

A Communication Based Approach on Transformational Leadership

Two Empirical Studies Deepening the Understanding of the Relationship
between Leaders' Communicator styles, Transformational Leadership
Behavior and Leadership Development

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“Strength does not come from physical capacity. It comes from an indomitable will.”

(Mahatma Gandhi)

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Summary

Leadership and communication are strongly connected. Bringing to mind some great leaders like Martin Luther King, Jr., Mahatma Gandhi or maybe Abraham Lincoln, all of them were known as great speakers.

With the communicator styles that we use, we can influence how we are perceived by others. Moreover, in contrast to personality traits, communication could be actively improved through training. The relationship between leadership and communication has been subject of various empirical investigations. Nevertheless, important research questions remain unanswered.

With my dissertation I aim to answer four overarching research questions. Firstly, I aim to explore the relationship between personality traits, transformational leadership behavior and communicator styles. I consider communicator styles as proximal antecedents and leaders' personality traits as distal antecedents of transformational leadership behavior. By addressing this research question I aim to deepen the understanding of the emergence of transformational leadership behavior. Secondly, I contribute to the relevance of the relationship between transformational leadership behavior and communicator styles for organizational performance. I consider the mediating role of transformational leadership behavior between communicator styles and organizational performance criteria.

Thirdly, based on the first two research questions I consider, how transformational leadership behavior and communicator styles could be actively improved through training. However, recent investigations indicate that transformational leadership behavior can be learned. But actually there is no investigation that considers the development of all transformational leadership dimensions and specific communicator styles. Moreover, I take into consideration if there are individual differences in the improvements three month after the intervention.

So, with my dissertation I address the relationship between leadership and communication from a more theoretical point of view on the one hand and from a more practical point of view on the other hand. In the following the two studies will be described in more detail.

My first study contributes to the relationship between leaders' personality traits, communicator styles, transformational leadership and organizational outcomes. I used three independent samples to explore an integrated research model. Sample 1 consisted of 51 teams ($N = 193$) of students that took part in a management simulation game. Every group consisted of one leader and two to three subordinates. The leaders' personality traits were assessed at measurement point one. Their communicator styles were rated by subordinates at measurement point two and an assessment of their transformational leadership behavior has been taken at measurement point three by the subordinates. Multilevel-analyses were employed to test the initial hypotheses. Results indicate that (1) the attentive and the impression-leaving communicator styles are positive predictors of transformational leadership behavior and (2) the attentive communicator styles mediates the relationship between the personality trait conscientiousness and transformational leadership behavior. Therefore, the initial assumption that personality traits are more distal antecedents and communicator styles provide more proximal antecedents of transformational leadership behavior could be confirmed.

In Sample 2 and Sample 3 also organizational outcomes were considered. Sample 2 consists of 481 participants from different German organizations that assessed leaders' transformational leadership behavior and communicator styles at the first point of time and their work satisfaction at the second point of time. The results also show that (1) the attentive and impression-leaving style has a positive impact on transformational leadership behavior and that (2) transformational leadership behavior mediates the relationship between the two communicator styles and subordinates' work satisfaction. Due to the limitation of Sample 2 that only two communicator styles were assessed and that transformational leadership behavior and communicator styles behavior were assessed at one time, a third sample was explored. Sample 3 consists of 259 participants from different German organizations that assessed leaders' communicator styles at the first point of time and leaders' transformational leadership behavior and their own work engagement at the second point of time. As in Sample 1 and Sample 2 (1) the attentive and impression-leaving style were positive predictors of transformational leadership behavior and (2)

transformational leadership behavior mediates the relationship between the two communicator styles and subordinates' work satisfaction. Further communicator styles with positive impact on transformational leadership behavior could be identified.

Therefore, Study 1 provides an interesting path for further research. Moreover, important implications for practitioners could be derived.

Building on the findings of Study 1, I developed and evaluated a two-day transformational leadership and communication intervention in Study 2. Evaluating leadership development trainings is a highly relevant issue for practitioners. Organizations spend a lot of money in leadership development but often the effectiveness of the training is not considered. I used a pre-test post-test control group design to investigate the effectiveness of the training. The experimental group encompasses 38 leaders who took part in the training session. The control group consists of 58 leaders. The leadership intervention focuses on transformational leadership behavior in theory and practice at day one. On the second day communicator styles, especially the inspirational speech and active listening skills were trained. Subordinates rated their leaders' transformational leadership behavior and communicator styles three weeks before and again three months after the training. The results indicate that (1) transformational leadership behavior and the attentive communicator style significantly improved from pre- to post-test and that (2) the dominant communicator style could be significantly reduced. In contrast to the initial assumption, no significant improvements for the impression-leaving communicator style could be shown. Moreover, I explored if there were differences concerning the individual improvements after the training. For this reason, I took participants' initial subordinates ratings of their transformational leadership behavior into consideration. The results indicate that participants with initial middle subordinates ratings gain the most benefit from the training.

In summary, I could extend the existing research in four essential points. First, I identified the attentive and impression-leaving communicator styles as important predictors of transformational leadership behavior. Second, I was able to show that both transformational leadership behavior and communicator styles are important predictors of organizational performance, especially for subordinates' work satisfaction and work engagement. Third, I evaluated an economic two-day leadership intervention by which

transformational leadership behavior and communicator styles could be significantly improved. At least, I considered ceiling effects as a methodological bias and demonstrated that participants differ concerning their improvements after a leadership intervention. Moreover, I pave the way for further research and offered ideas for practical implications.

Zusammenfassung

Führung und Kommunikation sind eng miteinander verbunden. Die großen Führungspersönlichkeiten wie zum Beispiel Martin Luther King, Jr., Mahatma Gandhi oder Abraham Lincoln sind vor allem auch für Ihre beeindruckenden Reden bekannt. Mit Hilfe von Kommunikation können wir den Eindruck, den andere Menschen von uns haben entscheidend beeinflussen. Kommunikation stellt somit einen wichtigen Einflussfaktor auf die Wahrnehmung von Führungsverhalten dar. Aufgrund der Bedeutsamkeit, die Kommunikation im Zusammenhang mit Führungsverhalten hat, wurden in der Vergangenheit bereits unterschiedliche empirische Studien durchgeführt, die den Zusammenhang zwischen Führung und Kommunikation untersucht haben. Dennoch bleiben bis heute viele Fragen unbeantwortet.

