I studied. Supplemental studies, expanding both constructs to both levels such as top management charisma and trust in a direct supervisor are needed to determine the relative importance of trust and charisma for evoking followers' affective commitment to change.

Third, additional determinants could be integrated into future investigations. Since recent research (Amabile, Schatzel, Moneta, & Kramer, 2004; Bono & Ilies, 2006; Zhou & George, 2003) and this study suggest that emotions play a major role in the innovation process, and particularly during change initiatives (Bartunek, Rousseau, Rudolph, & DePalma, 2006; Kiefer, 2005), future research might investigate the role of supervisors' capability to influence followers' emotions in promoting affective commitment to change and innovation implementation behavior.

5 Discussion

5.1 Summary and Integration of Research Findings

Throughout this dissertation, I intended to build knowledge on transformational and charismatic leadership effects on performance outcomes. More importantly, I tried to identify linking mechanisms and boundary conditions in this relationship. Based on an extensive literature review, I extracted three narrowly focused research questions, which were both theoretically founded and practically promising, thus fulfilling the relevant criteria. In the three pertinent empirical studies of this dissertation I investigated transformational and charismatic leadership effects on followers' task and innovation performance. First, in an attempt to reveal effects of transformational leadership climate, I suggested in Study 1 that common transformational leadership behaviors trigger unit cohesion, which in turn enhances units' task performance. Second, in an attempt to reveal effects of transformational and charismatic leadership in the context of innovation performance, I proposed in Study 2 and 3 that these leadership behaviors are antecedents of commitment to change, leading to higher levels of followers' innovation implementation behavior. While I discussed the individual findings of each empirical study in detail in each respective chapter (see chapters 2.4, 3.4, and 4.4), I will draw on this section to provide an integrated understanding of all findings.

The results of the empirical studies are encouraging for both researchers and practitioners in the field of leadership. First, a key finding of this dissertation is that transformational leadership can be conceptualized as a climate variable and, hence, at the group (e.g. unit) level of analysis. Notably, Menges and colleagues (2008) examined transformational leadership climate and demonstrated its effectiveness on an organizational level of analysis. This dissertation demonstrates that a unit's transformational leadership climate is a meaningful predictor of important unit level variables (i.e., unit cohesion and units' task performance). Hence, this dissertation moves the fragmentary research in the area of leadership climate forward by identifying theory-based leadership behaviors, which are beneficial for units' task performance.

Second, this dissertation shows that transformational and charismatic leadership matter. Across all three empirical studies, these two leadership concepts were related to

the hypothesized outcome measures of task and innovation performance. Specifically, in Study 1, transformational leadership climate was associated with increased levels of units' task performance. That is, the more followers perceive their leaders as commonly engaging in transformational leadership behaviors, the more they collectively work on the tasks they need to fulfill. This finding is corroborated by Studies 2 and 3. Here, transformational leadership (Study 2) and charismatic leadership (Study 3) were positively associated with increased levels of followers' innovation implementation behavior. The results show that the more transformational or charismatic leadership is perceived by followers, the more committed they act towards a particular innovation, and the more they engage in innovation implementation behavior. In sum, Studies 1, 2, and 3 indicate that transformational and charismatic leadership relate to important performance outcomes such as task performance and innovation implementation behavior.

Beyond revealing the performance implications of transformational and charismatic leadership, this dissertation more importantly tries to investigate two types of linking mechanisms by which this influence occurs. The first type addresses higher-level (i.e., group-level) linking mechanisms and focuses on norms, values, and behaviors that are shared and, thus, similar throughout a unit. I investigated unit cohesion as such a higher-level linking mechanism. In Study 1, high levels of transformational leadership climate were associated with high levels of unit cohesion (i.e., common identification with group goals and a shared vision), resulting in a unit's enhanced task performance. This finding suggests that units' task performance can be improved through unit cohesion by strengthening units' transformational leadership climate, thereby corroborating the perspective represented by Beal and colleagues (2003).

