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Transformational Leadership Meets Follower Motives:

Compatibility of Dimensions of Transformational Leadership and Follower Motives Determines Work-Related Outcomes

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Dedication

To those who surrounded me with love while I worked on my thesis.

Acknowledgments

Being a scientist means living on the borderline between your competence and your incompetence. If you always feel competent, you aren't doing your job.

(Carlos Bustamante)

Ever since I began this research project, I have lived on this borderline. But I never gave up, and this is due to the support of many people. It is now my pleasure to say thank you.

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Munich, July 2014

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List of Abbreviations

a) General abbreviations

cf.	confer
e.g.	exempli gratia
et al.	et alii
HMRA	Hierarchical Multiple Regression Analysis
IdIn	Idealized Influence
i.e.	id est
InCs	Individual Consideration
InMo	Inspirational Motivation
InSt	Intellectual Stimulation
n Achievement	Implicit need for achievement
n Affiliation	Implicit need for affiliation
n Power	Implicit need for power
TLD	Transformational Leadership Dimension
TLDs	Transformational Leadership Dimensions

b) Measurement methods

MLQ	Multifactor Leadership Questionnaire
PSE	Picture Story Exercise
TAT	Thematic Apperception Test

Abstract

The present research focuses on the transformational leadership theory (Bass, 1985) and the Big 3 motives (McClelland, 1987b). It was aimed at establishing an empirical foundation for specific links between the two constructs. Concerning transformational leadership theory, my research differs from past research in that I focused on distinct dimensions of transformational leadership rather than transformational leadership as a unidimensional concept. This rationale (Kehr & Weibler, 2010) is driven by the assumption that the dimensions allow for more accurate predictions (van Knippenberg & Sitkin, 2013) regarding followers' work-related outcomes. Concerning the Big 3 motives, I concentrated on the implicit motive domain in order to test Bass' (1985) assumption that transformational leadership dimensions appeal especially to followers' implicit (unconscious) affiliation, power, and achievement motives.

In detail, the present studies were aimed at (a) establishing conceptual links of transformational leadership dimensions and specific motives, (b) testing effects of followers' implicit motive dispositions on their preferences for distinct transformational leadership dimensions, and (c) testing the interaction of transformational leadership dimensions and followers' implicit motive dispositions on work-related outcomes.

Using qualitative data, I analyzed theoretical characterizations of the transformational leadership dimensions individualized consideration (InCs), inspirational motivation (InMo), intellectual stimulation (InSt), and idealized influence (IdIn) concerning their affiliation, power, and achievement motive content. The motive content varied significantly across characterizations of different transformational leadership dimensions. I found specific links between InCs and affiliation, between InMo and power, and between IdIn and power.

In an experimental study, I tested the effects of the strength of followers' implicit motive dispositions (affiliation, power, or achievement) on their preferences for certain transformational leadership dimensions. The results showed that the strength of followers' implicit affiliation motive predicted their preference for InCs, the strength of followers'

implicit power motive predicted their preference for InMo, and the strength of followers' implicit achievement motive predicted their preference for InSt.

Furthermore, in two experimental studies, I tested the interaction of dimension-specific leader behaviors and the strength of followers' corresponding implicit motive dispositions on their work-related outcomes. Both experiments demonstrated that the interaction of distinct transformational leadership dimensions, and followers' implicit motive dispositions showed effects on work-related outcomes. Specifically, the strength of the followers' implicit affiliation motive positively moderated the relations between a leader displaying InCs and followers' performance as well as leader influence. The strength of followers' implicit power motive positively moderated the relations between a leader displaying InMo and followers' performance as well as leader influence.

Thus, the present studies not only provide initial empirical evidence that there are specific interconnections between the transformational leadership dimensions and the Big 3 motives, but they also demonstrate that the interactions of specific transformational leadership dimensions and followers' corresponding implicit motive dispositions have effects on work-related outcomes. Hence, the results of the present studies and their implications are beneficial for both basic research on the underlying mechanisms of transformational leadership and in-depth modifications of leader-follower relationships.

1 Introduction

Followers often complain about careless or incompetent leaders. On the other hand, leaders often disrespect and abuse their followers, even if not intentionally. The consequences are that followers intend to quit or do in fact leave the company, top management changes because it does not fit the needs of the company, or more accurately, it does not fit the needs of the followers. A survey study published in March this year by the leading market and public opinion research institute “Gallup” showed that 17% of German employees are emotionally uncommitted to the company and have already terminated themselves internally. According to the Gallup study of 2013 (Gallup, 2014), the economic costs of an inner termination amount to a sum of between 98.5 and 118.4 billion euros per year. Hence, and of course, it is in a company’s best interest that their employees do not intend to quit. Gallup (2014) identified leader’s behavior as a key factor affecting employees’ or followers’ satisfaction. In other words, the reasons that followers are unsatisfied can often be reduced to deficits in leadership. This idea was also supported by the results that showed that 41% of the surveyed followers agreed that they would fire their leader immediately if they were given the opportunity to do so (Gallup, 2014). In addition, 45% of the respondents agreed with the statement that they were thinking about leaving the company just because of their leader.

Companies today thus need to hire or to develop leaders who are able to satisfy the needs of their followers, which results in motivation, and consequently in high performance. But how does this work? How can a leader show interest in a follower? What kinds of characteristics and what kinds of leadership styles should be considered? The challenge is to find a leadership style that is good for the followers, or more specifically, a leadership style that addresses and arouses the basic needs of the followers so that they are satisfied and consequently optimally motivated. Hence, this thesis was aimed at addressing this challenge. It sheds light on the underlying mechanism of effective leadership by analyzing the compatibility of a well-established leadership theory and an elaborated motivation theory, both based on many years of research. To do

so, I chose to use the predominant leadership theory, which highlights the importance of integrating and motivating followers: the transformational leadership theory (Bass, 1985); and I assessed its compatibility with the Big 3 Motives (McClelland, 1987b).

The thesis had three goals: The first goal was to establish conceptual links between transformational leadership styles and specific motives. The second goal was to test effects of individual implicit motive dispositions on preferences for distinct transformational leadership styles. The third goal was to test the interaction of transformational leadership styles and followers' implicit motive dispositions on work-related outcomes.

Consequently, the present thesis is built on two central topics: *leadership* and *motives*. Therefore, in Chapter 2, I will highlight these two topics. First, I will introduce the topic *leadership* by defining it, outlining the historical evolution of it, and naming contemporary approaches to it. Next, I will present in detail the leadership theory my thesis is based on: the transformational leadership theory (Bass, 1985). I will emphasize the four different transformational leadership styles: individualized consideration, inspirational motivation, intellectual stimulation, and idealized influence and present in detail why this thesis concentrates on the separate transformational leadership styles rather than on a unidimensional construct. The second part of Chapter 2 will provide an introduction to the topic *motives*, will present a historical evolution of it, and will focus on the Big 3 motives for affiliation, power, and achievement (McClelland, 1985). After presenting the assessment of these motives and the basic process model of motivation, in a third part, I will integrate the two concepts. I will describe the theoretical relations of the two main topics by outlining the assumptions of specific associations of the transformational leadership styles and the Big 3 motives and the work-related outcomes that might result from these relations.

The thesis will provide empirical evidence for conceptual links of the transformational leadership dimensions and the Big 3 motives, and in addition, this work will show that a compatibility of specific transformational leadership styles and followers' specific implicit motives has positive consequences for work-related outcomes. Consequently, the thesis

will lay the foundation for further empirical research regarding the underlying mechanisms of effective leadership and will provide practical implications for leader-follower relationships.

2 Theoretical Concepts

2.1 Leadership

"Defining leadership is like defining love:

The words on paper never seem to capture the experience."

(Lashway, 1999, as cited by Luft, 2012, p. 27).

An overarching definition of leadership was given by Yukl (2006): "Leadership is the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives" (p. 8). Even though most researchers agree with this definition, they have supplemented it with additional details. This is due to the fact that the term "*leadership*" has been an object of research in many different scientific disciplines such as philosophy, economics, law, and psychology (von Rosenstiel, 2001). Stogdill (1974) concluded after a review of the leadership literature that "there are almost as many definitions of leadership as there are persons who have attempted to define the concept" (Stogdill, 1974, p. 259). Summarizing the issue, Yukl (2006) stated that "we [researchers] have invented an endless proliferation of terms to deal with it … and still the concept is not sufficiently defined" (p. 2). Instead of a unified theory of leadership comprising agreed-upon terms, leadership is usually centered around one or more domain-specific core components such as traits, role relationships, or behaviors. Or, vice versa, each paradigm in leadership research is based on domain-specific components.

My research builds on the consensus among researchers that leadership is established by leaders and followers (Howell & Shamir, 2005). Leadership definitions that have revived this paradigm are provided by Burns (1978) and House et al. (1999), among others. Burns (1978) said that "leadership over human beings is exercised when persons with certain motives and purposes mobilize […] institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers" (p. 18).

House et al. (1999) defined leadership as “the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organization” (p. 184). Until the late 1970s and the beginning of the 1980s, most leadership theories and leadership research focused on the characteristics of the leader (e.g., McClelland & Boyatzis, 1982; McClelland & Burnham, 1976; Winter, 1979, 1987). Judging from the foregoing definitions of leadership, focusing on only the characteristics of the leader would not portray the total concept of leadership and would neglect the role of the followers. Hughes, Ginnett, and Curphy (2006) noticed that, “leadership is not restricted to the influence exerted by someone in a particular position or role; followers are part of the leadership process, too” (p. 10-12). According to Yukl (2006), “the term follower is used to describe a person who acknowledges the focal leader as the primary source of guidance about the work” (p. 9). In sum, followers should definitely be incorporated into leadership models to illustrate the total concept of leadership (Ilies, Morgeson, & Nahrgang, 2005; McCann, Langford, & Rawlings, 2006).

By looking at the term leadership, one could argue that it implies that the leader is the central part of this concept. But as demanded by Burns (1978), for example, the organizational setting and the followers should be viewed as important parts of leadership as well. In my research, I focused on the process of leadership by integrating different aspects of it and not on the person. For example, leadership includes not only leader behavior but also follower characteristics. Moreover, in my studies, I concentrated on possible moderating effects of the relation between leader behavior and the work-related outcomes of followers, such as followers’ implicit motives as moderators. Prior research that measured leadership effectiveness mostly focused on the performance of the leader or organizational outcomes (cf. Yukl, 2006). Objective follower performance has hardly been the focus of studies; rather, studies have mostly measured followers’ satisfaction with their leader or commitment to the group (cf. Yukl, 2006).

To fulfill the demands of a total leadership concept, the present research was based on an integrative leadership theory, which takes into consideration the importance of a

balanced explanation of leadership success as both follower- and leader-centered (see Figure 1).

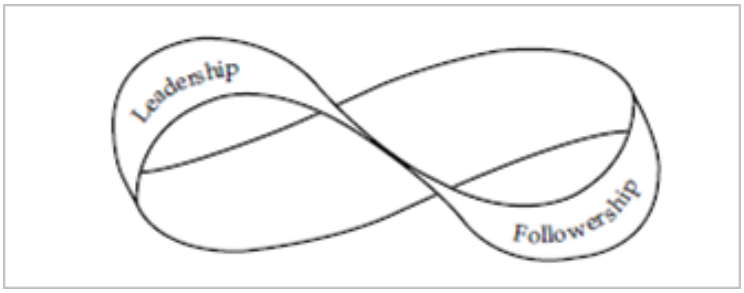

Figure 1. The leadership/followership möbius strip (illustration adapted from Hughes et al., 2006, p. 12).

2.1.1 Historical evolution of leadership research

As mentioned in Chapter 2.1, most leadership concepts and theories concentrate on one out of three types of variables: characteristics of the leader, characteristics of the followers, or characteristics of the situation (cf. Yukl, 2006). At the beginning of leadership research in the early 1800s to the early 20th century, the leadership concept was analyzed in terms of leadership characteristics or traits (Creighton, 2005), and consequently, most leadership theories emphasized the characteristics of the leaders. Yukl (2006) classified leadership theories and leadership research into five distinct approaches: the trait approach, the behavior approach, the power-influence approach, the situational approach, and the integrative approach.

Research based on the trait approach focused on the interrelations between leader attributes and leader success. However, this approach was reproached by researchers for a lack of predictability (Amoroso, 2002), which, inter alia, was substantiated by a lack of intervening behaviorally enlightening variables.

Consequently, researchers emphasized observable leadership behaviors in the behavior approach. Research at the Ohio State University (Fleishman, 1953; Halpin & Winer, 1957; Stogdil, Goode, & Day, 1962) and at the University of Michigan (Katz, Maccoby, Gurin, & Floor, 1951; Katz, Maccoby, & Morse, 1950) led the way to behavior approach research. Both research groups have focused on observable leadership

behaviors with the aim of identifying relevant leadership behavior categories or of identifying the relations among different leader behaviors. The Ohio State University group figured out two relatively independent leader behavior categories: first, *"initiating structure,"* which is concerned with task objectives, and second, *"consideration,"* which is concerned with interpersonal relations. Quite similar to the results from Ohio State University, at approximately the same time, the research group from the University of Michigan found three types of leadership behavior: first, *"task-oriented behavior"*; second, *"relation-oriented behavior"*; and third, *"participative leadership."* *"Task-oriented behavior"* corresponded with the behavior labeled *"initiating structure"* in the Ohio State studies. *"Relation-oriented behavior"* appeared to be similar to the behavior based on *"consideration"* in the Ohio State studies (cf. Yukl, 2006). The third behavior identified by the Michigan studies did not correspond to any sets of behavior identified in the Ohio State studies. "*Participative leadership*" can be seen as an extension of the second behavior on the "*group factor.*" What both research groups demonstrated was that an effective leader was aware of at least one of two behavior categories, and that depending on the organization, either a task-oriented leader or a leader with a relation-orientation would perform best (Creighton, 2005).

The power-influence approach is built on the behavior approach, so it is also a leader-centered approach with the implicit assumption that leaders act and followers react in a unidirectional way. The main point of this approach is that leadership effectiveness results from the type and amount of power possessed by the leader (cf. French & Raven, 1959; Hollander & Offermann, 1990; Yukl, 2006).

The situational approach and the integrative approach are the two approaches of interest in contemporary leadership research. Both emphasize the importance of other factors aside from the leader. The situational approach focuses on contextual factors that influence the leadership process such as the nature of the work, the type of organization, the external environment, and the characteristics of the followers (Yukl, 2006). The most interesting goal of research in this approach is to identify situational aspects that moderate

the relation between a leader's attributes and leadership effectiveness. An example of a well-known theory that resulted from this approach is the path-goal theory of leadership (House, 1971).

The integrative approach has been the most popular one in recent years (Yukl, 2006). This approach allows two or more types of leadership variables to be integrated in one study. It is probably highly unlikely to find or even to create a theory that includes all possible leadership variables. But some good integrative theories do exist, such as the self-concept-based theory of charisma (House, 1977; Shamir, House, & Arthur, 1993) or the transformational leadership theory (Bass, 1985; Burns, 1978).

2.1.2 Contemporary approaches to leadership

This chapter will provide an overview of the most important leadership theories for the present research that were derived from either the situational approach or the integrative approach (see Chapter 2.1.1). All theories I will present have in common that they do not simply include followers but also highlight the importance of integrating and motivating the followers through effective leadership.

Path-goal theory (House, 1971). This theory derives from the situational approach. Therefore, it includes various situational variables that moderate the effect of leader behavior and followers' work-related outcomes. The aim of the theory is to explain how leader behavior can influence followers' performance or satisfaction. An elaborated version of the theory (House & Mitchell, 1974) defined four classes of leader behaviors: (a) supportive leadership, which means that the leader cares about his or her followers; (b) directive leadership, which means that the leader provides specific guidance and rules; (c) participative leadership, which means that the leader integrates the opinions and suggestions of his or her followers; and (d) achievement-oriented leadership, which means that the leader challenges his or her followers to focus on constant improvement and excellence in performance. A meta-analysis by Wofford and Liska (1993) illustrates that a lot of research on the path-goal theory exists. But concerning directive leadership,

participative leadership, and achievement-oriented leadership, the results have not been consistent (cf. Yukl, 2006). However, for supportive leadership, most studies found positive effects on satisfaction. House (1996) extended the theory to include more leader behaviors that were in accordance with the concepts of transformational leadership. Still, the extension and reformulation of the theory did not reveal consistent results. Nevertheless, the path-goal theory was one of the first concepts to include other variables aside from leader characteristics and thus guided further research toward "identifying potentially relevant situational variables" (Yukl, 2006, p. 223).

Self-concept-based theory of charisma (Shamir et al., 1993). The general idea of this theory is that leader behavior can affect followers' self-concepts and this consequently influences followers' behavior (e.g., followers will demonstrate more organizational citizenship behavior). The theory was originally developed by House (1977) as the self-concept theory of charismatic leadership. House (1977) postulated that the more the followers perceive leader behavior as being social, the more the leader's role model is honored by the followers. High expectations of the followers associated with high confidence in the followers lead to a strong self-concept in the followers. Thus, followers are then more willing to accept challenging goals, and this supports the followers' willingness to perform. Furthermore, House (1977) argued that goals and functions are more accepted by the followers if the goals and functions match the followers' motives. Shamir and colleagues (1993) extended the original theory by integrating more detailed descriptions of the process of influence and by integrating new insights into motivational processes (cf. Yukl, 2006). This influence process is, among other things, driven by personal identification. If a strong personal identification with the leader exists, followers are more willing to carry out leader requests, they will imitate leader behavior, and they will show extra effort (Yukl, 2006). In line with House (1977), Shamir et al. (1993) emphasized that the probability of influencing followers increases as the leader's charismatic behavior increases, such as leading with a vision or demonstrating courage (cf. Yukl, 2006). Concerning the motivational process, Shamir and colleagues (1993)

postulated that the influence of and change in the self-concept can be viewed as the foundation of followers' motivation. Shamir et al. (1993) stated that followers are affected by leaders' behavior and that a motivational mechanism underlies this effect. The motivational mechanism triggers self-concept, which in turn leads to several positive effects such as organizational citizenship, personal commitment to a leader's mission, task meaningfulness, and self-sacrificial behavior (cf. Antonakis, 2012). Nevertheless, this theory is primarily oriented toward charismatic leadership; in this research, I was interested in transformational leadership.

Transformational leadership theory (Bass, 1985). Before going into the details of the theory, I will differentiate transformational leadership from charismatic leadership. Often the two terms are used in the same way in both research and practice. Still, the two are different concepts. Bass (1985) assumes that the two concepts are partially independent. He supposes that charisma is an integral part of transformational leadership and that leaders can be perceived as charismatic without being transformational. In other words, charisma can be viewed as a required but not a sufficient condition for transformational leadership (cf. Dörr, 2006). Yukl (2006) differentiated the two concepts by emphasizing the demeanor of the two leader types. He argued that "transformational leaders probably do more things that will empower followers and make them less dependent on the leader" (Yukl, 2006, p. 271), whereas "charismatic leaders probably do more things that foster an image of extraordinary competence for the leader, such as impression management, information restriction, unconventional behavior, and personal risk taking" (Yukl, 2006, p. 271).

This research concentrated on transformational leadership and transformational leaders and not only on charismatic leadership due to the fact that transformational leadership has positive effects on work-related outcomes and that these leaders are represented in all organizations (Bass, 1996), whereas charismatic leaders are rare (Bass, 1985). Moreover, predictors of why transformational leadership has such positive effects on work-related outcomes have been identified by diverse studies (e.g., Hobman,

Jackson, Jimmieson, & Martin, 2011; Kovjanic, Schuh, Jonas, Van Quaquebeke, & van Dick., 2012; Miao, Newman, & Lamb, 2012), but the underlying mechanisms and processes are still not entirely clear, and the transformational leadership behaviors have not necessarily been considered separately (for more details, see Chapters 2.1.2.2 and 2.3). Therefore, in the next chapter, I will present transformational leadership in detail.

2.1.2.1 Transformational leadership

It is beyond the scope of this dissertation to highlight every philosopher (e.g., Plato) or every leadership scholar (e.g., Abraham Zaleznik) who ever discussed transformational leadership, but I will highlight the people who are of interest with regard to my research stream. According to Antonakis (2012), Aristotle (trans., 1954) was the first to write about transformational leadership in his *Rhetoric* book. He argued that a leader has to use creative rhetorical means. These creative rhetorical means included "*pathos*" (rousing followers' emotions), "*ethos*" (providing moral perspectives), and "*logos*" (using reasoned arguments), all of which are comparable to transformational behavior (cf. Antonakis, 2012). Antonakis (2012) postulated that among other dimensions mentioned in Aristotle's *Rhetoric,* these three dimensions "can be seen as a parsimonious version of Bass's (1985) full-range leadership theory" (p. 258).

The founder of modern leadership theory (Marzano, Waters, & McNulty, 2005) is James MacGregor Burns. In the mid 1970s, in his book about leadership in political settings, Burns (1978) defined leadership as "leaders inducing followers to act for certain goals that represent the values and the motivations–the wants and needs, the aspirations and expectations–*of both leaders and followers*" (p. 19), and added "the genius of leadership lies in the manner in which leaders see and act on their own and their followers' values and motivations" (p. 19). Burns (1978) was the first to conceptualize leadership as either transactional or transforming. He stated that most leadership relationships are transactional and defined this transactional leadership process by postulating that "leaders approach followers with an eye to exchanging one thing for

another: jobs for votes, or subsidies for campaign contributions. Such transactions comprise the bulk of the relationships among leaders and followers, especially in groups, legislatures, and parties" (Burns, 1978, p. 4). He distinguished this type of leadership from a transforming leadership type. In transforming leadership, followers should be motivated to work for transcendental goals that end by converting "followers into leaders and may convert leaders into moral agents" (Bass, 1978, p. 4). Thus, he postulated that "the transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower" (Burns, 1978, p. 4). Consequently, a relationship of mutual stimulation results from this type of leadership. Most important about the transforming leadership as defined by Burns (1978) is that not only is the focus shifted from the motives of the leader to the motives of the followers, but it is also important that the leader finds and arouses the motives of the followers.

The transformational leadership concept "has rapidly become the approach of choice for much of the research and application of leadership theory" (Bass & Riggo, 2006, p. xi), and therefore, Bass (1985) formulated a new and updated version of the theory on the basis of the growing empirical research on this topic. He built his transformational-transactional theory on Burns' model (1978) but reformulated transforming leadership into transformational leadership by adding new aspects (cf. Antonakis, 2012). He also distinguished between transactional and transformational leadership. A transactional leader leads by facilitating social exchange and by offering or denying financial rewards (Bass & Riggio, 2006). A transformational leader, on the other hand, is "one who motivates us to do more than we originally expected to do" (Bass, 1985, p. 20). In general, transformational leadership can be viewed as a form of leadership that transforms people by increasing their sense of purpose and meaningfulness and by creating a common purpose and a shared vision (Kehr & Weibler, 2010).

Antonakis (2012) distinguished between the "*old leadership*" (e.g., transactional leadership) and the "*new leadership,*" which contains additional elements, meaning transformational leadership. The difference between the two types of leaders is described

by Bass (1985) as follows: “Unlike the transactional leader who indicates how current needs of followers can be fulfilled, the transformational leader sharply arouses or alters the strength of needs which may have lain dormant” (Bass, 1985, p. 17). Apart from this, Bass (1985) did not see the two concepts as opposites along one continuum (like Burns, 1978, did); he noticed that an effective leader will apply both transformational and transactional leadership. Therefore, Bass’ model is also named the full-range leadership model (cf. Antonakis & House, 2002).

Bass’ theory has a long and relatively successful history of research behind it (e.g., Avolio & Bass, 1995; Avolio, Bass, & Jung, 1999; Bass & Avolio, 1993, 1994; Waldman, Bass, & Yammarino, 1990). The theory contains four (and including the two subdimensions of idealized influence – five) transformational leadership aspects, behaviors, or styles. In this thesis, these are also called the transformational leadership dimensions (TLDs). Descriptions of the TLDs are as follows.

Individualized Consideration (InCs). Bass (1985) postulated that with individualized consideration leadership, each follower will be treated individually, with one-to-one contact and with two-way communication according to the follower’s needs and capabilities. He assumed that “transformational leadership involves individualized attention and a developmental or mentoring orientation” (Bass, 1985, p. 83) toward followers. To reach this outcome, a leader displaying individualized consideration provides coaching and mentoring to followers, maintains frequent contact with followers, and develops the capabilities of followers. Furthermore, Bass (1985) stated that a leader displaying individualized consideration provides socio-emotional support to his or her followers and helps them to self-actualize (cf. Antonakis, 2012).

Intellectual Stimulation (InSt). A leader showing intellectual stimulation encourages followers to see problems from different perspectives and to see problems as a challenge rather than as a disturbance. By intellectual stimulation, Bass (1985) meant “the arousal and change in followers of problem awareness and problem solving, of thought and imagination, and of beliefs and values, rather than arousal and change in immediate

action" (p. 99). This transformational leadership dimension (TLD) is mostly rational and not emotional. Still, followers are motivated and committed to goals because such followers "are also supported for thinking on their own, addressing challenges, and considering creative ways to develop themselves" (Bass & Avolio, 1993, p. 52).

Inspirational Motivation (InMo). Inspirational motivation is concerned with articulating an inspiring vision, stimulating enthusiasm for work, and conveying optimism that one's goals will be achieved. Antonakis (2012) defined inspirational motivation as leadership "that inspires and motivates goals that may have previously seemed unreachable" (Antonakis, 2012, p. 266). Inspirational motivation has similarities with charismatic leadership and idealized influence. But they can be distinguished from each other such that "leaders do not need be charismatic to be inspirational" (Bass, 1985, p. 62). Bass and Avolio (1993) added that inspirational motivation "may or may not overlap with charismatic leadership, depending on the extent to which followers seek to identify with the leader" (p. 52). Moreover, inspirational motivation must also be differentiated from intellectual stimulation (cf. Bass, 1985). The difference lies in the process of influence. A leader who leads with inspirational motivation "employs or adds nonintellectual, emotional qualities to the influence process" (Bass, 1985, p. 63); thus, such a leader uses emotions. The intellectually stimulating leader influences with "convincing argument, logic, and rationality without appeals to feelings, sentiments, and emotions" (Bass, 1985, p. 63).

Idealized Influence (IdIn). Idealized influence was initially called charisma, but because charisma might connote the idolization of the leader, the more neutral term idealized influence was adopted (cf. Antonakis, 2012). Idealized influence is divided into attributed and behavioral idealized influence. But before looking at the difference between the two characteristics, I will describe this TLD in total. In general, idealized influence entails the charismatic role modeling of high ethical standards, respect, and trust. It also provides a collective group mission and a strong sense of purpose. In contrast to intellectual stimulation, idealized influence can be seen as the emotional component of transformational leadership. Bass (1985) originally described these leaders as leaders

"who by the power of their person have profound and extraordinary effects on their followers" (p. 35) and who "inspire in their followers unquestioning loyalty and devotion without regard to the followers' own self-interest" (p. 35). House (1977) stated that this kind of leader is motivated to influence his or her followers. Thus, the behavior of the leader, like the leader's self-confidence, leads to an increase in the trust of followers, and consequently, followers idealize their leader. As mentioned above, this TLD has an attributed and a behavioral component. According to Antonakis (2012), "attributional idealized influence refers to attributions of the leader made by followers as a result of how they perceive the leader. Behavioral idealized influence refers to specific behaviors of the leader that followers can observe directly" (p. 266). Kehr and Weibler (2010) postulated that the behavioral component is related to inspirational motivation, whereas the attributed component is related to idealized influence. Even if there is this differentiation, they both empirically and theoretically belong to one TLD and are thereby treated as one TLD.

To operationalize the theory, researchers use the Multifactor Leadership Questionnaire (MLQ). The MLQ (Bass & Avolio, 1993b; Bass & Avolio, 1995) consists of different items describing the possible behaviors of a leader. Either the leader him- or herself (self-assessment form) or the followers (external assessment from) have to assess the degree to which the leader shows these behaviors. A factor analysis of the behavior descriptions of the MLQ resulted in two broad categories (transformational vs. transactional behavior), each including different dimensions. Three dimensions of transformational leadership (*individualized consideration, intellectual stimulation, idealized influence*) were first derived from the theory (Bass, 1985), but a revision of the theory added one more TLD: *inspirational motivation* (Bass & Avolio, 1990). The current form of the MLQ (e.g., Bass & Avolio, 1995) measures eight dimensions. The foregoing four dimensions belong to transformational leadership: *individualized consideration*, *inspirational motivation* (the behavior added after the revision of the theory), *intellectual stimulation*, and *idealized influence* (attributes and behaviors). Transactional leadership is represented by three dimensions: *contingent rewards*, which means that "the leader and follower agree on what

the follower needs to do to be rewarded or to avoid punishment" (Bass, 1985, p. 121); *management-by-exception active* and *management-by-exception passive*, which mean in general that leaders "intervene with negative feedback or disciplinary action when employee performance falls too far below standards" (Bass, 1985, p. 136). The ninth dimension is concerned with *nonleadership* (i.e., laissez-faire leadership), which describes "the absence of leadership" (Antonakis, 2012, p. 268).

2.1.2.2 Transformational leadership: challenges to the unidimensional approach

A lot of research exists on the positive work-related consequences of transformational leadership (e.g., Hardy et al., 2010; Wang & Howell, 2012; Yammarino & Bass, 1990), but there is still a lack of knowledge concerning two central points. The first central point is that "current perspectives fail to specify how each dimension [of transformational leadership] has a distinct influence on mediating processes and outcomes" (van Knippenberg & Sitking, 2013, p. 2). Usually, the four TLDs are aggregated into one overall transformational leadership factor due to the high empirical intercorrelations of the dimensions (cf. Sutton & Staw, 1995). In line with van Knippenberg and Sitkin (2013), I propose that this empirical argument cannot replace the theoretical argument that the concept of transformational leadership consists of distinct dimensions. Therefore, it is still important to examine the distinct effects of the dimensions of transformational leadership on employee performance. Thus, my approach differs from other research on the positive effects of transformational leadership (e.g., Hobman et al., 2011; Kovjanic et al., 2012; Podsakoff, MacKenzie, Moorman, & Fetter, 1990) in that I focus on the specific dimensions of transformational leadership and their distinct effects on follower performance. The second central point is more specifically: I argue that the dimensions of transformational leadership are related in specific ways to followers' implicit motives. As a result, the strength of followers' implicit motives should moderate the effects of the transformational leadership dimensions on followers' performance in specific and predictable ways. Both of these central assumptions were the key focus of this thesis. To

address both assumptions, I integrated two prominent theoretical accounts: the concept of transformational leadership (Bass, 1985; cf. Chapter 2.1.2.1) and McClelland's (1985) *big three motives*, which I will present in detail in the next chapter.

2.2 Motives

"People's behavior makes sense if you think about
it in terms of their goals, needs, and motives."
Thomas Mann (n.d.)

There are three major questions regarding human behavior: What is the person doing? How is she or he doing it? Why is she or he doing it? (cf. McClelland, 1987b). The question concerning the why component is in the focus of psychological research on personality and often more specifically on motives. Thus, "after a time of stagnation, research on implicit motives was off to a fresh start" (Schultheiss & Brunstein, 2010, p. xvi) to provide insights into the mystery of why people behave in particular ways. Motives in general are relatively stable dispositions and thus lead a person to react in specific ways that depend on their affectively charged incentives (cf. Schultheiss & Brunstein, 1999).

Among other researchers (Brunstein, Schultheiss, & Grässmann, 1998; Deci & Ryan, 2000; Kehr, 2004b; Schultheiss, 2001, 2008; Weinberger & McClelland, 1990), McClelland, Koestner, and Weinberger (1989) in particular have distinguished between explicit motives (i.e., motives a person is aware of) and implicit motives (i.e., motives that are unconscious and not easily accessed by awareness; see Chapter 2.2.3 for a more detailed distinction of the two concepts). Due to the fact that the two constructs are not correlated (Koestner, Weinberger, & McClelland, 1991; McClelland, Atkinson, Clark, & Lowell, 1953, Spangler, 1992; Thrash & Elliot, 2002), Schultheiss and Brunstein (2010) posed the question of which criterion is better for predicting behavior. In fact, there is no general answer, but deCharms, Morrison, Reitman, and McClelland (1955) once again showed that implicit and explicit motives are uncorrelated and that they influence different types of behavior. Derived from this early study, other researchers have also demonstrated that these motives have distinct behavioral consequences. For example, Brunstein and Maier (2005) showed that task continuation was, inter alia, predicted by the

explicit achievement motive, whereas task performance was, inter alia, predicted by the implicit achievement motive and not vice versa. Likewise, McClelland and colleagues (1989) showed that the overall recall performance of participants on a memory task was predicted by the explicit achievement motive, whereas only the implicit achievement motive and not the explicit achievement motive predicted the choice of an easy or a difficult word-finding puzzle task. Consequently, McClelland and colleagues (1989) argued "that implicit motives predict spontaneous behavioral trends over time, whereas self-attributed motives [explicit motives] predict immediate specific responses to specific situations or choice behavior" (p. 691). For this purpose, McClelland (1984) stated, "I never put much faith in what people say their values are on questionnaires, because I don't believe that these statements bear very much relationship to what they in fact do or even to the reality of unconscious values or motives, which were obviously affecting what they did in ways that were quite unknown to themselves" (p. 4). Thus, this thesis concentrated on implicit motives.