In der vorliegenden Dissertation wird der Zusammenhang zwischen dem Verhalten und dem Kommunikationsstil von Führungskräften anhand von vier übergeordneten Forschungsfragen untersucht. Die erste Forschungsfrage bezieht sich auf den Zusammenhang von Persönlichkeitsmerkmalen, dem Kommunikationsstil und dem Führungsverhalten, genauer gesagt dem transformationalen Führungsstil. Es wird postuliert, dass Persönlichkeitsmerkmale distale Antezedenzen und Kommunikationsstile proximale Antezedenzen von transformationalem Führungsverhalten darstellen. Diese Annahme liegt darin begründet, dass der direkte Einfluss von Persönlichkeitsmerkmalen auf die Entwicklung von transformationaler Führung zwar vorhanden, allerdings wenig stabil ist. Daher resultiert die Annahme, dass weniger die Persönlichkeit, sondern vielmehr die Kommunikation, die Wahrnehmung des Führungsverhaltens durch die Mitarbeiter beeinflusst. Die zweite Forschungsfrage bezieht sich auf den Einfluss der transformationalen Führung und des Kommunikationsstils der Führungskraft auf die Zufriedenheit sowie das Arbeitsengagement der Mitarbeiter als organisationale Erfolgsfaktoren. Dabei wird untersucht, ob die Art und Weise, wie die Führungskraft kommuniziert einen direkten Einfluss auf die Zufriedenheit und das Arbeitsengagement der Mitarbeiter hat, oder ob der Kommunikationsstil über eine Änderung des Führungsverhaltens eine indirekte Wirkung erzielt. Die dritte Forschungsfrage bezieht sich darauf, ob transformationales Führungsverhalten und der Kommunikationsstil durch ein gezieltes Training verbessert werden können. Die

vierte Forschungsfrage beleuchtet, ob individuelle Unterschiede hinsichtlich der Verbesserung durch das Training existieren. Die Forschungsfragen wurden mit Hilfe von zwei empirischen Studien untersucht.

Die erste Studie untersucht den Zusammenhang zwischen Persönlichkeitsmerkmalen der Führungskraft, zwei ausgewählten Kommunikationsstilen, transformationaler Führung und organisationalen Erfolgskriterien. Die Studie umfasst drei unabhängige Stichproben. Die erste Stichprobe setzt sich aus 51 Teams zusammen ($N = 193$) bestehend aus einer Führungskraft und 2-3 Mitarbeitern. Die Stichprobe besteht aus Studierenden, die an einer Management Simulation teilnahmen. Die Studierenden, die eine Führungsrolle innehatten, nahmen eine Einschätzung ihrer Persönlichkeitsmerkmale zum ersten Messzeitpunkt vor. Die Studierenden in der Mitarbeiterrolle schätzen den Kommunikationsstil ihrer Führungskraft zum zweiten und das Führungsverhalten zum dritten Messzeitpunkt ein. Die Auswertung der Daten erfolgte mit Hilfe von Mehrebenen-Analysen. Die Ergebnisse zeigen (1), dass der aufmerksame und der beeindruckende Kommunikationsstil einen positiven Zusammenhang zur transformationalen Führung aufweisen und dass (2) der Zusammenhang zwischen dem Persönlichkeitsmerkmal Gewissenhaftigkeit und dem transformationalen Führungsverhalten durch den aufmerksamen Kommunikationsstil vermittelt wird. Demzufolge bestätigte sich die anfängliche Annahme, dass Persönlichkeitsmerkmale distale Antezedenzen und Kommunikationsstile proximale Antezedenzen von transformationaler Führung darstellen.

Die zweite und dritte Stichprobe untersuchen die Relevanz von transformationaler Führung und Kommunikationsstilen in Bezug auf organisationale Erfolgskriterien. Die zweite Stichprobe umfasst 481 Mitarbeiter aus unterschiedlichen deutschen Organisationen. Diese schätzen das transformationale Verhalten ihrer Führungskraft und deren Kommunikationsstil zum ersten Messzeitpunkt und ihre eigene Arbeitszufriedenheit zum zweiten Messzeitpunkt ein. Die Ergebnissen zeigen (1), dass der aufmerksame und der beeindruckende Kommunikationsstil, wie in Studie eins, einen positiven Zusammenhang zur transformationalen Führung aufweisen und (2) dass der Zusammenhang zwischen beiden Kommunikationsstilen und der Zufriedenheit der Mitarbeiter durch den transformationalen Führungsstil vermittelt wird. Aufgrund der Limitation, dass transformationale Führung und Kommunikation in der zweiten Stichprobe zu einem Messzeitpunkt erfasst

wurden, wurde noch eine dritte Stichprobe herangezogen. Diese besteht aus 259 Mitarbeitern aus verschiedenen Deutschen Organisationen. Die Teilnehmer schätzten den Kommunikationsstil ihrer Führungskraft zum ersten Messzeitpunkt und das transformationale Führungsverhalten sowie ihr eigenes Arbeitsengagement zum zweiten Messzeitpunkt ein. Die Ergebnisse zeigten wieder, dass (1) der aufmerksame und der beeindruckende Kommunikationsstil einen positiven Zusammenhang zur transformationalen Führung aufweisen und (2) dass der Zusammenhang zwischen beiden Kommunikationsstilen und dem Arbeitsengagement der Mitarbeiter durch den transformationalen Führungsstil vermittelt wird. Darüber hinaus erwiesen sich weitere Kommunikationsstile als positive Prädiktoren von transformationaler Führung. Demzufolge bietet die erste Studie interessante Ansatzpunkte für weitere Forschung. Darüber hinaus können wichtige Implikationen für Praktiker abgeleitet werden.

Aufbauend auf den Ergebnissen der ersten Studie, wurde in Studie 2 ein zweitägiges Training für Führungskräfte entwickelt und evaluiert. Im Rahmen des Trainings wurden am ersten Tag die Dimensionen der transformationalen Führung sowohl theoretisch als auch in Form von praktischen Übungen vermittelt. Am zweiten Tag wurde schwerpunktmäßig das Thema Kommunikation behandelt. Die Teilnehmer sollten zum einen eine inspirierende Ansprache entwickeln und darüber hinaus wurde das aktive Zuhören zur Verbesserung des aufmerksamen Kommunikationsstils aktiv erprobt. An dem Training nahmen insgesamt 38 Führungskräfte teil (Experimentalgruppe). Die Kontrollgruppe besteht aus 58 Führungskräften aus unterschiedlichen deutschen Organisationen. Diese Führungskräfte erhielten kein Training. Ihr Führungs- und Kommunikationsverhalten wurde ausschließlich zu zwei Zeitpunkten durch die Mitarbeiter eingeschätzt. Die Auswertung der Daten erfolgte mit einem Multilevel-Wachstumsmodell. Die Ergebnisse zeigen (1), dass sich sowohl das transformationale Führungsverhalten als auch der aufmerksame Kommunikationsstil bei den Teilnehmern der Experimentalgruppe im Vergleich zur Kontrollgruppe signifikant verbesserten. Darüber hinaus konnte der dominante Kommunikationsstil verringert werden. Weiterhin erzielten (2) die Teilnehmer mit einer anfänglichen mittleren Mitarbeiterereinschätzung ihres transformationalen Führungsverhaltens die größten Verbesserungen im post-test.