The second type addresses lower-level (i.e., individual level) linking mechanisms and focuses on norms, values, and behaviors that are held by each individual separately. I investigated commitment to change as such a lower-level linking mechanism. In Studies 2 and 3, I revealed that transformational and charismatic leadership are associated with high levels of commitment to change (i.e., a mindset that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative), resulting in followers engaging in innovation implementation behavior. This finding suggests that followers' innovation implementation behavior can be enhanced through commitment to change by strengthening transformational and

charismatic leadership behaviors. Thus, both transformational and charismatic leadership contribute to performance outcomes through group- and individual-level linking mechanisms.

Finally, this dissertation addressed the boundary conditions for the effect of transformational leadership on performance outcomes. Study 1 specifically demonstrated that the relationship between a transformational leadership climate and unit task performance is contingent upon the level of the unit's positive affective tone. Under conditions of high positive affective tone, transformational leadership is more strongly related to unit task performance than under conditions of low positive affective tone. Thus, when followers in a unit are in a positive mood, they are collectively more likely to benefit from the advantageous effects of a transformational leadership climate.

Study 2 particularly demonstrated that the relationship between transformational leadership and followers' innovation implementation behavior is contingent upon the level of a perceived climate for initiative. Under conditions of high levels of perceived climate for initiative, transformational leadership is more strongly linked to followers' innovation implementation behavior than under conditions of low levels of perceived climate for initiative. Thus, when followers perceive organizational practices and procedures support a proactive, self-starting, and persistent approach toward work, they are more likely to benefit from the positive effects of transformational leadership. Hence, Studies 1 and 2 draw attention to the fact that contextual factors ought to be further explored in the investigation of transformational leadership and performance outcomes.

In sum, this dissertation tested performance outcomes of transformational and charismatic leadership, investigated linking mechanisms on the group and individual level of analysis, and addressed boundary conditions. The results contribute to an integrated understanding of transformational and charismatic leadership effects.

5.2 Overall Limitations and Directions for Future Research

Several limitations should be considered when interpreting the results of this dissertation. Some of these limitations are due to the methodology employed in this dissertation, while other limitations are more general. I will discuss these limitations in the following sections, suggesting ways to resolve them as well as directions and ideas for future research.

5.2.1 Limitations and Ways to Address Them in Future Research

Beyond the specific limitations that I addressed in each respective chapter of the empirical studies (see chapters 2.4.4, 3.4.4, 4.4.4), some common limitations apply to all studies and are inherent to the selected methodological approach.

First, the generalizability of the empirical findings is limited. Data were collected in Germany and the U.S., hence representing cultures with ingrained western values and norms (e.g., Hofstede, 2001). Moreover, the sample for all studies came from large organizations with more than two hundred thousand employees. Hence, the results are, strictly speaking, only applicable to large organizations with ingrained western values and norms. Scholars could increase the robustness and the generalizability of this dissertation's findings by replicating the studies with samples of small and medium-sized organizations from a non-western cultural background.

Second, throughout this dissertation, I discussed transformational and charismatic leadership effects on performance outcomes, implying that there are causal associations between the constructs of interest. For instance, I analyzed and discussed data in Study 2 as if transformational leadership affected followers' commitment to change and as if the latter affected their innovation implementation behavior. However, it is also possible that followers' high levels of commitment to change are a result of their innovation implementation behavior in order to reduce cognitive dissonance (Aronson, 1997). Although theoretically less plausible, this would lead to a model in which transformational leadership is the predictor, innovation implementation behavior the mediator, and commitment to change the criterion. Supplemental studies, ideally using a randomized experimental or longitudinal design and obtaining independent or objective confirmation of the outcome variables under investigation are needed to provide greater confidence in the suggested flows of causality (Stone-Romero & Rosopa, 2008).

Third, the data for this dissertation were collected applying a survey study design. While this approach yields several benefits (see chapter 1.4.2), survey study designs also have some inherent drawbacks. One major drawback is the lack of precision (McGrath, 1982). For instance, findings could be influenced by suggestive wording of questions (Schwarz, 1999) and from socially desirable responses (Ganster, Hennessey, & Luthans, 1983; Holtgraves, 2004; Zerbe & Paulhus, 1987). In order to avoid such biased influence, all measures included in the empirical studies had previously been employed in scholarly research and had demonstrated adequate psychometric properties.