There exist a lot of implicit motive definitions, and they all have in common the concept that implicit motives are "motivational dispositions that operate outside of a person's conscious awareness" (Schultheiss, 2008, p. 2). Motivational dispositions in terms of a latent willingness to experience and to behave arise from physiological causes and from learning experiences (Kehr, 2004c; McClelland, 1965). This means that they are developed early in life (McClelland, 1995) by nondeclarative learning and are relatively independent of social demands in later life (cf. Koestner et al. 1991; McClelland, 1985). McClelland (1980) and McClelland and colleagues (1953) postulated that implicit motives, conceptualized as nondeclarative associative networks, are linked to situational incentives and affective reactions. Therefore, they can be aroused by activities; and by knowing how to arouse an implicit motive, it is possible to examine how an implicit motive is manifested in behavior (cf. Atkinson & McClelland, 1948).

However, implicit motives cannot be assessed with declarative measures, for example, through self-reports or questionnaires. As an implicit motive is a construct that is not in the

conscious awareness of a person, the strength of an implicit motive has to be measured with nondeclarative measurements such as analyzing associative responses to pictorial cues (for more details, see Chapter 2.2.3). Knowing more about the implicit motive strength of a person can provide information about the kinds of cues or incentives that will best motivate the person "because a person with a strong motive is a person who has a strong affective response to an incentive, the person orients attention toward cues predicting the possibility of such an affective experience" (Schultheiss & Brunstein, 2010, p. xviii).

Before taking a closer look at (a) the three types of implicit motives involved in my studies (see Chapter 2.2.2), (b) their assessment (see Chapter 2.2.3), and (c) how situational incentives interact with implicit motives to shape behavior (see Chapter 2.2.4), I will briefly outline the historical evolution of motive research in the next chapter.

2.2.1 Historical evolution of motive research

One of the most prominent and most cited researchers on motives today is David McClelland. But he was not the first to come up with the idea that an unconscious construct can shape human behavior. It is beyond the scope of this dissertation to highlight every philosopher (e.g., Friedrich Schelling or Jean-Paul Sartre) or every researcher (e.g., Carl Gustav Jung) who ever discussed this topic, but I will highlight the people who are of interest with regard to psychological research on motives or at least with regard to my research on motives.

One of the first to write about motives was Wundt (1896, 1907). He distinguished between driving forces and motives that lead to a certain behavior, and he explained a motive as somewhat of a feeling that lies in the personality of a person. Furthermore, Freud (1967) explicitly postulated the unconscious by dissociating it from the preconscious and the conscious. When talking about the unconscious, Freud (1967) referred to *"things below the surface."* "He was convinced that there are unconscious processes guiding behavior and influencing thought processes" (Heckhausen, 1991, p.

27). He postulated two types of motives that guide behavior: self-preservation drives and sexual drives. Later, he distinguished between *Eros* (life instincts) and *Thanatos* (death instincts). Even if this categorization is outdated, Freud strongly influenced the genesis of the constructs of motives (cf. Heckhausen, 1991). Another early researcher who differentiated between needs and quasineeds was Lewin (1926). Well-known researchers (cf. McClelland et al., 1953; Murray, 1938) have pointed out that motives as postulated by Wundt (1896, 1907), the unconscious as postulated by Freud (1967), or needs as postulated by Lewin (1926) more or less refer to implicit motives. For basic conceptualizations of implicit motives, Brunstein, Maier, and Schultheiss (1999) referred to Murray's (1938) and McClelland and colleagues' (1953) classical motivation psychology; for explicit motives, they referred to Lewin's (1926, 1938) work. However, both McClelland and Lewin also dealt with the respective other type of motive (cf. Kehr, 2004c).

David McClelland and John Atkinson were the first to research implicit motives in the late 1940s. They did research with Morgan and Murray's (1935) Thematic Apperception Test (TAT) and published most of it in *"The Achievement Motive"* (McClelland et al., 1953) as well as in Atkinson's book (1958) *"Motives in Fantasy, Action, and Society".* They were first interested in the hunger motive (cf. Atkinson & McClelland, 1948), and then their interest moved to social motives (Atkinson, Heyns, & Veroff, 1954; McClelland et al., 1953; Winter, 1973). Among the various motives, the most thoroughly studied are the affiliation, the power, and the achievement motives, referred to by McClelland (1995) as the need for affiliation (*n* Affiliation), the need for power (*n* Power), and the need for achievement (*n* Achievement), respectively. These are the "*big three*" motives (labeled the Big 3 motives) I will describe in the next chapter.

2.2.2 The Big 3 motives

The affiliation motive is about establishing, maintaining, or restoring positive relationships with others (Atkinson et al., 1954). People who have a high score on *n* Affiliation are motivated to behave more often in an affiliative way and are more often

sensitive to affiliative cues than people who have a low score on *n* Affiliation (McClelland, 1987b). In addition, people high in *n* Affiliation have the desire to be loved, to be accepted by others, and to spend time interacting with others (Langner & Winter, 2001; McClelland, 1987b; Winter, John, Stewart, Klohnen, & Duncan, 1998). In comparison with people low in *n* Affiliation, highly affiliation-motivated people show their motive disposition in behaviors such as visiting friends more frequently, making more phone calls, and writing more letters to friends (Atkinson et al., 1954; Boyatzis, 1973; Constantian, 1981; Lansing & Heyns, 1959). In addition, McAdams and Constantian (1983) showed that if people high in *n* Affiliation are alone, they wish to be with someone and are consequently more outgoing than others as they attempt to interact with someone (McClelland, 1985). This is also true in work contexts in which people scoring high in *n* Affiliation spend more time interacting with other people than people low in *n* Affiliation (Noujaim, 1968). Furthermore, French (1956) figured out that these people prefer working together with friends rather than experts and are more open to affiliation-oriented feedback rather than competence-oriented feedback (French, 1958). Concerning performance, McKeachie (1961) reported that high affiliation-motivated students in comparison with low affiliation-motivated students achieve better grades if their instructor behaves in a warm and friendly way. Some authors argue that compared with the other motives, the affiliation motive has one unique characteristic: It consists of several motive systems. Murray (1938) wrote about the need for succorance (need to be cared for; Murray, 1938) and nuturance (need to care for others), McAdams (1980, 1992) postulated the need for intimacy (*n* Intimacy), and Weinberger (1992) implemented the oneness motive, all of which refer to *n* Affiliation. Contrasting *n* Affiliation against *n* Intimacy, people scoring high on *n* Intimacy compared with people scoring high on *n* Affiliation are less interested in dominating others (McAdams & Powers, 1981) and more focused on close intimate dyadic relationships (McAdams, Healy, & Krause, 1984).

The power motive is defined as the “desire to have impact on others by influencing, persuading, helping, arguing with, or attacking them” (McClelland et al., 1989, p. 694; cf.

Winter, 1973). People high in *n* Power satisfy their motive by participating in highly competitive or high-risk sports, collecting power symbols, seeking recognition in small groups, or choosing influential occupations (Winter, 1973). To describe a person with a high score on *n* Power, Kehr (2004b) provided the example of a CEO who gives a talk at an annual general meeting in order to show dominance and social control. In a work context, McClelland and Boyatzis (1982) as well as McClelland and Burnham (1976) reported that it is more probable for highly power-motivated people to be promoted to high management levels in hierarchically organized corporations and to have successful and productive careers (McClelland & Franz, 1992).

The achievement motive is about mastering challenging tasks or doing something in a better way (McClelland et al., 1953). People who have a high score on *n* Achievement are attracted by activities that are moderately difficult (cf. Atkinson & Litwin, 1960; McClelland, 1958; McClelland & Koestner, 1992; Raynor & Smith, 1966; Smith 1963). McClelland and Koestner (1992) explained that "neither a very easy nor a very difficult task would provide much opportunity for gratification" (p. 146), whereas a moderately difficult task provides highly achievement-motivated people with the best opportunity for improving a skill or a competence (McClelland, 1987b). According to Atkinson (1957), people high on *n* Achievement strive for achievement or success. In an early study, Atkinson (1953) reported that because highly achievement-motivated people are more persistent in completing a task than people scoring low on *n* Achievement, the high achievement-motivated people recalled more uncompleted than completed tasks under achievement-oriented conditions. In a work context, Cummin (1967) found that men high in *n* Achievement often make more money at work than men who are low on *n* Achievement. People who are highly achievement motivated are willing to improve their personal performance at work and to fulfill and exceed their personal standard of excellence.

In the following chapter, I will provide insights into the assessment of implicit motives in order to provide background information for interpreting the results of the current studies.

2.2.3 Assessment of motives

As mentioned in Chapter 2.2, explicit and implicit motives have to be distinguished because the two constructs are uncorrelated and their behavioral correlates are different (e.g., deCharms et al., 1955). They are distinguished in research by providing the prefix *n (need)* [type of motive] for an implicit motive and *san (self-attributed need)* [type of motive] for a self-attributed need or an explicit motive (cf. McClelland et al., 1989). In addition, the two constructs respond to different categories of incentives, and they are measured with different types of tests. Looking at the tools used to measure the two types of motives from a historical point of view, the development of the theoretical assumptions and the development of the measurements have been intertwined (McClelland, 1987b; Murray, 1943; Pang, 2010; Schultheiss, 2001; Winter, 1999).

To assess a person's explicit motives—the motives a person is aware of—research has focused on questionnaires in the tradition of Allport's trait concept (Allport, 1937; Winter et al., 1998). By contrast, implicit motives cannot be accessed through conscious awareness. For these reasons and according to McClelland (1987a) who stated: "A scientist cannot believe what people say about their motives" (p. 11), implicit motives have to be measured indirectly (cf. Greenwald & Banaji, 1995). Therefore, the assessment of implicit motives has been influenced by Freud's (1953) method of gaining insights into people's dreams and fantasies by interpreting them. Morgan and Murray (1935) developed the TAT to measure implicit motives. By virtue of Freud's influence, the TAT was originally identified as a projective method in the sense of psychoanalysis (cf. Winter et al., 1998). Generally speaking, implicit motives are measured with the TAT by giving participants a pictorial cue and asking them to respond to the cue by writing an imaginative story. This story has to be content-coded in order to assess the strengths of the implicit motives.

A lot of different content scoring systems have been developed for the Big 3 motives (Smith, 1992). For the achievement motive, McClelland and colleagues (1953) were the first to develop a coding system. Another coding system specializing in the achievement

motive was developed by Heckhausen (1963). Winter (1973) developed a power motive scoring system, which was later integrated into the *Manual for Scoring Motive Imagery in Running Text* (Winter, 1991; 1994). Heyns, Veroff, and Atkinson (1958) developed the first scoring manual for the domain of affiliation motivation. Due to the existence of subcategories of the affiliation motive (see Chapter 2.2.2), McAdams (1980), for example, developed a scoring system for *n* Intimacy. However, in the most popular scoring system in recent research for motive imagery in the Big 3 motives in running texts (Winter, 1991, 1994), *n* Intimacy and *n* Affiliation have been confounded (cf. Weinberger, Cotler, & Fishman, 2010).

Irrespective of the type of content-coding system, the general method for analyzing implicit motives by content coding imaginative stories has been criticized for methodological issues (Lilienfeld, Wood, & Garb, 2000). The most criticized issue is the low reliability and most specifically the low internal consistencies of the TAT measures (cf. Campbell & Fiske 1959; Entwisle, 1972; McClelland et al., 1953). For instance, McClelland et al. (1953) reported that participants' implicit motive scores differed largely from one picture to another in their studies, thus demonstrating low reliability. To provide an explanation for this circumstance, Atkinson (1981; *dynamics of action,* Atkinson & Birch, 1970) proposed that the TAT's low internal consistency was because "the sheer act of expressing a motive reduces its strength or intensity" (Pang, 2010, p. 121). In recent research, the most widely used method for assessing implicit motives, especially the Big 3 motives, is called the Picture Story Exercise (PSE; Koestner & McClelland, 1992), which is based on Morgan and Murray's (1935) TAT. Winter's scoring system (1991) was applied to the PSE. The concept behind the PSE is similar to the concept behind the TAT: that implicit motives can be inferred from imaginative material that a person generates as a response to pictorial, verbal, or textual cues (cf. Pang, 2010) in terms of motive imagery. Thus, for the PSE, participants also have to write an imaginative story as a response to a pictorial cue (taken from Murray's, 1943, original TAT set), and these story protocols are then analyzed for the Big 3 motives by independent coders according to the procedures

suggested by Pang and Schultheiss (2005). It should be noted that the basic procedure of content coding can be used not only for motive imagery derived from experimental studies (cf. McClelland et al., 1953; McClelland et al., 1989) but also for deductive reasoning (cf. Heckhausen, 1963). In response to the criticisms of this measure, Schultheiss, Liening, and Schad (2008) reported a satisfactory ipsative stability (r = .21 - .40) of the PSE by using the PSE in combination with Winter's (1991; 1994) coding system and demonstrated that the Big 3 motive scores were stable over time. Due to the likewise satisfactory results of a meta-analysis on the PSE (Schultheiss & Pang, 2007), the authors (2007) concluded that "implicit motive scores are moderately stable over time" (Schultheiss & Pang, 2007, p. 326). This conclusion was also driven by the fact that recent research on implicit motives had taken into account some problems that the older scoring systems had (for more details, see Pang, 2010; Schultheiss & Pang, 2007). Therefore, a few constraints were considered: First, the scoring manuals of recent research are based on integrated scoring systems, which means that all of the Big 3 motives are analyzed at the same time, and thus, clear-cut distinctions between the implicit motives are possible (Pang, 2010). Second, the selection of picture cues according to the strength of the picture cues was pre-analyzed in different studies (Langan-Fox & Grant, 2006; Pang & Schultheiss, 2005; Schultheiss & Brunstein, 2001) for recent manuals. The third issue is about efficiency. In *second-generation measures* (as labeled by Lang, Zettler, Ewen, & Hülsheger, 2012) such as the PSE, participants are given a time limit for writing the stories (Koestner & McClelland, 1992; Schultheiss & Pang, 2007).

In accordance with the above-mentioned requirements and in conjunction with Winter's (1991; 1994) *Manual for Scoring Motive Imagery in Running Text*, the PSE has been the method of choice in recent research on the Big 3 motives. With this choice of method, to arouse *n* Affiliation, the *Nightclub scene* and the *Couple by the river* pictures could be used because they have produced the highest mean values for *n* Affiliation (Pang & Schultheiss, 2005), and they contain warm and friendly activities demonstrating intimate

feelings (cf. Winter, 1991; Pang & Schultheiss, 2005). Thus, they have been shown to reliably arouse *n* Affiliation. The picture with the highest mean value for *n* Power is the *Ship captain* picture (Pang & Schultheiss, 2005) as it implies typical incentives for *n* Power. According to Winter (1994), "power imagery is scored for any indication that one person […] has impact, control or influence on another person" (p. 15). The *Women in the laboratory* picture has the highest mean value for *n* Achievement motive imagery, which means that it must indicate a certain standard of excellence as *n* Achievement "is scored for any indication of a standard of excellence" (Winter, 1994, p. 8). In addition, for each implicit motive, Winter's (1991; 1994) *Manual for Scoring Motive Imagery in Running Text* distinguishes between different categories, which, in the end, are summed into one final motive score. According to Winter (1994), there are four categories for scoring affiliation; *aff 1* refers to "expressions of positive, friendly or intimate feelings" (p. 12), *aff 2* refers to "sadness or other negative feeling about separation or disruption of a friendly relationship, or wanting to restore it" (p. 12), *aff 3* refers to "affiliative, companionate activities" (p. 13), and *aff 4* refers to "friendly, nuturant acts" (p. 14). Power is scored with six categories; *pow 1* refers to "strong, forceful actions which inherently have impact on other people or the world at large" (p. 15), *pow 2* refers to "control or regulation" (p. 16), *pow 3* refers to "attempts to influence, persuade, convince, make or prove a point, argue" (p. 16), *pow 4* refers to "giving help, advice, or support that is not explicitly solicited" (p. 16), *pow 5* refers to "impressing others or the world at large; mention of (or concern about) fame, prestige, reputation" (p. 17), and *pow 6* refers to "any strong (positive or negative) emotional reaction in one person (group, nation, etc.) to the action of another person, etc." (p. 18). Finally, scoring achievement is split into five categories: *ach 1* refers to "adjectives that positively evaluate performances" (p. 8), *ach 2* refers to "goals or performance that are described in ways that suggest positive evaluation" (p. 8), *ach 3* refers to "mention of winning or competing with others" (p. 9), *ach 4* refers to "failure, doing badly, or other lack of excellence" (p. 10), and *ach 5* refers to "unique accomplishment" (p. 10).

At this point, I should mention that the method of content scoring can be used in three different ways in general. First, it can be used to measure motive arousal, or in other words, individuals' actual motivation. The method was originally developed for this type of application (Heckhausen, 1963; McClelland et al., 1953; Uleman, 1971; Veroff, 1957; Winter, 1973). Second, and in parallel, it can be used to measure the dispositional motive strength of individuals. In contrast to actual motivation, which is a function of incentives and motives (Atkinson, 1957), dispositional motive strength refers to a cross-situationally stable disposition. Thus, this type of measurement has been adapted to measure dispositional motive strength (Pang & Schultheiss, 2005). Third, the method was used to score motive content in documents and texts; for example, motive content in school books (Engeser, Rheinberg, & Möller, 2009; McClelland, 1961), historical texts (Berlew, 1956; Bradburn & Berlew, 1961), or the motive content of political speeches (House, Spangler, & Woycke, 1991; Winter, 2002, 2010).

Assessments of implicit motives are able to predict many different behavioral outcomes such as self-control (Gröpel & Kehr, 2013; Kehr, 2004a), clinical symptoms (cf. Schultheiss et al., 2008), or managerial success (McClelland & Boyatzis, 1982) such that aroused implicit motives together with situational incentives lead to motivation (McClelland, 1985) and consequently to motivated behavior. In the next chapter, I will focus on this process of motivation in detail.

2.2.4 The basic process of motivation

As presented in detail in Chapter 2.2, motives are conceptualized as relatively stable dispositions (Schultheiss & Brunstein, 1999) and are defined as recurrent concerns for incentives that are affectively charged (McClelland, 1987b). Therefore, "a motive is conceived as a disposition to strive for a certain kind of satisfaction, as a capacity for satisfaction in the attainment of a certain class of incentives" (Atkinson, 1957, p. 360). Incentives that arouse motives are perceived as affectively rewarding (Beckmann & Heckhausen, 2010; Tolman, 1932) and can occur, for example, as real or imagined

objects, persons, or anticipated experiences. In contrast to motives, the term "*motivation*" is a more global concept in psychology with regard to a variety of processes (Heckhausen, 1991) and can be seen as a function of individual motives and situational incentives (Atkinson, 1957). This view of motivation is shared by both early behaviorist approaches (Hull, 1943; Thorndike, 1898; Tolman, 1932) and contemporary theories (Kehr, 2004b; Kuhl, 2001; McClelland et al., 1989; Schultheiss, 2001). Figure 2 captures the foregoing explanation of motivation by illustrating motivation as a process as McClelland and colleagues (1953) recommended in their affect-redintegration model.

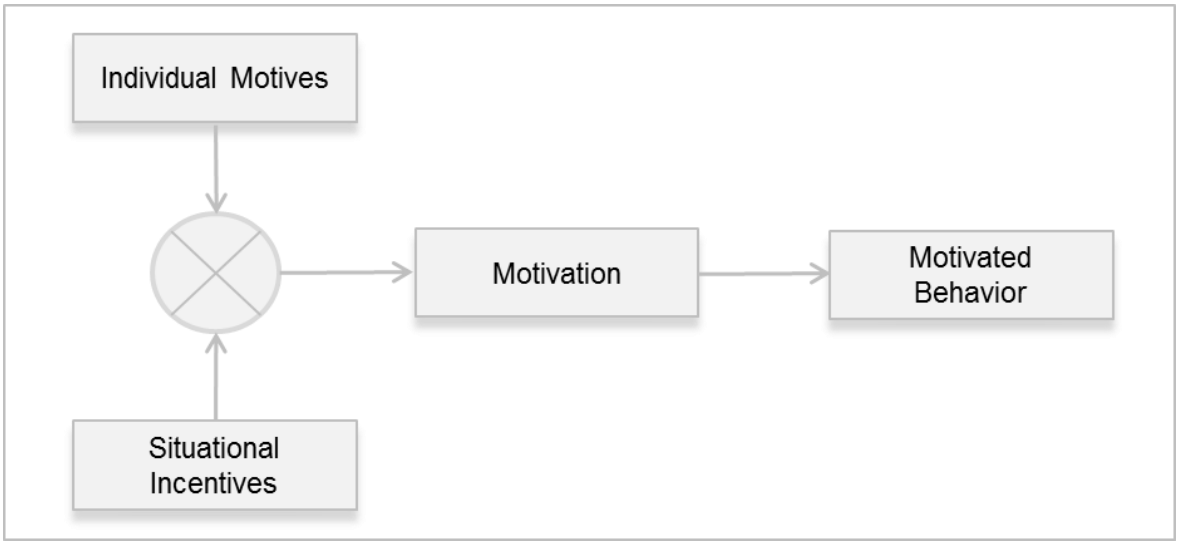

Figure 2. Basic process model of motivation (illustration adapted from Rheinberg, 2008, p. 70).

In detail, the basic process model of motivation (Figure 2) shows that the interaction of individual motive dispositions and situational incentives leads to aroused motives and thus fuels motivation, which in turn can lead to motivated behavior.

Work-related examples of the basic process model of motivation illustrated in Figure 2 might consist of the following: A highly affiliation-motivated woman (motive) is given the opportunity to work with her friends (incentive) on a project instead of working on her own; therefore, she will be motivated and will thus most likely be a good team player (motivated behavior). A highly power-motivated person (motive) is likely to be a good instructor

(motivated behavior) as a result of being motivated to have an impact on other people when given the opportunity to influence them (incentive). Likewise, a highly achievement-motivated man (motive) can be motivated in a work context by being offered statistics that reflect his own performance (incentive) so that he can monitor increases in his performance, and as a result, he will always try to improve his own efficiency (motivated behavior).

I have introduced the two prominent theoretical accounts of interest for this thesis: the concept of transformational leadership (Bass, 1985) and McClelland's (1985) Big 3 motives. In the next chapter, I will describe how the two concepts can be linked to each other.

2.3 Transformational Leadership Dimensions and the Big 3 Motives

I must follow the people. Am I not their leader?

(Benjamin Disraeli)

2.3.1 Theoretical relations between leadership and motives

Although there are theoretical assumptions that transformational leadership and motives are related—for example, House and Shamir (1993) postulated that "leaders selectively arouse follower nonconscious achievement, affiliation and power motives" (p. 91)—there is hardly any research on this relation. By contrast, research on the relation between transformational leadership and the personalities of people who are involved in the leadership process is well established. For example, to analyze this relation, studies have computed correlations between transformational leadership and the Big Five personality traits (e.g., Costa & McCrae, 1992): extraversion, openness to experience, agreeableness, conscientiousness, and neuroticism. Bono and Judge (2004) provided a meta-analysis in which they found that the strongest and most consistent correlation was between transformational leadership and extraversion.

Regarding the relation of leadership and motives, House and colleagues (e.g., House, 1977; House & Aditya, 1997; House et al., 1991) expected that leaders who are perceived as charismatic (i.e., as transformational leaders) would score high on the power motive and low on the affiliation motive. This hypothesis was tested by House et al. (1991) by coding U.S. presidents' inaugural addresses. These inaugural speeches portray the visions of the U.S. presidents and are, therefore, comparable to the inspirational motivation dimension of transformational leadership (cf. Bass, 1985). They found that the need for power was positively related to charismatic presidential leadership. They did not find a correlation between the need for affiliation and charismatic leadership. This finding is consistent with other studies on the power motive and leadership (e.g., McClelland & Boyatzis, 1982; McClelland & Burnham, 1976; Winter, 1979, 1987). Thus, one could conclude that the power motive is related to successful leadership or at least to successful

presidential elections. Investigations on the affiliation and achievement motives have mostly found ambiguous results such that there is no verified evidence for how the two motives are associated with leadership (cf. Kehr & Weibler, 2010). Nevertheless, De Hoogh and colleagues (2005) found a negative relation between the affiliation motive and leadership in an organizational context, but this relation failed to reach significance. In line with these findings, Delbecq, House, de Luque, and Quigely (2013) expanded the idea of a relation between motives and leadership by differentiating between different leadership types. They reported that both the power motive of leaders and the affiliation motive of leaders were negatively related to charismatic leadership behavior, whereas the achievement motive of leaders was positively related to instrumental and participative leadership.

As the results from the above-mentioned studies illustrate, previous research was not able to provide a consistent theoretical account of the relation between leader behavior and motives. Furthermore, studies assessing leader behavior have not provided support for Bass' (1985) original assumption (see also House & Shamir, 1993) that "leaders arouse achievement, affiliation, and power motives among their subordinates" (Bass, 1985, p. 47). The link between leader behavior and followers' implicit motives was thus the primary focus of the current research.

A first attempt to look at the motives of the followers was made by Singer and Singer (1986). They asked followers to imagine their ideal leader and to describe this leader with prototypical transformational leadership items. The authors found a significant correlation between the affiliation motive and the preference for a leader who shows individualized consideration behavior. In addition, they found significant correlations between the personality trait of conformity and the preference for a leader who shows intellectual stimulation as well as between the affiliation motive and charisma and between the affiliation motive and an overall transformational leadership measure. However, this study focused on explicit motives instead of implicit ones. Nevertheless, it was a first attempt to look at followers' motives instead of leaders' motives.

Given the recent criticism of transformational leadership theory (van Knippenberg & Sitkin, 2013), it makes sense to raise the question of how the separate transformational leadership dimensions (i.e., individualized consideration, inspirational motivation, intellectual stimulation, and idealized influence; see Chapter 2.1.2.2 for more details) are related to followers' implicit motives. The next chapter specifically addresses this issue.

2.3.2 Specific associations of transformational leadership dimensions and the Big 3 motives

Before going into detail in this chapter, I will come back to Yukl's (2006) overarching definition of leadership: "Leadership is the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish the shared objectives" (p. 8). In a nutshell, leadership is a process of influencing others. Therefore, one can argue that leadership is always connected to power, as power is related to being able to influence others. In this chapter, I will point out that considering only the aspect of power would not do justice to the concept of transformational leadership as a whole. Therefore, I will explain logical associations between the TLDs and all of the Big 3 motives.

Establishing and maintaining close interpersonal relationships are the key elements of the affiliation motive (Heyns et al., 1958). Like the power motive, it is aroused in social situations but is related to intimacy and warmth instead of influence and control (McClelland, 1975). Thus, motivation that is built on *n* Affiliation should occur in friendly and warm interactions, and consequently, followers high in *n* Affiliation should prefer interaction partners who frequently develop mutually rewarding relationships involving consideration of their followers' motives. This closely matches Bass' (1999) and Avolio et al.'s (1999) descriptions of a leader or an interaction partner who exhibits individualized consideration behavior and who is described as a leader who treats each follower individually and uses two-way communication according to the follower's motives (see Chapter 2.1.2.1 for more details). Hence, the affiliation motive should be associated with a preference for individualized consideration behavior.

The power motive is the need for impact, control, social influence, and status (Winter, 1987). Regarding *n* Power, motivation should occur, for example, in interactions that provide opportunities to control others or that are defined by differences in status. This means that followers high in *n* Power should prefer interaction partners who provide them with opportunities to exert control, to have an impact on others, and to have a certain social status in society. But how is *n* Power related to inspirational motivation? In organizations, leading with vision (House & Shamir, 1993) and goal setting (Locke & Latham, 1990) are important for influencing and inspiring employees (cf. Kehr & Weibler, 2010). The key elements of inspirational motivation are leading with a vision and inspiring employees (Avolio et al., 1999; Bass, 1999). Therefore, followers high in *n* Power should be inspired by a leader who exhibits inspirational motivation behavior because such a leader will lead by providing a vision and opportunities to grow. Providing a vision means to "refer to desirable end states in the future" (Kirkpatrick & Locke, 1996, as cited in Strasser, 2011, p. 23) and thus can be seen as an approach-related behavior, which is in turn related to power (cf. Keltner, Gruenfeld, & Anderson, 2003). Consequently, the power motive should be associated with a preference for inspirational motivation behavior.

The "desire to do something better or more efficiently" (McClelland & Burnham, 1976, p. 126) characterizes the achievement motive. In other words, having a high score on *n* Achievement leads a person to compare him- or herself against a personal standard of excellence and to choose creative and inventive tasks. Thus, followers high in *n* Achievement should prefer an interaction partner who allows them to realize the fulfillment of their own demands and to strive for *"perfect"* performance, efficiency, and to reach their own subjective standards of excellence. A leader displaying intellectual stimulation leads by stimulating people to find creative solutions, to view old problems from new perspectives, and to outgrow themselves (Avolio et al., 1999; Bass, 1999). Consequently, the achievement motive should be associated with a preference for intellectual stimulation behavior.

Regarding the transformational leadership behavior idealized influence, there is no obvious theoretical overlap with one of the Big 3 motives. Still, followers high in *n* Power might prefer idealized influence. This is due to the fact that a leader displaying idealized influence behavior leads with a mission (cf. Chapter 2.1.2.1) that, according to its definition, is a clear and compelling goal that serves to unify the efforts of an organization (Collins & Porras, 1991). Followers high in *n* Power may be attracted by this goal or mission because achieving this goal may provide them with greater social status and allow them to have a larger impact on others. In addition, leaders displaying idealized influence behavior are often seen as role models for the followers (cf. Antonakis, 2012), and role modeling is related to being able to influence others, which is a core characteristic of the power motive (McClelland, 1975). Thus, the power motive might be associated with a preference for idealized influence behavior. Moreover, the affiliation motive might be associated with idealized influence behavior as well. Idealized influence can be seen as the emotional component of transformational leadership (cf. Chapter 2.1.2.1). A leader comprising idealized influence inspires followers with a charismatic character that in turn is associated with the arousal of enthusiasm, commitment to the group, and emotional involvement (Bass, 1985). This emotional and warm atmosphere might attract followers high in *n* Affiliation who prefer friendly and warm interactions. Thus, the affiliation motive might also be associated with a preference for idealized influence behavior.

Figure 3 illustrates the suggested links between the TLDs and the Big 3 motives described above.

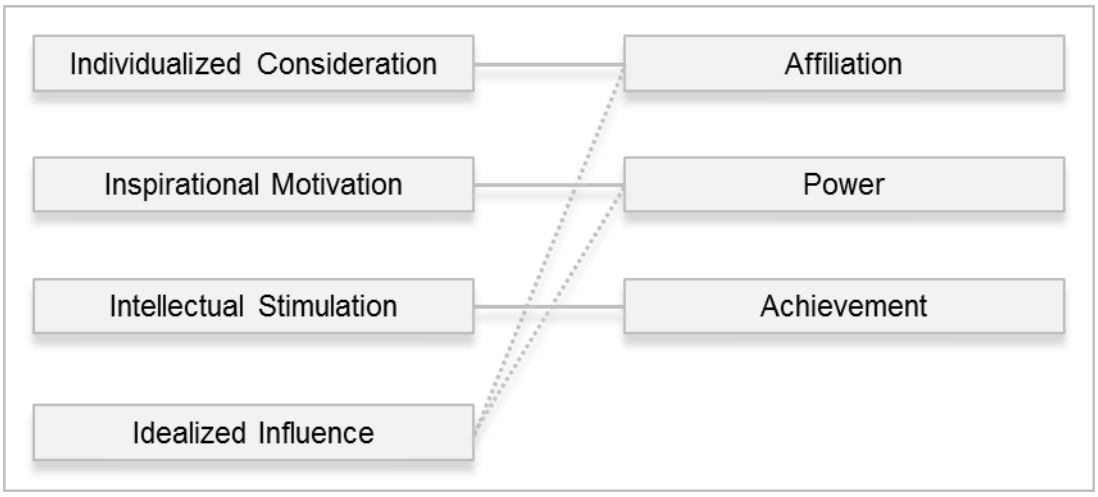

Figure 3. Suggested links between transformational leadership dimensions and the Big 3 motives. The dashed lines indicate speculative links.

2.3.3 Motives as moderators of transformational leadership

The aim of this thesis was not only to establish an empirical foundation for the assumed link between the TLDs and the Big 3 Motives (see Chapters 2.3.1 and 2.3.2). Due to the fact that "the impact people in leadership positions have on society is undoubtedly great" (Giessner, van Knippenberg, & Sleebos, 2009, p. 434), this thesis was also geared toward analyzing the reason for the *"undoubtedly great impact"* a leader has. More precisely, the thesis was aimed at shedding light on the underlying mechanisms of each TLD and its positive consequences.