Zusammenfassend lässt sich festhalten, dass durch die vorliegende Dissertation die Forschung in Bezug auf den Zusammenhang zwischen Führung und Kommunikation in vier wesentlichen Punkten erweitert werden konnte. Erstens, mit dem aufmerksamen und beeindruckenden Kommunikationsstil konnten zwei konkrete Kommunikationsstile identifiziert werden, die für die Wahrnehmung von transformationaler Führung von besonderer Bedeutung sind. Zweitens, konnte gezeigt werden, dass sowohl Führung als auch Kommunikation organisationale Erfolgskriterien positiv beeinflussen können. Drittens, konnte ein ökonomisches zwei Tages Training für Führungskräfte erfolgreich evaluiert werden. Dies ist insbesondere für Praktiker relevant, da die Wirksamkeit von Personalentwicklungsmaßnahmen häufig nicht erfasst wird. Viertens, konnte gezeigt werden, dass sich Teilnehmer sehr unterschiedlich von dem Seminar profitieren. Die Ergebnisse deuten darauf hin, dass Deckeneffekte (Teilnehmer mit anfänglich hohen Werten erzielen kaum Verbesserungen) vorliegen. Das Ausgangslevel der Teilnehmer sollte daher bei zukünftigen Evaluationsstudien berücksichtigt werden sollten. Insgesamt konnte das Wissen über den Zusammenhang zwischen Führung und Kommunikation weiter vertieft werden. Darüber hinaus konnten vielfältige Ideen für weitere Forschung sowie wertvolle Implikationen für die Praxis abgeleitet werden.

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List of Abbreviations

α	Cronbach`s alpha
β	beta-coefficient
BFI-K	Kurzversion des Big Five Inventory
CFA	confirmatory factor analysis
CFI	comparative fit index
CG	control group
CSM	Communicator Style Measure
CSM-D	German validated version of the CSM
d	effect size
d_{ppc}	effect size for pretest-posttest control group designs
e.g.	for example
et al.	et alii
EG	experimental group
F	statistic for significance of multivariate model
ICC	intraclass correlation coefficient
LTSI	Learning Transfer System Inventory
M	mean
N	sample size
ns	not significant
p	level of significance
p.	page
r	correlation coefficient
RMSEA	root mean square error of approximation
RQ	research questions

<i>SD</i>	standard deviation
<i>SE</i>	standard error
SRMR	root mean square residual
SSA	smallest space analysis
<i>t</i>	test statistic for Student-t-distributed data
<i>t</i> ₁	first measurement point
<i>t</i> ₂	second measurement point
TL	Transformational Leadership
TLI	Transformational Leadership Inventory
WS	Work Satisfaction
WE	Work Engagement
χ^2	chi square coefficient
<i>z</i>	test statistic for standardized normal distributed data

1. Introduction

If we think of great leaders the first names that come into our minds are Martin Luther King, Jr., Mahatma Gandhi or maybe Abraham Lincoln. All three had the ability to see a greater future for their followers and to communicate a compelling and inspiring vision. However, leadership is not only for CEOs, it is relevant for everyone, even for small business, friends or relationships. All leadership behavior starts with leading yourself (Hill, 2011). Which means, that every one of us is striving for something or has values that are important for him or her. The art of leadership lies in the ability to develop and communicate a vision with an inspirational rhetoric that goes in line with the own values and appeals to followers higher needs and values at the same time. Moreover, successful leaders as Gandhi or Lincoln keeping the needs of their followers in mind and provide support and empathy. They acted as a role models (Howell, 2013).

Commonly, leaders who demonstrate the behaviors described above are referred to transformational /charismatic leaders (Howell, 2013). Especially transformational leadership has received much attention in the past 25 years. Originated by Burns' (1978) definition of transforming leadership. A further development of the theory was made by Bass (1985) and Podsakoff, MacKenzie, and Fetter, 1990. According to Podsakoff et al. (1990) transformational leadership is defined by six dimensions (articulating a vision, providing an appropriate model, fostering the acceptance of group goals, high performance expectations, providing individualized support and intellectual stimulation). In this sense, transformational leaders encourage their followers to performance beyond expectation by formulating an appealing vision that meets the needs and values of the followers. Aside from that, transformational leaders act as a role model, they increase followers self-confidence and stimulate them to rethink their behavioral patterns.

Numerous studies have demonstrated the effectiveness of transformational leadership behavior on organizational outcomes such as commitment, work satisfaction, trust or increased sales (Heinitz, & Soellner, 2011; Lowe, Kroeck, & Sivasubramaniam, 1996; Podsakoff et al., 1990; Sturm, Reiher, Heinitz, & Soellner, 2011).

In Howells' (2013) *Snapshots of Great Leadership*, communication is also mentioned as being an important part of effective leadership behavior. Especially Martin Luther King, Jr., Mahatma Gandhi or Mother Theresa are named as being best practice examples for impressive and inspirational speeches. Or as James Humes (2008) stated: "The Art Of Communication Is The Language Of Leadership".

The research concerning communicator styles was characterized by Norton (1978; 1983). Norton (1978; 1983) differentiates between eleven communicator styles that were derived from different theories about personality and interpersonal communication (Bales, 1970; Leary, 1957; Liebermann, Yalom & Miles, 1973; Mann, Gibbard & Hartmann, 1967; Schutz, 1958).

Norton's communicator styles had been proved to be significant indicators of various organizational outcomes like trust (O'Hair, Cody, Goss & Krayner, 1988), service orientation (Kang & Hyun, 2012) or sales (Dion & Notarantonio, 1992).

The relationship between communication and transformational leadership behavior has been subject of various investigations (Berson & Avolio, 2004; Frese, Beigel, & Schoenborn, 2003; Holladay & Coombs, 1993; Madlock, 2008; Vries, Bakker-Pieper, & Oostenveld, 2010). Even so, only few studies examined the relationship between specific communicator styles and leadership behavior. In this line, the results of Holladay and Coombs (1993; 1994) indicated that strength of delivery as well as the attentive, dominant, open, and friendly communicator styles were related to the perception of charisma. Charismatic leadership is similar to transformational leadership (Yukl, 2006). Moreover, Vries et al. (2010) found that charismatic leadership and human-orientated leadership mediate the relation between leaders' communicator styles and different leadership outcomes.