Another major concern with survey studies is common method variance, which arises from the methodological similarity in assessing the constructs of interest from the same person (Podsakoff et al., 2003). If possible, I avoided common method variance by collecting data from multiple sources. For instance, in Study 1, I employed a split sample design, with half of each unit's respondents rating transformational leadership climate, unit cohesion, and positive affective tone, while the other half rated their unit's task performance. A final concern is that survey methods mostly rely on self-reports. Increased or decreased opinions about the self can bias findings based on self-report measures (Bagozzi & Yi, 1990; Holtgraves, 2004; Lorr, Plutchik, & Kellerman, 1989; Schwarz, 1999). In an attempt to reduce such biases, I employed several techniques. Some of the key constructs were therefore assessed in the other-report instead of the self-report mode. For instance, employees did not rate their own transformational or charismatic leadership behaviors, but instead were assessed by their followers. In addition, in Study 1, I assessed the constructs of interest with a referent-shift method, asking, for instance, about the positive affective tone within a respective unit instead of asking about someone's personal mood or feeling. Bartel and Saavedra (2000) demonstrated that collective instead of individual affect evaluations are sufficiently reliable. Further, outcome variables implied in the three empirical studies were assessed through subjective evaluations. Scholars have questioned the reliability and validity of subjective performance measures (Starbuck, 2004). However, findings from previous studies have demonstrated high correlations between self-report measures of performance and a variety of objective measures, indicating sufficient reliability and validity and dampening some of the concerns raised in subjective appraisals (Hurst, Young, Donald, Gibson, & Muyselaar, 1996). Thus, while I acknowledge that survey study designs are not without concerns, I acted to limit the associated problems.

5.2.2 General Ideas for Future Research on Transformational and Charismatic Leadership

This dissertation touches upon a variety of research questions that could be addressed in future research. While the empirical studies had a narrow focus on specific research questions and offered directions for future research that would advance these specific research questions (see chapters 2.4.4, 3.4.4, 4.4.4), I will draw on this section to provide more general ideas for future research on transformational and charismatic leadership that mostly derive from a theoretical perspective.

Focusing on organizational and strategic level

First, while I focused in this dissertation on the individual and group level, future research on transformational and charismatic leadership should focus on the organizational or strategic level. The results in this research stream have been mixed thus far (Agle et al., 2006). For instance, research by Tosi, Misangyi, Fanelli, Waldman, and Yammarino (2004) and Waldman, Ramirez, House, and Puranam (2001) has indicated that charismatic leader behaviors of the chief executive officer (CEO) were not associated with subsequent organizational performance (i.e., net profit margin, shareholder return, return on assets). On the other hand, Agle and colleagues (2006) and Waldman and colleagues (2004) demonstrated that CEO charismatic leadership behaviors were related to subsequent organizational performance. Therefore, future research may investigate potential linking mechanisms and boundary conditions such as external stakeholders while examining the relationship between CEO transformational or charismatic leadership behaviors and organizational performance.

Incorporating interdependence between the leader and the follower

Second, future research on transformational and charismatic leadership needs to explore the hitherto neglected degree of contact between the leader and the follower. Most theories on transformational and charismatic leadership assume that there is a close interpersonal relationship and high level of interdependence between the leader and the follower (e.g., Bass, 1990a; Conger, 1999). While this assumption was also made in this dissertation, future research should measure and assess the perceived “closeness” or “distance” of the relationship between the leader and the follower, rather than assume. The leadership literature defines distance between the leader and follower as physical distance and perceived social distance, as well as interaction frequency (Antonakis & Atwater, 2002). Shamir and Howell (1999) indicate that a leader that is distant from his or her followers is simply not as able to form the same type of relationship as leaders who are closer to their followers. Thus, future research should measure closeness of the leader-follower relationship to assess the dynamics of the relationship as well as the moderating effect of distance in the relationship between transformational and charismatic leadership and performance outcomes.

Understanding follower characteristics

Third, researchers should seek for a more comprehensive understanding of follower characteristics' role in the transformational and charismatic leadership process. As several scholars have indicated (e.g., Kelley, 1988; Kelley, 1998; Klein & House, 1995), leaders do not act by themselves, but interact with and respond to their followers. Therefore, not only the "magnetism" of the leader, but also the "magnetizability" of followers may be particularly relevant in this context (Gardner & Avolio, 1998). For instance, previous studies have demonstrated the positive role of value congruence between the leader and the follower, which enhances the development of a shared vision (House, 1977; Sosik, 2005). Future research, specifically designed to identify leaders' and followers' characteristics in terms of attributes, norms, values, and beliefs, as well as the dynamic processes whereby the transformational and charismatic leadership relationship unfold (Gardner & Avolio, 1998; Klein & House, 1995), is therefore needed.