So far, research has shown that transformational leadership has many positive consequences (e.g., Hardy et al., 2010; Wang & Howell, 2012; Yammarino & Bass, 1990). In order to gain a deeper understanding of the underlying mechanisms and processes, "recent research has begun to identify moderators of the relationship of charismatic and transformational leadership with various outcomes" (Judge, Woolf, Hurst, & Livingston, 2006, p. 208). According to Wofford, Whittington, and Goodwin (2001), the moderators that have to be identified are situational moderators. Keller (1992) was one of the first to study possible situational moderators and found that the "*type of research*" and "*developmental work*" were possible situational moderators for the relation between transformational leadership and performance in terms of quality ratings for projects. Other

situational moderators such as "*age differences*" between leaders and followers (Kearney, 2008), the "*social distance*" between leaders and followers (Cole, Bruch, & Shamir, 2009), or the "*susceptibility*" of followers to positive emotions (Shin-Guang & Shu-Cheng, 2012) were also analyzed as moderators of transformational leadership and performance. Aspects of leaders' personality (e.g., leaders' motives) have also been suggested as possible moderators of the relation between leadership and performance (cf. de Hoogh et al., 2005; Dörr, 2006; Kehr & Weibler, 2010). Al-Gattan (1985) indicated another possible situational moderator of the relation between leadership and performance. To my knowledge, he was the first to analyze followers' implicit motive patterns as a possible moderator and found that followers with a high need for growth showed better performance if their leader used more active direction, participation, and task-oriented leadership, whereas followers with a low need for growth performed better when their leader maintained the status quo (Al-Gattan, 1985). However, Al-Gattan (1985) did not analyze transformational leadership behaviors. Nevertheless, the leadership behaviors he analyzed, namely supportive, directive, participative, and achievement-oriented leadership behaviors, are included in transformational leadership (cf. Wofford et al., 2001). In addition, Kovjanic and colleagues (2012, 2013) focused in particular on transformational leadership, although they concentrated on mediator instead of moderator effects. They identified followers' needs (need for competence and need for relatedness) as mediators of the relation between a unidimensional transformational leadership and performance. Focusing on possible moderators, Wofford and colleagues (2001) implemented followers' implicit motives as situational moderators of the relation between transformational leadership and performance. They focused on followers' need for autonomy and the strength of their need for growth as potential situational moderators of the relation between followers' ratings of their leader's transformational leadership behavior and diverse outcome variables. The study contained three different dependent variables: first, managers' ratings of group effectiveness; second, followers' ratings of their leader's effectiveness; and third, followers' satisfaction with supervision. They found that if

followers' need for autonomy was high as opposed to low, leaders who were rated as transformational evaluated their groups as more effective. In addition, Wofford and colleagues (2001) reported a positive moderating effect of the strength of the need for growth on the relation between transformational leadership and subordinates' evaluations of leader effectiveness and follower satisfaction. More specifically, the authors showed that if followers' need for growth was high as opposed to low, leaders who were rated as transformational also evaluated their groups as more effective, and the followers were more satisfied with their leader. Thus, they concluded that "indeed, individual motive patterns do serve as situational moderators for the effects of transformational leadership" (Wofford et al., 2001, p. 202).

However, all studies described above analyzed possible moderators or mediators of the relation between a unidimensional concept of leadership and various outcomes. Taking into account the criticism made by van Knippenberg and Sitkin (2013; cf. Chapter 2.1.2.2), research should focus on the separate TLDs rather than on a unidimensional construct. Therefore, Howell and Avolio (1993) provided a more detailed analysis that distinguished between the different TLDs. They analyzed the "*support for innovation*" as a situational moderator of the relation between transformational leadership and the performance of the leader. Howell and Avolio (1993) found positive moderating effects of "*support for innovation*" on the relation between individualized consideration and performance as well as on the relation between intellectual stimulation and performance measurement. In addition, they found that "*support for innovation*" had a negative moderating effect on the relation between charisma and performance. Concerning implicit motives as moderators, Kehr and Weibler (2010) provided a study in which they showed that the congruence between leaders' implicit affiliation motives and individualized consideration had a significant effect on the perceived charisma of the leader (general assessment of charisma). However, to my knowledge, there is no research on followers' implicit motives as moderators of the relation between separate TLDs and follower outcomes.

Taking into account all the results described above and statements provided by Bass (1985) such as “leaders arouse achievement, affiliation, and power motives among their subordinates” (p. 47) or “the transformational leader sharply arouses or alters the strength of needs which may have lain dormant” (p. 17) or even Burns’ (1978) demand that “leadership may result in increasing the maturity level of followers’ needs” (Burns, as cited in Bass, 1985, p. 4), it seems obvious that by considering the strength of followers’ implicit motive dispositions, it might be possible to shed light on the underlying mechanisms of each TLD and its positive consequences.

Besides this leadership-driven argumentation, regarding the strength of implicit motive dispositions as possible moderators of the relation between leadership and performance is also logical from a motivational point of view. Motives are conceptualized as latent behavioral dispositions and are therefore closely related to behavior (McClelland, 1985). In accordance with the basic process model of motivation (see Chapter 2.2.4), the interaction of TLDs (situational incentives) and the strength of followers’ corresponding implicit motives should have an effect on motivation that can be measured by observing behavior (cf. Smith, 1992). In the case of leadership, these observed behaviors are operationalized, for example, by increases in followers’ performance: “The leader recognizes what the follower needs and clarifies for the follower how these needs will be fulfilled in exchange for the follower’s satisfactory effort and performance” (Bass, 1985, p. 13). Consequently, this thesis aimed to test the effects of a compatible interaction of TLDs and the strength of followers’ implicit motive disposition. I expected that followers’ implicit motive dispositions would moderate the relation between specific transformational leadership behaviors and work-related outcomes (i.e., performance and leader influence on followers; see the next chapter). More precisely, as followers’ implicit motive dispositions were expected to be related to specific preferences for transformational leadership behaviors (see Chapter 2.3.2), a leader displaying this preferred behavior was also expected to have a greater impact on the followers’ actual behaviors. To give an example, if a follower has a strong implicit affiliation motive, she or he should prefer a

leader who shows individualized consideration. Once a leader actually shows this behavior, it should motivate this follower because the implicit need for affiliation is fulfilled. Thus, I predicted complementary interaction effects—implying that the relation between specific TLDs and followers' behavioral outcomes would be moderated by the respective specific implicit motive strength of the follower. Subsequently, I tested a moderating model, which is illustrated in Figure 4.

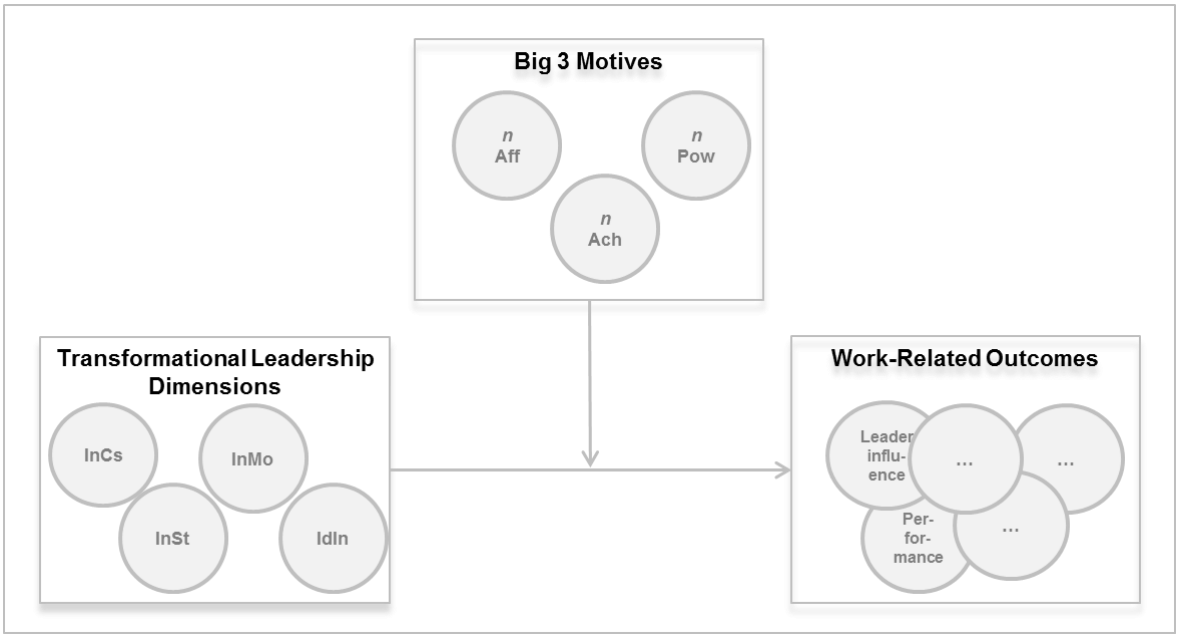

Figure 4. Illustration of the suggested moderating effect of the strength of followers' implicit motive dispositions on the relations between the transformational leadership dimensions and work-related outcomes. *n* Aff = implicit need for affiliation, *n* Pow = implicit need for power, *n* Ach = implicit need for achievement, InCs = individualized consideration, InMo = inspirational motivation, InSt = intellectual stimulation, IdIn = idealized influence.

In the next chapter, I will take a closer look at possible follower behavioral outcomes such as increased performance as a possible consequence of the compatibility of TLDs and implicit motives.

2.3.4 Motivated behavioral outcomes

"Increased awareness and the arousal of higher-level needs which transcend self-interests can produce extraordinary effort" (Bass, 1985, p. 15). According to this postulation made by Bass (1985), the second part of the empirical studies of this thesis (Studies 3 and 4) was aimed at testing the consequences of an interaction of specific TLDs and the strength of followers' specific implicit motive dispositions (when compatible with the TLD) on followers' behavior.

The most investigated follower-level outcomes are self-efficacy (e.g., Felfe & Schyns, 2002; Kovjanic et al., 2012; Schyns, 2001), satisfaction (e.g., Hobman et al., 2011; Kovjanic et al., 2012; Kovjanic, Schuh, & Jonas, 2013; Podsakoff, MacKenzie, & Bommer, 1996; Podsakoff et al., 1990), organizational citizenship behavior (e.g., Podsakoff et al., 1996; Whittington, Godwin, & Murray, 2004), commitment (e.g., Kovjanic et al., 2012; Kovjanic et al., 2013; Meyer, Stanely, Herscovitch, & Topolnytsky, 2002; Miao et al., 2012; Podsakoff et al., 1996; Whittington, Godwin, & Murray, 2004), and performance (e.g., Hobman et al., 2011; Miao et al., 2012; Stam, van Knippenberg, & Wisse, 2010; Whittington et al., 2004).

From this wide range of possible work-related outcomes, this thesis examined a key follower outcome that has been found to be associated with transformational leadership: performance (Hobman et al., 2011). In addition, I used leader influence as a dependent variable that describes how much influence a leader has on her or his followers (for more details, see Chapter 3.4.1).

In sum, the aim of the present research was to combine transformational leadership theory (Bass, 1985) with research on motives in the tradition of McClelland (1985). Therefore, Study 1 was aimed at laying the empirical foundation for applied research on TLDs and motives by empirically testing the compatibility of the two constructs. Study 2 was aimed at testing the effects of followers' implicit motive dispositions on preferences for distinct TLDs. Studies 3 and 4 were aimed at showing that an interaction of specific

TLDs and the strength of followers' specific implicit motive dispositions, when compatible, would have positive effects on followers' behavior.

Building on the theoretical assumptions presented in detail in Chapters 2.3.2 and 2.3.3, in the next chapter, I will first derive specific hypotheses regarding the interconnections of TLDs and motives as well as regarding the consequences of the hypothesized compatibility of the two theoretical constructs. Subsequently, I will describe the different empirical methods used to test these hypotheses: an analysis of the relevant TLD literature concerning the Big 3 motives to lay the empirical foundation; a cross-sectional survey study to support the empirical foundation and to measure the preference for a certain TLD depending on the Big 3 motives; and two types of experimental settings to test the moderating effect of followers' implicit motive dispositions on the relation between TLDs and work-related outcomes.

3 The Present Research

3.1 Overview and Main Hypotheses

The principal aim of the following studies was to test Bass' (1985) assumption that transformational leaders arouse their followers' implicit affiliation, power, and achievement motives. At the same time, I tried to extend the general assumptions about the differentiation of the dimensions of transformational leadership. Specifically, I implemented a literature analysis, which demonstrated that the four transformational leadership dimensions individualized consideration, inspirational motivation, intellectual stimulation, and idealized influence comprise specific motive content of the Big 3 motives affiliation, power, and achievement. In addition, I conducted a survey study to test the prediction that followers prefer transformational leadership dimensions that reflect their implicit motive dispositions. Finally, I will report the results of two experimental studies that supported the prediction that the interaction of TLDs and followers' implicit motive dispositions would have positive effects on work-related outcomes, and more precisely, that the strength of followers' implicit motive dispositions would moderate the relations between the transformational leadership dimensions and work-related outcomes. The specific hypotheses are presented in Chapters 3.1.1 to 3.1.3.

3.1.1 Specific motive content in descriptions of the transformational leadership dimensions

If the assumption made by Bass (1985) and the specific assumptions made in Chapter 2.3.2 are true and thus the TLDs arouse the Big 3 motives, then each TLD must provide specific incentives that arouse certain motives. The idea behind the first study is that these motive-specific incentives should be measurable in the theoretical characterizations of the TLDs (cf. Strasser, 2013). Therefore, I analyzed the theoretical characterizations, descriptions, and definitions of the four TLDs with Winter's (1994) *Manual for Scoring Motive Imagery in Running Text* for *n* Affiliation, *n* Power, and *n* Achievement. Driven by

the general assumption made by Bass (1985) and the specific links between the TLDs and motives as elucidated in Chapter 2.3.2, I tested the following hypotheses:

Hypothesis 1: Thematic motive content differs across descriptions of individualized consideration (InCs), inspirational motivation (InMo), intellectual stimulation (InSt), and idealized influence (IdIn).

More precisely, the four TLDs were expected to primarily entail the motive themes that are assumed to be typical for each dimension:

Hypothesis 1.1: InCs descriptions comprise more affiliation content than achievement content and power content.

Hypothesis 1.2: InMo descriptions comprise more power content than achievement content and affiliation content.

Hypothesis 1.3: InSt descriptions comprise more achievement content than affiliation content and power content.

To determine whether there were differences in the contents of a specific motive between the dimension that should be specifically related to this motive and the other dimensions, I tested the following hypotheses:

Hypothesis 1.4: There is more affiliation motive content in descriptions of InCs than in descriptions of InMo, InSt, and IdIn.

Hypothesis 1.5: There is more power motive content in descriptions of InMo than in descriptions of InCs, IdIn, and InSt.

Hypothesis 1.6: There is more achievement motive content in descriptions of InSt than in descriptions of InCs, InMo, and IdIn.

I tested Hypothesis 1 and Hypotheses 1.1 - 1.6 in Study 1.

3.1.2 Implicit motive dispositions predict preferences for the corresponding transformational leadership dimensions

In addition to the theoretical links portrayed in Chapter 3.1.1, I also examined whether the personal preferences of individual followers for specific TLDs would be informed by the strength of followers' implicit motive dispositions. This can be explained by the fact that implicit motive dispositions create interpersonal behavior (McClelland et al., 1989) and guide to preferences for certain classes of incentives (Kehr, 2004b). Thus, the preference for a certain TLD is likely to be affected by the implicit motive that corresponds to this dimension. Therefore, in Study 2, for three out of the four TLDs (see Chapter 3.3.4 for more details), I tested the following hypotheses:

Hypothesis 2.1: The higher the followers' implicit affiliation motive dispositions, the higher their preference for leaders showing InCs behavior over leaders showing other transformational leadership behaviors.

Hypothesis 2.2: The higher the followers' implicit power motive dispositions, the higher their preference for leaders showing InMo behavior over leaders showing other transformational leadership behaviors.

Hypothesis 2.3: The higher the followers' implicit achievement motive dispositions, the higher their preference for leaders showing InSt behavior over leaders showing other transformational leadership behaviors.

I tested Hypotheses 2.1 - 2.3 in Study 2.

3.1.3 The interaction of transformational leadership dimensions and followers' implicit motives on work-related outcomes

Motives are conceptualized as latent behavioral dispositions (see Chapter 2.3.3), which are shaped early in life. They can be aroused by behavioral incentives as provided by the TLDs (cf. House & Shamir, 1993). The arousal of implicit motives generates motivation, and motivation can be measured by observing behavior (cf. Smith, 1992; see Chapter 2.3.4). In addition, the TLDs embodied by leaders can influence the performance of followers. Taking into account the results of Study 2, this influence may depend on the strength of followers' implicit motive dispositions. In line with these assumptions, I tested the moderating effects of individual implicit motive dispositions on the relation between TLDs and performance as well as leader influence.

Concerning performance, my hypotheses were:

Hypothesis 3.1: The strength of followers' implicit affiliation motive will positively moderate the relation between a leader displaying InCs and followers' performance.[1]

Hypothesis 3.2: The strength of followers' implicit power motive will positively moderate the relation between a leader displaying InMo and followers' performance.[1]

Hypothesis 3.3: The strength of followers' implicit achievement motive will positively moderate the relation between a leader displaying InSt and followers' performance.[1]

Performance appears in different ways. Therefore, I tested these hypotheses by measuring performance by applying an idea generation task in Studies 3 and 4 and by measuring performance as concentration performance in Study 4.

[1] Note that these hypotheses are specific to the named TLD and do not apply to the other TLDs.

My hypotheses concerning leader influence were:

Hypothesis 3.4: The strength of followers' implicit affiliation motive will positively moderate the relation between a leader displaying InCs and leader influence.[2]

Hypothesis 3.5: The strength of followers' implicit power motive will positively moderate the relation between a leader displaying InMo and leader influence.[2]

Hypothesis 3.6: The strength of followers' implicit achievement motive will positively moderate the relation between a leader displaying InSt and leader influence.[2]

I tested Hypotheses 3.4 - 3.6 in Study 3.

In the following sections, I will present the four studies in detail by first providing a short introduction to each study. I will then explain the methods, present the results, and finally discuss each study by itself before providing a general discussion of the research.

3.2 Study 1: Literature Review and Analyses Regarding the Motive Content of the Transformational Leadership Dimension Descriptions

3.2.1 Introduction

On the basis of the theoretical assumptions and earlier research (e.g., Kehr & Weibler, 2010), I concluded that the TLDs are linked to the Big 3 motives (see Chapter 2.3.2). However, empirical evidence for this theoretical relation is missing. In order to provide an empirical foundation for this assumption and for research, by using Winter's (1994) integrated scoring system for the Big 3 motives, I first analyzed the descriptions of the TLDs published in peer-reviewed journals (for a similar procedure regarding motive content in characterizations of relational models, see Strasser, 2013 and for a special analysis of InSt, see Kraft, 2013).

Such a qualitative literature study has three advantages: First, it objectively tests the above-mentioned theoretical relations. Second, by performing an analysis of the characterizations of the TLDs in the literature, it is possible to gain objective insight into

[2] Note that these hypotheses are specific to the named TLD and do not apply to the other TLDs.

the theoretical foundation of the TLDs. The third advantage is that the results obtained from the analysis of specific motive contents in objective characterizations of the TLDs can be used to corroborate both the theoretical assumptions and the empirical findings obtained from samples of individual participants (cf. Singer & Singer, 1986; Kehr & Weibler, 2010).

As described in Chapter 2.2.3, the method of content scoring can be used in different ways. For my first study, I chose the measurement of motive content in documents and texts and scored the affiliation, the power, and the achievement motives in sections of text that contained information on theoretical concepts (Winter, 1994). By doing so, I followed Winter's (1994) suggestion to score the motive contents of the concepts underlying theoretical text. Specifically, characterizations of the TLDs InCs, InMo, and InSt were coded for different degrees of motive manifestations in these characterizations on the basis of the assumption that the characterizations represent the underlying theoretical structures of the TLDs. I used this method to test Hypothesis 1 as well as Hypotheses 1.1 - 1.3 (see Chapter 3.1.1 for details). Due to the fact that IdIn has not been explicitly linked to affiliation, or power, or achievement, I took an exploratory look at the relation between IdIn and the power motive as well as the affiliation motive (for more details, see Chapter 2.3.2). Finally, motive scores were expected to be higher in characterizations of the motive-specific TLD than in characterizations of the other dimensions. Thus, I tested Hypotheses 1.4 - 1.6 (see Chapter 3.1.1 for details).

3.2.2 Method

I first conducted a literature search using the database *PsycInfo*. The date of the literature search was January 7th, 2013. In total, I used four variations in the literature search: *Transformational leadership* was used as the main search term within article titles. Depending on the TLD, the search term *individual*, *inspiration*, *intellect*, or *ideal* was added as a search term within abstracts. All of these four terms were accompanied by the

logical operator * because different authors use different terms for the same dimension in transformational leadership research (e.g., *individual* or *individualized* consideration).

To ensure comparability of the texts to be analyzed and to limit the range of the results, I added two search restrictions: First, in line with standard procedures used in meta-analyses (Clarke, 2013), only documents written in English were included. Second, only documents that were peer-reviewed were included. Such restrictions were also used to ensure a certain objectivity and standard of excellence. In other words, I wanted to avoid subjective descriptions; therefore, I included only documents which were written and revised by several persons of the psychological scientific community, and therefore were objective. A more practical reason for excluding non-peer-reviewed documents was again to limit the range of results. Numerous books and dissertations about transformational leadership exist. To analyze all these documents would go beyond the scope of this dissertation.

With these restrictions, the first search (*individual**) returned 126 results, the second (*inspiration**) 34, the third (*intellect**) 42, and the fourth (*ideal**) 32. The next step was to identify the parts of the articles in which the leadership dimension of interest was described. Therefore, two independent coders who were blind to the hypotheses manually searched the documents for descriptions of either InCs, InMo, InSt, or IdIn. The two independent persons had an interrater reliability of .97 for InCs descriptions, 1.00 for InMo descriptions, .98 for InSt descriptions, and 1.00 for IdIn descriptions. Disagreements in searching were discussed by the two coders until they were resolved. Articles with no descriptions of leadership dimensions were excluded. Finally, 76 articles for InCs, 25 articles for InMo, 38 articles for InSt, and 16 articles for IdIn remained. All documents are provided in Appendix A and are listed in the references. Descriptions of the TLDs were extracted from the articles and randomly listed for the content analysis. The mean length of the descriptions was 44.62 words (*SD* = 54.97) for InCs, 54.08 words (*SD* = 43.56) for InMo, 107.11 words (*SD* = 122.68) for InSt, and 56.31 words (*SD* = 36.22) for IdIn.

The content analysis was applied according to the guidelines provided in Winter's (1994) *Manual for Scoring Motive Imagery in Running Text*: Two coders who were blind to the hypotheses independently analyzed the descriptions of the TLDs with respect to their affiliation, power, and achievement motive contents. Affiliation is scored whenever a story character shows a concern with establishing, maintaining, or restoring friendly relations. Such concern can be expressed through positive feelings toward others, sadness about separation, affiliative activities, or friendly actions. Power is scored whenever a concern about having an impact on others through strong forceful actions to control, influence, help, impress, or elicit strong emotions in others is mentioned. Achievement is scored whenever the story character shows a concern with a standard of excellence as indicated by positive evaluations of goals and performances, unique accomplishments, competion with others, or winning as well as disappointment about failure.

The two coders had been trained with materials from Winter's (1994) manual. The two trained scorers demonstrated an agreement of 85% or better on calibration materials that were prescored by experts before the scorers were allowed to analyze the descriptions. 25 % of the materials were scored by both scorers. To compute the interrater reliability (Intraclass Correlation Coefficient, ICC; cf., Shrout and Fleiss, 1979) of the two PSE raters of the 25% common rated materials, I used a two-way random single measures model (with the definition of absolute agreement) in which the effects of coders, the interaction of coders and PSE protocols, and random error cannot be separated. ICC values greater than .74 indicate excellent reliability, and values from .60 to .74 are considered good (cf. Meyer et al., 2002).

Interrater ICCs were excellent (.94 for affiliation content, .91 for power content, and .95 for achievement content). Disagreements in scoring were discussed by the two raters and were resolved with the help of the input of an additional expert rater. In the following analyses, I used the concordant (i.e., the agreed-upon) motive scores.

As the word count of the TLD description was in most cases significantly correlated with the obtained motive scores (see Table 1), I controlled for the influence of text length on the motive scores and converted the residuals to z-scores (cf. Cohen, Cohen, West, & Aiken, 2003). The raw motive scores and word counts of the texts are provided in Appendix A.

Table 1

Correlations between Word Count and Motive Score

Transformational leadership dimension	Word Count x Affiliation	Word Count x Power	Word Count x Achievement
InCs	*r* = .65**	*r* = .63**	*r* = .70**
InMo	*r* = .68**	*r* = .73**	*r* = .68**
InSt	*r* = .25	*r* = .80**	*r* = .80**
IdIn	*r* = .68**	*r* = .09	*r* = .70**

Note. InCs = individualized consideration, InMo = inspirational motivation, InSt = intellectual stimulation, IdIn = idealized influence.

**$p < .01$.

3.2.3 Results

Means, standard deviations, and 95% confidence intervals for the raw motive scores in each TLD (i.e., according to the search term) are listed in Table 2. Mean motive scores were calculated by summing the motives scores across all descriptions of one TLD and dividing this number by the total number of the respective leadership dimension descriptions.

Table 2

Means, Standard Deviations, and Confidence Intervals (95%) for Motive Scores

TLD	Motive	*M*	*SD*	95% CI low	95% CI high
InCs	*n* Aff	1.59	1.49	1.25	1.93
	n Pow	0.22	0.60	0.09	0.36
	n Ach	0.96	1.16	0.70	1.23
InMo	*n* Aff	0.12	0.44	-0.06	0.30
	n Pow	1.20	0.71	0.91	1.49
	n Ach	0.68	0.75	0.37	0.99
InSt	*n* Aff	0.18	0.56	0.00	0.37
	n Pow	3.95	12.13	1.46	2.60
	n Ach	2.34	1.77	1.76	2.93
IdIn	*n* Aff	0.50	0.63	0.16	0.84
	n Pow	1.31	0.60	0.99	1.63
	n Ach	0.75	0.86	0.29	1.21

Note. TLD = transformational leadership dimension, InCs = individualized consideration, InMo = inspirational motivation, InSt = intellectual stimulation, IdIn = idealized influence, *n* Aff = implicit need for affiliation, *n* Pow = implicit need for power, *n* Ach = implicit need for achievement.

Motive scores were z-standardized prior to the analyses. I included word count as a covariate in the analyses. I subjected the z-scored motive scores from the content analysis of the TLD characterizations in 155 different documents to a 4 (TLDs: InCs, InMo, InSt, IdIn) x 3 (motive theme: affiliation, power, achievement) ANOVA, with the second factor as a repeated-measures factor. The analysis revealed a significant interaction of the TLDs and motive theme, $F(4.60, 230.07) = 32.68$, $p < .001$, $\eta^2 = .40$, $(1 - \beta) = 1.00$, indicating that the motive theme varied as a function of the TLD (see Figure 5) and thus supporting Hypothesis 1, which proposed that *thematic motive content differs across descriptions of InCs, InMo, InSt, and IdIn.*

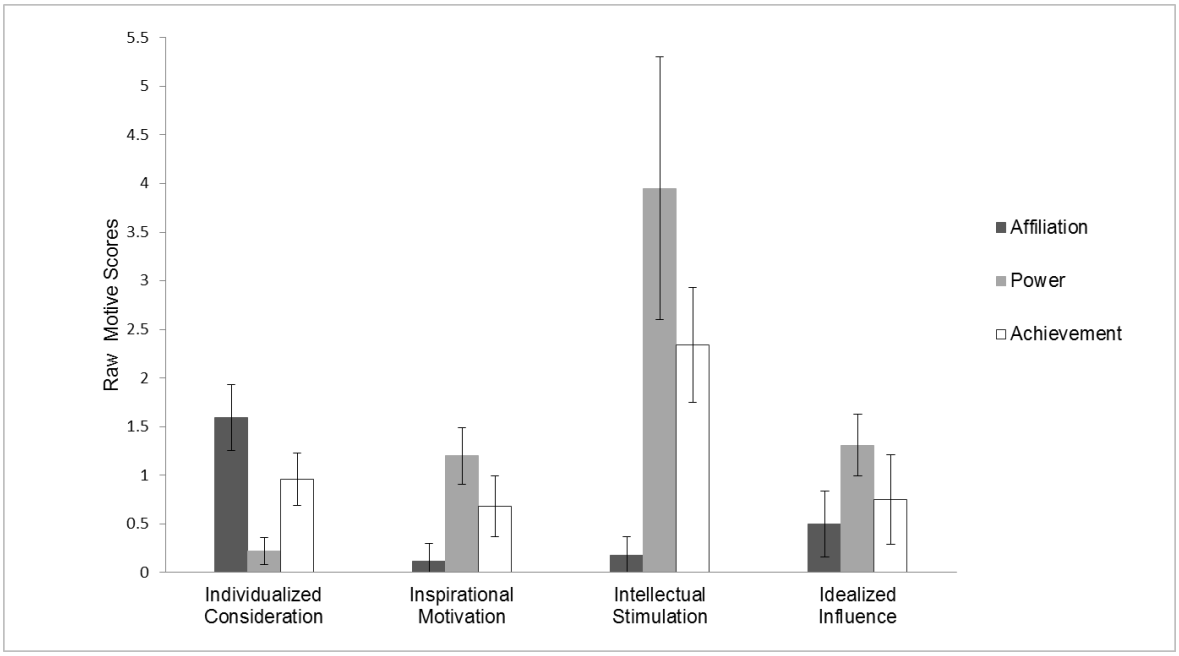

Figure 5. Means of the raw affiliation, power, and achievement motive scores in theoretical texts characterizing the transformational leadership dimensions individualized consideration, inspirational motivation, intellectual stimulation, and idealized influence. Error bars represent confidence intervals (95% CI low and high).

To test Hypotheses 1.1, 1.2, and 1.3, I ran simple main effects and planned contrasts of motive theme for each TLD. For InCs, the simple effect of motive theme was significant, $F(2, 149) = 32.40$, $p < .001$, $\eta^2 = .30$, $(1 - \beta) = .99$. There was more affiliation than power content, $F(1, 75) = 58.75$, $p < .001$, $\eta^2 = .44$, and there was more affiliation than achievement content, $F(1, 75) = 15.40$, $p < .001$, $\eta^2 = .17$. Thus, Hypothesis 1.1, which proposed that *InCs descriptions comprise more affiliation content than achievement content and power content,* was supported. Concerning InMo, the simple effect of motive theme was also significant, $F(2, 149) = 11.44$, $p < .001$, $\eta^2 = .13$, $(1 - \beta) = .96$. There was more power than affiliation content, $F(1, 24) = 89.27$, $p < .001$, $\eta^2 = .79$, and there was more power than achievement content, $F(1, 24) = 15.84$, $p = .001$, $\eta^2 = .40$. Thus, Hypothesis 1.2, which proposed that *InMo descriptions comprise more power content than achievement content and affiliation content,* was also supported. Although the simple effect of motive theme in the InSt condition was significant, $F(2, 149) = 25.78$, $p < .001$, $\eta^2 = .26$, $(1 - \beta) = .99$, and achievement was stronger than affiliation, $F(1, 37) = 49.21$,

$p < .001$, $\eta^2 = .57$, there was more power than achievement content, $F(1, 37) = 4.97$, $p = .03$, $\eta^2 = .12$. Therefore, Hypothesis 1.3, which proposed that *InSt descriptions comprise more achievement content than affiliation content and power content,* was not supported. Concerning IdIn, I conducted an exploratory test of the simple effects of motive theme. This test produced significant results, $F(2, 149) = 7.44$, $p = .001$, $\eta^2 = .09$, $(1 - \beta) = .88$. There was more power than affiliation content, $F(1, 15) = 10.97$, $p = .005$, $\eta^2 = .42$, and marginally significantly more power than achievement content, $F(1, 15) = 3.81$, $p = .07$, $\eta^2 = .20$. Thus, IdIn descriptions comprised more power content than achievement and affiliation content.

To test the hypotheses that motive scores would be higher in descriptions of the motive-specific TLD than in descriptions of the other dimensions (Hypotheses 1.4, 1.5, and 1.6), I ran simple main effects of the TLDs within the single motive domains. Regarding affiliation content, the simple effect was significant, $F(3, 150) = 30.07$, $p < .001$, $\eta^2 = .37$, $(1 - \beta) = 1.00$. To test Hypothesis 1.4 directly, I calculated a planned contrast (InCs = 3.00; InMo = -1.00; InSt = -1.00; IdIn = -1.00), which was also significant, $t(94.66) = 7.26$, $p < .001$, supporting Hypothesis 1.4. Scheffé-corrected post hoc tests revealed significant differences between InCs and InMo ($p < .001$), InCs and InSt ($p < .001$), and InCs and IdIn ($p = .007$), supporting the conclusion that *there is more affiliation motive content in descriptions of InCs than in descriptions of InMo, InSt, and IdIn*. Concerning the power content, the univariate simple effect of TLDs was also significant, $F(3, 150) = 28.23$, $p < .001$, $\eta^2 = .36$, $(1 - \beta) = 1.00$. To test Hypothesis 1.5 directly, I calculated a planned contrast (InCs = -1.00; InMo = 3.00; InSt = -1.00; IdIn = -1.00), which was not significant, $t(61.56) = 0.37$, $p = .71$. I also calculated Scheffé-corrected post hoc tests, which revealed significant differences between InMo and InCs ($p = .001$) and InMo and InSt ($p = .02$). The difference between InMo and IdIn was not significant ($p = 1.00$). Thus, Hypothesis 1.5, which proposed that *there is more power motive content in descriptions of InMo than in descriptions of InCs, IdIn, and InSt,* was not fully supported because the power content was strongest in InSt followed by InMo. For

achievement content, the univariate simple effect of the TLDs was also significant, $F(3, 150) = 8.26$, $p < .001$, $\eta^2 = .14$, $(1 - \beta) = .97$. To test Hypothesis 1.6 directly, I calculated a planned contrast (InCs = -1.00; InMo = -1.00; InSt = 3.00; IdIn = -1.00), which was significant, $t(50.80) = 4.44$, $p < .001$, supporting Hypothesis 1.6. Scheffé-corrected post hoc tests revealed significant differences between InSt and InCs ($p < .001$), InSt and InMo ($p < .001$), and InSt and IdIn ($p = .001$), supporting the conclusion that *there is more achievement motive content in descriptions of InSt than in descriptions of InCs, InMo, and IdIn.*

3.2.4 Discussion

The aim of this first study was to lay an empirical foundation for the assumed link between the TLDs and the Big 3 motives. The implications that can be derived from the current content analysis differed from those implications which can be usually gained from the applied motive measures insofar as I measured the motive contents of theoretical constructs instead of dispositional motives or actual motivation. The analyses showed that, overall, the TLDs and motives were conceptually related; thus, there was a correspondence between the two sets of constructs.