The first aim of my dissertation is to extend the existing research and to identify specific communicator styles that are related to transformational leadership behavior. Besides that, I aim to address the effectiveness of a training in transformational leadership and communication in my dissertation.

The most prominent investigation of Barling, Weber, Kelloway (1996) as well as a newer investigation of Abrell, Rowold, Mönninghoff and Weibler (2011) indicate that transformational leadership behavior could be actively improved through training. Unfortunately, the existing studies show some weaknesses. Firstly, only single dimension of transformational leadership have been considered (e.g. Barling, et al., 1996) or secondly leaders' communicator styles were not subject of the intervention. Adding communication to leadership interventions is especially important, because the way a leader communicates influences followers' perceptions of the leader (Holladay & Coombs, 1993; Vries et al., 2010). George Bush provides a prominent example that the way of communication can be improved. Bligh, Kohles and Meindl (2004) showed that Bush's communicator style was more charismatic after the events of 9/11.

Therefore, I aim to extend the existing research by developing a two-day training intervention that captures all dimensions of transformational leadership behavior and communication.

Beyond the content of the leadership intervention I aim to shed light on the effectiveness of the intervention. The existing research provides evidence that participants differentiate concerning their individual improvements after the training. Larsson, Sandahl, Soderhjelm, Sjøvold, and Zander (2016) found that leaders with initial low follower ratings of their leadership behavior had the most improvements after the intervention. That is the reason why I took also participants' initial scores on transformational leadership behavior into account. The contribution here is to show that participants differ in how much they benefit from the intervention. This is especially important, because organizations could save a lot of money with this knowledge.

The goals and the research questions of my dissertation will be described in more detail in the next section.

1.1 Goals of the Dissertation and Research Questions

The overarching goal of my dissertation is to explore the relationship between transformational leadership behavior and leaders' communicator style. I postulate that there are specific communicator styles that have a positive impact on followers' perception of transformational leadership behavior. Additionally, I postulate that in contrast to personality traits, communicator styles are a more proximal attribute of transformational leadership behavior that can be actively improved through training. Furthermore, I contribute to the impact of leaders' initial follower ratings of their transformational leadership behavior on their improvements three month after a leadership intervention. In the following my four research questions were outlined in more detail.

The first research question of my dissertation refers to the relationship between leaders' personality traits, communicator style and transformational leadership behavior.

To explore the relationship between the variables mentioned above I used the integrated model of Zaccaro, Kemp and Bader (2004) as theoretical foundation of my research. According to Zaccaro et al.'s (2004) leaders' cognitive abilities, personality and motives as distal attributes, influence leader's social appraisal skills, problem solving skills and expertise. These proximal factors have an impact on leadership process and outcomes. Therefore, leadership emergence depends on distal and proximal predictors.

Dispositional variables of personality traits have a relatively stable and significant distal influence on transformational leadership behavior. However, only 9% of the variance in transformational leadership behavior could be explained by personality factors (Bono & Judge, 2004). So, I assume that personality traits constitute maybe too distal attributes, resulting in ambiguous results concerning the relation to transformational leadership behavior.

Zaccaro et al. (2004) propose social skills as more proximal factors of leadership. If one assumes that communication is a kind of social skill, it could be located as a proximal attribute of leadership in Zaccaro et al.'s (2004) model.

With my dissertation I want to clarify the relationship between traits and communicator styles as antecedents of transformational leadership behavior. In more detail, I

focus on the attentive and impression-leaving communicator styles and extraversion and conscientiousness as personality traits. Therefore, I want to address the following research question.

Research Question 1: Are leaders' personality traits extraversion and conscientiousness distal antecedents and leaders' attentive and impression-leaving communicator styles proximal antecedents of transformational leadership behavior?

Further, I focus on the relationship between communicator styles, transformational leadership behavior and leadership outcome criteria. A great body of research deals with the relationship of transformational leadership and organizational performance criteria. Meta-analyses indicate that transformational leadership is related to trust, commitment, job satisfaction or increase in profits (Lowe al., 1996; Sturm et al., 2011).

Communicator styles have also been subject of various investigations within organizational settings. Positive effects on trust (O'Hair et al., 1988), service orientation (Kang & Hyun, 2012) and sales (Dion & Notarantonio, 1992) could be found. However, significant fewer studies deal explicitly with both, leadership and communication, as predictors of organizational outcomes. As mentioned above, Vries et al. (2010) found that the relationship of the communicator styles with the leadership outcomes (e.g. knowledge sharing, leadership performance) are statistically mediated by different leadership styles.

Building on the existing research I set my focus on exploring the relationship of communicator styles, transformational leadership behavior and leadership outcomes. In my first study, I used work satisfaction (Sample 2) and work engagement (Sample 3) to capture leadership outcomes. I chose them because they are among the key direct consequences of leadership behaviors (Lambert, Tepper, Carr, Holt, & Barelka, 2012). This results in the third research question.

Research Question 2: Does transformational leadership mediate the relationship between communicator styles and work satisfaction as well as work engagement as leadership outcomes?

Due to the effectiveness of transformational leadership especially practitioners asked for possibilities to develop transformational leadership through interventions. Only few studies exist that capture the evaluation of training interventions. That might be the case because such studies are difficult to perform. As a consequence, the existing investigation suffers from small sample sizes. Moreover, often only single aspects of transformational leadership were considered. Nevertheless, the existing findings indicate that transformational leadership behavior could be actively improved by training (Barling, et al., 1996; Frese et al., 2003) Abrell et al. (2011).

With my dissertation I aim to extend the existing literature by evaluating a two-day training intervention that focusses on transformational leadership and communication. Accordingly to my next goal of this dissertation I want to investigate the effect of a transformational leadership and communication training on employees' ratings of the trained behaviors.

Research Question 3: Does a training of transformational leadership and communication improve leaders' transformational leadership behavior and communicator styles?

Building on the third research question I aim to address the point of training effectiveness. I deal with the question, whether all participants have the same benefit from the intervention. The existing literature indicates that there might be differences. Larsson et al. (2016) found that participants with initial lower employee ratings leadership behavior had the most benefit and that leaders with initial high values show only small improvements. In study 2 I will explore this point in more detail. This topic has a high practical relevance because organizations could save a lot of money by sending only those participants to the intervention who actually would benefit. So, I derive the fourth research question.