Identification and development of transformational and charismatic leaders

Fourth, a major gap in our understanding of transformational and charismatic leadership refers to the processes by which they can be best identified and then developed (e.g., Day, 2000; Yukl, 1999). To date, leadership development activities have mostly neglected the fact that leadership is a complex interaction between leaders, followers, and the context in which they operate (Fiedler, 1996). Day (2000) distinguished between leader development and leadership development. Whereas leader development's primary goal is to enhance an individual's capacity and potential, such as self-awareness, self-regulation, and self-motivation, leadership development focuses on the interaction of the leader within a social-organizational context. Particularly, the latter area has been repeatedly neglected by leadership scholars over the last decades (Avolio et al., 2009). Hence, future research should aim to develop a theoretical framework explaining the conditions that lead to the emergence and development of transformational and charismatic leadership.

Identifying essential behaviors

Fifth, future research should focus on identifying the essential behaviors of transformational and charismatic leadership. There is a considerable ambiguity about the associated behaviors (Yukl, 1999). Many behaviors seem relevant for both types of

leadership; however, there are some apparent differences in the pattern of behavior associated with each type of leadership. For instance, Yukl (1999) argued that transformational leaders are more likely to take actions that empower followers and make them partners in a mission to achieve important goals; charismatic leaders are more likely to emphasize the need for radical change that can only be accomplished if followers put their trust in the leader's unique expertise. Researchers may want to follow up on the notion that both types of leadership may rarely occur at the same time and clarify the incompatible aspects of the core behaviors for transformational and charismatic leadership.

Understanding multilevel processes

Sixth, our understanding of the multilevel processes by which transformational and charismatic leadership influence performance outcomes remains fragmentary. Future research needs to improve the theories on transformational and charismatic leadership in terms of leadership effectiveness on the group or organizational level. Hitherto, theories on transformational and charismatic leadership have focused too narrowly on dyadic processes. This perspective needs to be replaced by a systems perspective that describes transformational and charismatic leadership in terms of several distinct but inter-related influence processes at the dyadic, group, and organizational level (Yukl, 1999). Therefore, future research should place greater attention on building theories that describe transformational and charismatic leadership in the light of reciprocal, shared, and distributed influence processes.

Focusing on limiting conditions

Seventh, the emphasis on the universal applicability of transformational and charismatic leadership has been overdone. Future research should focus on the limiting conditions of transformational and charismatic leadership. Transformational leadership has demonstrated its effectiveness in various organizational settings and cultures (e.g., House & Javidan, 2004), however there may be situations where it is unnecessary or may even have negative consequences. Different transformational leadership behaviors may have different effects in different situations. Moreover, charismatic leadership and its potential for improving organizations seems limited. Future research needs to identify situations in which charismatic leadership is appropriate and can generate positive effects without negative consequences.

Understanding leadership in the 21st century

Eighth and finally, as organizations are becoming more and more flexible and can no longer rely on the traditional hierarchy (Den Hartog & Koopman, 2008), future research needs to explore the role of leaders in future organizations. Researchers need to address this issue by clarifying how to manage and to coordinate efforts of employees in such “boundaryless” organizations. Research should focus on how leaders will be able to manage highly flexible organizations where people shift from team to team and leaders do not have the same level of formal power they had before. As Shamir (1999) indicates, there exist several possible alternatives, implying a reduced importance of the role of leadership in the 21st century. For instance, one such scenario includes organizations relying on temporary arrangements (e.g., project teams), where leadership will be limited in scope and duration. In such a scenario, group members with the most relevant knowledge would be regarded as leaders for a specific period of time (i.e. a specific task). Future research needs to explore the application of such scenarios, create other possible scenarios, and extend existing scenarios. Particularly, researchers should focus on the role of leaders in unstable environments, balancing and emphasizing the need for change while simultaneously providing stability and continuity.