Specifically, Study 1 demonstrated that motive content varied significantly across the descriptions of the specific TLDs. This result lends indirect support to Kehr and Weibler's (2010) assumption that preferences for the various TLDs are attributable to different motives. Moreover, I found that, at least in theoretical descriptions of TLDs, the InCs dimension comprised significantly more affiliation content than power and achievement content; the InMo dimension comprised significantly more power content than affiliation and achievement content; the same was true for the IdIn dimension, which also comprised more power content than affiliation and achievement content; and the InSt dimension comprised significantly more achievement content than affiliation content, but there was no significant difference between the achievement and power contents. In addition, the analyses showed that affiliation content was specific to InCs, whereas achievement

content was specific to InSt, but power content was not specific to any single TLD. The unsupported hypotheses from this first study can be explained by the fact that the InSt dimension had an unexpectedly high power content, which was driven by a single subcategory of Winters' (1991) classification, namely *pow 3 – arguments, enforcements, or persuasion* (for more details, see Chapter 2.2.3). This category showed a large amount of conceptual closeness with the single subcategory of achievement (*ach 3 – mention of competing and winning*). The similarity between the two categories could imply that the measurement that was used (i.e., Winter's, 1994, *Manual for Scoring Motive Imagery in Running Text*) might not be reliable enough to distinguish between power and achievement in such scientific texts. Thus, in future research using scientific texts, another coding system, for example, Heckhausen's (1963) system for the need for achievement, could be implemented in order to verify the foregoing results.

The current study has several limitations. First, the analyses included only peer-reviewed documents written in English. This procedure is state of the art for meta-analyses, and it ensures a certain objectivity and standard of excellence. Still, a lot of leadership literature exists in the form of book chapters or dissertations. To validate and support the findings of the results of the present literature analysis, further research should follow Strasser's (2013) suggestion that "one could conduct separate analyses with different categories of documents" (p. 69).

Second, it is not possible to draw causal conclusions concerning the relations between the TLDs and motives. The present results can be interpreted as indicating only that there is a conceptual link between the TLDs and the Big 3 motives. Thus, it is (theoretically) very likely that individual implicit motive dispositions cause transformational leadership styles to evolve, but the present method and results were not adequate for testing this notion. To this end, I would have to measure dispositional motives. Therefore, in the following studies, I measured dispositional motives by using PSE protocols (cf. Pang, 2010). Further, I used these scores to predict behavioral outcomes.

Still, the current analyses of theoretical TLD characteristics support and expand prior research (cf. Singer & Singer, 1986; Kehr & Weibler, 2010) by conceiving of the TLDs and the Big 3 motives as being related in a systematic manner. Figure 6 illustrates the resulting interrelations of the two concepts from the current study and derived from the literature.

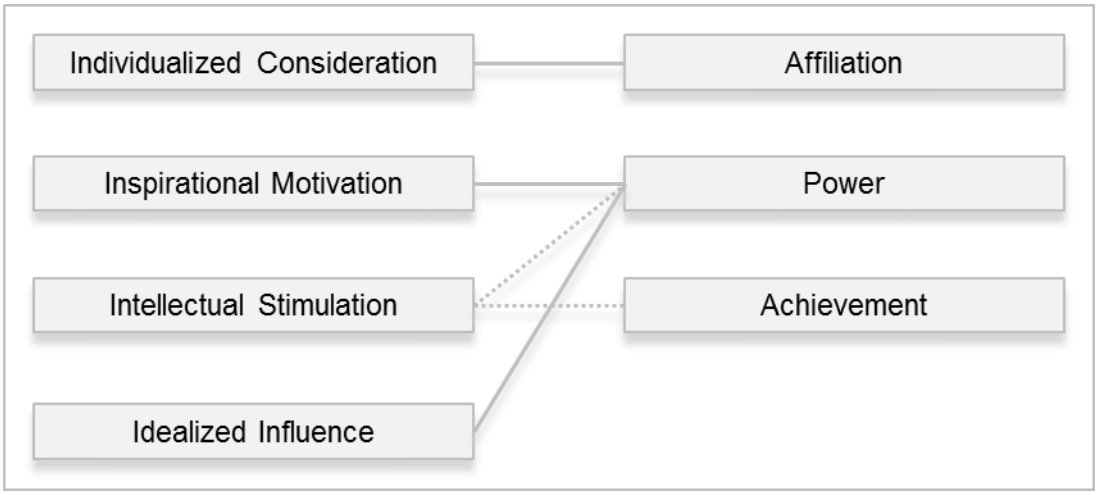

Figure 6. Specific links between the transformational leadership dimensions and the Big 3 motives as derived from the literature on transformational leadership as obtained in Study 1.

These interrelations can be viewed as providing a foundation for the following empirical studies. But the literature study was conducted during the same period of time as Studies 2 and 3. Hence, the results of Study 1 concerning IdIn could not be taken into account in Studies 2 and 3. Nevertheless, in the following studies, I systematically tested the effects of individual implicit motive dispositions on preferences for distinct TLDs, and I further tested the interactions between the TLDs and followers' implicit motive dispositions on several work-related outcomes.

3.3 Study 2: Effects of Implicit Motives on Leadership Preferences in an Online Survey

3.3.1 Introduction

In a second study, I tested whether individual implicit motives for affiliation, power, and achievement correspond to people's desire to work together with leaders exhibiting certain transformational leadership behaviors. I intended to show that the strength of implicit motive dispositions predicts preferences for a specific TLD, which exhibits features and incentives that fulfill these implicit motives. Leadership behavior contains many features that can provide incentives for the arousal of motives; therefore, different TLDs contain different motive-specific incentives. The theoretical assumptions described in detail in Chapter 2.3.2 demonstrate that each TLD contains motive-specific incentives.

Transferring the method Singer and Singer (1986) used for subordinates' personality and a fictitious "*ideal leader*," I measured both implicit motives and preferences for a description of a possible leader in subordinates' future working lives. This was done to test Hypotheses 2.1 - 2.3 (presented in detail in Chapter 3.1.2) concerning the specific relations between the two constructs.

3.3.2 Method

The present study was part of an online study on the effects of implicit motive dispositions on different computer games.[3] The survey was open to the public and accessible from June 3rd, 2012 until August 9th, 2012 on the website of the Chair of Psychology, TUM School of Management, Munich, Germany. Students were recruited via diverse mailing lists of German student associations. They were told that they were taking part in a study on *"Computer Games."* Out of the 154 persons who began working on the survey, 113 (73.38%) completed the relevant measurements. Therefore, I analyzed data from 113 students from a variety of majors (management, economics, mathematics, engineering, social sciences, and art sciences) at different universities in Germany. The

[3] In addition to the listed measurements, I also measured performance in different computer games such as Tetris and Sudoku in this online study. The presented results are independent of these measurements, and no other results have been published or will be published in the future.

native language of all students was German. Their average age was 23.94 (*SD* = 4.41) with an age range of 19 to 49 years. The sample comprised 59.30% (*n* = 67) female students.

The relevant measures for these studies were: implicit motive dispositions measured with a Picture Story Exercise (conducted at the beginning; PSE; Pang & Schultheiss, 2005; Schultheiss et al., 2008), and subsequently, participants' preference for leader behavior via a forced-choice format, where participants had to choose between three descriptions of transformational leadership behaviors. All tests on the survey were in German.

To measure participants' implicit motives for power, affiliation, and achievement, I administered a standard PSE (Pang & Schultheiss, 2005; Schultheiss et al., 2008). Participants followed the standard instructions for computer administration of the PSE (cf. Schultheiss & Pang, 2007). The PSE set used in this study consisted of the Pang and Schultheiss (2005) six-picture set (i.e., the boxer, women in a laboratory, ship captain, couple by a river, trapeze artists, and nightclub scene; each presented for 10 s). With the exception of the nightclub scene picture, which was taken from McClelland (1975), all other pictures were taken from Smith (1992). All pictures have been applied in previous studies (King, 1995; Lundy 1988; Zurbriggen, 2000). The order of pictures was randomized for each participant. After each picture was shown, participants were instructed to write an imaginative story about whatever came to their minds and to describe what was supposed to be happening in the picture (Pang & Schultheiss, 2005; Smith, 1992). They were given 4 min plus 1 additional min to write their story. After 4 min, the following information was presented in the upper half of the screen: "Your time is over in a minute. When you are finished, please press [continue]." The "*continue*" button was provided next to the instructions. If participants did not press "*continue*" on their own, the following text was presented after another minute: "Your time is over. Please finish the sentence and continue with the next picture." Because of the PSE assessment norms, the

screen never switched automatically to the next picture; therefore, participants could continue writing as long as they wanted.

The resulting stories were blind content coded for power, affiliation, and achievement by two trained scorers according to the *Manual for Scoring Motive Imagery in Running Text* (Winter, 1994). This coding system has been used in previous research on dispositional implicit motives (e.g., Schultheiss & Brunstein, 2001), and the two trained scorers had demonstrated an agreement of 85% or better on the calibration materials that were prescored by experts. 25 % of the materials were scored by both scorers. Interrater reliabilities of the 25 % common rated materials were calculated with a two-way random single measures model (cf. Study 1). The interrater ICCs were .83 for affiliation content, .86 for power content, and .69 for achievement content. Scoring disagreements were resolved in a discussion session with the help of an additional expert rater, and scores from this discussion session were used in further analyses. The mean raw scores on the implicit motive dispositions were $M = 3.80$ for *n* Affiliation ($SD = 2.50$), $M = 3.83$ for *n* Power ($SD = 2.55$), and $M = 2.50$ for *n* Achievement ($SD = 1.76$). The average word count was 460.40 ($SD = 172.11$).

As in Study 1, the word count was significantly correlated with the obtained raw motive scores for *n* Affiliation ($r = .58$, $p < .001$), *n* Power ($r = .58$, $p < .001$), and *n* Achievement ($r = .32$, $p = .001$). Therefore, I controlled for the effect of story length on participants' motive scores by calculating a simple regression analysis, and I converted the residuals to *z*-scores (cf. Cohen et al., 2003).

On the measure of leader preference, participants had to indicate their preference for one of three descriptions of leader behavior in a forced-choice format. The first option was a description of a leader displaying InMo behavior, the second option was a description of a leader displaying InCs behavior, and the third option was a description of a leader displaying InSt behavior. Descriptions were taken from an adapted German version of the MLQ by Felfe and Goihl (2002) and are listed in Appendix B.

3.3.3 Results

Before testing Hypotheses 2.1 - 2.3, I tested for potential effects of age and gender on all variables. Neither age nor gender had a significant impact on the results reported below. Table 3 displays the Study 2 intercorrelations of the motive scores corrected for the number of words. Regardless of the motive pattern of the participants, I found that 55.80% of the participants preferred a leader who showed InCs, 30.00% preferred a leader who showed InMo, and 14.20% preferred a leader who showed InSt.

Table 3

Intercorrelations of Variables in Study 2

	1.	2.	3.
1. *n* Aff	--	-.20*	.14
2. *n* Pow	--	--	.08
3. *n* Ach	--	--	--

Note. $N = 113$. *n* Pow = implicit need for power score corrected for the number of words, *n* Aff = implicit need for affiliation score corrected for the number of words, *n* Ach = implicit need for achievement score corrected for the number of words.

*$p < .05$.

To test Hypotheses 2.1 - 2.3, I applied multinomial logistic regression analyses with the participants' preferred leadership dimension as the dependent variable. The implicit motive corresponding to the dimension was included as an independent variable. The multinomial logistic regression analysis requires that the dependent variable is nonmetric and the independent variable is metric or dichotomous. Results of a multinomial logistic regression include the model chi-square and the significance test for the model. This significance test showed that with a 95% chance, the variations in the independent variable were not randomly distributed around the dependent variable. Thus, these results indicate a relation between the dependent variable (preferred leadership dimension) and the independent variable (participants' implicit motive strength). All results of the multinomial logistic regression analyses are presented in Table 4.

Table 4

Results of the Multinominal Logistic Regression Analyses in Study 2

	Overall	InCs	InMo	InSt
n Aff	χ^2 = 16.77**	RC	β = -.50**	β = -.34*
n Pow	χ^2 = 41.50**	β = -.87**	RC	β = -.85**
n Ach	χ^2 = 7.67*	β = - .40**	β = -.44**	RC

Note. *N* = 113. *n* Pow = implicit need for power, *n* Aff = implicit need for affiliation, *n* Ach = implicit need for achievement, InMo = inspirational motivation, InCs = individualized consideration, InSt = intellectual stimulation, RC = reference category.
*p < .05. **p < .01.

All implicit motives varied across the different preferences as indicated by the significant chi-squares (Table 4). As I applied a forced-choice measure, in detail, the results for the implicit affiliation motive showed significant negative β-weights for InMo (β = -50**) and InSt (β = -.34*), implying that the higher the participants' implicit affiliation motive, the more they tended to choose the reference category, which, in this case means that they chose InCs over InMo or InSt. Thus, Hypothesis 2.1 which predicted that *the higher the followers' implicit affiliation motive dispositions, the higher their preference for leaders showing InCs behavior over leaders showing other transformational leadership behaviors,* was supported. For the implicit power motive, the significant negative β-weights for InCs (β = -.87**) and InSt (β = -.85**) imply that the higher the participants' implicit power motive, the more they tended to choose the reference category, which, in this case means that they chose InMo over InCs and Inst. Thus, Hypothesis 2.2, which predicted that *the higher the followers' implicit power motive dispositions, the higher their preference for leaders showing InMo behavior over leaders showing other transformational leadership behaviors,* was supported. The same was true for the implicit achievement motive: The significant negative β-weights in InCs (β = -.40**) and InMo (β = -.44**) imply that the higher the participants' implicit achievement motive, the more they tended to choose the reference category, which, in this case means that they chose InSt over InCs and InMo. Hence, Hypothesis 2.3, which proposed that *the higher the followers'*

implicit achievement motive dispositions, the higher their preference for leaders showing InSt behavior over leaders showing other transformational leadership behaviors, was supported, too.

3.3.4 Discussion

The aim of Study 2 was to test the specific relations between individual's Big 3 implicit motive dispositions and subjective preferences for a particular transformational leadership behavior. The results of the current analyses showed that depending on the strength of their implicit affiliation, power, and achievement motives, people preferred a leader comprising either InCs or InMo or InSt. Specifically, the results showed that participants with a high implicit affiliation motive preferred a leader showing InCs; participants with a high implicit power motive preferred a leader showing InMo; and participants with a high implicit achievement motive preferred a leader showing InSt. Consequently, all hypotheses were confirmed.

One limitation of Study 2 might be the fact that I had no consecutive behavior measurement in the study. However, this was not the aim of the study as the aim was to show that implicit motive dispositions predict preferences for a specific TLD. But it would be interesting to know the degree to which the specific TLDs translate into leader influence and follower performance depending on followers' implicit motives. To test for possible interactions of the links between the two constructs, I tested the moderating roles of the individual implicit motive dispositions on the relations between transformational leadership behavior and performance as well as leader influence in further studies.

However, the current analysis of the implicit motives and the preference for a TLD supported and expanded the findings of prior research (Singer & Singer, 1986; Kehr & Weibler, 2010) and the results of Study 1. In particular, the results from Study 1 on the link between InSt and achievement were strengthened by the results of Study 2.

Figure 7 illustrates the resulting connections between the two concepts from the current study.

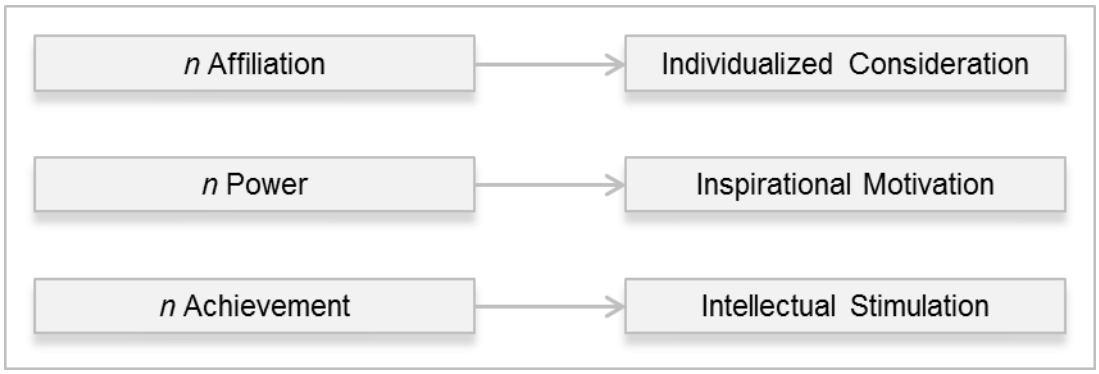

Figure 7. Specific links between the Big 3 motives and the transformational leadership dimensions from Study 2.

3.4 Study 3: Interaction Effects of Leader Behavior and Followers' Implicit Motives on Work-Related Outcomes

3.4.1 Introduction

According to McClelland (1985), individuals have different motives that can be aroused by different incentives in various situations. In leadership situations, followers could thus be motivated by different cues inherent to the various TLDs. In other words, each TLD provides different cues and thereby has the potential to satisfy specific motives. Theoretically and empirically, there are pre-existing links of the TLDs and the Big 3 motives (see Chapter 2.3.2). But, one issue that has not yet been clarified is the question of whether the link between the two constructs would have any effect on followers' behavior. The idea is that the TLDs can have an effect on work-related outcomes, and taking into account the results of Study 2, this may depend on the strength of followers' implicit motive dispositions. There exists a lot of research on the positive consequences of transformational leadership concerning work-related outcomes (e.g., Hardy et al., 2010; Wang & Howell, 2012; Yammarino & Bass, 1990). Typical work-related outcomes are presented in Chapter 2.3.4. I used performance as a typical follower outcome variable. Most research so far (cf. Hobman et al., 2011; Miao et al., 2012; Whittington et al., 2004) has measured performance with supervisor-rated measurements, which are in fact subjective measurements. In order to obtain more objective results on possible performance effects, I implemented objective performance measures (see Stam et al.,

2010). Thus, I used an idea generation task (e.g., Diehl & Stroebe, 1987, 1991; Paulus & Yang, 2000; Stam, et al., 2010; van Knippenberg & van Knippenberg, 2005) and expected that specific interactions of followers' implicit motive dispositions and transformational leadership behaviors would have effects on followers' performance (Hypotheses 3.1 - 3.3; see Chapter 3.1.3). Moreover, because the videos provided a platform from which to measure leader influence (see Chapter 3.4.2), I used perceived leader influence as an additional follower outcome variable to measure possible effects of the compatibility of the TLDs and the Big 3 motives. I operationalized leader influence with an in-tray exercise (Gill, 1979) to illustrate how a leader can have influence on his or her followers and with an ideal-self transfer exercise. Ideal-self transfer refers "to representations of beliefs about hopes, wishes, or aspirations" (Stam, Lord, van Knippenberg, & Wisse, 2014, p. 7) and thus, is also related to leader influence as a way to gain insights into the depth to which the topics named by the leader were integrated. Both operationalized variables were applied to test Hypotheses 3.4 - 3.6 (see Chapter 3.1.3 for more details).

3.4.2 Method

In total, 116 students studying management or engineering or who were enrolled in a teacher training program at the Technische Universität München, Munich, Germany, participated in this study in exchange for credit toward fulfilling a course requirement. Their average age was 23.35 (*SD* = 3.47) with an age range of 18 to 40 years. The sample comprised 78 (66.70%) female students and 38 (32.50%) male students; 26.50% (*n* = 31) of the students worked part-time.

The study was conducted in the laboratory in sessions, and participants were tested individually. They were told that they were taking part in a study on *"leadership and personality"*. Upon arrival, participants were seated in front of a computer screen and told that they should follow the instructions on the screen. Participants began by creating a personal identification code. The PSE (Pang & Schultheiss, 2005; Schultheiss et al., 2008) was administered. Interrater reliabilities were calculated with the same procedure

as in Studies 1 and 2. The interrater ICCs were .77 for affiliation content, .83 for power content, and .79 for achievement content. The mean raw scores of implicit motive dispositions per participant were $M = 5.29$ for *n* Affiliation ($SD = 2.55$), $M = 3.41$ for *n* Power ($SD = 2.09$), and $M = 2.82$ for *n* Achievement ($SD = 1.99$). The average word count per participant was 540.88 ($SD = 162.36$). As in Study 2, word count was significantly correlated with the obtained raw motive scores for *n* Affiliation ($r = .59$, $p < .001$), *n* Power ($r = .46$, $p < .001$), and *n* Achievement ($r = .46$, $p < .001$). Therefore, regression analyses were used to correct participants' motive scores for story length, and the residuals were converted to *z*-scores (cf. Cohen et al., 2003).

Subsequently, participants were given a short introduction to goal-setting interviews as one leadership technique. This was due to the following manipulation, which consists of short video sequences in which a leader tries to convince his follower to use goal-setting interviews in the future. After the introduction, participants were randomly assigned to the three experimental conditions: InCs condition ($n = 37$), InMo condition ($n = 40$), and InSt condition ($n = 39$). As mentioned, in all conditions, participants were shown a short video sequence in which a superordinate male manager (leader) explained to his male subordinate, a team leader (follower), why the team leader should use goal-setting interviews with his team members. The film clips used in this experiment were developed by researchers from the Technische Universität München, Munich, Germany in cooperation with a consultancy firm. These movies were produced with professional actors to illustrate the different TLDs for the purpose of management training. All three videos had approximately the same length (7 min on average) and had already successfully been used in earlier studies (Amann & Gerstenberg, 2012; Dislich, Kehr, & Weibler, 2011). In all conditions, participants were asked to imagine themselves as the follower of the leader in the film in which the leader tried to convince his follower to use goal-setting interviews in the future. In the InCs condition, the leader conveyed his message by using the leadership dimension InCs. For example, the leader knew all employees who directly reported to his follower by name; he knew and valued the

predilections of his follower; he showed emotional support for his follower; he assessed the needs of his follower, and then he made need-compatible suggestions (cf. Chapter 2.1.2.1). In the InMo condition, the leader conveyed his message by using the leadership dimension InMo. For example, the leader spoke about his early years in the company and the difficulties he had to overcome; he explained how these experiences eventually led to a personal vision; he described his vision in vivid language; and he used the vision to derive goals for his follower and talked about how to achieve them (cf. Chapter 2.1.2.1). In the InSt condition, the leader conveyed his message by using the leadership dimension InSt. For example, the leader indicated to the employee that he felt good about the follower's competence; he asked the follower to find solutions for apparently unsolvable problems, and he encouraged the follower to see problems from different perspectives (cf. Chapter 2.1.2.1). Immediately after the movie, I administered a manipulation check to test whether subjects perceived the leader's behavior as InCs, InMo, or InSt. The manipulation check contained three items, one for each TLD. I chose the items from the German version of the MLQ (Bass & Avolio, 1995; Felfe & Goihl, 2002) that described each leadership dimension in the prototypical way. For InCs, I used the item "The leader in the video treated the follower as an individual rather than just a member of a group" (InCs item). For InMo, I used the item "The leader in the video talked enthusiastically about what needed to be accomplished" (InMo item). For InSt, the item "The leader in the video got his follower to look at problems from many different angles" (InSt item) was used. Participants had to assess the statements on a 5-point Likert-type scale (1 = *never*, 5 = *regularly, always*).

Next, I measured the dependent variables with reference to the topic in the movie. First, on the basis of previous research (Diehl & Stroebe, 1987, 1991; Paulus & Yang, 2000; Stam et al., 2010; van Knippenberg & van Knippenberg, 2005), I measured participants' performance with Friedman and Förster's (2001) idea generation task, which was introduced as a creativity task. Participants were told that this idea generation task would measure their creativity. Participants had to generate ideas for convincing their

team members to use goal-setting interviews in the future. Participants had 4 min to come up with as many ideas as they could. The number of responses each participant generated (incomprehensible or unfinished responses were not counted) were counted by a rater who was blind to the experimental conditions and the hypotheses (cf. Stam et al., 2010). The final score consisted of the number of valid ideas each participant had entered (M = 4.32, SD = 1.62).

Second, I assessed the leader's influence with two different measures. First, participants had to complete an in-tray exercise, which is frequently used in assessment centers (Gill, 1979). In our study, participants had to prioritize 10 important tasks that they would have to deal with during the upcoming working day. All tasks were presented on the screen in a randomized order, and participants had to click on each task in order, beginning with the most important exercise. Because having goal-setting interviews with their followers was the main topic of the video, one of these tasks involved goal-setting interviews. Other tasks were, for example, "Driving to the hospital because your husband/wife had an accident" or "Having a business lunch with your boss to discuss a new project." All tasks from the in-tray exercise are listed in Appendix C. The dependent measure was the priority ranking of the goal-setting interview task (from 1 = *highest prioritization* to 10 = *lowest prioritization*), which I recoded for the analyses. On average, the goal-setting interview exercise was ranked in a middle position (M = 4.56, SD = 2.26). Second, I applied an ideal-self item: "In my working life, I will use goal-setting interviews with my followers as one leadership technique" to measure leader influence by measuring how deeply the followers had integrated the topic named by the leader. Participants had to answer this question on a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*). On average, they agreed with this statement to a moderate degree (M = 5.19, SD = 1.75).

Finally, participants answered some demographic questions. Then they were fully debriefed and thanked.

3.4.3 Results

Before testing Hypotheses 3.1 - 3.6, I tested for potential effects of age and gender on all variables. Neither age nor gender had a significant impact on the results reported below. Table 5 shows the correlation matrix of the motive scores corrected for the number of words and the dependent variables used in Study 3.

Table 5

Intercorrelations of Variables in Study 3

	1.	2.	3.	4.	5.	6.
1. *n* Aff	--	-.03	-.06	.16	.18	-.06
2. *n* Pow		--	.18	.22*	.02	.05
3. *n* Ach			--	.10	.02	.05
4. Idea generation task				--	-.23*	.23*
5. In-tray exercise					--	-.47**
6. Ideal-self transfer task						--

Note. $N = 116$. *n* Pow = implicit need for power score corrected for the number of words, *n* Aff = implicit need for affiliation score corrected for the number of words, *n* Ach = implicit need for achievement score corrected for the number of words.

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

To test whether the experimental manipulation had worked, I calculated a general linear model with condition (InMo, InCs, InSt) as the independent variable and the three manipulation check items (InMo item, InCs item, InSt item) as the dependent variables, respectively. The InCs item, $F(2, 114) = 9.09$, $p < .001$, $\eta^2 = .14$, the InMo item, $F(2, 114) = 10.51$, $p < .001$, $\eta^2 = .16$, and the InSt item, $F(2, 114) = 13.5$, $p < .001$, $\eta^2 = .19$, showed significant effects. The means and standard deviations are presented per condition in Table 6. According to the manipulation check, the manipulation for InMo was successful, whereas the results of the manipulations for InCs and InSt were ambiguous.

Table 6

Means and Standard Deviations of the Manipulation Check Items used in Study 3

Condition	Manipulation check item	*Mean*	*SD*
InCs	InCs	4.27	0.87
	InMo	4.03	0.87
	InSt	4.40	0.68
InMo	InCs	3.13	1.26
	InMo	4.70	0.52
	InSt	3.55	1.06
InSt	InCs	3.13	1.74
	InMo	4.50	0.55
	InSt	4.48	0.82

Note. $N = 116$; InCs = individualized consideration, InMo = inspirational motivation, InSt = intellectual stimulation.

Prior to the analyses, all dependent measures that were measured on an interval scale were converted to *z*-scores (cf. Cohen et al., 2003). To test Hypotheses 3.1 - 3.3, I applied hierarchical regression analyses with the number of ideas as the dependent variable and the specific TLD (contrast coded), the corresponding implicit motive (either power, affiliation, or achievement), and the interaction terms between experimental condition and implicit motive as predictors. I used the contrast coding method to show that the assumed effects were higher in one condition in comparison with the other conditions. To test the hypotheses, the first step in the hierarchical regression included Contrast 1 (TLD of interest = 2; compared TLD 1 = -1; compared TLD 2 = -1), Contrast 2 (TLD of interest = 0; compared TLD 1 = 1; compared TLD 2 = -1), and the corresponding implicit motive. Step 2 additionally contained their multiplicative interaction terms (Contrasts x Implicit Motives).[4] As can be seen in Tables 7 and 8, I found a significant effect of the interaction between Contrast 1 (InCs) x Implicit Affiliation Motive and a significant effect of the

[4] I also calculated hierarchical regression analyses that included all implicit motives to control for possible confounding effects. Incorporating the other implicit motives did not change the pattern of results nor did it significantly reduce the effect size of the interaction terms.

interaction between Contrast 1 (InMo) x Implicit Power Motive on followers' number of ideas. The interaction between the focal InSt contrast and the implicit achievement motive did not reach the conventional level of statistical significance of $p < .05$ ($p = .10$, see Table 9). Hence, strictly adhering to the conventional level of statistical significance, Hypothesis 3.1, which proposed that *the strength of followers' implicit affiliation motive would positively moderate the relation between a leader displaying InCs and followers' performance*, and Hypothesis 3.2, which proposed that *the strength of followers' implicit power motive would positively moderate the relation between a leader displaying InMo and followers' performance,* were supported. However, Hypothesis 3.3, which proposed that *the strength of followers' implicit achievement motive would positively moderate the relation between a leader displaying InSt and followers' performance,* was not .[5]

Table 7

Standardized Coefficients for Predicting Number of Ideas in an HMRA: Contrasts and n Affiliation (Step 1) and Contrasts, n Affiliation, and the Interactions of Contrasts x n Affiliation (Step 2)

	Number of ideas	
Predictor	*β* Step 1	*β* Step 2
n Aff	.16	.18*
Contrast 1 (InCs)	.07	.07
Contrast 2	-.00	.00
Contrast 1(InCs) x *n* Aff		**.19***
Contrast 2 x *n* Aff		-.00
R^2	.03	.07
ΔR^2	.03	.04
ΔF	1.25	2.12

Note. *N* = 116. InCs = individualized consideration, *n* Aff = implicit need for affiliation, Contrast 1 = (TLD of interest = 2; compared TLD 1 = -1; compared TLD 2 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 1; compared TLD 2 = -1). Bold numbers represent results corresponding to Hypothesis 3.1.
*$p < .05$.

[5] In each condition, the corresponding implicit motive was significantly correlated with the dependent variable. InCs condition: *n* Aff x *Number of Ideas* ($r = .48$**), InMo condition: *n* Pow x *Number of Ideas* ($r = .53$**), InSt condition: *n* Ach x *Number of Ideas* ($r = .30^{+}$).

Table 8

Standardized Coefficients for Predicting Number of Ideas in an HMRA: Contrasts and n Power (Step 1) and Contrasts, n Power, and the Interactions of Contrasts x n Power (Step 2)

	Number of ideas	
Predictor	*β* Step 1	*β* Step 2
n Pow	.23*	.15
Contrast 1 (InMo)	-.05	-.05
Contrast 2	.08	-.05
Contrast 1(InMo) x *n* Pow		**.26****
Contrast 2 x *n* Pow		-.10
R^2	.06	.12
ΔR^2	.06	.07
ΔF	2.32	4.14

Note. *N* = 116. InMo = inspirational motivation, *n* Pow = implicit need for power, Contrast 1 = (TLD of interest = 2; compared TLD 1 = -1; compared TLD 2 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 1; compared TLD 2 = -1). Bold numbers represent results corresponding to Hypothesis 3.2.

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

Table 9

Standardized Coefficients for Predicting Number of Ideas in an HMRA: Contrasts and n Achievement (Step 1) and Contrasts, n Achievement, and the Interactions of Contrasts x n Achievement (Step 2)

	Number of ideas	
Predictor	*β* Step 1	*β* Step 2
n Ach	.10	.08
Contrast 1 (InSt)	-.05	-.05
Contrast 2	.07	.07
Contrast 1(InSt) x *n* Ach		**.16**
Contrast 2 x *n* Ach		.05
R^2	.02	.04
ΔR^2	.02	.02
ΔF	.61	1.38

Note. *N* = 116. InSt = intellectual stimulation, *n* Ach= implicit need for achievement, Contrast 1 = (TLD of interest = 2; compared TLD 1 = -1; compared TLD 2 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 1; compared TLD 2 = -1). Bold numbers represent results corresponding to Hypothesis 3.3.

To further explore the nature of these interactions, I calculated predicted values for the numbers of ideas using regression slopes from the final regression equation at values of 1 standard deviation above and below the means of the first-order components (cf. Cohen et al., 2003).