Research Question 4: Are their individual differences concerning the improvements three month after the intervention?

I conducted two investigations to test my research questions. Study 1 consists of three samples that aim to deepen the understanding of the relationship of leader's communicator style and transformational leadership behavior. In Sample 1 I used a multilevel design to clarify the relationship between transformational leadership and communicator styles under consideration of leaders personality traits extraversion and openness to experience (51 teams / $N = 193$). In Sample 2 ($N = 481$) and Sample 3 ($N = 259$) I employed path analysis to replicate the results of sample 1. Further, I considered work satisfaction (Sample 2) and work engagement (Sample 3) as two organizational outcomes to ensure criterion validity and to present an integrative research model.

Building on the results of Study 1, Study 2 is more practical focused. I developed a two- day training intervention that mainly focusses on developing transformational leadership behavior and the attentive and impression-leaving communicator styles.

To sum up, Table 1 points out the key aspects of my dissertation and Figure 1 illustrates my research model.

Table 1. *Key Aspects of the two Studies*

Study	Research Questions (RQ) addressed
Study 1	
Sample 1	RQ 1: Leaders' Personality Traits Extraversion and Conscientiousness are Distal Antecedents and Leaders' Attentive and Impression Leaving Communicator Styles are Proximal Antecedents of Transformational Leadership Behavior
Sample 2	RQ 2: Mediation role of Transformational Leadership between Communicator Styles and Leadership Outcomes
Sample 3	RQ 2: Mediation role of Transformational Leadership between Communicator Styles and Leadership Outcomes
	RQ 3: Training Transformational Leadership Behavior and Communicator Styles
Study 2	RQ 4: Effectiveness of Transformational Leadership Behavior and Communicator Styles

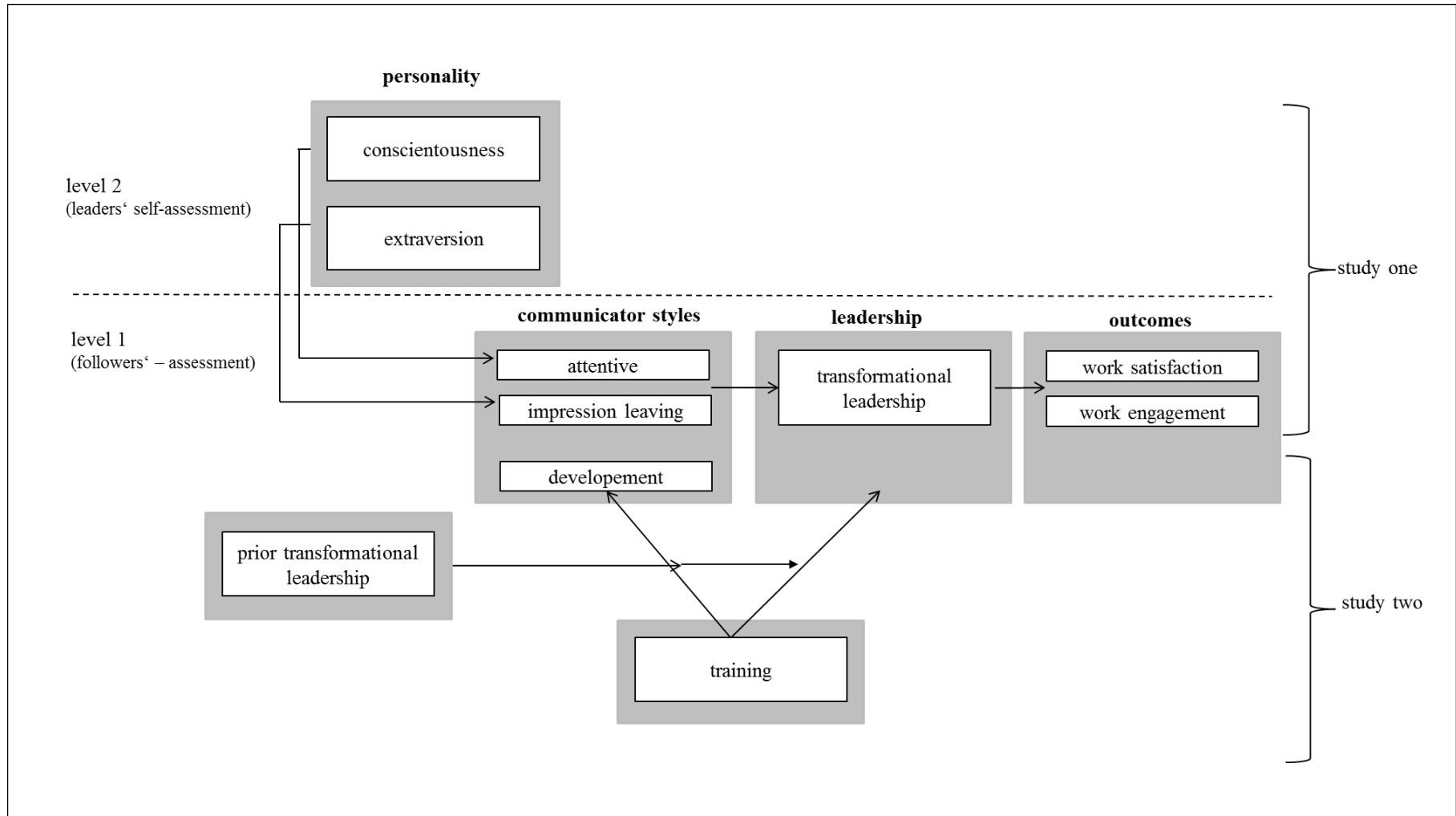


Figure 1. Research Model of the Dissertation.

1.2 Outline of the Dissertation

The overarching goal of this dissertation is to shed light on the relationship of transformational leadership behavior and communicator styles. In order to achieve an understanding, I will give a summarized overview of the theoretical background in chapter one.

Chapter two and three will present two empirical investigations addressing the four different research questions. The structure of the studies is as follows: First, an introduction is given. Second the theoretical background is described and hypotheses are derived. Third, the method of data collection is described. Fourth, the results of the hypotheses tests are presented and findings are discussed in the end.

Finally in chapter five, I will provide an overall discussion of the findings of the three studies, the limitations and the empirical as well as the practical implications of the dissertation.

Therefore, I follow a clear structure to address the overarching goal of my dissertation (Table 2).