5.3 Practical Implications and Extensions

Given the applied nature of management science and organizational psychology, this dissertation aims not only to provide theoretical reasoning and empirical evidence on consequences, linking mechanisms, and boundary conditions associated with transformational and charismatic leadership, but also practical insights and implications to help current and future leaders lead individuals, groups, and organizations deliberately and successfully. This dissertation discusses several approaches of systematically addressing transformational and charismatic leadership. For instance, each chapter on the three empirical studies has depicted detailed practical implications that emerge directly from the respective findings (see chapter 2.4.3, 3.4.3, and 4.4.3). The following sections build on, integrate, and extend these suggestions, going beyond directly derivable implications by proposing an integrative framework for building effective transformational and charismatic leaders (see Figure 12).

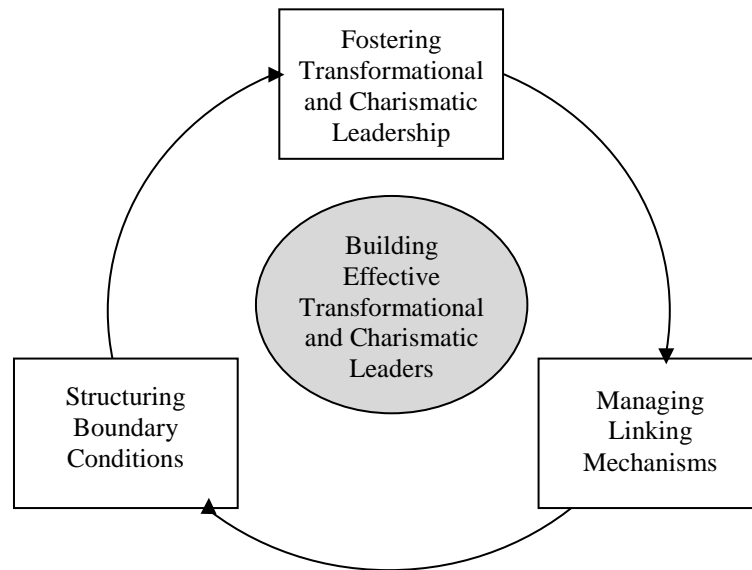


Figure 12. An Integrative Framework for Building Effective Transformational and Charismatic Leaders

5.3.1 Fostering Transformational and Charismatic Leadership

This dissertation has argued that fostering transformational and charismatic leadership has positive consequences on task- and innovation-relevant performance outcomes. However, relatively little has been said so far on how transformational and charismatic leadership can be promoted in an organizational context. Hence, in the following sections I describe in more detail how organizations may build effective transformational and charismatic leaders. The pertinent tools in order to achieve this goal include: first, assessment and selection (e.g., Robertson & Smith, 2001); second, promotion and transfer (Bass, 1990b); third, development and training (e.g., Day, Zaccaro, & Klimoski, 2001); and fourth, feedback measures and performance appraisals (e.g., Latham, Mann, Hodgkinson, & Ford, 2006).

Assessment and Selection

Given that factors associated with transformational and charismatic leadership can be identified and measured, organizations should include personality assessments that inform recruiters about the applicant's potential to react to and engage in transformational and charismatic leadership behaviors (Arvey, Renz, Watson, & Ferris, 1998). During the selection process applicants could be confronted with critical incidences or hypothetical cases. Personal dimensions and individual differences could also be assessed with pertinent personality inventories (Judge & Bono, 2000), or they

could be part of an assessment center (Goodstein & Lanyon, 1999). However, in order to obtain promising results and to avoid intimidating job candidates, organizations need to carefully integrate personality assessments into the selection process (Robertson & Smith, 2001).