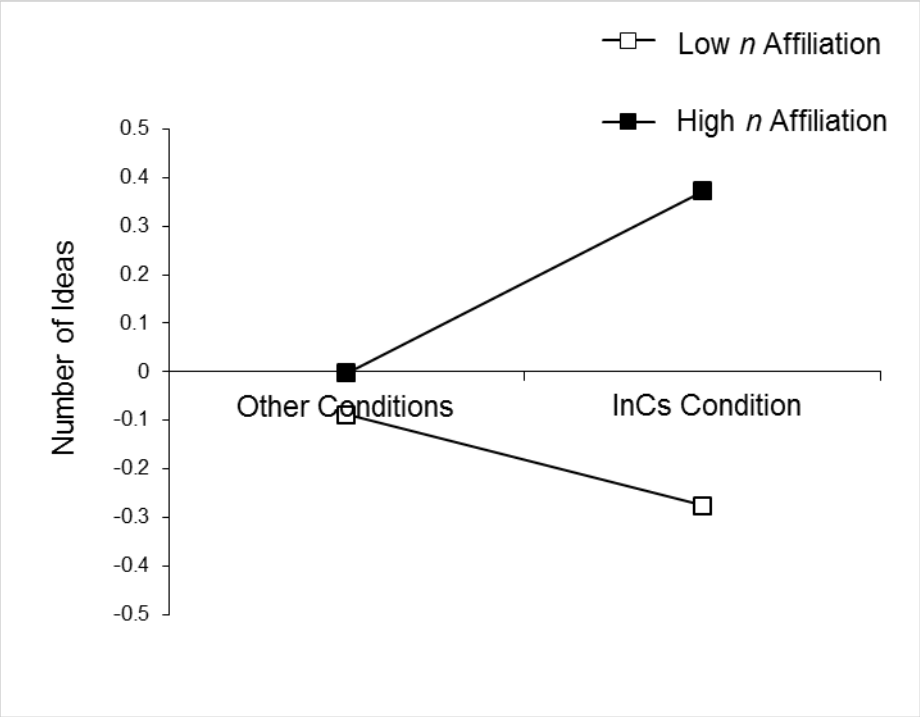

Figure 8. Predicted z-standardized values for the number of ideas in the individualized consideration condition depending on the affiliation motive. InCs = individualized consideration.

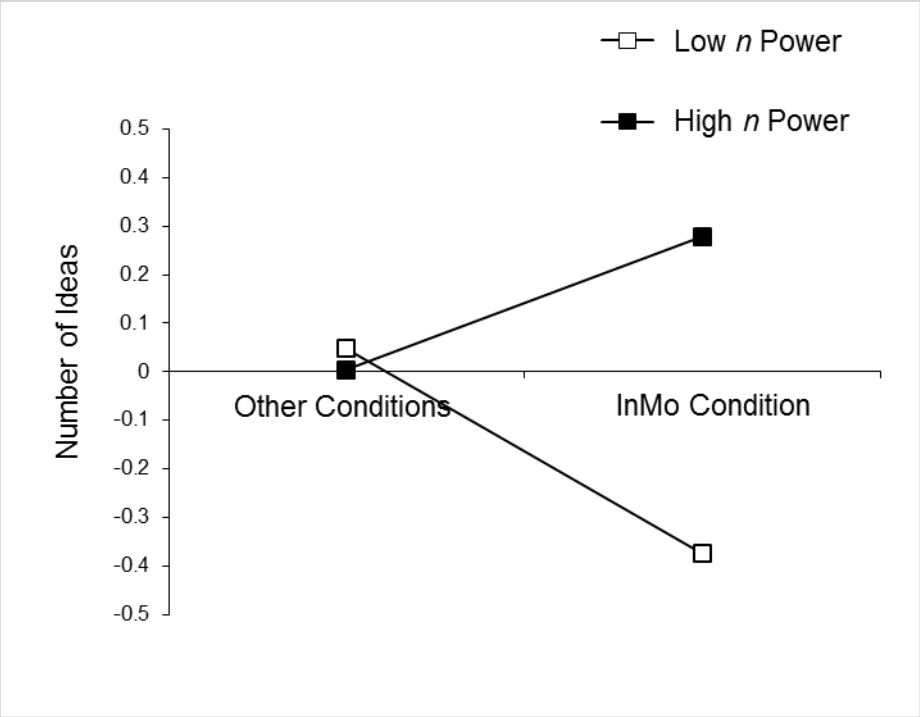

Figure 9. Predicted z-standardized values for the number of ideas in the inspirational motivation condition depending on the power motive. InMo = inspirational motivation.

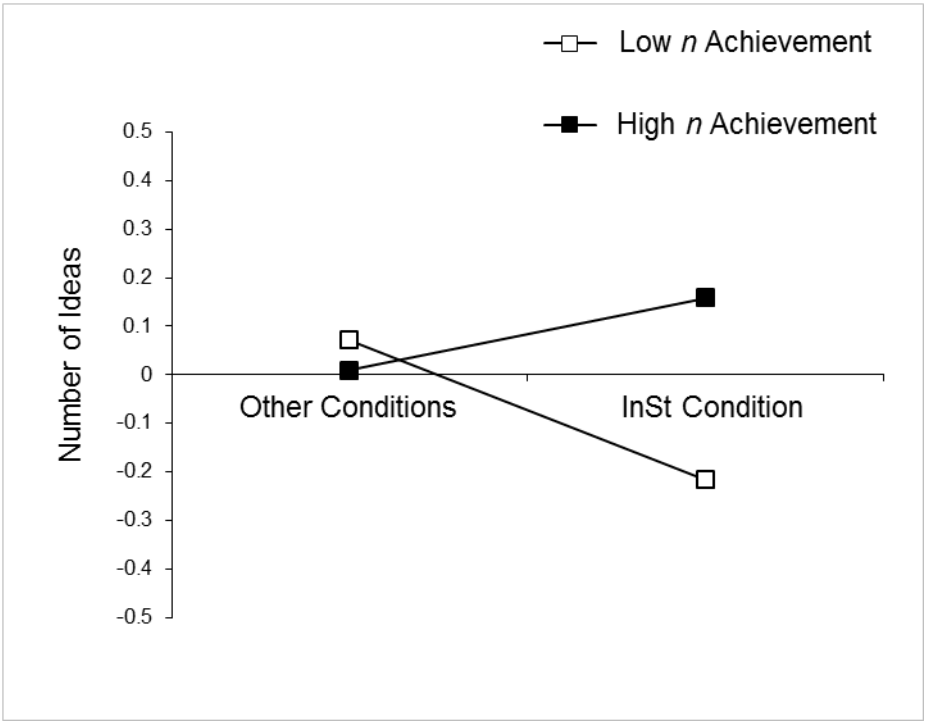

Figure 10. Predicted z-standardized values for the number of ideas in the intellectual stimulation condition depending on the achievement motive. InSt = intellectual stimulation.

Figure 8 illustrates that a high implicit affiliation motive positively moderated the relation between InCs and number of ideas, b = .19, $t(112)$ = 2.00, p = .05. There was no significant effect for participants low in the implicit affiliation motive, b = -.09, $t(112)$ = .97, p = .34. Likewise, Figure 9 illustrates that a high implicit power motive did not significantly moderate the relation between InMo and number of ideas, but the tendency was in the predicted direction, b = .14, $t(112)$ = 1.58, p = .12. In addition, the results showed that a low implicit power motive negatively moderated the relation between InMo and the number of ideas, b = -.21, $t(112)$ = 2.39, p = .02. For the implicit achievement motive, the hierarchical regression analysis revealed no significant effect; thus, simple slopes were not calculated. Desregarding the fact that b did not reach statistical significance (in line with Cumming, 2013), Figure 10 shows that the interaction of the implicit achievement motive and the contrast (InSt) showed the hypothesized pattern, and thus, Hypothesis 3.3 was supported but not at the conventional level of statistical significance.

The dependent measure leader influence was first operationalized by an in-tray exercise. For this ordinally scaled dependent measure, the priority of conducting goal-setting interviews in the in-tray exercise, I estimated Spearman-Brown correlations between the dependent variable and the corresponding implicit motive in the specific experimental condition. The results for the Spearman-Brown correlations are presented in Table 10.

Table 10

Results for the Spearman-Brown Correlations between Implicit Motives and Priority Ranking for each Experimental Condition

	Individualized Consideration			
	1.	2.	3.	Priority ranking
1. *n* Pow	--	-.02	-.28	-.40**
2. *n* Aff	--	--	.00	.12
3. *n* Ach	--	--	--	-.54**
	Inspirational Motivation			
	1.	2.	3.	Priority ranking
1. *n* Pow	--	-.14	-.06	**.34****
2. *n* Aff	--	--	.04	-.44**
3. *n* Ach	--	--	--	.23
	Intellectual Stimulation			
	1.	2.	3.	Priority ranking
1. *n* Pow	--	.25	-.19	-.24
2. *n* Aff	--	--	.06	-.12
3. *n* Ach	--	--	--	**.28***

Note. *N* = 116. *n* Aff = implicit need for affiliation, *n* Pow = implicit need for power, *n* Ach = implicit need for achievement. Bold numbers represent results corresponding to Hypotheses 3.5 and 3.6. *$p < .05$. **$p < .01$.

The results of the correlational analyses supported Hypotheses 3.5 and 3.6: In the InMo condition, the priority ranking of the goal-setting interviews was positively correlated with *n* Power. In the InSt condition, the priority ranking of the goal-setting interviews was positively correlated with *n* Achievement. Apart from the hypotheses, I found negative correlations in the InMo condition between the priority ranking and *n* Affiliation. In the InCs condition, I found negative correlations between the priority ranking and *n* Power as well as between the priority ranking and *n* Achievement. Finally, Hypothesis 3.4 was not supported statistically, but the effect was positive, as expected.

For the second operationalization of the dependent variable leader influence, I applied an ideal-self transfer task, which again measured the depth of integrating the topics named by the leader (cf. Chapter 3.4.1). Similar to the analyses concerning Hypotheses 3.1 - 3.3, to test Hypotheses 3.4 - 3.6, I carried out hierarchical regression analyses with ideal-self transfer as the dependent variable and the specific TLD (contrast coded), the corresponding implicit motive (either power, affiliation, or achievement), as well as the

interaction between experimental condition and implicit motive as predictors. The first step in the hierarchical regression included Contrast 1 (TLD of interest = 2; compared TLD 1 = -1; compared TLD 2 = -1), Contrast 2 (TLD of interest = 0; compared TLD 1 = 1; compared TLD 2 = -1), and the corresponding implicit motive. Step 2 additionally contained their multiplicative interaction terms.[6] As can be seen in Tables 11 and 12, I found a significant effect of the interaction between Contrast 1 (InCs) x Implicit Affiliation Motive, and a significant effect of the interaction between Contrast 1 (InMo) x Implicit Power Motive on ideal-self transfer. I also found a significant Contrast 2 x Implicit Power Motive interaction (see Table 12). However, this interaction pattern was negative. The interaction between the focal InSt contrast and the implicit achievement motive did not reach the conventional level of statistical significance of $p < .05$ ($p = .51$, see Table 13). Hence, with strict adherence to the conventional level of statistical significance, Hypothesis 3.4, which proposed that *the strength of followers' implicit affiliation motive would positively moderate the relation between a leader displaying InCs and leader influence,* and Hypothesis 3.5, which proposed *that the strength of followers' implicit power motive would positively moderate the relation between a leader displaying InMo and leader influence,* were supported, whereas Hypothesis 3.6, which proposed that *the strength of followers' implicit achievement motive would positively moderate the relation between a leader displaying InSt and leader influence,* was not.[7]

[6] I also calculated hierarchical regression analyses including all implicit motives to control for possible confounding effects. Incorporating the other implicit motives did not change the pattern of results, nor did it significantly reduce the effect size of the interaction terms.

[7] In two conditions, the corresponding implicit motive was significantly correlated with the dependent variable. InCs condition: *n* Aff x *Ideal-Self Transfer* ($r = .39$*), InMo condition: *n* Pow x *Ideal-Self Transfer* ($r = .40$*), InSt condition: *n* Ach x *Ideal-Self Transfer* ($r = -.02$).

Table 11

Standardized Coefficients for Predicting Ideal-Self Transfer in an HMRA: Contrasts and n Affiliation (Step 1) and Contrasts, n Affiliation, and the Interactions of Contrasts x n Affiliation (Step 2)

	Ideal-self transfer	
Predictor	*β* Step 1	*β* Step 2
n Aff	-.05	-.01
Contrast 1 (InCs)	.01	.00
Contrast 2	-.39**	-.38**
Contrast 1(InCs) x *n* Aff		**.29****
Contrast 2 x *n* Aff		-.05
R^2	.16	.24
ΔR^2	.16	.09
ΔF	6.93	6.18

Note. *N* = 116. InCs = individualized consideration, *n* Aff = implicit need for affiliation, Contrast 1 = (TLD of interest = 2; compared TLD 1 = -1; compared TLD 2 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 1; compared TLD 2 = -1). Bold numbers represent results corresponding to Hypothesis 3.4. **$p < .01$.

Table 12

Standardized Coefficients for Predicting Ideal-Self Transfer in an HMRA: Contrasts and n Power (Step 1) and Contrasts, n Power, and the Interaction of Contrasts x n Power (Step 2)

	Ideal-self transfer	
Predictor	*β* Step 1	*β* Step 2
n Pow	.06	-.05
Contrast 1 (InMo)	-.35**	-.35**
Contrast 2	-.18*	-.21*
Contrast 1(InMo) x *n* Pow		**.31****
Contrast 2 x *n* Pow		-.21*
R^2	.16	.27
ΔR^2	.16	.11
ΔF	7.00	8.23

Note. *N* = 116. IM = inspirational motivation, *n* Pow = implicit need for power, Contrast 1 = (TLD of interest = 2; compared TLD 1 = -1; compared TLD 2 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 1; compared TLD 2 = -1). Bold numbers represent results corresponding to Hypothesis 3.5.

*p < .05. **p < .01.

Table 13

Standardized Coefficients for Predicting Ideal-Self Transfer in an HMRA: Contrasts and n Achievement (Step 1) and Contrasts, n Achievement, and the Interaction of Contrasts x n Achievement (Step 2)

	Ideal-self transfer	
Predictor	*β* Step 1	*β* Step 2
n Ach	.04	.07
Contrast 1 (InSt)	.33**	.33**
Contrast 2	.20*	.20*
Contrast 1(InSt) x *n* Ach		**-.06**
Contrast 2 x *n* Ach		-.10
R^2	.16	17
ΔR^2	.16	.01
ΔF	6.90	.69

Note. *N* = 116. InSt = intellectual stimulation, *n* Ach= implicit need for achievement, Contrast 1 = (TLD of interest = 2; compared TLD 1 = -1; compared TLD 2 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 1; compared TLD 2 = -1). Bold numbers represent results corresponding to Hypothesis 3.6.

*p < .05. **p < .01.

To further explore the nature of these interactions, I calculated predicted values for the numbers of ideas using regression slopes from the final regression equation at values of 1 standard deviation above and below the means of the first-order components (cf. Cohen et al., 2003).

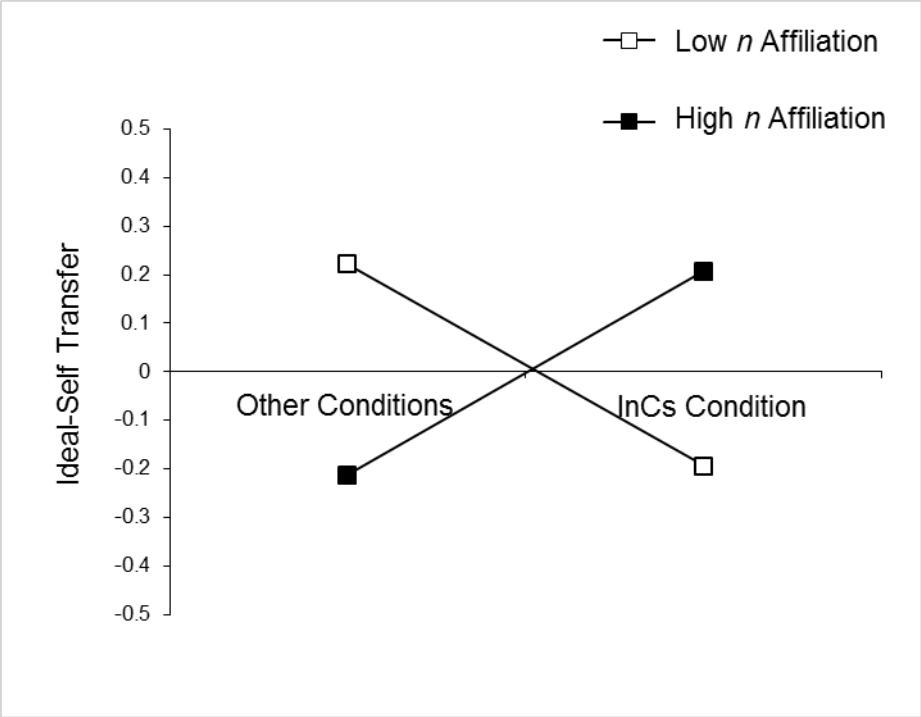

Figure 11. Predicted z-standardized values for ideal-self transfer in the individualized consideration condition depending on the affiliation motive. InCs = individualized consideration.

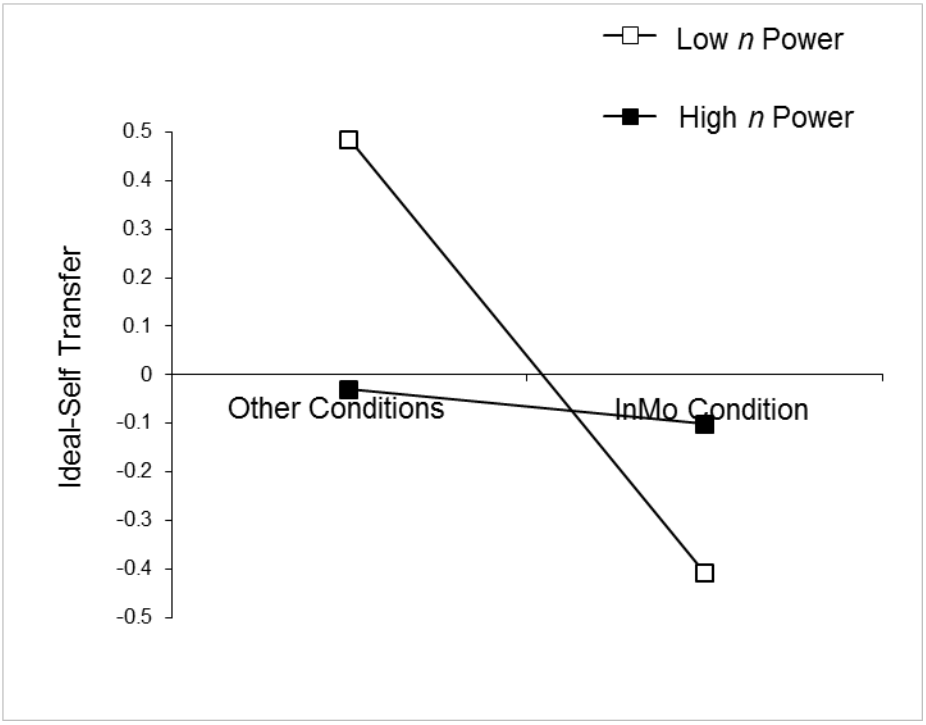

Figure 12. Predicted z-standardized values for ideal-self transfer in the inspirational motivation condition depending on the power motive. InMo = inspirational motivation.

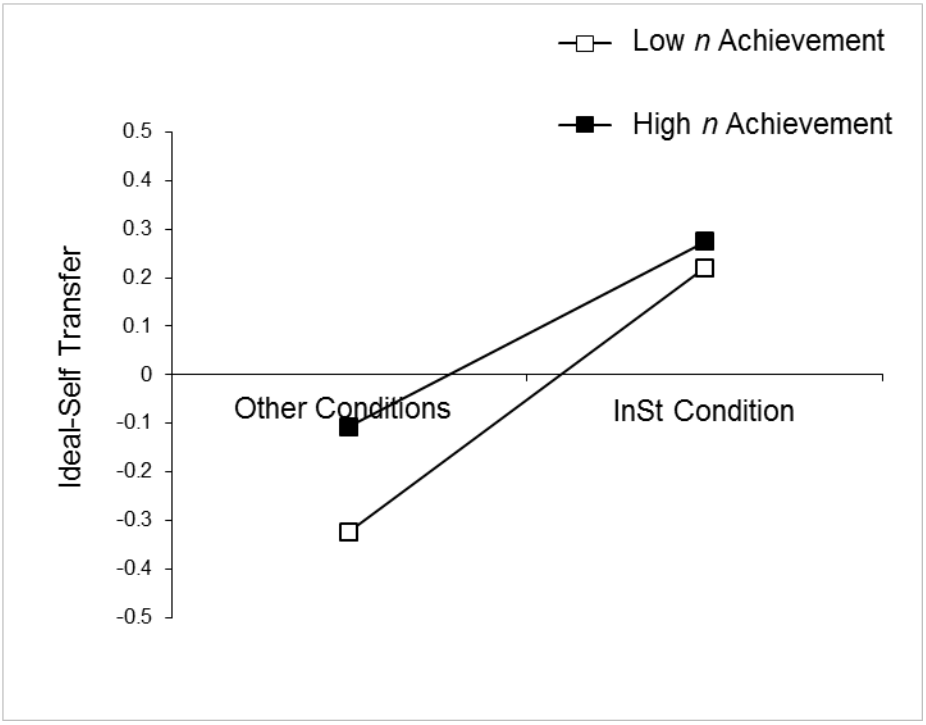

Figure 13. Predicted z-standardized values for ideal-self transfer in the intellectual stimulation condition depending on the achievement motive. InSt = intellectual stimulation.

Figure 11 illustrates that a high affiliation motive positively moderated the relation between InCs and ideal-self transfer, b = .21, t(112) = 2.50, p = .01. Likewise, a low implicit affiliation motive negatively moderated the relation between InCs and ideal-self transfer, b = -.21, t(112)= 2.40, p = .02. Figure 12 illustrates the same pattern as found for the dependent measure "*numbers of ideas*" in the InMo condition. The results for the InMo condition showed that a high implicit power motive did not significantly moderate the relation between InMo and ideal-self transfer, b = -.04, t(112) = 0.45, p = .65. However, a low implicit power motive negatively moderated the relation between InMo and ideal-self transfer, b = -.45, t(112) = 5.55, p < .001. For the participants in the other conditions, a low implicit power motive resulted in a high ideal-self transfer. For the interaction between InSt x Implicit Achievement Motive, the hierarchical regression analysis revealed no significant effect; thus, simple slopes were not calculated. However, Figure 13 illustrates the interaction pattern, which was in the predicted direction for high implicit achievement motive.

3.4.4 Discussion

The aim of Study 3 was to test the interaction effects of the TLDs and the corresponding implicit motive of followers on followers' performance and leader influence. Concerning performance, the findings of Study 3 demonstrated that the compatibility between the two concepts had positive effects on both follower performance and leader influence on followers. The strength of the followers' implicit affiliation motive positively moderated the relation between InCs and the number of ideas generated by the followers. I found that when the leader displayed InCs, followers with a high implicit affiliation motive generated more ideas. Moreover, the strength of the followers' implicit power motive positively moderated the relation between InMo and the number of ideas generated by the followers. When the leader displayed InMo, followers with a low implicit power motive generated fewer ideas. For these two links (InCs-affiliation and InMo-power), the hypotheses were confirmed, a finding that is in line with the findings from my previous

studies (see Studies 1 and 2). For the relation between InSt and performance, the plotted results showed that the nonsignificant interaction was in the expected direction, and thus I can conclude that there might be a moderating effect of the implicit achievement motive on the relation between InSt and performance and that such an effect may be detectable with a larger sample size.

Leader influence was operationalized with two measures. One was an in-tray exercise in which participants had to prioritize different topics including a topic named by the leader. Here, the results showed the importance of the compatibility between transformational leadership behavior and followers' implicit motives. I found that when the leader displayed InMo, the strength of the followers' implicit power motive positively predicted the priority ranking of the topic named by the leader. The same was true for the compatibility between InSt and the implicit achievement motive. For the compatibility of InCs and the implicit affiliation motive, I did not find positive effects. Still, the results showed negative effects between InCs and power as well as between InCs and achievement, indicating that the assumed compatibility (InCs and affiliation) is the most comprehensible one.

The second measure was an ideal-self transfer measure of the depth of integration of the topic named by the leader. Here, the findings were similar to the findings for the performance measure. The findings demonstrated that the interactions of the TLDs and the corresponding implicit Big 3 motives had an effect on the ideal-self transfer from the leader to his followers. The strength of the followers' implicit affiliation motive positively moderated the relation between InCs and the depth of followers' integration of the topic named by the leader. I found that when the leader displayed InCs, a high implicit affiliation motive of followers positively predicted ideal-self transfer from the leader to his followers. Likewise, when the leader displayed InCs, a low implicit affiliation motive of followers negatively predicted ideal-self transfer from the leader to his followers. In addition, the strength of followers' implicit power motive positively moderated the relation between InMo and the depth of followers' integration of the topic named by the leader. I found that

when the leader displayed InMo, a low implicit power motive of followers negatively predicted ideal-self transfer from a leader to his followers. For the interaction between InSt and the implicit achievement motive, I did not find an effect of the interaction on idea-self transfer.

Some of the results revealed a clear picture, whereas other aspects of the results were inconsistent with previous theorizing. Concerning the compatibility of InMo and power, the findings from the current study showed that this compatibility had consistently positive effects on followers' behavior. For the compatibility of InCs and affiliation, I can conclude that this compatibility tended toward positive effects; that is, even if not all of the findings were significant, the effects were always in the positive direction. The only compatibility that did not show positive significant effects in the current study was the compatibility of InSt and achievement. This could be due to the fact that the manipulation check for InSt did not demonstrate the effectiveness of the manipulation, and hence, perhaps the followers did not recognize the leader as showing InSt. But still, at this point, I have to mention that most of the interaction patterns were in the expected direction.

The current study has some limitations. The first and probably most important limitation is that the manipulation checks for InSt and InCs showed that the manipulation that I chose may have been the reason for the nonsignificant results because the effects of at least InSt did not show strong support for the success of my manipulations. However, both video sequences were already successfully used and tested in other studies (Amann & Gerstenberg, 2012; Dislich et al., 2011) and were produced with professional actors in order to illustrate InSt and InCs. Nevertheless, the failure of this manipulation may provide an explanation for the weak effects of InSt. Thus, alternative manipulations should be tested in further studies. In addition, an expert in transformational leadership should score the short video sequences in order to obtain more information about the underlying problems.

The second limitation is that the study included only three of the four TLDs. This is due to the fact that I had no clear theoretical basis from which to derive hypotheses for IdIn

(see Chapter 2.3.2), and the results of the literature study had not been completed by the time I began working on the current study (cf. Chapter 3.2.4). Thus, I included only the leadership behaviors for which I had theoretically driven hypotheses.

The third limitation of the current study is that all of the dependent measures were related to the videos that were shown as the experimental manipulations. Thus, all of the dependent measures had a clear reference to goal-setting interviews and hence might not be comparable with other outcome variables measured in previous studies (e.g., Stam et al., 2010). The reference to goal-setting interviews was meaningful for this study due to the facts that this was the main topic in the videos, and participants had to imagine themselves as the follower in the video. In the next study, I was aware of this problem; thus, I used a different manipulation, and I used measures that had no reference to the manipulation topic.

In summary, the findings of the current study showed that compatibility between the TLDs and the Big 3 motives can lead to positive effects such as followers' performance and leader influence. To test these effects further, I implemented a fourth study that addressed the limitations of the current study in order to obtain a more holistic picture.

3.5 Study 4: Replication and Expansion Study. Interaction Effects of Leader Behavior and Followers' Implicit Motives on Performance

3.5.1 Introduction

Study 4 was implemented to address the limitations of the previous studies and to validate some of the previous results. As in Study 3, I chose a laboratory setting. In contrast to Study 3, I used vignettes instead of videos to manipulate the specific TLDs. Further, I included all four TLDs.

In order to obtain outcome measures that were independent of the manipulation, I implemented the *concentration performance task* and the *idea generation task,* both of which measure performance. The *idea generation task* is a well-established measure in leadership research (e.g., Diehl & Stroebe, 1987, 1991; Paulus & Yang, 2000; Stam et al., 2010; van Knippenberg & van Knippenberg, 2005) for measuring performance as

"*creativity.*" I already used the idea generation task in Study 3, but in contrast to Study 3, this time the introduction to the task was independent of the manipulation. In addition, I measured performance as concentration performance, which is often used in leadership research (e.g., Stam et al., 2010). Again, I expected that the interaction of transformational leadership behavior and followers' corresponding implicit motive dispositions would have a positive effect on performance. Thus, these analyses were used to test Hypotheses 3.1 - 3.3 (see Chapter 3.1.3 for more details). According to the results of Study 1, I expanded my hypotheses in Study 4 to include the fourth TLD IdIn. Thus, I additionally implemented and tested Hypothesis 3.7: *The strength of followers' implicit power motive will positively moderate the relation between a leader displaying IdIn and followers' performance.*[8]

3.5.2 Method

One-hundred sixty (54 male, 106 female; M_{age} = 24.73, SD_{age} = 3.94) students participated in the study, presented under the topic of *"leadership."* As in Study 3, the students were studying management or engineering or were enrolled in a teacher training program at the Technische Universität München, Munich, Germany. Again, the study was conducted in German, and all participants were native speakers who participated in exchange for credit toward fulfilling a course requirement.

The procedure followed the one described in Study 3. Upon arrival, participants created a personal identification code and then completed the PSE. Thus, analogous to Studies 2 and 3, implicit motives were measured with the PSE. Administration procedures and picture cues were the same as in Study 3 (see Chapter 3.4.2). Interrater reliabilities were calculated with the same procedure as in Studies 1, 2 and 3. The interrater ICCs were .97 for affiliation content, .89 for power content, and .89 for achievement content. The mean raw scores of the implicit motive dispositions were *M* = 5.14 for *n* Affiliation (*SD* = 2.53), *M* = 3.42 for *n* Power (*SD* = 2.34), and *M* = 2.55 for *n* Achievement (*SD* = 1.98). The

[8] Note that this hypothesis is specific to the named TLD and does not apply to the other TLDs.

average word count was 534.52 (*SD* = 165.56). As in previous studies, word count was significantly correlated with the obtained raw motive scores for *n* Affiliation ($r = .46$, $p < .001$), *n* Power ($r = .50$, $p < .001$), and *n* Achievement ($r = .46$, $p < .001$). Therefore, participants' implicit motive scores were corrected for story length using regression analyses, and the residuals were converted to *z*-scores (cf. Cohen et al., 2003).

Subsequent to the PSE, participants were randomly assigned to four experimental conditions: the InCs condition (*n* = 43), InMo condition (*n* = 31), InSt condition (*n* = 44), and IdIn condition (*n* = 42). In all conditions, short instructions about the importance of concentration performance when executing a job were followed by a fictitious story for which participants had to imagine themselves in the position of a consultant working for an IT company. Participants were asked to imagine that they had to solve a problem with their leader for which concentration performance mattered. Concentration performance was consequently measured afterwards. Depending on the condition, each participant read a description (vignette) about a leader comprising either InCs, InMo, InSt, or IdIn leadership behavior. All four vignettes had approximately the same length (85.75 words on average) and were successfully pretested with *N* = 15 students (for more details, see Section 3.5.2.1). Analogous to Study 2, descriptions were taken from an adapted German version of the MLQ by Felfe and Goihl (2002) and had been adapted to the imagination instructions. Instructions and descriptions are presented in Appendix D.

Next, a manipulation check followed in order to test whether subjects perceived the leader behavior as InCs, InMo, InSt, or IdIn. For the manipulation check, I implemented the same items as in Study 3 but adapted them to the story presented in Study 4. I took items from the German version of the MLQ (Bass & Avolio, 1995; Felfe & Goihl, 2002). For InCs, I used the item "The leader described above treats each follower as an individual rather than as just a member of a group" (InCs item). For InMo, I used the item "The leader described above talks enthusiastically about what needed to be accomplished" (InMo item). For InSt, the item "The leader described above gets his follower to look at problems from many different angles" (InSt item) was used. In addition,

for IdIn, I implemented the item “The leader described above exudes strength and confidence” (IdIn item). This item was taken from the attributed IdIn scale rather than the behavioral scale. This decision was made because the participants could not observe the leader’s behavior directly; thus, it was appropriate to choose an item that referred to attribution (cf. Chapter 2.1.2.1). Analogous to Study 3, participants had to assess the statements on a 5-point Likert-type scale (1 = *never*, 5 = *regularly, always*).

Next, participants completed the first performance measurement: the aforementioned concentration task. This task started with a short introduction about concentration performance by emphasizing the importance of concentration performance for a consultant (cf. introductions are provided in Appendix D). This procedure was inspired by earlier studies measuring concentration performance (Brunstein & Gollwitzer, 1996; Stam et al., 2010). Directly after reading the instructions, participants began with a computerized d2-R concentration task by Brickenkamp, Schmidt-Atzert, and Liepmann (2010). Participants were presented a line of d’s and p’s with either no, one, or two apostrophes. They were asked to choose only the d’s with two apostrophes by clicking on the d’s with two apostrophes with their mouse. After two exercises, participants began working on the task, which consisted of 14 consecutive lines. The participants were given 20 s to complete each line before they had to go on to the next line. The dependent measure was the participants’ overall concentration performance, which was calculated by the number of correctly identified d’s with two apostrophes minus the number of errors. Line 1 and line 14 were excluded from the calculations according to the d2-R manual (Brickenkamp et al., 2010). The average concentration performance was *M* = 132.43 (*SD* = 25.61, *Min* = 69.00, *Max* = 221.00), which is in line with previous studies (Detsik & Zheldak, 2005; Klinger & Niemand, 2006).