Table 2. *Overview of the Chapter Structure*

Chapter	Content
1	Introduction, research questions, goals, and outline of the dissertation
2	Theoretical Background
3	Study 1: <i>A Three-Sample Investigation on the Relationship between Leadership and Communication</i>
4	Study 2: <i>Transformational leadership and communication: Evaluation of a two-day leadership development program</i>
5	Overall discussion, summarization, contribution, and implications

Chapter one includes the introduction followed by the four research questions, goals and an outline of this dissertation.

The overarching theoretical background is described in chapter two. An overview about the existing research regarding the relationship between transformational leadership and communication is given. At first transformational leadership is introduced. Second, Norton's (1978; 1983) foundation of a communicator style construct is described. Next transformational leadership is discussed from a communicational point of view. At least the existing research concerning the development of transformational leadership behavior and the effectiveness of leadership trainings is outlined.

In chapter three the first empirical study is presented that consists of three independent samples. Sample 1 addresses the relationship between transformational leadership and communicator styles under consideration of leaders' personality traits extraversion and conscientiousness. A multilevel design with three measurement points was used to test the hypotheses. The results indicate that the attentive and impression-leaving styles are the best predictors of transformational leadership behavior. Moreover, the attentive style mediates the relationship between conscientiousness and transformational leadership behavior. With regard to the limitations of Sample 1, namely the small sample size consisting of students and the fact that leadership outcomes were not considered, Sample 2 was conducted.

The second sample captures the second and third research questions of the dissertation. Using a path analysis the relationship between the attentive and impression-leaving communicator styles, transformational leadership behavior and work satisfaction as a leadership outcome was explored. With Sample 2 the results of Sample 1 could be replicated. The attentive and impression-leaving styles have been proven as predictors of transformational leadership behavior. Moreover, transformational leadership behavior mediates the relationship between the two communicator styles and work satisfaction as a leadership outcome. Due to the fact that only the attentive and impression-leaving styles were considered as antecedents of transformational leadership behavior, a third sample was conducted.

In Sample 3 all communicator styles were considered. Furthermore, work engagement was considered as a leadership outcome. The results again indicate that the attentive and impression-leaving styles are the best predictors of transformational leadership behavior. Also, transformational leadership mediates the relationship between communicator styles and work satisfaction.

Study 1 helped me to identify two communicator styles (e.g. attentive and impression-leaving) as proximal antecedents of transformational leadership behavior. Moreover, I was able to show that transformational leadership behavior mediates the relationship between communicator styles and outcomes. These results provide some evidence that both leadership and communication are important to enhance organizational performance criteria.

Based on the results of Study 1, chapter four describes the second empirical study. Study 2 constitutes the evaluation of a two-day transformational leadership and communication training. A pretest-posttest control group design was used to test the hypotheses. The experimental group encompasses 38 leaders and 58 leaders form the control group.

Study 2 aims at answering the third and fourth research question, relating to the development of transformational leadership behavior and communication through training. Additionally, the initial subordinates' ratings of the transformational leadership behavior and communicator styles of their leaders are considered to answer the question, which participants gain the most benefit from the intervention.

The results indicate a significant improvement of transformational leadership behavior and the attentive communication style in consequence the intervention. No significant results concerning the impression-leaving style could be found. In contrast to Study 1, the dominant communicator style was also considered. I decided to include the dominant style in the leadership training because the dominant style in a medium expression is a key factor for leadership success (Norton, 1978; 1983). As initially assumed participants show significant lower ratings in their dominant style after the training.

As a second contribution I could show that participants of the leadership development program differ concerning their benefit from the training. Against the initial assumption, participants with the initial lowest scores on transformational leadership only have the second best improvements three month after the training. For participants with the medium initial score the most improvements are noted.

With my second study I was able to take a look at the leadership communication relationship from a more practical point of view which resulted in developing an economic two day leadership intervention.

In chapter five an overall discussion is presented. Firstly, I give a summarization of the main findings of my two empirical studies. Secondly, I discuss my results in the light of the existing research and contributions as well as limitations were addressed. Thirdly, implications for practitioners and further research were derived. Finally, my dissertation ends with a conclusion.

2. Theoretical Background

A wide range of conceptualizations concerning the term *leadership* exists. The definitions differ with regard to traits, behaviors, interpersonal relationships, position or influence (Yukl, 2006). Most definitions have in common that leadership can be described as a process of intentional influence from one person to another. The underlying purpose thereby is to control, structure and foster interpersonal relationships and actions in a work group or institution (Yukl, 2006).

2.1 Transformational Leadership

Transformational leadership evolved as a dominant area of leadership research over the last 25 years. Transformational leaders' behavior is characterized as *transforming* individual values and the intentions of employees into collective organizational goals by communicating a vision for the future, by individual support, providing an appropriate role model, fostering group goals, expecting high performance, and stimulating subordinates intellectually (Bass, 1985; Podsakoff, MacKenzie, & Bommer, 1996).

Originally, transformational leadership theory was strongly influenced by Burns (1978). He describes two distinct types of leadership. On the one hand the transactional leader intends an exchange, for example workforce of the subordinate with an increased salary, on the other hand he considers the personal motives and needs of his followers. According to Burns (1978) this results in a reciprocal relationship between leader and followers. In 1985, Bass extended Burn's (1978) research with the definition of transformational leadership and he proposed an integrative theory of leadership (Antonakis & House, 2013). In this terms transactional and transformational leadership are distinct processes but in contrast to Burns (1978) he stated that transactional leadership builds the basis for transformational leadership. Therefore, leaders should exhibit both leadership behaviors. With his *augmentation* hypothesis he proposed an increased effect in predicting leadership outcomes when transformational leadership behavior is added to transactional leadership behavior (Antonakis & House, 2013; Bass, 1985).

Bass and Avolio (1990) described transformational leadership in terms of four basic components. Firstly, idealized influence means that leaders make self-sacrifices or serve

as an example for courage and dedication (Yukl, 2010). This results in an increased identification and trust of the followers. Secondly, individual consideration means that leaders address the needs of the followers, provide individual support or encouragement of the followers. The leader acts as a coach and helps the followers to take a greater responsibility to push their personal development (Bass & Avolio, 1990). Thirdly, intellectual stimulation means that leaders encourage their followers to take new and diverse perspectives as well as to rethink their behavioral patterns (Yukl, 2010). Fourthly, inspirational motivation describes leaders that communicate an appealing vision, create optimism and enthusiasm, and motivates followers to accomplish on higher levels of performance (Bass & Avolio, 1990).

A slightly different classification concerning the dimensions of transactional and transformational leadership was presented by Podsakoff et al. (1990) based on a literature review once again. According to Podsakoff et al. (1990) transformational leadership contains six dimensions described in the following.