Promotion and Transfer

Similar to the initial assessment and selection process, the promotion and transfer of employees should be guided by their potential to engage in transformational and charismatic leadership. Their potential could be tested by asking direct reports, peers, and supervisors to describe employees' current leadership, for instance with the Multifactor Leadership Questionnaire (Bass & Avolio, 1995). In addition, this potential could be tested through interviews, personality inventories, or simulations. These observations should be integrated and considered when decisions are made regarding employees' promotion or transfer into positions of greater leadership responsibility (Bass, 1990b). It seems particularly critical that organizations monitor whether employees display transformational or charismatic leadership behaviors. These behaviors include: internalize and contribute to communicating a captivating vision for the organization's future, act as charismatic role models, foster common goals instead of individual goals, set high performance expectations for themselves and the colleagues with whom they work, and provide individualized support and intellectual stimulation for their coworkers (Podsakoff et al., 1996; Podsakoff et al., 1990). Monitoring transformational and charismatic leadership behaviors could be realized by running anonymous employee surveys in which employees assess each other on how frequently they display transformational and charismatic leader behaviors (cf. Rubin, Munz, & Bommer, 2005). Employees who are regularly engaging in transformational and charismatic leadership behaviors should be promoted, thereby setting a strong incentive for employees to show transformational and charismatic leadership behaviors.

Training and Development

Besides promotion and transfer, transformational and charismatic leadership should be the subject of training and development (Bass, 1990b; Day et al., 2001; McElroy & Stark, 1992). Research indicates that leaders at all levels can be trained to show more transformational and charismatic leadership behaviors (Barling et al., 1996; Dvir et al.,

2002). Effective trainings should be based on an initial evaluation of employees' current transformational and charismatic leadership skills and proceed with instructing and practicing transformational and charismatic leadership behaviors (Bass, 1990b). Employees in leadership functions particularly need to learn how to communicate the organization's vision in an appealing way, how to become role models, how to convince their followers to put common goals first and individual goals second, how to set and communicate high performance expectations, how to address each follower individually, and how to make followers question their long-held beliefs and become intellectually involved (Podsakoff et al., 1996; Podsakoff et al., 1990). In order to fully generate their positive effects, these behaviors need to be internalized by the leader and flexibly adapted to both the situation and the specific characteristics of the followers (Howell & Shamir, 2005; Wofford, Whittington, & Goodwin, 2001).

Feedback Measures and Performance Appraisals

Finally, organizations should use feedback measures and performance appraisals to foster transformational and charismatic leadership behaviors. Feedback on how their leadership is perceived may be provided by professional coaches guiding leaders' personal development (Alimo-Metcalfe, Pritchett, & Passmore, 2008; Murphy & Riggio, 2003); by supervisors, peers, and subordinates in a 360-degree feedback (Alimo-Metcalfe, 1998; Carless, Mann, & Wearing, 1998); or by human resource managers (Day et al., 2001; Fitzgerald & Kirby, 1997). Through feedback processes, leaders recognize the influence they have on their followers and get the opportunity to find ways of improving their leadership behaviors. Additionally, organizations may want to strengthen the internalization of transformational and charismatic leadership behaviors by including feedback processes into the organization's performance appraisal system. Building on the notion of management by objectives, organizations may set goals on the intended levels of transformational and charismatic leadership (Reddin & Ryan, 1988) depending on the hierarchical position of the leader.

5.3.2 Managing Linking Mechanisms and Structuring Boundary Conditions

The results of this dissertation also direct attention to the mechanisms and boundary conditions of the transformational and charismatic leadership - performance linkage. In particular, in Study 1, I draw attention to positive affective tone, which seems to be a crucial unit characteristic under which positive effects on units' task performance, via

transformational leadership climate (indirectly) and unit cohesion (directly), unfold. In Study 2, I demonstrated that organizations' climate for initiative functions as a boundary condition under which the positive effects of transformational leadership (indirectly) and commitment to change (directly) on followers' innovation implementation behavior unfold. These results suggest that organizations may want to foster transformational and charismatic leadership, but simultaneously consider leadership as a dynamic process necessitating adaptive changes in leader behavior, as opposed to treating leadership as a fixed set of static and universal behavioral dimensions. Hence, organizations may foster leaders' adaptability by training them in awareness towards key contingencies that require shifts in leadership behaviors, and enable them with the underlying skills needed to help individuals and groups to maintain fit with its task environment and resolve challenges (Kozlowski & Ilgen, 2006). For instance, organizations may want their leaders to hone their emotional intelligence skills, learning to differentiate between different affective states of their followers and work groups and to adapt accordingly (Mayer, Roberts, & Barsade, 2008). Leaders should be trained in switching between transformational and transactional leader behaviors. Transactional leadership has also been demonstrated to enhance followers' and groups' performance (Bass et al., 2003) and is potentially better-applicable under certain circumstances. For instance, as Bass (1990b) indicated, in many situations transformational leadership is not appropriate and transactional leadership processes are required. These situations include firms that are functioning in markets with stable technology, workforce, and environment. Under these circumstances things are likely to move along well with managers simply promising and delivering rewards to followers carrying out assignments. However, when organizations are faced with turbulent market situations and crises, then transformational and charismatic leadership need to be fostered at all levels in the organization. As research indicates (e.g., Agle et al., 2006; Waldman et al., 2001), problems, rapid changes, and uncertainties call for a flexible organization with determined leaders who can inspire followers to participate enthusiastically in team efforts and in organizational goals. In these organizations, fostering transformational leadership through policies of recruitment, selection, promotion, training, and development seems particularly important and is likely to lead to high performance outcomes within organizations.