The second performance measure followed immediately. Again, I measured performance by using an idea generation task (Friedman & Förster, 2001) as in Study 3, which was introduced as a creativity task. Participants had to generate ideas how to create jobs for students at universities (cf. Stam et al., 2010). Participants had 4 min to

come up with as many ideas as they could. The number of responses each participant generated (incomprehensible or unfinished responses were not counted) was counted by a rater who was blind to the experimental conditions and the study's hypotheses (cf. Stam et al., 2010). The final score was equal to the number of valid ideas each participant had entered (M = 4.61, SD = 2.03). For both performance measures, each participant was asked to imagine him-/herself as the follower of the described leader before beginning either the concentration or the idea generation task.

Finally, participants answered some demographic questions, were fully debriefed, and were thanked.

3.5.2.1 Pre-study

In order to test the effectiveness of the vignettes as manipulations, I implemented a pre-study with N = 15 students. Students were recruited via personal communication. Their average age was 20.87 (SD = 2.00) with an age range of 18 to 25 years. The sample comprised 66.7% (n = 10) female students. All students read all four vignettes in a randomized order. Immediately after reading each vignette, they had to answer four questions concerning the leader's behavior. I chose the four items (one for each TLD) from the German version of the MLQ (Bass & Avolio, 1995; Felfe & Goihl, 2002). Each item described each leadership dimension in the prototypical way (for more details, see Chapter 3.5.2), and students had to assess the statements on a 5-point Likert-type scale (1 = *never*, 5 = *regularly, always*).

The results of the pre-study showed that the vignette manipulations were successful. For the InCs vignette, the InCs item was rated highest, M = 3.53, SD = 1.25; InMo item, M = 2.60, SD = 1.06; InSt item, M = 2.53, SD = 1.06, and IdIn item, M = 3.20, SD = 1.21. For the InMo vignette, the InMo item was rated highest, M = 3.73, SD = 1.03; InCs item, M = 2.73, SD = 0.70; InSt item, M = 2.93, SD = 0.88, and IdIn item, M = 3.20, SD = 0.94. For the InSt vignette, the InSt item was rated highest, M = 3.47, SD = 0.64; InCs item, M = 2.60, SD = 0.83; InMo item, M = 2.60, SD = 0.91, and IdIn item, M = 2.40, SD = 0.83. And

for the IdIn vignette, the IdIn item was rated highest, *M* = 3.87, *SD* = 0.83, InCs item, *M* = 2.93, *SD* = 1.33; InMo item, *M* = 2.67, *SD* = 0.98, and InSt item, *M* = 2.40, *SD* = 0.91.

3.5.3 Results

Again, before testing Hypotheses 3.1 - 3.3 and 3.7, I tested for potential effects of age and gender on all variables. Neither age nor gender had a significant impact on the results reported below. Table 14 shows the correlation matrix of the motive scores corrected for the number of words and the dependent variables used in Study 4.

Table 14

Intercorrelations of Variables in Study 4

	1.	2.	3.	4.	5.
1. *n* Aff	-	-.21**	.20*	-.12	.10
2. *n* Pow		-	-.01	.18*	.27**
3. *n* Ach			-	.04	.11
4. Idea generation task				-	.26**
5 Concentration performance task					-

Note. *N* = 160. *n* Pow = implicit need for power score corrected for the number of words, *n* Aff = implicit need for affiliation score corrected for the number of words, *n* Ach = implicit need for achievement score corrected for the number of words.

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

First, I calculated a general linear model with condition (InMo, InCs, InSt, IdIn) as the independent variable and the four manipulation check items (InMo item, InCs item, InSt item, and IdIn item) as dependent variables to test whether the experimental manipulation worked or not. For all items, the analyses showed significant effects: InCs item, $F(3, 156) = 35.98$, $p < .001$, $\eta^2 = .41$; InMs item, $F(3, 156) = 20.76$, $p < .001$, $\eta^2 = .29$; InSt item, $F(3, 156) = 39.19$, $p < .001$, $\eta^2 = .43$; and IdIn item, $F(3, 156) = 31.08$, $p < .001$, $\eta^2 = .37$. The means and standard deviations per condition are presented Table 15. Thus, all manipulation checks indicated that the manipulations were successful.

Table 15

Means and Standard Deviations of the Manipulation Check Items used in Study 4

Condition	Manipulation check item	*Mean*	*SD*
InCs	InCs	4.70	0.51
	InMo	3.91	0.95
	InSt	3.14	1.08
	IdIn	2.98	1.10
InMo	InCs	2.42	1.09
	InMo	4.84	0.45
	InSt	2.35	1.05
	IdIn	2.74	1.06
InSt	InCs	3.14	1.11
	InMo	3.61	1.04
	InSt	4.70	0.51
	IdIn	3.11	1.21
IdIn	InCs	3.05	1.21
	InMo	2.90	1.41
	InSt	3.36	1.14
	IdIn	4.69	0.52

Note. $N = 160$; InMo = inspirational motivation, InCs = individualized consideration, InSt = intellectual stimulation, IdIn = idealized influence.

Prior to the analyses, all dependent measures that were measured on an interval scale were converted to *z*-scores (cf. Cohen et al., 2003). To first test Hypotheses 3.1 - 3.3 and Hypothesis 3.7, analogous to the statistical analyses in Study 3, I conducted hierarchical regression analyses with concentration performance as the dependent variable and the specific TLD (contrast coded), the corresponding implicit motive (either power, affiliation, or achievement), and the interaction of experimental condition and implicit motive as predictors. The first step included Contrast 1 (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 (TLD of interest = 0;

compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1), and the corresponding implicit motive. The second step additionally contained their multiplicative interaction terms.[9] As can be seen in Tables 16, 17, and 19, I found significant effects on followers' concentration performance for the interaction between Contrast 1 (InCs) x Implicit Affiliation Motive, Contrast 1 (InMo) x Implicit Power Motive, and Contrast 1 (IdIn) x Implicit Power Motive. In addition, Table 18 shows an unpredicted significant interaction between Contrast 3 x Implicit Achievement Motive and Table 19 between Contrast 2 x Implicit Power Motive. The interaction between the focal InSt contrast and the implicit achievement motive did not reach the conventional level of statistical significance of $p < .05$ ($p = .50$, see Table 18). Hence, with strict adherence to the conventional level of statistical significance, Hypothesis 3.1, which predicted that *the strength of followers' implicit affiliation motive would positively moderate the relation between a leader displaying InCs and followers' performance,* Hypothesis 3.2, which predicted that *the strength of followers' implicit power motive would positively moderate the relation between a leader displaying InMo and followers' performance,* and Hypothesis 3.7, which predicted that *the strength of followers' implicit power motive would positively moderate the relation between a leader displaying IdIn and followers' performance,* were supported. However, Hypothesis 3.3, which predicted that *the strength of followers' implicit achievement motive would positively moderate the relation between a leader displaying InSt and followers' performance,* was not.[10]

[9] I also calculated hierarchical regression analyses including all implicit motives to control for possible confounding effects. Incorporating the other implicit motives did not change the pattern of results, nor did it significantly reduce the effect sizes of the interaction terms.

[10] In three conditions, the corresponding implicit motive was significantly correlated with the dependent variable. InCs condition: *n* Aff x *Concentration Performance* ($r = .65$**), InMo condition: *n* Pow x C*oncentration Performance* ($r = .64$**), InSt condition: *n* Ach x *Concentration Performance* ($r = .14$), IdIn condition: *n* Pow x *Concentration Performance* ($r = .49$**).

Table 16

Standardized Coefficients Predicting Concentration Performance in an HMRA: Contrasts and n Affiliation (Step 1) and Contrasts, n Affiliation, and the Interactions of Contrasts x n Affiliation (Step 2)

	Concentration performance	
Predictor	*β* Step 1	*β* Step 2
n Aff	.10	.09
Contrast 1 (InCs)	-.10	-.11
Contrast 2	.08	.09
Contrast 3	.09	.10
Contrast 1(InCs) x *n* Aff		**.36****
Contrast 2 x *n* Aff		.00
Contrast 3 x *n* Aff		.02
R^2	.03	.17
ΔR^2	.03	.13
ΔF	1.31	8.06

Note. *N* = 160. InCs = individualized consideration, *n* Aff = implicit need for affiliation, Contrast 1 = (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 = (TLD of interest = 0; compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1). Bold numbers represent results corresponding to Hypothesis 3.1.
**$p < .01$.

Table 17

Standardized Coefficients Predicting Concentration Performance in an HMRA: Contrasts and n Power (Step 1) and Contrasts, n Power, and the Interaction of Contrasts x n Power (Step 2)

	Concentration performance	
Predictor	*β* Step 1	*β* Step 2
n Pow	.27**	.17*
Contrast 1 (InMo)	.10	.10
Contrast 2	-.05	-.05
Contrast 3	.11	.11
Contrast 1(InMo) x *n* Pow		**.16***
Contrast 2 x *n* Pow		-.14
Contrast 3 x *n* Pow		-.14
R^2	.10	.15
ΔR^2	.10	.05
ΔF	4.16	3.15

Note. *N* = 160. InMo = inspirational motivation, *n* Pow = implicit need for power, Contrast 1 = (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 = (TLD of interest = 0; compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1). Bold numbers represent results corresponding to Hypothesis 3.2.
*$p < .05$. **$p < .01$.

Table 18

Standardized Coefficients Predicting Concentration Performance in an HMRA: Contrasts and n Achievement (Step 1) and Contrasts, n Achievement, and the Interaction of Contrasts x n Achievement (Step 2)

	Concentration performance	
Predictor	*β* Step 1	*β* Step 2
n Ach	.09	.04
Contrast 1 (InSt)	.05	.04
Contrast 2	.12	.13
Contrast 3	-.00	.03
Contrast 1(InSt) x *n Ach*		**.06**
Contrast 2 x *n Ach*		-.04
Contrast 3 x *n Ach*		.19*
R^2	.03	.07
ΔR^2	.03	.04
ΔF	1.18	1.96

Note. *N* = 160. InSt = intellectual stimulation, *n* Ach = implicit need for achievement, Contrast 1 = (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 = (TLD of interest = 0; compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1). Bold numbers represent results corresponding to Hypothesis 3.3.
*p < 05.

Table 19

Standardized Coefficients Predicting Concentration Performance in an HMRA: Contrasts and n Power (Step 1) and Contrasts, n Power, and the Interaction of Contrasts x n Power (Step 2)

	Concentration performance	
Predictor	*β* Step 1	*β* Step 2
n Pow	.27**	.17*
Contrast 1 (IdIn)	-.10	-.11
Contrast 2	.07	.08
Contrast 3	-.10	-.10
Contrast 1(IdIn) x *n Pow*		**.17***
Contrast 2 x *n Pow*		.23**
Contrast 3 x *n Pow*		-.07
R^2	.10	.15
ΔR^2	.10	.05
ΔF	4.16	3.15

Note. *N* = 160. IdIn = idealized influence, *n* Pow = implicit need for power, Contrast 1 = (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 = (TLD of interest = 0; compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1). Bold numbers represent results corresponding to Hypothesis 3.7.
*p < .05. **p < .01.

To further explore the nature of the these interactions, I calculated predicted values for concentration performance using regression slopes from the final regression equation at values of 1 standard deviation above and below the means of the first-order components (cf. Cohen et al., 2003).

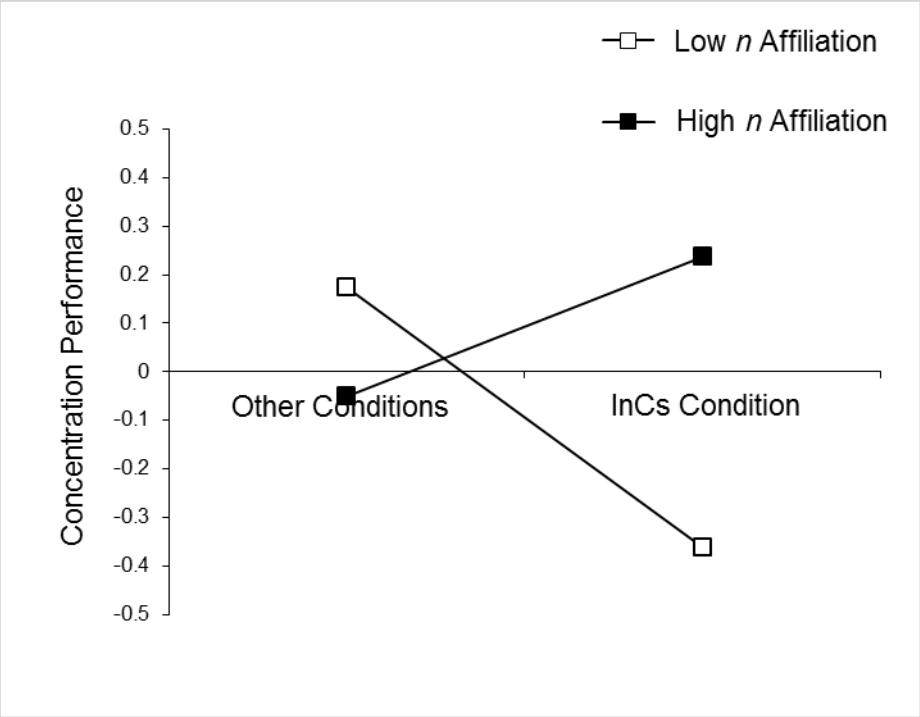

Figure 14. Predicted z-standardized values for concentration performance in the individualized consideration condition depending on the affiliation motive. InCs = individualized consideration.

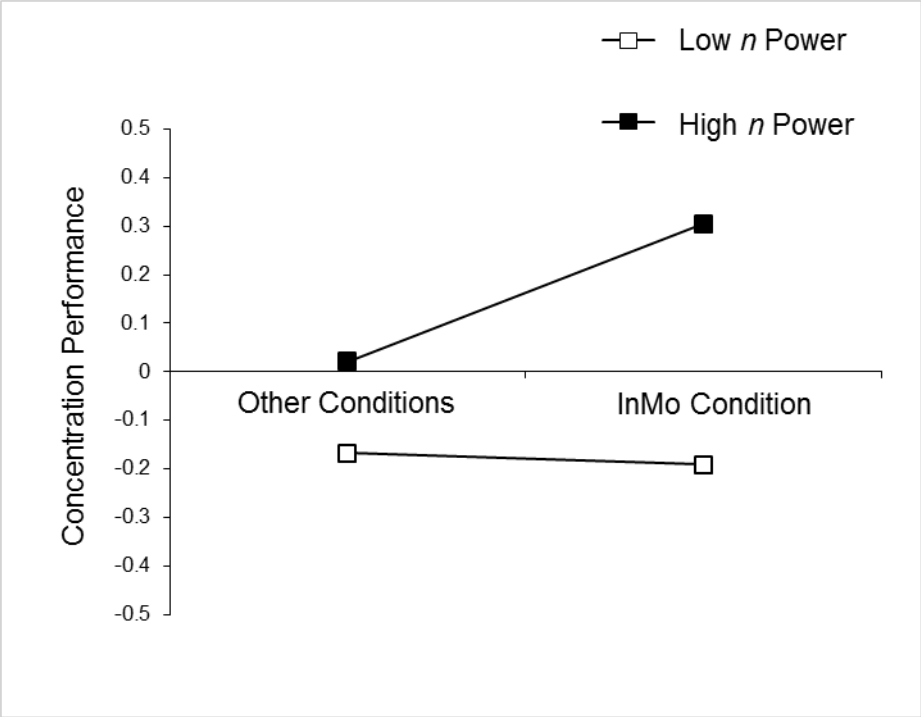

Figure 15. Predicted z-standardized values for concentration performance in the inspirational motivation condition depending on the power motive. InMo = inspirational motivation.

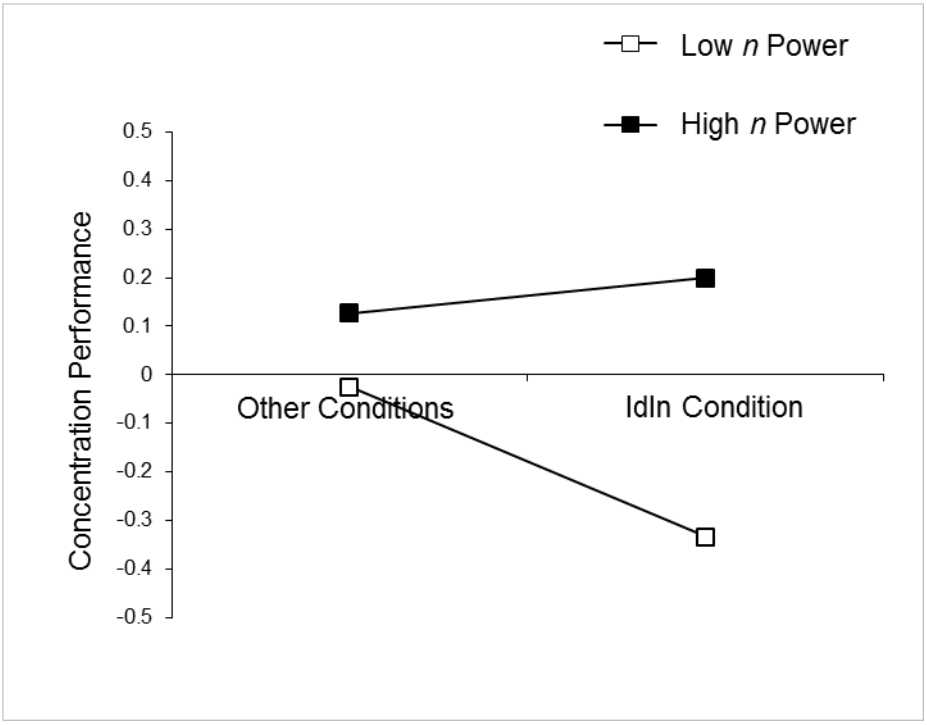

Figure 16. Predicted z-standardized values for concentration performance in the idealized influence condition depending on the power motive. IdIn = idealized influence.

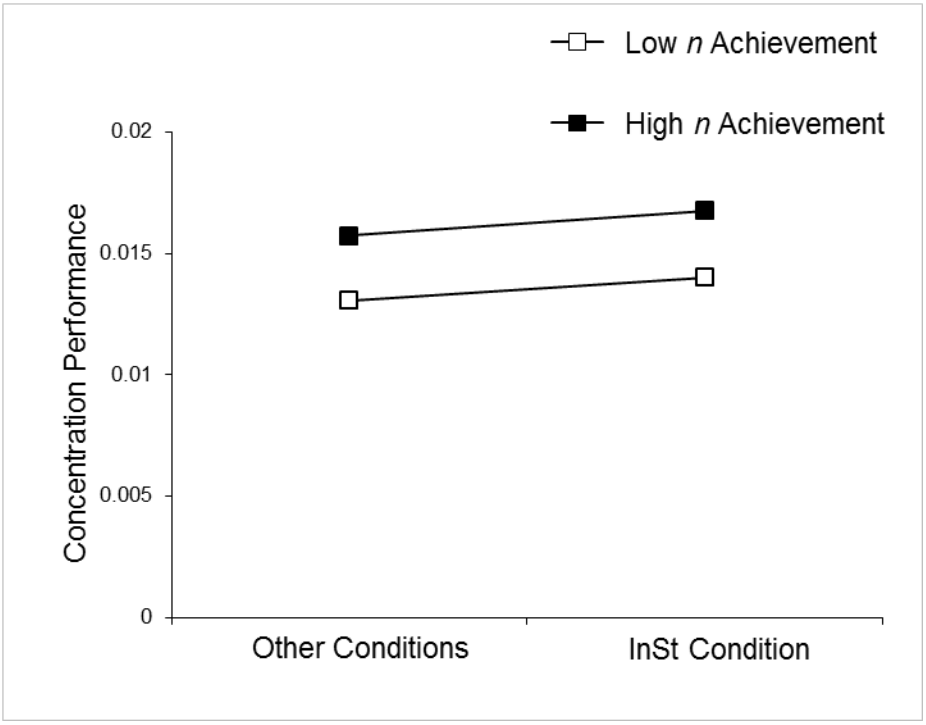

Figure 17. Predicted z-standardized values for concentration performance in the intellectual stimulation condition depending on the achievement motive. InSt = intellectual stimulation.

Figure 14 illustrates that a high implicit affiliation motive positively moderated the relation between InCs and concentration performance, b = .14, $t(156)$ = 2.47, p = .02. Likewise, a low implicit affiliation motive negatively moderated the relation between InCs and concentration performance, b = -.27, $t(156)$ = 4.41, p < .001. Figure 15 illustrates the results for the InMo condition in which a high implicit power motive positively moderated the relation between InMo and concentration performance, b = .14, $t(156)$ = 2.34, p = .02. A low implicit power motive did not significantly moderate the relation between InMo and concentration performance, but the effect was in the predicted direction, b = -.01, $t(156)$ = 0.19, p = .84. For the third significant interaction, IdIn x Implicit Power Motive, the simple slope analysis (Figure 16) revealed that a low implicit power motive negatively moderated the relation between IdIn and concentration performance, b = -.15, $t(156)$ = 2.91, p = .004. A high implicit power motive did not significantly moderate the relation between IdIn and concentration performance, but the effect was also in the predicted direction, b = .04, $t(156)$ = 0.76, p = .45. The interaction between Contrast 1 (InSt) x Implicit Achievement

Motive was not significant, so simple slopes were not calculated. However, Figure 17 illustrates the interaction pattern, and disregarding the fact that the conventional level of statistical significance was not achieved (cf. Cumming, 2013), the effect size was positive as predicted by Hypothesis 3.3.

To test Hypotheses 3.1 - 3.3 as well as to test Hypothesis 3.7 for the second dependent measure, I conducted exactly the same statistical procedure as mentioned before but with number of ideas as the dependent variable.[11] Tables 20 and 21 present the results for the InCs and InMo conditions. I found significant effects on followers' number of ideas for the interaction between Contrast 1 (InCs) x Implicit Affiliation Motive and the interaction between Contrast 1 (InMo) x Implicit Power Motive. Table 22 presents the results for the InSt condition. Here, the interaction between Contrast 1 (InSt) x Implicit Achievement Motive was marginally significant. The interaction between the focal IdIn contrast and the implicit power motive did not reach the conventional level of statistical significance of $p < .10$ ($p = .46$, see Table 23). Hence, with strict adherence to the conventional level of statistical significance, Hypothesis 3.1, which proposed that *the strength of followers' implicit affiliation motive would positively moderate the relation between a leader displaying InCs and followers' performance*, Hypothesis 3.2, which proposed that *the strength of followers' implicit power motive would positively moderate the relation between a leader displaying InMo and followers' performance,* and Hypothesis 3.3, which proposed that *the strength of followers' implicit achievement motive would positively moderate the relation between a leader displaying InSt and followers' performance,* were supported. However, Hypothesis 3.7, which proposed that *the strength of followers' implicit power motive would positively moderate the relation between a leader displaying IdIn and followers' performance,* was not.[12]

[11] I also calculated hierarchical regression analyses including all implicit motives to control for possible confounding effects. Incorporating the other implicit motives did not change the pattern of results, nor did it significantly reduce the effect size of the interaction terms.

[12] In two conditions, the corresponding implicit motive was significantly correlated with the dependent variable. InCs condition: *n* Aff x *Number of Ideas* ($r = .26^{+}$), InMo condition: *n* Pow x *Number of Ideas* ($r = .56^{**}$), InSt condition: *n* Ach x *Number of Ideas* ($r = .24$), IdIn condition: *n* Pow x *Number of Ideas* ($r = .24$).

Table 20

Standardized Coefficients for Predicting Number of Ideas in an HMRA: Contrasts and n Affiliation (Step 1) and Contrasts, n Affiliation, and the Interactions of Contrasts x n Affiliation (Step 2)

	Number of ideas	
Predictor	*β* Step 1	*β* Step 2
n Aff	-.12	-.13
Contrast 1 (InCs)	-.01	-.02
Contrast 2	.01	.01
Contrast 3	.07	.07
Contrast 1(InCs) x *n* Aff		**.27****
Contrast 2 x *n* Aff		.05
Contrast 3 x *n* Aff		.05
R^2	.02	.10
ΔR^2	.02	.08
ΔF	.77	4.31

Note. *N* = 160. InCs = individualized consideration, *n* Aff = implicit need for affiliation, Contrast 1 = (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 = (TLD of interest = 0; compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1). Bold numbers represent results corresponding to Hypothesis 3.1.
**$p < .01$.

Table 21

Standardized Coefficients for Predicting Number of Ideas in a HMRA: Contrasts and n Power (Step 1) and Contrasts, n Power, and the Interaction of Contrasts x n Power (Step 2)

	Number of ideas	
Predictor	*β* Step 1	*β* Step 2
n Pow	.19*	.09
Contrast 1 (InMo)	.00	.01
Contrast 2	-.01	-.02
Contrast 3	.08	.07
Contrast 1(InMo) x *n* Pow		**.19***
Contrast 2 x *n* Pow		-.11
Contrast 3 x *n* Pow		-.05
R^2	.04	.08
ΔR^2	.04	.04
ΔF	1.57	2.06

Note. *N* = 160. InMo = inspirational motivation, *n* Pow = implicit need for power, Contrast 1 = (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 = (TLD of interest = 0; compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1). Bold numbers represent results corresponding to Hypothesis 3.2.
*$p < .05$.

Table 22

Standardized Coefficients for Predicting Number of Ideas in an HMRA: Contrasts and n Achievement (Step 1) and Contrasts, n Achievement, and the Interaction of Contrasts x n Achievement (Step 2)

	Number of ideas	
Predictor	*β* Step 1	*β* Step 2
n Ach	.03	.00
Contrast 1 (InSt)	.05	.03
Contrast 2	.02	.03
Contrast 3	.02	.01
Contrast 1(InSt) x *n* Ach		**.14**$^{+}$
Contrast 2 x *n* Ach		.03
Contrast 3 x *n* Ach		-.03
R^2	.01	.03
ΔR^2	.01	.02
ΔF	.19	1.06

Note. *N* = 160. InSt = intellectual stimulation, *n* Ach= implicit need for achievement, Contrast 1 = (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 = (TLD of interest = 0; compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1). Bold numbers represent results corresponding to Hypothesis 3.3.
$^{+}p < .10$.

Table 23

Standardized Coefficients for Predicting Number of Ideas in an HMRA: Contrasts and n Power (Step 1) and Contrasts, n Power, and the Interaction of Contrasts x n Power (Step 2)

	Number of ideas	
Predictor	*β* Step 1	*β* Step 2
n Pow	.19*	.09
Contrast 1 (IdIn)	-.06	-.05
Contrast 2	-.02	-.01
Contrast 3	-.05	-.05
Contrast 1(IdIn) x *n* Pow		**.06**
Contrast 2 x *n* Pow		.22*
Contrast 3 x *n* Pow		-.08
R^2	.04	.08
ΔR^2	.04	.04
ΔF	1.57	2.06

Note. *N* = 160. IdIn = idealized influence, *n* Pow = implicit need for power. Contrast 1 = (TLD of interest = 3; compared TLD 1 = -1; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 2 = (TLD of interest = 0; compared TLD 1 = 2; compared TLD 2 = -1; compared TLD 3 = -1), Contrast 3 = (TLD of interest = 0; compared TLD 1 = 0; compared TLD 2 = 1; compared TLD 3 = -1). Bold numbers represent results corresponding to Hypothesis 3.7.
$^{*}p < .05$.

Again, I calculated the predicted values for the number of ideas using regression slopes from the final regression equation at 1 standard deviation above and below the means of the first-order components to further explore the nature of the interactions (cf. Cohen et al., 2003).

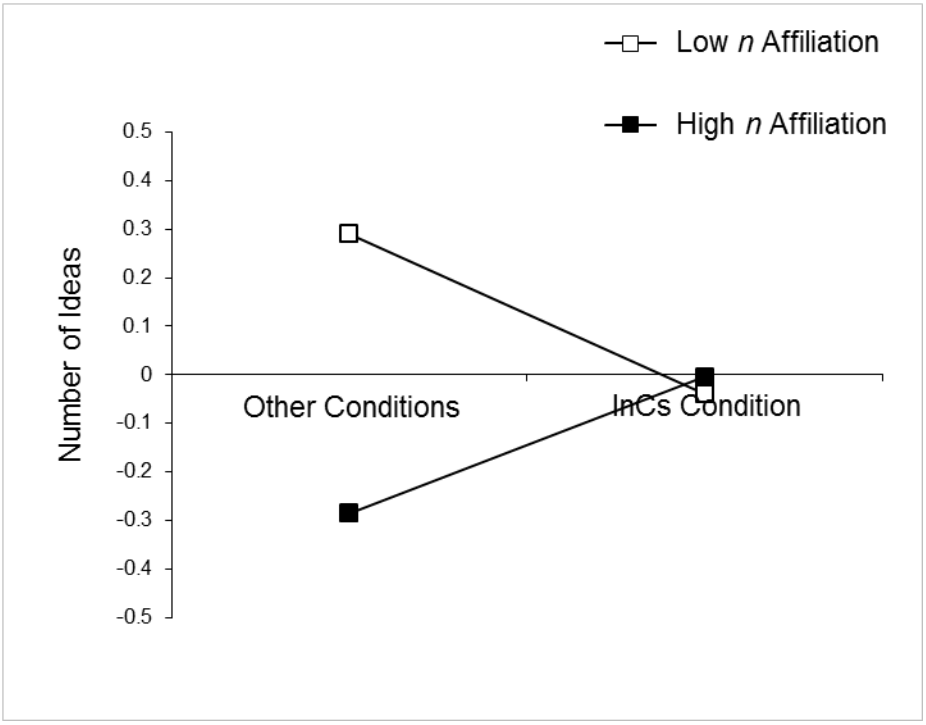

Figure 18. Predicted z-standardized values for the number of ideas in the individualized consideration condition depending on the affiliation motive. InCs = individualized consideration.

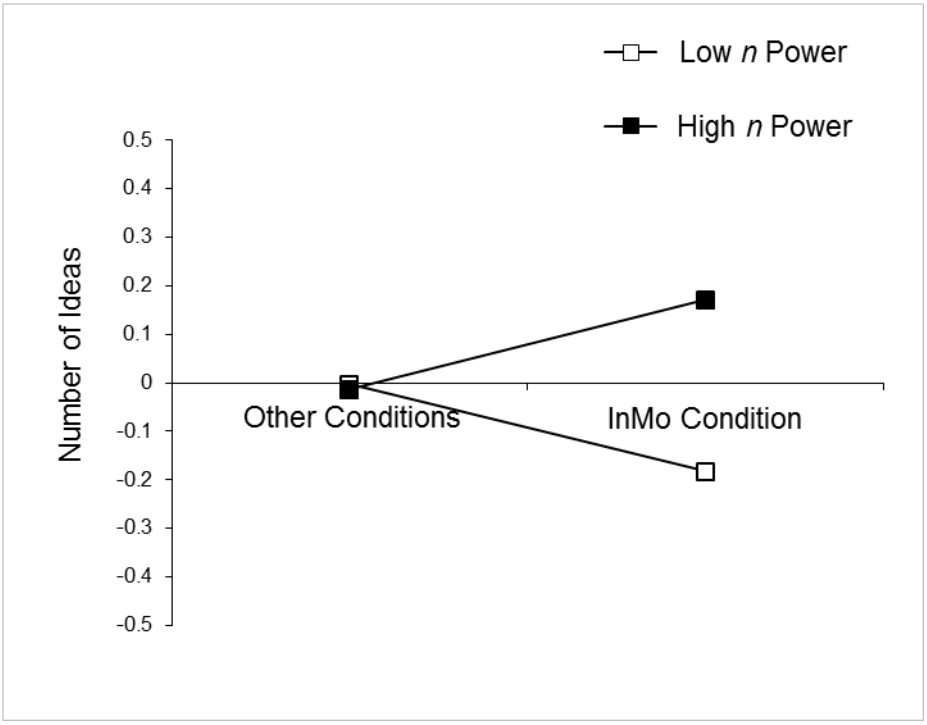

Figure 19. Predicted z-standardized values for the number of ideas in the inspirational motivation condition depending on the power motive. InMo = inspirational motivation.