Articulating a vision describes a leadership behavior that is aimed to find new opportunities for the group and to develop and articulate an appealing vision of the future. This dimension of transformational leadership is closely related to Bass' (1985) definition of inspirational motivation.

The dimension of *providing an appropriate model* means that the leaders act as role model for their subordinates. Leaders behave consistently with the values that they present (Podsakoff et al., 1990). This dimension of transformational leadership is similar to Bass' (1985) definition of individualized influence.

The same counts for the dimension *fostering the acceptance of group goals* which includes leadership behaviors that are aimed to develop cooperation among subordinates and to get them to work for a common goal (Podsakoff et al., 1990).

The dimension *high performance expectations* describes a behavior that conveys the high expectations on performance and work quality on part of the followers. Moreover the leader brings trust on the followers that they could meet the expectations (Podsakoff et al., 1990). This dimension is also linked to Bass' (1985) definition of inspirational motivation.

Providing individualized support describes a leadership behavior that expresses respect for the followers' individual needs and personal feelings. This definition is closely related to the concept of individualized consideration (Bass, 1985).

Intellectual stimulation means that leaders motivate their followers to rethink their assumptions about their work and to implement new solutions (Podsakoff et al., 1990). This dimension contributes to Bass' (1985) definition of intellectual stimulation. In my dissertation I contribute to the six-factor conceptualization of transformational leadership described above.

Over the last two decades several investigations concerning the effectiveness of transformational leadership were conducted (Derue, Nahrgang, Wellman, & Humphrey, 2011); Judge & Piccolo, 2004; Lowe et al., 1996; Podsakoff et al., 1990; Podsakoff et al., 1996). Many positive effects on different objective and subjective organizational outcome variables have been found, including trust, job satisfaction, commitment to an organization, performance or turnover goals (Dvir, Eden, Avolio, & Shamir, 2002; Judge & Piccolo, 2004; Lowe et al., 1996; Podsakoff et al., 1990).

Nevertheless, there is no precise description of the underlying influence processes for transformational leadership (Yukl, 2010). One possible explanation states that transformational leadership includes initialization (Yukl, 2010). Transformational leaders link tasks to followers' values and ideals by articulating a vision or the definition of group goals. As a consequence followers realize that their work is congruent with their own system of values and intrinsic motivation arises (Bono & Judge, 2004; Yukl, 2010). An alternative approach would be that the transformational leader sets a positive example that is easy to follow for the subordinates. Through this behavior followers attribute charisma to their leaders and build a personal identification (Bass, 1985).

A further research line touches the antecedents of transformational leadership. The attempt to identify transformational leaders in an early stage initiated a great body of research exploring the dispositional basis of transformational leader and leadership behavior in general.

2.2 The Dispositional Basis of Leadership

In the remarkable history of research on leader individual differences, Stogdill's seminal review (1948) reflects the first tipping point (Zaccaro, 2012). He identified different personal characteristics like achievement or participation that are related to leadership emergence. However, he also stressed the importance of the situation (e.g., status, skills or objectives to be achieved) as another important factor. Building on Stogdill's (1948) findings the focus shifts more on situationism and trait approaches fall in disgrace. In the 1980s, the re-analysis of the early leader trait reviews reported stronger support for traits. The results of Lord, De Vader and Alliger (1986) indicate that up to 80% of the variance in leadership ratings could be explained by leaders' individual differences and marked the second tipping point (Zaccaro, 2012). However the research on traits as factor that distinguishes effective from ineffective leaders remains still unsatisfying. This was due to the fact, that no overarching personality theory was existing. This changed with upcoming consensus on a five-factor model of personality (McCrae & Costa, 1987): extraversion, neuroticism, agreeableness, conscientiousness and openness for experiences. In the following years several meta-analysis have been carried out to test the relationship between the five personality factors and organizational outcomes like job performance (Barrick, & Mount, 1991) or job satisfaction (Judge, Heller, & Mount, 2002b). The promising results have encouraged the research on dispositional basis of leadership behavior. In this line satisfying relations between the five factor model and leadership emergence and leadership effectiveness were found (Judge, Bono, Ilies, & Gerhardt, 2002).

However no satisfying relations between the five factor structure and the promising leadership style transformational leadership were found. All in all, only 9% of the variance could be explained by personality factors and extraversion proved as the most stable predictor of transformational leadership (Bono & Judge, 2004). These inconsistent findings lead to new theoretical advancements that mark the third tipping point (Zaccaro, 2012).

From this line of research different forms of integrated models of leadership traits, behaviors and leadership effectiveness have emerged (Derue et al., 2011; Dinh & Lord, 2012; Zaccaro, 2012). These models have all in common that they distinguish between distal factors that have an indirect effect on leadership effectiveness and proximal factors

with a more direct effect on effectiveness (Antonakis, Fenley, & Liechti, 2012; Derue et al., 2011; Zaccaro et al., 2004) According to these models, leadership traits like personality predict the manifesting of certain leadership behaviors which themselves were proximal factors of leadership effectiveness (Zaccaro, 2012). In this line, Zaccaro et al. (2004) postulate a model of leader attributes and leader performance. In this model personality traits constitute distal attributes and social appraisal skill proximal attributes of leadership emergence and effectiveness. Zaccaro et al. (2004) declare social appraisal skills as “the heart of effective leadership” (Zaccaro et al., 2004, p.115). They put social appraisal skills on a level with social intelligence. According to Zaccaro et al. (2004) this means that the leader is able to understand feelings, thoughts or behaviors of others in a social situation and to select a social response which is ideally suitable to the situation.

On the basis of the crucial research of Zaccaro et al. (2004) and colleagues I postulate that not only social intelligence is important for leadership emergence but also other social skills like the communicator styles. From my point of view this aspect is not specified enough in the model of Zaccaro et al. (2004).

2.3 Communicator Styles

Within the framework of leadership research communicator styles were often subject of different investigations (Allen, Rybczyk, & Judd, 2006; Baker & Ganster, 1985; Bednar, 1982; Burris, 2012; Dion & Notarantonio, 1992). The research concerning communicator styles was characterized by Norton (1978; 1983). Norton (1978; 1983) operationalizes the communicator style through eleven sub-constructs. The independent variables are attentive, impression-leaving, dominant, animated, friendly, contentious, dramatic, relaxed and precise. The dependent variable is the communicator image.