In sum, I encourage organizations to actively foster transformational and charismatic leadership through assessment and selection, promotion and transfer, training and development, and feedback measures and performance appraisals, while simultaneously enabling leaders to identify important aspects of the individual, group, organization, and environment and adapt their behaviors accordingly to fully benefit from the performance-enhancing effects of transformational and charismatic leadership.

5.4 Conclusion and Outlook

Research on transformational and charismatic leadership remains an exciting field. Even though there is an endless body of research demonstrating the effectiveness of transformational and charismatic leadership in influencing central performance outcome variables, suggesting that all relevant questions are answered, appearances are deceiving. On the contrary, the closer one looks into the field of transformational and charismatic leadership the more unanswered questions will be found.

This dissertation is another attempt in moving the field of transformational and charismatic leadership forward and answering a fraction of the questions contrived by renowned scholars in the field of leadership research such as Bernard M. Bass, Gary A. Yukl, Bruce J. Avolio, Robert J. House, and Jay A. Conger. They have all been in the field of leadership research for many decades, and still seem to have more questions about transformational and charismatic leadership than answers. By carrying out three empirical studies demonstrating linkages between transformational and charismatic leadership and important outcome variables such as task and innovation performance, thereby identifying to some extent novel linking mechanisms and boundary conditions, I hope to have contributed to the voluminous literature in the field of leadership research and answered at least a few of those questions.

Further, I hope that the findings of this dissertation encourage other scholars to further investigate the field of transformational and charismatic leadership. Future research should address antecedents of transformational and charismatic leadership in terms of leaders' and followers' characteristics and their reciprocal interactions. Similarly, future research questions may pertain to further linking mechanisms and boundary conditions on various levels of analysis and to incorporating these aspects into transformational and charismatic leadership theories, and finally to clearly distinguishing and identifying the corresponding behaviors associated with these types of leadership.

Ultimately, I believe transformational and charismatic leadership are central to the success and survival of today's organizations. It seems, however, that their actual potential has not been recognized by organizational leaders around the globe. In times of crises and turbulence on the world's markets, now may be the right moment to take appropriate measures, before it becomes too late.

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- Zhu, W., Avolio, B. J., & Walumbwa, F. O. 2008. Moderating role of follower characteristics with transformational leadership and follower work engagement. *Group & Organization Management*: in press.

Appendix A: Curriculum Vitae

Björn Michaelis, born May 8, 1979 in Hamburg, Germany

EDUCATION

- Sine 2006 **Ruprecht-Karls-University Heidelberg**, Germany
Doctoral Studies in Organizational Psychology (Dr. phil.)
- 2000-2006 **Georg-August-University Göttingen**, Germany
Diploma in Psychology (Dipl.-Psych.)
- 2002-2003 **Graduate School of International Business**, Fontainebleau, France
Visiting Student
- 1999-2000 **Collin County College**, Dallas, United States of America
Visiting Student
- 1989-1998 **Gesamtschule Hamburg-Harburg**, Germany
Abitur, High School Graduation

WORK EXPERIENCE

- Since 2006 **Ruprecht-Karls-University Heidelberg**, Germany
Research Associate, Work and Organizational Psychology
- 2005-2006 **Daimler Japan Holding, Ltd.**, Tokyo, Japan
Visiting Associate and Graduate Student (Diplomand)
- 2004 **Daimler AG**, Stuttgart, Germany
Intern, Daimler Corporate Academy
- 2004 **Kienbaum Exectuive Consultants**, Gummersbach, Germany
Intern, International Department
- 2003-2006 **Georg-August-University Göttingen**, Germany
Research Assistant, Institute of Psychology
- 1998-1999 **Parish Wilhelmsburg**, Hamburg, Germany
Community Service

Appendix B: Publications

Journal Articles:

Michaelis, B., Stegmaier, R., Sonntag, K. (in press). Affective Commitment to Change and Innovation Implementation Behavior: The Role of Charismatic Leadership and Employees' Trust in Top Management. *Journal of Change Management*.