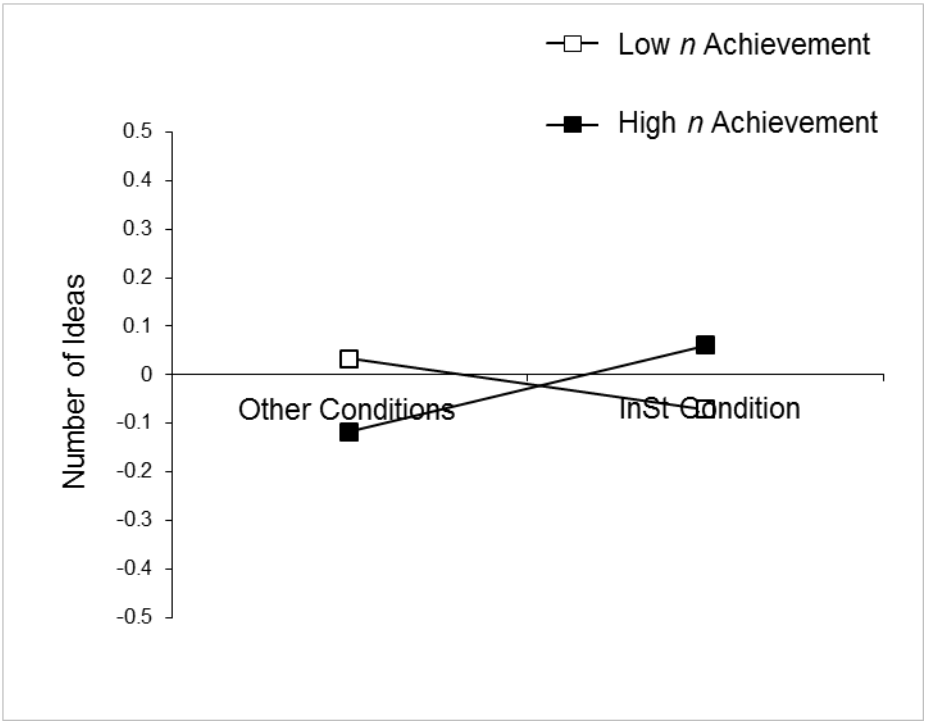

Figure 20. Predicted z-standardized values for the number of ideas in the intellectual stimulation condition depending on the achievement motive. InSt = intellectual stimulation.

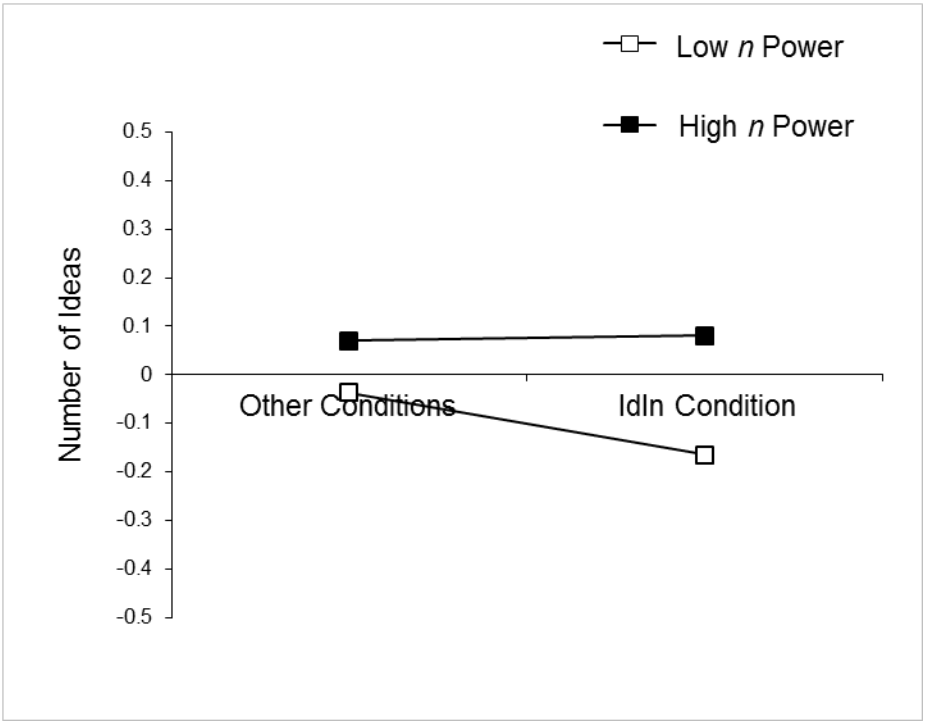

Figure 21. Predicted z-standardized values for the number of ideas in the idealized influence condition depending on the power motive. IdIn = idealized influence.

Figure 18 illustrates that the difference between people having a high or a low implicit affiliation motive on generated ideas was driven by the other transformational leadership conditions but did not hold in the InCs condition. The difference between the high and low implicit affiliation motive within the InCs condition was close to zero. Nevertheless, the slope analysis revealed significant effects for a high implicit affiliation motive, b = .14, $t(156) = 2.29$, p = .02, as well as for a low implicit affiliation motive, b = -.16, $t(156) = 2.57$, p = .01. Figure 19 shows the simple slopes for the InMo condition. Here, no slope was significant (high implicit power motive: p = .14; low implicit power motive: p = .17). The same was true for the InSt condition (Figure 20). The slopes were not significant (high implicit achievement motive: p = .14; low implicit achievement motive: p = .45). Still, the effects for the InMo and the InSt conditions were in the predicted direction. The result for the interaction between Contrast 1 (IdIn) x Implicit Power Motive was not significant; thus, simple slopes were not calculated. Disregarding the fact that the conventional level of statistical significance was not achieved (cf. Cumming, 2013), the effect size was positive

as predicted by Hypothesis 3.7. Figure 21 also illustrates that the interaction was in the expected direction.

3.5.4 Discussion

The aim of Study 4 was to address the limitations of the previous studies, replicate the results, and expand the experimental setting to include the fourth TLD IdIn. Again, I calculated the interaction effects of transformational leadership behaviors and followers' corresponding implicit motives on performance. As in Study 3, I measured performance with an idea generation task but also with a concentration task. This time the study was focused on only performance measures as performance is a key follower outcome (see Chapter 2.3.4). Concerning the d2-R concentration performance task, the findings were similar to the results of the performance measure used in Study 3. The findings demonstrated that a compatibility of the two concepts can have positive effects on concentration performance. The strength of followers' implicit affiliation motive positively moderated the relation between InCs and the quality of their concentration performance. I found that when the leader displayed InCs behavior, followers with a high implicit affiliation motive showed a high concentration performance. Likewise, followers with a low implicit affiliation motive showed a low concentration performance when the leader displayed InCs behavior. Also, the results showed that the strength of followers' implicit power motive positively moderated the relation between InMo and the quality of concentration performance. Here, the analysis illustrated that followers with a high implicit power motive showed a high concentration performance when the leader displayed InMo behavior. In addition, the results showed that the strength of followers' implicit power motive positively moderated the relation between IdIn and the quality of concentration performance. Here, the analysis illustrated that when the leader displayed IdIn behavior, followers with a low implicit power motive showed low concentration performance. As in Study 3, for the relation between InSt and performance, the interaction was not significant at the conventional level of statistical significance. But the effect size was positive as predicted.

Thus, I can conclude that there might be a moderating effect of the implicit achievement motive on the relation between InSt and concentration performance.

The second measure was, as in Study 3, the idea generation task. Here, the findings of the current study demonstrate that a compatibility between the two constructs can have positive effects. The strength of followers' implicit power motive positively moderated the relation between a leader displaying InMo and the number of ideas generated by the followers, findings that were analogous to the results of Study 3. In addition, the results showed that the strength of followers' implicit achievement motive positively moderated the relation between a leader displaying InSt and the number of ideas generated by the followers. For the interaction between InCs and affiliation, I also found an effect of the interaction on performance, but the simple slope analysis showed that this interaction was driven by the influence of the other conditions and not by InCs behavior. For the fourth TLD, IdIn, I expected compatibility with the implicit power motive (see Study 1). The plotted results showed that the nonsignificant interaction was in the expected direction. Thus, I can conclude that there might be a moderating effect of the implicit power motive on the relation between IdIn and performance. Going beyond the hypotheses, the simple slope pattern for the implicit affiliation motive showed that followers with a high implicit affiliation motive had worse performance than people with a low implicit affiliation motive if the leader displayed not InCs. This leads to the conclusion that a high implicit affiliation motive might be a further hindrance to performance, going beyond the leader displaying InCs. Of course, this supposition has to be tested empirically.

Although Study 4 resolved the major constraints of Study 3 by taking into account IdIn and by employing successful manipulations, one limitation should still be considered: In both experiments (Studies 3 and 4), I relied on participants' imagination of a working relationship with a leader. I employed this method in order to avoid unpredictable combinations of transformational leadership behaviors applied in complex follower-leader relationships. Still, the presence of only a single TLD in a leader's behavior is not likely to occur in reality. Therefore, further research would benefit from studies applying a more

realistic setting with real instead of imagined working relationships between followers and leaders; for example experience-sampling methods (Csikszentmihalyi & Larson, 1992; Nielsen & Cleal, 2011; Scollon, Kim-Prieto, & Diener, 2003).

Despite this limitation, Study 4 showed strong effects of the compatibility of TLDs and implicit motives in an experimental setting. Therefore, this study complemented Studies 1 to 3 in which the empirical foundation was laid and in which the first positive effects were shown. Taken together, Studies 1 to 4 indicate that there are interactions between the TLDs and implicit motives and that these interactions have positive effects.

4 General Discussion

The present four studies were conducted to reach three goals. The first goal was to establish conceptual links of TLDs and specific motives (Study 1). The second goal was to test effects of followers' implicit motive dispositions on preferences for distinct TLDs (Study 2). The third goal was to shed light on the underlying motivational mechanisms of each TLD and its positive consequences by empirically testing (Studies 3 and 4) the interactions of TLDs and the strength of followers' corresponding implicit motive dispositions on work-related outcomes.

First, I conducted a quantitative content analysis of the literature on transformational leadership. For this purpose, I obtained a representative sample of peer-reviewed articles on the four TLDs. After that, I used the resulting peer-reviewed articles, especially the descriptions of the TLDs provided in the articles to analyze the TLD characterizations according to their motive content (Study 1). The results of the literature analysis mostly confirmed my hypotheses: The characterizations of individualized consideration comprised more affiliation content than characterizations of the other dimensions and more affiliation content than power or achievement content. The characterizations of inspirational motivation comprised more power content than the characterizations of the individualized consideration and intellectual stimulation dimensions and more power content than affiliation and achievement content. The characterizations of intellectual stimulation comprised more achievement content than the characterizations of the other dimensions, but contrary to my hypothesis, more power content than affiliation and achievement content. Finally, the characterizations of idealized influence comprised more power content than affiliation or achievement content. Thus, the motive content varied across the characterized dimensions.

Second, I was able to support the results of Study 1 with data obtained from individuals by examining the implicit Big 3 motives as predictors of the preference for a certain TLD (Study 2). The results confirmed my hypotheses: Preferences for individualized

consideration were predicted by the implicit need for affiliation, preferences for inspirational motivation were predicted by the implicit need for power, and preferences for intellectual stimulation were predicted by the implicit need for achievement. Thus, each implicit motive disposition predicted a preference for the corresponding TLD.

Third, in two experimental studies (Studies 3 and 4), I tested the interaction between TLDs and the strength of followers' corresponding implicit motive dispositions on work-related outcomes and subsequently the moderating effect of the strength of followers' implicit motive dispositions. After measuring the strength of participants' implicit motive dispositions, participants either watched a video (Study 3) or read a vignette (Study 4) about a leader who embodied a certain transformational leadership behavior, which depended on the condition. Participants were always instructed to imagine themselves as a follower of this leader, and they had to complete performance tasks (Studies 3 and 4) and leader influence tasks (Study 3). The results of both studies indicated that compatibility between the TLDs and the Big 3 motives could lead to positive effects such as performance or leader influence. Nevertheless, results varied across the specific dependent variables. For all dependent variables, I found relatively consistent results for the compatibility of individualized consideration and followers' implicit affiliation motive as well as for the compatibility of inspirational motivation and followers' implicit power motive. For the interplay between intellectual stimulation and followers' implicit achievement motive, the effects of the interactions on the dependent variables were contradictory. For the compatibility of idealized influence and followers' implicit power motive, I found only one significant outcome effect.

4.1 Summary of the Findings

4.1.1 The motivational structure of TLDs

The results of Study 1 indicate that three out of the four TLDs are loaded with content from one of the Big 3 motives. Thus, the aim of Study 1, which was designed to provide an empirical foundation for the assumed compatibility between the TLDs and the implicit Big 3 motives, was reached: The motive content varied significantly across the characterized dimensions. Compared with the PSE in which different picture cues provide incentives, the results of Study 1 indicate that the TLDs provide certain incentives that trigger specific motives. On the basis of this empirically tested foundation, I agree with House and Shamir (1993) who postulated that leaders can arouse the implicit motives of their followers. I extended their postulation by exploring the different aspects of specific TLDs.

However, the results were not always in line with the theoretical assumptions. On the one hand, and in line with the prediction, the results indicated that the achievement content was specific to intellectual stimulation compared with the other TLDs. On the other hand, and contrary to the prediction, the results indicated that intellectual stimulation comprised more power motive than affiliation or achievement motive content. Regarding the specific content-coding results, it was obvious that the unexpectedly high power scores in the intellectual stimulation dimension were the result of only the third category of power (*pow 3–arguments, enforcements, or persuasion*) postulated by Winter (1991). This category conceptually overlaps with the third achievement category: *ach 3* (*mention of competing and winning*). This conceptual overlap or closeness can explain the unexpectedly high power score that occurred in the intellectual stimulation dimension.

4.1.2 The motivational structure of TLD preferences

Study 2 provided deeper insights into the link between TLDs and followers' Big 3 motives. As hypothesized, the results of Study 2 showed that the preference for a certain TLD was affected by the strength of followers' implicit motive dispositions. The results for

each TLD were always in line with my predictions. Thus, the implicit affiliation motive predicted the preference for individualized consideration, the implicit power motive predicted the preference for inspirational motivation, and the implicit achievement motive predicted the preference for intellectual stimulation. Taking these findings into account, the explanation that I mentioned for the contradictory results of Study 1 (see Chapter 3.2.4), namely that the measure that was used (i.e., Winter's, 1994, *Manual for Scoring Motive Imagery in Running Text*) might not be reliable enough to distinguish between power and achievement in a scientific text but is still used in PSE stories, seems to be valid. Thus, I can conclude that there is a link between intellectual stimulation and the implicit achievement motive.

The preference effects found in Study 2 can be explained by the finding that each TLD provides distinct incentives that signal the potential for implicit motive satisfaction, mainly for the corresponding implicit motive. This explanation is in line with the assumption made by House and Shamir (1993) and also with contemporary theories on motivation (e.g., Kehr's, 2004b, compensatory model of work motivation and volition). By consulting Kehr's model (2004b) to explain the effects, one can argue that people who were aware of the motivating potential of the TLDs presented as vignettes developed affective preferences for these dimensions. The vignettes I used consisted of brief TLD characterizations and contained certain incentives that were related to dispositional motives.

In sum, the results of the second study provided empirical support for the theoretical assumptions. Nevertheless, because the study was planned and conducted at the same time as Study 1, the results of Study 1 could not be taken into account, and so the study run without the fourth TLD idealized influence. Further research is needed to empirically test which implicit motive disposition predicts the preference for idealized influence behavior. Driven by the results of Study 1, I predict that followers with a high need for power will prefer a leader who shows idealized influence behavior.

4.1.3 The effects of TLDs on followers' work-related outcomes depend on followers' implicit motives

The aim of Studies 3 and 4 was to show that a compatibility between TLDs and the strength of followers' implicit motive dispositions would lead to positive follower outcomes. On the basis of the theoretical assumptions and the results of Studies 1 and 2, I tested the foregoing interaction effect. Subsequently, I implemented a moderator model with followers' individual implicit motive dispositions moderating the relation between transformational leadership behavior and followers' performance as well as leader influence. In both studies, the results for inspirational motivation were always consistent. The results demonstrated that followers' implicit power motive moderated the relation between inspirational motivation and performance (Studies 3 and 4) as well as the relation between inspirational motivation and leader influence (Study 3). Except for one measure, the results were also consistent for individualized consideration: Followers' implicit affiliation motive moderated the relation between individualized consideration and performance (Studies 3 and 4) and leader influence (Study 3). Whereas the results for these first two TLDs were consistent and in line with my expectations, the results for intellectual stimulation were inconsistent. For three out of four dependent variables, the results did not indicate a moderator effect at the conventional level of statistical significance. But I found a marginally significant moderating effect of followers' implicit achievement motive on the relation between intellectual stimulation and performance in Study 4 and a significant correlation between followers' implicit achievement motive and leader's influence in the intellectual stimulation condition in Study 3. I will discuss these findings in the light of the assumptions made by motivational field theory (Stanton, Hall, & Schultheiss, 2010) in the next section. For the TLD idealized influence, I found a moderating effect of followers' implicit power motive on the relation between idealized influence and performance only one time (Study 4). Thus, the assumed compatibility of idealized influence and the implicit power motive cannot be concluded to be clearly empirically supported. I will also discuss this issue in the next section.

In sum, in line with and expanding on Wofford and colleagues (2001) findings, the current studies indicated that followers' implicit motive patterns serve as situational moderators of the effects of the different dimensions of transformational leadership.

Nevertheless, in the next section, I will critically examine the studies, and I will outline future directions for basic research.

4.2 Alternative Explanations, Limitations, and Future Directions for Research

4.2.1 Inconsistent results for the predicted interplay between intellectual stimulation and the achievement motive

Except for Study 2, which confirmed that followers' implicit achievement motive predicted the preference for intellectual stimulation, the results on the predicted link between intellectual stimulation and the achievement motive were inconsistent. Therefore, in this section, I will present two possible alternative explanations for the results.

The first explanation for the inconsistent results focuses on the TLD intellectual stimulation. Regarding the results of Study 1, the explanation is that intellectual stimulation provides power-motivated incentives instead of the predicted achievement-motivated incentives. Thus, followers with a high score on *n* Power should be motivated by a leader comprising intellectual stimulation. The present hypotheses did not make this prediction because there was no strong theoretical support for such an assumption (see Chapter 2.3.2). Nevertheless, I conducted an exploratory test of the possible moderator effect of followers' implicit power motive on the relation between intellectual stimulation and work-related outcomes in Studies 3 and 4, but the effects were not significant. Taking into account the results of the present studies, which showed that intellectual stimulation is sometimes related to the implicit achievement motive and at other times to the implicit power motive, I now posit that intellectual stimulation might trigger the implicit agentic motive. The agentic motive is a combination of the power motive and the achievement motive (Bakan, 1966). Obviously, this proposal must be tested with further research.

A second alternative explanation for the inconsistent results focuses on the achievement motive rather than on the TLD itself. According to motivational field theory

(Stanton, Hall, & Schultheiss, 2010), interpersonal behavior such as a leadership process provides cues that arouse social motives. Social motives include the power motive and the affiliation motive (Winter et al., 1998) but not the achievement motive. Thus, it might be the case that an interpersonal social interaction as implemented in Studies 3 and 4 is unable to arouse the implicit achievement motive because this motive is not necessarily social in nature. This means that a framework that provides incentives such as signaling opportunities to grow, improving efficiency, or attaining self-set standards of excellence must be created to arouse followers' implicit achievement motive. Possible frameworks might involve an objective written feedback form or a step-by-step performance-related career plan. Both frameworks should be tested in an experimental setting with further basic research. Another consideration would be to test an effect of intellectual stimulation on the explicit achievement motive. This consideration is driven by the fact that in my research, I provided frameworks that contained external social demands such as that the leader is demanding that the followers do something with regard to performance. According to McClelland et al. (1989), individuals with a high score on the explicit achievement motive "have been shown to be more influenced by salient external social demands" (McClelland et al., 1989, p. 693).

4.2.2 TLD idealized influence

At the beginning of the present research, I had no specific hypotheses about the correspondence between idealized influence and any of the Big 3 motives. However, the results of the literature analysis revealed that at least in theory, the TLD idealized influence entails power-specific content. Due to the temporal overlap of Study 1 and Study 2 as well as Study 1 and Study 3, the results of the literature analysis were not considered in two of the four studies. This is the main explanation for why I found a moderating effect of followers' implicit power motive on the relation between idealized influence and followers' performance only one time. Even when considering the nonsignificant result of the second performance measure from Study 4 as it was in the predicted direction, more

research definitely has to be conducted on this TLD. For further basic research, I would first replicate Study 2 to demonstrate a possible effect of followers' implicit power motive on the preference for idealized influence. In addition, I would expand Study 3 with a video showing a leader who embodies idealized influence to replicate the results of Study 4 and to examine whether there is also a moderating effect of followers' implicit power motive on the relation between idealized influence and leader influence.

4.2.3 Examiner effects

Regarding the two experimental studies (Studies 3 and 4) in my thesis, possible examiner effects have to be discussed. In psychological experiments, an interaction between the examiner and the participants is unavoidable. Therefore, researchers must be aware that, for example, the personality traits, age, gender, or interpersonal style of the examiner can influence participants' behavior. With respect to the fact that this research was about leadership processes, one could argue that giving instructions to participants is already a type of leadership process and that the examiner's instructions can arouse followers' implicit motives and thus can influence the perception of the leadership process in the studies.

But still, this limitation can be eliminated: The examiner was always the same person who always gave exactly the same instructions to the participants in the studies so that the preconditions were the same for all participants. Thus, the resulting interactive patterns cannot be reduced to examiner effects.

4.2.4 Integrating follower and leader personality

In the current research, I decided to focus on only the implicit motives of the followers. I made this decision on the basis of the statements provided by transformational leadership researchers such as Bass (1985) and House and Shamir (1993). They postulated that a transformational leader can arouse followers' implicit motives. Nevertheless, there is also research on the implicit motives of the leader suggesting that if a leader uses a leadership

behavior that fits his or her own personality, followers will perceive this leader as more authentic and charismatic, and thus, followers will show higher performance (e.g., de Hoogh et al., 2005; Dörr, 2006; Kehr & Weibler, 2010). Taking into account the results of research on leaders' implicit motives and my results on followers' implicit motives and applying House's (1985) proposition that "the extent to which followers are ready to endow leaders with charisma depends on the personality of the followers as much as on their leader" (p. 36), research on the effects of transformational leadership should include the implicit motives of both followers and leaders. Future research can thus assume that if a leader's implicit motives are compatible with a TLD, followers will perceive their leader as more charismatic and therefore more authentic. Also, if the leader embodies a TLD that is compatible with the followers' implicit motives, the followers will perform better than if it is not compatible. This could be tested in a sample of workers by using experience-sampling methods (cf. Csikszentmihalyi & Larson, 1992; Nielsen & Cleal, 2011) in order to obtain more than just one measure of performance. Still, followers' performance could be measured with an idea generation task (e.g., Diehl & Stroebe, 1987, 1991; Paulus & Yang, 2000; Stam, et al., 2010; van Knippenberg & van Knippenberg, 2005) or a concentration performance measurement (e.g., Stam et al., 2010) if no direct work-related performance measures are available. In sum, further research should test a moderated mediation model with different moderators as illustrated in Figure 22.

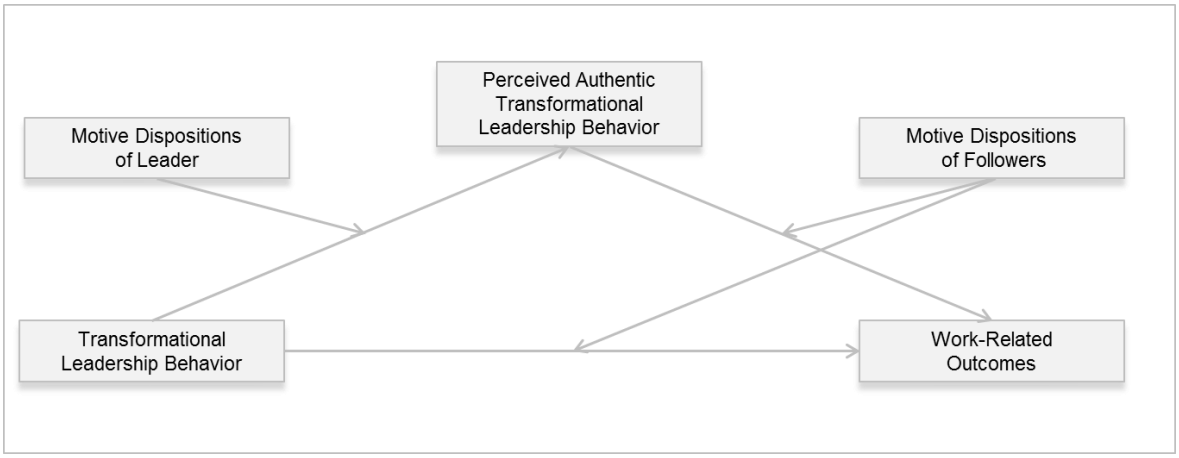

Figure 22. Research model on the assumed moderated mediation between transformational leadership behavior and work-related outcomes through perceived authentic transformational leadership behavior and moderated by the motive dispositions of leaders and followers.

4.2.5 Testing other leadership models

In addition, the current research focused on transformational leadership theory because the original postulation of arousing followers' motives through leading was derived by transformational leadership researchers (Bass, 1985; House & Shamir, 1993) and was thus associated with the TLDs.

Regarding the results by van Dierendonck, Stam, Boersma, de Windt, and Alkema (2014), who showed that the underlying mechanism through which servant leadership affects followers is follower need satisfaction, one can conclude that other leadership behaviors, apart from transformational leadership behavior, can also arouse followers' implicit motives. Therefore, it would be logical to conduct a study that takes into consideration: servant leadership.

According to the results by van Dierendonck et al. (2014) and considering the conceptualization of servant leadership, which conceptualizes "leaders as servants of their followers, placing their followers' needs above their own needs" (Giessner & Van Quaquebeke, 2010, p. 44), servant leadership (Greenleaf, 1977) should be analyzed in further research to consider the potential arousal of followers' implicit motives: I assume that a leader displaying servant leadership should be able to arouse followers' implicit power motive. This is because servant leadership involves hierarchical relationships, and

the power motive is aroused in a person's being in a hierarchical relationship, whether they are in a superior or inferior position (Strasser, 2013). In the end, every leadership theory that focuses on followers' characterizations in addition to leaders' characterizations, thus belonging to either the situational approach or to the integrative approach (cf. Chapter 2.1.1), could be considered in further research in order to further analyze the mechanisms underlying leadership effectiveness by focusing on followers' implicit motives.

Another approach that could be taken in future research, as already proposed by van Knippenberg and Sitkin (2013), would be to develop a leadership model that is based on theoretical concepts rather than on the effects of leadership. The results of the present research provide an empirical foundation for model development. As the present results reveal that the Big 3 motives are linked to distinct TLDs, it would be possible to employ the concept of the Big 3 motives (McClelland, 1985) as a foundation for transformational leadership and as a way to classify other leadership concepts.

4.2.6 Field study

All studies presented in this research involved samples of college students. This may restrict the generalizability of the results to a population of students, although the studies involved completely different subjects and thus covered a wide range of the population. Nevertheless, to avoid conducting scenario studies, further research should involve different samples, and in particular a sample of working people who have a direct leader. The most practical way to implement a study of working people would be to conduct a field study by using online questionnaires. The aim of such a field study would be the same as in Studies 3 and 4; that is, to identify the motivational processes underlying the TLDs by focusing on followers' implicit motives. Therefore, the study design would also be inspired by the designs of Studies 3 and 4 except that direct work-related performance measures would be used, and no manipulation would be necessary. In order to identify

leaders' transformational leadership behavior, followers as well as their leaders would have to fill out the MLQ (Bass & Avolio, 1995; Felfe & Goihl, 2002).

To implement such a field study in applied research, one has to be aware of two main difficulties: First, when using the MLQ measure (Bass & Avolio, 1995; Felfe & Goihl, 2002) in practice, researchers will most likely not be able to distinguish between the different TLDs. This is one of the main points of criticism mentioned by van Knippenberg and Sitkin (2013) who stated that "the most frequently used measurement tools are invalid in that they fail to reproduce the dimensional structure specified by theory and fail to achieve empirical distinctiveness from other aspects of leadership" (p. 2). Also, Bass (1999) demanded that a new method be created to measure the TLDs. However, consulting Antonakis' (2012) remarks as well as the results by Antonakis and House (2014) on the MLQ measure, it is possible to estimate the separate factors by increasing the sample size (Kennedy, 2003) and by using an MIMIC model (multiple indicator, multiple causes).

The second problem that researchers must be aware of when conducting field research is that analyzing followers' implicit motives is not very well-accepted by practitioners for various reasons (Brunstein, 2010; Kehr, 2004b; Kuhl, Scheffer, Mikoleit, & Strehlau, 2010; Sokolowksi, Schmalt, Langens, & Puca, 2000). Probably the main reason is that a considerable amount of effort is needed to measure the implicit motives of followers with the PSE (Koestner & McClelland, 1992), and thus, it is a strenuous process that is not easy to handle in the field. In order to eliminate this problem, further research should be applied to create a new and more practical measure of implicit motives.

4.3 Implications for Practice

The results of the present research have many implications for practice. In the following two sections, I will highlight at least three practical settings in which the findings of the current research can be applied: human resource management, education, and sports.

4.3.1 Human resource management: Personnel selection and development

The present results already demonstrated that a compatibility of a certain TLD and followers' implicit motive dispositions leads to positive outcome effects. These insights can be used to improve human resource management in the field of personnel selection and personnel development.

During the selection procedure, human resource managers could benefit from considering whether the motive dispositions of the candidates are in line with the transformational leadership style of the prospective leader. As already mentioned in Chapter 4.2.6, assessing implicit motives with the PSE measure used in research is not well-accepted by practitioners (cf. Brunstein, 2010; Kehr, 2004b; Kuhl et al., 2010; Sokolowksi et al., 2000). Besides the fact that a new and more practical measure should be created by researchers, human resource management could apply Winter's (1994) *Manual for Scoring Motive Imagery in Running Text* to letters that candidates have to write about their motivation as part of the application process. By content coding these motivation letters according to the Big 3 motives, a human resource manager would gain deeper insight into the implicit motive structure of the candidates and thus could better judge whether candidates' implicit motives are in line with the prospective leadership style or not. Nevertheless, this idea is limited by the fact that motivation letters are often copied and pasted from draft versions and are mostly not written as an immediate reaction to the job advertisement (as the incentive). Therefore, Comelli and von Rosenstiel (2001) argued that the most important and most promising way to gain deeper insight into the motivational structure of a person is for the human resource manager to ask certain questions during the interview and then to remain silent and listen carefully. Such

questions might be “What kind of work is fun for you?” and “Do you like working in a group or do you prefer working on your own?” (Comelli & von Rosenstiel, 2001). However, due to the unsatisfactory methods of gaining insight into the implicit motive dispositions of candidates, and also due to the fact that knowing more about the possible compatibility of candidates’ implicit motive dispositions and leaders’ leadership style would be just one selection criterion among many, the results of the present research can probably be better applied in the area of personnel development.

Given the finding that implicit motive dispositions are stable and independent of social demands in later life (cf. Koestner et al. 1991; McClelland, 1985), changing motive dispositions through personnel development is not possible. Hence, the findings of my research imply that in order to motivate followers and thus to bring out the best in them, various TLDs have to be adapted to followers’ implicit motive dispositions. Therefore, leaders have to be trained in different TLDs as a method of personnel development. Many training programs on transformational leadership are already available. Bass and Avolio (1990), for example, described a 6-day workshop that included 14 modules for training leaders at different hierarchical levels to become more transformational. Another 1-day group session training with monthly repeated individual booster sessions was provided by Barling, Weber, and Kelloway (1996). Even though the effectiveness of these training programs has been demonstrated, these programs are aimed more toward teaching a unidimensional transformational leadership style as opposed to teaching the differences between TLDs. One training program that involves the distinct TLDs is the “*Leadership by Motivation*” training (Kehr Management Consulting, 2012). However, this training program is not especially focused on teaching and learning how to implement the distinct TLDs. Hence, a new training program focusing on teaching the different TLDs has to be developed, implemented, tested, and evaluated. I recommend that such a training program builds upon the key elements of existing trainings (Bass & Avolio, 1990; Barling et al., 1996) and expands these trainings by highlighting how to learn the distinct TLDs. Taking into account recommendations made for developing training programs, I would

focus on a 1-day training and I would implement a mixture of methods such as lectures, one-on-one instruction, role plays, films, and case studies (cf. Read & Kleiner, 1996).

4.3.2 Education and sports

When talking about leadership, most people automatically think about economics or more specifically, management. But leadership also occurs in the field of education (e.g., in school settings) and in the field of sports (e.g., a handball team). Here, the leader is the teacher or the coach and the followers are the students or the players. Applying the findings of the current research to such settings, the results imply that teachers and coaches also have to be trained in different TLDs in order to tap the potential of the implicit motive dispositions of their students and players and hence to motivate them. However, in a school setting, most of the time there is no one-on-one leadership situation between a teacher and a pupil; thus, the teacher rarely has the chance to arouse students' implicit motives individually. The same is true for a coach. There might be some situations in which a handball coach has the chance to motivate a player individually, but normally, in both settings, leadership is applied in group sessions. The question that arises in this case is whether it is possible to arouse the implicit motives of all followers by applying a certain leadership technique. This question cannot be answered with the findings of the current studies, and further research on this topic is essential. Researchers who wish to address this topic must consider the idea that the individual implicit motive dispositions of the students or the players are different. Thus, an ideal leadership technique or leadership style has to provide multithematic incentives that arouse all of the Big 3 motives (cf. Kehr, 2004c). Taking into account Antonakis' (2012) statement that a transformational leader who shows idealized influence behavior arouses followers' affiliation, achievement, and power motives, and considering the unspecific one-time result of idealized influence in this research, it is conceivable that this TLD could be used as such a required leadership technique. But this is just a theoretical assumption that needs to be tested in experimental settings and field studies. And still, for a one-on-one

leadership situation, teachers and coaches should also be trained in different TLDs in order to be able to flexibly adapt their various leadership styles according to their students' or players' implicit motive dispositions.

Another approach that can be applied to learn more about such an "*idealistic*" leadership style could be an observational study conducted in a school setting or during a handball season. For the school setting, the assumption is that if a teacher is able to arouse students' implicit motives, the students will be motivated and will consequently show high performance in this class. The performance of the students can be measured by their grades in the class. If there is one class in which students have very good grades on average, this may be ascribed to the teacher's leadership behavior if other variables such as intelligence and skills are controlled for. To observe and to compare the leadership behaviors of this teacher with less successful teachers would provide a first attempt to obtain more information about a leadership technique that is motivating overall. The same attempt could be implemented in the field of sports.

4.4 Conclusion

This thesis contains the first research to present a theoretical and empirically tested foundation for the interconnection between the TLDs and the Big 3 motives. Moreover, the results of this research shed light on the underlying mechanism of transformational leadership effectiveness by focusing on followers' implicit motives. Driven by two theoretical constructs—the transformational leadership theory (Bass, 1985) and the Big 3 motives (McClelland, 1995)—I derived and tested hypotheses about the links between the TLDs individualized consideration, inspirational motivation, intellectual stimulation, and idealized influence on the one hand, and the Big 3 implicit motives for affiliation, power, and achievement on the other. I also tested hypotheses about the effect of the interaction between the TLDs and the strength of followers' implicit motive dispositions on work-related outcomes such as performance and the success of leader influence.

The results of the literature study confirmed my hypothesis that the TLDs would be conceptually related to the Big 3 motives. Study 2 revealed that followers' implicit motives predicted their preference for a certain TLD. Over and above this idea, the two experimental studies demonstrated that the strength of followers' implicit motives can moderate the relations between the TLDs and work-related outcomes.

Having laid the empirical foundation for the compatibility of the TLDs and motives, this research opens further routes for basic and applied research. Furthermore, the established moderator effect of followers' implicit motives can be consulted for leadership practice and can be extended to other leadership concepts.

Zusammenfassung [Summary]

Die vorliegende Arbeit vereinigt die Theorie transformationaler Führung (Bass, 1985) mit den drei großen Motiven nach McClelland (1985). Die zugrundliegende Absicht dabei war es, mögliche spezifische konzeptuelle Verbindungen von transformationalen Führungsstilen und den drei großen Motiven sowie mögliche Konsequenzen dieser Verbindungen zu testen. In den vergangenen Jahren hat die Forschung zu transformationaler Führung diese fast ausschließlich als ein eindimensionales Konstrukt betrachtet. In dieser Arbeit wird die Forderung der genaueren Betrachtung der einzelnen transformationalen Führungsdimensionen (Kehr & Weibler, 2010) aufgegriffen, da diese genauere Vorhersagen (van Knippenberg & Sitkin, 2013) abhängiger Variablen zulassen. Bezüglich der drei großen Motive, konzentriert sich die Arbeit auf die implizite Motivdomäne, um die generelle Aussage von Bass (1985) zu testen, dass transformationale Führungskräfte die impliziten (unbewussten) Anschluss-, Macht- und Leistungsmotive der Geführten anregen können.

Die Arbeit verfolgte drei Ziele: 1. Es sollten spezifische konzeptuelle Verbindungen zwischen den transformationalen Führungsdimensionen und den drei großen Motiven gezeigt werden. 2. Es sollten die Auswirkungen der impliziten Motivdispositionen von Geführten auf die Präferenz für eine bestimmtes Führungsverhalten dargestellt werden. 3. Es sollten mögliche Interaktionseffekte von transformationalen Führungsdimensionen und den impliziten Motivdispositionen von Geführten auf arbeitsbezogene Leistungsmaße getestet werden.

In einer ersten Studie wurde mithilfe qualitativ gewonnener Daten, theoretische Beschreibungen zu den transformationalen Führungsdimensionen Indivdiualized Consideration (InCs), Inspirational Motivation (InMo), Idealized Infleunce (IdIn) und Intellectual Stimulation (InSt) hinsichtlich ihres Motivgehalts in den Domänen Anschluss, Macht und Leistung kodiert. Der Motivgehalt der theoretischen Beschreibungen variierte signifikant zwischen den verschiedenen transformationalen Führungsdimensionen. Es

konnten spezifische konzeptuelle Verbindungen zwischen InCs und Anschluss, zwischen InMo und Macht sowie zwischen IdIn und Macht gezeigt werden.

In einer weiteren Studie, wurden die Auswirkungen der Stärke der impliziten Motivdispositionen von Geführten auf die Präferenz für ein bestimmtes Führungsverhalten getestet. Dabei zeigte sich, dass Personen mit einem hohen impliziten Anschlussmotiv das Führungsverhalten InCs präferierten, Personen mit einem hohen impliziten Machtmotiv bevorzugten das Führungsverhalten InMo und Personen mit einem hohen impliziten Leistungsmotiv bevorzugten das Führungsverhalten InSt.

Darüber hinaus konnte in zwei experimentellen Studien gezeigt werden, dass die Interaktion aus transformationalem Führungsverhalten und den impliziten Motivdispositionen der Geführten einen positiven Einfluss auf arbeitsbezogene Leistungsmaße hat. In beiden Experimenten zeigte sich, dass die Stärke des impliziten Anschlussmotivs der Geführten die Verbindung zwischen dem Führungsverhalten InCs und der Leistung der Geführten sowie den Einfluss der Führungskraft auf die Geführten positiv moderiert. Die Stärke des impliziten Machtmotivs der Geführten hingegen moderierte die Verbindung zwischen dem Führungsverhalten InMo und der Leistung der Geführten sowie den Einfluss der Führungskraft auf die Geführten positiv.

Zusammenfassend liefern die vorliegenden Studien nicht nur eine empirische Grundlage für die konzeptuellen Verbindungen zwischen spezifischen transformationalen Führungsdimensionen und den drei großen Motiven, sondern weisen auch die positive Wirkung dieser Verbindungen auf arbeitsbezogene Leistungsmaße nach. Damit sind die Ergebnisse und die daraus abzuleitenden Implikationen der vorliegenden Arbeit sowohl für weitere Grundlagenforschung bezüglich der zugrundliegenden Mechanismen von transformationaler Führung als auch für die praktische Anwendung hinsichtlich der Beziehung zwischen Führungskraft und Geführten nützlich.

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Appendix A – Literature Study: Raw Data

Table I

Main Authors, Publication Years, Word Counts, and Raw Motive Content Scores of the Texts used in the Literature Analysis for Individualized Consideration Search (Study 1)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Aarons (2006)	*Psychiatric Services*	0	-	-	-
Alban-Metacalfe (2007)	*Leadership and Organization Development Journal*	0	-	-	-
Arnold (2010)	*Leadership and Organization*	145	4	1	3
Arnold (2007)	*Journal of Occupational Health Psychology*	0	-	-	-
Avolio (1995)	*The Leadership Quarterly*	366	3	4	6
Barbuto (1997)	*Journal of Social Behavior and Personality*	11	1	0	0
Barbuto (2005)	*Journal of Leadership and Organizational Studies*	37	1	0	1
Barbuto (2001)	*Psychological Reports*	7	1	0	1
Barling (2000)	*Leadership and Organization Development Journal*	35	1	0	0
Barling (1996)	*Journal of Applied Psychology*	4	1	0	1
Bass (1999)	*European Journal of Work and Organizational Psychology*	93	4	0	3
Bass (1989)	*Educational and Psychological Measurement*	13	2	0	0
Bass (1999)	*The Leadership Quarterly*	99	3	1	3
Bass (1987)	*Group and Organization Management*	35	0	1	1
Biswas (2009)	*Psychological Studies*	0	-	-	-
Bodla (2010)	*Interdisciplinary Journal of Contemporary Research in Business*	140	3	2	5
Bolkan (2009)	*Journal of Instructional Psychology*	30	1	0	0
Bono (2004)	*Journal of Applied Psychology*	46	1	0	2
Bono (2012)	*The Leadership Quarterly*	0	-	-	-

Table I (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Braun (2013)	*Journal of Applied Psychology*	14	0	0	0
Brown (1999)	*Leadership and Organization Development Journal*	0	-	-	-
Brown (2005)	*Journal of Organizational Behavior*	0	-	-	-
Bruch (2007)	*Leadership and Organization Development Journal*	23	3	0	2
Bryant (2003)	*Journal of Leadership and Organizational Studies*	19	0	1	1
Bycio (1995)	*Journal of Applied Psychology*	10	0	1	0
Callow (2009)	*Journal of Applied Sport Psychology*	17	1	0	0
Camps (2011)	*Personnel Review*	0	-	-	-
Carter (2009)	*Pastoral Psychology*	0	-	-	-
Cavazotte (2012)	*The Leadership Quarterly*	27	2	0	0
Cerni (2010)	*Journal of Leadership Studies*	18	1	0	0
Chagnon (2012)	*Personnel Psychology*	0	-	-	-
Charbonneau (2004)	*Leadership and Organization Development Journal*	104	6	1	3
Charbonnier-Voirin (2010)	*Group and Organization Management*	21	2	0	0
Cheung (2011)	*Leadership and Organization Development Journal*	79	0	1	1
Chi (2012)	*Journal of Business and Psychology*	16	1	0	0
Cho (2010)	*The Leadership Quarterly*	246	7	0	1
Coad (1998)	*Leadership and Organization Development Journal*	85	4	0	2
Colbert (2008)	*Academy of Management Journal*	13	1	0	0
Cole (2009)	*Human Relations*	0	-	-	-
Corrigan (1999)	*Community Mental Health Journal*	16	0	0	1
Crawford (2005)	*Journal of Knowledge Management*	0	-	-	-
Currie (2007)	*Human Relations*	0	-	-	-

Table I (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
de Charon (2003)	*Organizational Development Journal*	28	1	0	0
Deluga (1990)	*Basic and Applied Social Psychology*	22	1	0	1
Den Hartog (2012)	*Journal of Applied Psychology*	0	-	-	-
Dionne (2012)	*The Leadership Quarterly*	19	1	0	0
Dionne (2004)	*Journal of Organizational Change Management*	62	4	0	1
Dubinsky (1995)	*Journal of Business and Psychology*	124	4	0	1
Duygulu (2011)	*Journal of Advanced Nursing*	0	-	-	-
Egan (1995)	*Journal of Leadership Studies*	0	-	-	-
Elkins (2003)	*Human Resource Development Quarterly*	0	-	-	-
Epitropaki (2005)	*The Leadership Quarterly*	0	-	-	-
Fitzgerald (2010)	*Journal of Management Development*	0	-	-	-
Franke (2011)	*Leadership*	95	4	0	0
Frey (2009)	*The Journal of Individual Psychology*	15	1	0	0
Geyer (1998)	*Applied Psychology: An International Review*	22	0	1	1
Gooty (2009)	*Journal of Leadership and Organizational Studies*	18	1	0	0
Gumusluoglu (2009)	*Journal of Business Research*	60	1	0	1
Hamstra (2011)	*Journal of Personnel Psychology*	0	-	-	-
Hansbrough (2012)	*Journal of Applied Social Psychology*	0	-	-	-
Hardy (2010)	*The Leadership Quarterly*	43	2	0	3
Harvey (2003)	*Psychological Reports*	10	1	0	1
Hautala (2007)	*Journal of Psychological Type*	28	0	0	0
Hetland (2003)	*European Journal of Work and Organizational Psychology*	31	1	0	0
Hobman (2011)	*European Journal of Work and Organizational Psychology*	0	-	-	-

Table I (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Inness (2010)	*Journal of Occupational Health Psychology*	10	0	0	0
Johnson (2012)	*Journal of Applied Psychology*	0	-	-	-
Jung (2001)	*Journal of Leadership Studies*	0	-	-	-
Jung (2009)	*The Leadership Quarterly*	0	-	-	-
Kelloway (2003)	*Leadership and Organization Development Journal*	17	1	0	0
Kelloway (2012)	*Work and Stress*	57	2	0	2
Komives (1991)	*Journal of College Student Development*	9	0	0	1
Korek (2010)	*European Journal of Work and Organizational Psychology*	13	1	0	1
Kunze (2010)	*Small Group Research*	0	-	-	-
Langbert (2003)	*Management Decision*	0	-	-	-
Lavigna (2012)	*Public Administration Review*	0	-	-	-
Leithwood (2012)	*Educational Administration Quarterly*	0	-	-	-
Li (2009)	*Social Behavior and Personality*	22	2	0	0
Liao (2007)	*Journal of Applied Psychology*	15	1	0	0
Ling (2008)	*Academy of Management Journal*	10	1	0	1
Madsen (2010)	*Journal of Leadership and Organizational Studies*	0	-	-	-
Maslin-Wicks (2007)	*The Leadership Quarterly*	10	1	1	0
McKee (2011)	*Journal of Management, Spirituality and Religion*	0	-	-	-
Megerian (1997)	*Journal of Leadership Studies*	48	1	0	0
Mehra (2005)	*Journal of Indian Psychology*	25	2	0	0
Michaelis (2010)	*Journal of Managerial Psychology*	20	1	0	1
Moss (2009)	*Journal of Leadership and Organizational Studies*	0	-	-	-
Murphy (2005)	*Journal of Nursing Management*	0	-	-	-

Table I (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Nahum-Shani (2011)	*The Leadership Quarterly*	0	-	-	-
Nielsen (2012)	*The Leadership Quarterly*	56	2	0	1
Nielsen (2009)	*International Journal of Nursing Studies*	9	1	0	1
Odom (2003)	*Leadership and Organization Development Journal*	0	-	-	-
Olsen (2006)	*Military Psychology*	18	1	0	1
Popper (2000)	*The Leadership Quarterly*	33	2	0	1
Rada (1999)	*Journal of Leadership Studies*	0	-	-	-
Robbins (2007)	*The Health Care Manager*	0	-	-	-
Russell (1995)	*Journal of Leadership Studies*	74	2	0	2
Schriesheim (2006)	*The Leadership Quarterly*	0	-	-	-
Si (2012)	*European Journal of Work and Organizational Psychology*	44	2	0	2
Singer (1986)	*Perceptual and Motor Skills*	0	-	-	-
Sosik (2010)	*Consulting Psychology Journal: Practice and Research*	15	1	0	0
Sosik (2004)	*The Leadership Quarterly*	112	7	0	2
Sosik (2011)	*Journal of Behavior and Applied Psychology*	63	2	0	2
Sparks (2001)	*Journal of Organizational Behavior*	0	-	-	-
Spreitzer (2005)	*Journal of Organizational Behavior*	0	-	-	-
Tucker (2010)	*The Leadership Quarterly*	9	0	0	0
Vandenberghe (2002)	*European Journal of Psychological Assessment*	19	1	0	1
Vinkenburg (2011)	*The Leadership Quarterly*	21	1	0	1
Walumbwa (2011)	*Journal of Occupational and Organizational Psychology*	52	1	0	1
Walumbwa (2005)	*Journal of Leadership and Organizational Studies*	0	-	-	-
Wang (2012)	*Management and Organization Review*	23	2	0	0

Table I (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Wang (2011)	*Group and Organization Management*	27	1	1	0
Wang (2011)	*Journal of Leadership and Organizational Studies*	51	2	0	2
Wang (2010)	*Journal of Applied Psychology*	0	-	-	-
Wang (2012)	*The Leadership Quarterly*	0	-	-	-
Wang (2009)	*Social Behavior and Personality*	0	-	-	-
Wofford (1994)	*The Leadership Quarterly*	0	-	-	-
Wofford (2001)	*Journal of Managerial Issues*	20	1	0	0
Wylie (2009)	*Journal of Allied Health*	39	1	0	1
Yammarino (1990)	*Human Relations*	0	-	-	-
Yammarino (1994)	*Personnel Psychology*	0	-	-	-
Yammarino (1997)	*Academy of Management Journal*	0	-	-	-
Yammarino (1998)	*The Leadership Quarterly*	0	-	-	-
Zacharatos (2000)	*The Leadership Quarterly*	30	0	1	1
Zhu (2011)	*The Leadership Quarterly*	61	1	0	1
Zopiatis (2012)	*Leadership and Organization Development Journal*	13	1	0	1

Note. All articles are listed in the Reference section.

Table II

Main Authors, Publication Years, Word Counts, and Raw Motive Content Scores of the Texts used in the Literature Analysis for Inspirational Motivation Search (Study 1)

Main author (year)	**Journal**	**Word count**	**Affili-ation**	**Power**	**Achieve-ment**
Ayoko (2010)	*European Management Journal*	20	0	1	0
Barbuto (1997)	*Journal of Social Behavior and Personality*	102	1	2	2
Barbuto (2005)	*Journal of Leadership and Organizational Studies*	14	0	0	1
Barling (2008)	*Journal of Buisness Ethics*	109	0	2	1
Barling (2000)	*Leadership and Organization Development Journal*	0	-	-	-
Bass (1999)	*The Leadership Quarterly*	83	0	2	1
Behling (1996)	*Group and Organization Management*	0	-	-	-
Bono (2004)	*Journal of Applied Psychology*	37	0	1	0
Brown (1999)	*Leadership and Organization Development Journal*	0	-	-	-
Bruch (2007)	*Leadership and Organization Development Journal*	26	0	1	1
Charbonneau (2004)	*Leadership and Organization Development Journal*	64	0	2	1
Christie (2011)	*Journal of Applied Social Psychology*	16	0	1	0
Corrigan (1999)	*Community Mental Health Journal*	0	-	-	-
Deluga (1990)	*Basic and Applied Social Psychology*	23	0	1	1
Dionne (2004)	*Journal of Organizational Change Management*	0	-	-	-
Dubinsky (1995)	*Journal of Business and Psychology*	100	0	1	1
Edwards (2010)	*Substance Use and Misuse*	114	0	1	1
Franke (2011)	*Leadership*	40	0	1	0
Hardy (2010)	*The Leadership Quarterly*	51	0	1	0
Hobman (2011)	*European Journal of Work and Organizational Psychology*	0	-	-	-

Table II (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Komives (1991)	*Journal of College Student Development*	12	0	1	1
Li (2009)	*Social Behavior and Personality*	54	0	0	0
McCann (2006)	*Group and Organization Management*	0	-	-	-
Megerian (1997)	*Journal of Leadership Studies*	186	2	3	3
Mehra (2005)	*Journal of Indian Psychology*	27	0	1	1
Odom (2003)	*Leadership and Organization Development Journal*	0	-	-	-
Olsen (2006)	*Military Psychology*	27	0	1	0
Rafferty (2004)	*The Leadership Quarterly*	99	0	2	1
Sağnak (2010)	*Kuram Ve Uygulamada Eğitim Bilimleri*	0	-	-	-
Scandura (2004)	*Journal of Vocational Behavior*	18	0	1	1
Sosik (2010)	*Consulting Psychology Journal: Practice and Research*	59	0	2	0
Sosik (2011)	*Journal of Behavior and Applied Management*	27	0	1	0
Vinkenburg (2011)	*The Leadership Quarterly*	9	0	0	0
Zacharatos (2000)	*The Leadership Quarterly*	35	0	1	0

Note. All articles are listed in the Reference section.

Table III

Main Authors, Publication Years, Word Counts, and Raw Motive Content Scores of the Texts used in the Literature Analysis for Intellectual Stimulation Search (Study 1)

Main author (year)	**Journal**	**Word count**	**Affili-ation**	**Power**	**Achieve-ment**
Barbuto (1997)	*Journal of Social Behavior and Personality*	15	0	1	1
Bass (1987)	*Group and Organization Studies*	137	0	5	4
Bass (1989)	*Educational and Psychological Measurement*	18	0	0	1
Bass (1997)	*Journal of Personal Selling and Sales Management*	224	0	5	6
Bass (1999)	*Journal of Work and Organizational Psychology*	48	0	2	2
Bass (1999)	*The Leadership Quarterly*	108	1	0	2
Bodla (2010)	*Interdisciplinary Journal of Contemporary Research in Business*	79	0	2	2
Eisenbeiß (2010)	*Creativity and Innovation Management*	78	0	3	3
Bolkan (2009)	*Journal of Instructional Psychology*	28	0	1	0
Bolkan (2010)	*Communication Reports*	158	0	3	2
Bono (2004)	*Journal of Applied Psychology*	27	0	1	1
Bruch (2007)	*Leadership and Organization Development Journal*	442	0	6	5
Bycio (1995)	*Journal of Applied Psychology*	17	0	1	1
Charbonneau (2004)	*Leadership and Organization Development Journal*	98	0	4	4
Corrigan (1999)	*Community Mental Health Journal*	184	1	2	1
Deluga (1990)	*Basic and Applied Social Psychology*	100	0	2	3
Dionne (2004)	*Journal of Organizational Change Management*	129	0	1	3
Dubinsky (1995)	*Journal of Business and Psychology*	102	0	2	3
Eid (2004)	*Military Psychology*	0	-	-	-
Harvey (2003)	*Psychological Reports*	14	0	0	1

Table III (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Hobman (2011)	*European Journal of Work and Organizational Psychology*	55	1	1	1
Joo (2012)	*Leadership and Organization Development Journal*	32	1	0	1
Kelloway (2003)	*Leadership and Organization Development Journal*	30	0	1	1
Kirby (1992)	*The Journal of Educational Research*	21	0	0	1
Komives (1991)	*Journal of College Student Development*	0	-	-	-
Megerian (1997)	*Journal of Leadership Studies*	168	0	4	4
Mehra (2005)	*Journal of Indian Psychology*	27	0	1	1
Murphy (2005)	*Journal of Nursing Management*	27	0	1	1
Odom (2003)	*Leadership and Organization Development Journal*	0	-	-	-
Oliver (2011)	*The Leadership Quarterly*	37	0	1	1
Popper (2000)	*The Leadership Quarterly*	37	0	1	1
Rafferty (2004)	*The Leadership Quarterly*	340	3	4	3
Russell (1995)	*Journal of Leadership Studies*	85	0	3	3
Sağnak (2010)	*Kuram Ve Uygulamada Eğitim Bilimleri*	26	0	1	1
Singer (1986)	*Perceptual and Motor Skills*	11	0	1	1
Sosik (2010)	*Consulting Psychology Journal: Practice and Research*	58	0	2	4
Sosik (2011)	*Journal of Behavioral and Applied Management*	226	0	5	6
Spreitzer (2005)	*Journal of Organizational Behavior*	264	0	2	3
Vandenberghe (2002)	*European Journal of Psychological Assessment*	17	0	0	1
Vecchio (2008)	*Journal of Occupational and Organizational Psychology*	0	-	-	-
Waldman (2006)	*Journal of Management Studies*	553	0	6	8

Table III (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Zacharatos (2000)	*The Leadership Quarterly*	50	0	2	2

Note. All articles are listed in the Reference section.

Table IV

Main Authors, Publication Years, Word Counts, and Raw Motive Content Scores of the Texts used in the Literature Analysis for Idealized Influence Search (Study 1)

Main author (year)	**Journal**	**Word count**	**Affili-ation**	**Power**	**Achieve-ment**
Anding (2005)	*Academy of Management Learning and Education*	0	-	-	-
Barbuto (2005)	*Journal of Leadership and Organizational Studies*	0	-	-	-
Barling (2008)	*Journal of Buisness Ethics*	72	1	1	1
Barling (2000)	*Leadership and Organization Development Journal*	36	0	1	0
Bass (1999)	*The Leadership Quarterly*	56	1	1	1
Bono (2004)	*Journal of Applied Psychology*	25	1	1	1
Brown (2002)	*Journal of Leadership Studies*	9	0	1	0
Bruch (2007)	*Leadership and Organization Development Journal*	45	0	1	1
Charbonneau (2004)	*Leadership and Organization Development Journal*	86	0	2	0
Dionne (2004)	*Journal of Organizational Change Management*	0	-	-	-
Duckett (2003)	*Leadership and Organization Development Journal*	0	-	-	-
Franke (2011)	*Leadership*	85	1	2	1
Hinkin (1999)	*Journal of Organizational Change Management*	113	1	2	1
Lambert (2007)	*British Journal of Sociology of Education*	0	-	-	-
Leban (2004)	*Leadership and Organization Development Journal*	0	-	-	-
Leonard (2006)	*Journal of Communication Management*	0	-	-	-
Martin (2001)	*Group Process and Intergroup Relations*	0	-	-	-
Megerian (1997)	*Journal of Leadership Studies*	140	2	0	3
Mehra (2005)	*Journal of Indian Psychology*	0	-	-	-
Mulla (2012)	*Psychology and Developing Studies*	0	-	-	-

Table IV (continued)

Main author (year)	Journal	Word count	Affili-ation	Power	Achieve-ment
Odom (2003)	*Leadership and Organization Development Journal*	0	-	-	-
Olsen (2006)	*Military Psychology*	49	0	2	0
Poddar (2004)	*Abhigyan*	0	-	-	-
Ross (1995)	*Journal for the Education of the Gifted*	0	-	-	-
Scandura (2004)	*Journal of Vocational Behavior*	16	0	1	0
Singer (1985)	*Psychological Reports*	0	-	-	-
Singer (1986)	*Perceptual and Motor Skills*	0	-	-	-
Sosik (2010)	*Consulting Psychology Journal: Practice and Research*	53	1	2	1
Sosik (2011)	*Journal of Behavior and Applied Management*	66	0	2	2
Stadelmann (2010)	*Swiss Journal of Psychology*	23	0	1	0
Wofford (1998)	*The Leadership Quarterly*	0	-	-	-
Zacharatos (2000)	*The Leadership Quarterly*	27	0	1	0

Note. All articles are listed in the Reference section.

Appendix B – Descriptions of Transformational Leadership Dimensions used in Study 2

Table I

Adapted Transformational Leadership Dimension Descriptions taken from an Adapted German Version of the MLQ by Felfe and Goihl (2002)

TLD	Description
InMo	Beschreibung Führungskraft 1: Diese Führungskraft verfügt über attraktive Visionen und Vorstellungen von zukünftigen Entwicklungen und vermittelt überzeugend, dass sie selber voll und ganz dahinter steht. Dadurch gibt diese Führungskraft den Dingen und Erfordernissen im Alltag eine weitergehende Bedeutung und stellt sie in einen größeren Sinnzusammenhang. Diese Führungskraft begeistert Ihre Mitarbeiter für ihre Ziele, indem sie Herausforderungen anbietet und den Mitarbeitern Hoffnung, Vertrauen und Zuversicht vermittelt, dass die Erwartungen erfüllt werden können.
InCs	Beschreibung Führungskraft 2: Diese Führungskraft versteht sich als Coach und Mentor ihrer Mitarbeiter und erkennt deren persönliche Bedürfnisse und Wünsche nach Leistung und Wachstum an. Das Ziel dieser Führungskraft ist es, die Mitarbeiter systematisch zu fördern und ihr Potential schrittweise weiterzuentwickeln. Dazu bietet sie in einem unterstützenden Klima, z.B. durch Delegation Lernchancen und berücksichtigt die persönlichen Voraussetzungen, indem sie die einen eher ermutigt, anderen mehr Autonomie gewährt oder wiederum anderen klarere Vorgaben oder mehr Struktur gibt. Diese Führungskraft bereit eine intensive, partnerschaftliche Kommunikation mit ihren Mitarbeitern, bei der sie es versteht, effektiv zuzuhören.
InSt	Beschreibung Führungskraft 3: Diese Führungskraft regt ihre Mitarbeiter zu kreativem und innovativem Denken an und unterstützt sie dabei, indem sie Annahmen und Voraussetzungen immer wieder hinterfragt, Probleme in neue Zusammenhänge stellt und dazu ermutigt, immer wieder neue Lösungen zu erproben. Fehler werden dabei von ihr toleriert und nicht öffentlich kritisiert. Die Mitarbeiter sind dabei dringend aufgefordert, sich zu beteiligen und selber Ideen einzubringen, auch wenn diese von den Vorstellungen des Vorgesetzten abweichen.

Note. InMo = inspirational motivation, InCs = individualized consideration, InSt = intellectual stimulation, TLD = transformational leadership dimension.

Appendix C – Tasks from the In-Tray Exercise used in Study 3

Table I
Tasks from the In-Tray Exercise used in Study 3

Tasks
Rückruf eines Ihres besten Kunden bezüglich eines potentiellen neuen Auftrages.
Telefonat mit ihrer Mutter zur Besprechung des Weihnachtsessen dieses Jahr führen.
Ihr Mann/ Ihre Frau hatte einen Autounfall und wird aktuell operiert. Aufgabe: Ins Krankenhaus fahren.
Zielvereinbarungsgespräch mit Ihrer Teamleiterin / Ihrem Teamleiter führen.
Besprechung mit der Klassenlehrerin Ihres Sohnes / Ihrer Tochter bezüglich der Versetzung ins neue Schuljahr.
Fototermin beim einem professionellen Fotografen zur Erstellung von Imagefotos für die Homepage Ihres Unternehmens.
Angebot für die Firma XY erstellen – Neukundenaquise.
Steuererklärung für das vergangene Jahr beim Finanzamt einreichen.
Mit Ihrer besten Freundin / Ihrem besten Freund einen Kaffee trinken gehen.
Geschäftliches Mittagessen mit Ihrem Chef zum Austausch über die aktuelle Situation im Team.

Appendix D – Descriptions of the Transformational Leadership Dimensions used in Study 4

Table I

Introduction of the Concentration Task and the Manipulation and the adapted Transformational Leadership Dimensions Descriptions taken from an adapted German Version of the MLQ by Felfe and Goihl (2002)

Introduction
Bei der Arbeit im Team, insbesondere bei der Zusammenarbeit von Führungskraft und Mitarbeiter hat sich in der Praxis sowie auch in der Forschung gezeigt, dass die Konzentrationsfähigkeit der beteiligten Personen eine positive Auswirkung auf die abschließende Leistung hat. Bitte versetzen Sie sich nun in folgende Situation hinein: Sie arbeiten in einem großen IT – Unternehmen im Bereich Consulting (Beratung) von Großkunden. Sie selbst sind seit einem Jahr Junior Berater bei diesem Unternehmen und ihre Führungskraft arbeitet als Senior Berater. Sie müssen gemeinsam mit Ihrer Führungskraft ein neues Konzept für einen Kunden unter Zeitdruck bearbeiten. Ihre Konzentration ist gefordert! Wir möchten Sie bitten sich in der Rolle des Mitarbeiters zu sehen. Ihre Führungskraft bitten wir Sie sich wie im Folgenden beschrieben vorzustellen.

TLD	**Vignette**
InCs	In der Zusammenarbeit mit Ihrer Führungskraft versteht sich Ihre Führungskraft als Coach oder Mentor für Sie und Ihre Kollegen und erkennt Ihre persönlichen Bedürfnisse und Wünsche nach Leistung und Wachstum. Das Ziel Ihrer Führungskraft ist es, Sie und Ihre Kollegen systematisch zu fördern und Ihr Potential schrittweise weiterzuentwickeln. Dazu bietet Ihre Führungskraft in einem unterstützenden Klima z.B. durch Delegation Lernchancen und berücksichtigt Ihre persönlichen Voraussetzungen, indem sie, je nach Gemütszustand des Mitarbeiters, manche Mitarbeiter eher ermutigt, anderen mehr Autonomie gewährt oder wiederum anderen klarere Vorgaben oder mehr Struktur gibt. Ihre Führungskraft sieht eine intensive, partnerschaftliche Kommunikation, bei der sie selbst effektiv zuhört, als wichtige Voraussetzung für eine Zusammenarbeit an.
InMo	In der Zusammenarbeit mit Ihrer Führungskraft zeigt sich Ihre Führungskraft als eine Person mit attraktiven Visionen und Vorstellungen von künftigen Entwicklungen und vermittelt überzeugend, dass sie selber voll und ganz dahinter steht. Ihre Führungskraft gibt Dingen und Erfordernissen im Alltag eine weitergehende Bedeutung und setzt sie in einen größeren Sinnzusammenhang. Sie begeistert Sie und Ihre Kollegen für ihre Ziele, indem sie Herausforderungen anbietet und Ihnen und Ihren Kollegen Hoffnung, Vertrauen und Zuversicht vermittelt, dass die Erwartungen erfüllt werden können.

Table I (continued)

TL-Dimension	Vignette
InSt	In der Zusammenarbeit mit Ihrer Führungskraft regt Ihre Führungskraft Sie und Ihre Kollegen zu kreativen und innovativen Denken an und unterstützt Sie dabei, indem sie Annahmen und Voraussetzungen hinterfragt, Probleme in neue Zusammenhänge stellt und dazu ermutigt, immer wieder neue Lösungen zu erproben. Fehler werden von Ihrer Führungskraft dabei toleriert und nicht öffentlich kritisiert. Sie und Ihre Kollegen werden von Ihrer Führungskraft aufgefordert, sich zu beteiligen und selber Ideen einzubringen, auch wenn diese von den Vorstellungen Ihrer Führungskraft abweichen.
IdIn	In der Zusammenarbeit mit Ihrer Führungskraft sieht Ihre Führungskraft ihre Aufgabe in einer Art Vorbildfunktion, mit deren Hilfe es gelingt, Sie und Ihre Kollegen nachhaltig zu beeinflussen. Sie und Ihre Kollegen bringen Ihrer Führungskraft in besonderem Maße Bewunderung, Respekt und Vertrauen entgegen. Außerdem stellt Ihre Führungskraft hohe Erwartungen an Sie und Ihre Kollegen und ist selbst in der Lage, diese Erwartungen zu erfüllen und vorzuleben. Das Handeln Ihrer Führungskraft ist an ethische und moralische Prinzipien ausgerichtet.

Note. InMo = inspirational motivation, InCs = individualized consideration, InSt = intellectual stimulation, IdIn = idealized influence, TLD = transformational leadership dimension.