Michaelis, B., Stegmaier, R., Sonntag, K. (in press). Shedding Light on Followers' Innovation Implementation Behavior: The Role of Transformational Leadership, Commitment to Change, and Climate for Initiative. *Journal of Managerial Psychology*.

Michaelis, B., Menges, J. I., Parks, K. M., Stegmaier, R., Sonntag, K., McDonald D. P. (under review). Boundary Conditions for an Effective Transformational Leadership Climate: The Role of Positive Affective Tone. *Academy of Management Journal*.

Book Chapters:

Michaelis, B., Büch, V., Stegmaier, R., Sonntag, K. (2008). Benchmarking in einem Gesundheitsnetzwerk. In K. Henning & C. Michulitz (Eds.), *Unternehmenskybernetik 2020 - betriebswirtschaftliche und technische Aspekte von Geschäftsprozessen (Vol. 25)*. Berlin: Duncker & Humblot.

Schraub, E. M., Stegmaier, R., Sonntag, K., Büch, V., Michaelis, B. (2008). Bestimmung des ökonomischen Nutzens eines ganzheitlichen Gesundheitsmanagements. In B. Badura, H. Schröder, C. Vetter (Eds.), *Fehlzeitenreport 2008 - Betriebliches Gesundheitsmanagement: Kosten und Nutzen*. Heidelberg: Springer Medizin Verlag.

Conference Proceedings:

- Michaelis, B., Menges, J. I., Parks, K. M., Stegmaier, R., Sonntag, K.; McDonald D. P. (2009). No need to cheer up the cheerful: Transformational leadership dampens the impact of unit performance. *Paper accepted at the Academy of Management Conference*. Chicago, IL.
- Michaelis, B., Parks, K. M., Menges, J. I., Stegmaier, R., Sonntag, K.; McDonald D. P. (2009). Contextual conditions and mechanisms for innovation performance effectiveness of work-units' leadership credibility climate: A large scale empirical study. *Paper presented at the Annual Conference of the Society for Industrial and Organizational Psychology*. New Orleans, LA.
- Michaelis, B., Stegmaier, R., Sonntag, K. (2008). How leaders influence affective commitment to change on innovation implementation behavior in R&D teams. *Paper presented at INSEAD Business School: Sixth International Conference on Emotions and Worklife*. Fontainebleau, France.
- Michaelis, B., & Büch, V. (2008). A recipe for effective and non-stressful change: The role of organizational support and fairness. *Paper presented at the Seventh International Conference on Occupational Stress and Health*. Washington, DC.
- Michaelis, B., & Boos, M. (2007). Leadership and Job Satisfaction in Western and Asian Cultures: A comparison between German, Japanese, and Chinese Executives. *Fifth Annual Meeting of the Society for Industrial and Organizational Psychology*. Trier, Germany.

Appendix C: Declaration

Erklärung gemäß § 8 Abs. 1 Buchst. b) der Promotionsordnung der Universität Heidelberg für die Fakultät für Verhaltens- und Emprische Kulturwissenschaften

Ich erkläre, dass ich die vorgelegte Dissertation selbstständig angefertigt, nur die angegebenen Hilfsmittel benutzt und die Zitate gekennzeichnet habe.

Erklärung gemäß § 8 Abs. 1 Buchst. c) der Promotionsordnung der Universität Heidelberg für die Fakultät für Verhaltens- und Emprische Kulturwissenschaften

Ich erkläre, dass ich die vorgelegte Dissertation in dieser oder einer anderen Form nicht anderweitig als Prüfungsarbeit verwendet oder einer anderen Fakultät als Dissertation vorgelegt habe.

Name, Vorname _____

Datum, Unterschrift _____