According to Norton (1978; 1983), the independent variables predict the dependent variable communicator image. Norton derived the styles from different theories about personality and interpersonal communication (Bales, 1970; Leary, 1957; Liebermann et al., 1973; Mann et al., 1967; Schutz, 1958). According to Norton (1978; 1983), communication can be divided into two levels. On the micro level, style gives form to content: “the way one verbally and paraverbally interacts to signal how literal meaning should be taken, interpreted, filtered, or understood.” (Norton, 1983, p.19). On the macro level, style

is recognized as “a function of consistently recurring communicative associations” (Norton, 1983, p.19). In this sense enough social interaction with another person can observe a specific pattern of communication. The individual communicator style is relatively stable but also dependent on the situation. According to Norton (1983), the micro and the macro level are connected in the following sense: “[...] it is an accumulation of ,microbehaviors’ giving form to literal content that add up to a ,macrojudgement’ about a person’s style of communicating. Style as a consistently recurring pattern of association is form giving at the macro level” (Norton, 1983, p. 38).

Norton (1978; 1983) ascribes four main characteristic to the communicators styles. In a first sense they are (1) *observable*, so everybody has a specific style. The communicator styles have different levels of abstraction. An animated style as an example is characterized by pronounced non-verbal cues (e.g. numerous facial expressions and gestures) which can be observed easily. On the other side, the relaxed style is much more difficult to observe because of the less noticeable behavioral cues. Whatever every communicator style can be operationalized in terms of observable verbal and non-verbal cues, so an assessment becomes possible. Secondly, the communicator styles are (2) *multifaceted*. Norton (1978; 1983) states that the communication of an individual can involve many styles. At the same time an individual can communicate with a dominant and contentious or an attentive and friendly style as two of many possible combinations. As a third characteristic, communicator styles share common variance, therefore they are (3) *multicollinear*. A dramatic style contains for example a lot of exaggeration or a frequent talking and a dominant communicator takes on the leading of the conversation. At least the communicator style are (4) *variable, but sufficiently patterned* Norton (1978; 1983). Therefore, every individual shows a sufficiently pattern of style in every interaction, but still can deviate from this pattern. As a simple example people display another style at the workplace than at home with family and friends.

Different theories about personality and interpersonal communication (Bales, 1970; Leary, 1957; Liebermann et al., 1973; Mann et al., 1967; Schutz, 1958) form the basis for Norton’s (1978; 1983) framework of communicator styles. Norton (1978; 1983) put the style variables derived from the five theories into eight clusters. Style variables with analogous components form one cluster. In a next step Norton (1978; 1983) assigned the clusters to nine communicator styles and the dependent variable communicator image.

The precise communicator style was added later. According to Norton (1978; 1983), the nine independent variables predict the dependent variable communicator image. The Communicator image describes individuals own view on the communicator style. Norton (1978; 1983) conducted a smallest space analysis (SSA) to illustrate the structural relations between style variables. The communicator styles were operationalized by the Communicator Style Measure (CSM). The CSM contains 51 items and assesses communicator styles in form of a self-report. The validity of the CSM could be verified in several investigations (e.g. Norton, 1978; 1983). To date the CSM is used within empirical studies to assess communicator styles (Brown et al., 2011; Kang & Hyun, 2012; Snively & McNeill, 2008).

In my dissertation I used a German validated version of the CSM, the CSM –D (Cohrs, Diebig, Rowold & Bormann, 2016) to assesses communicator styles. The CSM-D assess the subordinates’ view of the communicator style of their leaderwith 32 items.

Norton (1983) has examined the effectiveness of communicator styles in the context of teacher-pupil or doctor-patient communication, in particular. Communicator styles have also been subject of various investigations within organizational settings. Positive outcomes on trust (O’Hair et al., 1988), service orientation (Kang & Hyun, 2012) and sales (Dion & Notarantonio, 1992) could be found.

2.4 Leadership and Communication

Leadership and communication are strongly linked. It is well known that leaders spend most time of their day in communication (Mintzberg, 1990). Several authors examined the relationship between leadership and communication (Berson & Avolio, 2004; Frese et al., 2003; Holladay & Coombs, 1993; Madlock, 2008; Vries et al., 2010). In most of the investigations the content of the speech or rhetoric skills were considered. The untaken path in the leadership- communication research has been the examination of communicator styles that were used by the leaders. De Vries et al. (2010) found that charismatic leadership and human-orientated leadership mediate the relationship between leader’s communicator styles and different leadership outcomes. The results of De Vries et al. (2010) indicate that especially the charismatic leadership style is grounded to a great amount in communication. However, the findings of De Vries et al. (2010) cannot fully

clarify the causal relationship between leadership and communicator styles because data were assessed only at one measurement point.

Other investigations had the communication of a vision as a main subject of interest. Awamleh and Gardner (1999) for instance found that the strength of delivering a vision has an impact on the perception of leaders' charisma and on leadership effectiveness. In a series of two experimental studies Holladay and Coombs (1993; 1994) previously came to similar results. The results indicate that strength of delivery as well as the attentive, dominant, open and friendly communicator styles are related to the perception of charisma. In a second experimental study Holladay and Coombs (1994) could show that additionally the dominant and the relaxed style have an impact on the perception of charisma. Awamleh and Gardner (1999); Holladay and Coombs (1993; 1994) as well as De Vries et al. (2010) consider communicator styles as a factors that influence the perception of leadership behavior.

However, the underlying mechanisms remain unclear. Different explanations are possible. Firstly, as mentioned in chapter 1.1 communicator styles are stable but more variable proximal antecedents of transformational leadership behavior. This assumption goes in line with Nortons' assumption that "communicator styles are stable but variable" (Norton, 1983, p.). Communicator styles are somewhat stronger influenced by personality traits than transformational leadership behavior. On the one hand Norton derived communicator styles from different theories about personality and interpersonal communication (Bales, 1970; Leary, 1957; Liebermann et al., 1973; Mann et al., 1967; Schutz, 1958). On the other hand Horvath (1995) showed that communicator styles have a genetic component. The correlation between the self-reported dominant communicator style and various subscales of temperament was on average $r = .33$ ($p < .01$) (Horvath, 1995). In addition, smaller effects for self-reported attentive and impression-leaving communicator styles could be found.

Moreover, communicator styles were shaped in an early age. Norton (1983) postulated that the way people communicate is influenced by environmental conditions. He stated that communicator styles are subject to cultural influences. In different cultures there are different social norms. Deviation from these norms is fraught with negative con-

sequences. This assumption corresponds to the principles of social learning theory (Bandura & Walters, 1977). According to social learning theory, all behaviors are learned. In terms of communication styles, children experience their parents and other caregivers, in social interactions and then try to imitate their behavior. Certain phrases or linguistic connotations are adapted and communication is learned over time.

However, transformational leadership could also be learned. Zacharatos, Barling and Kelloway, (2000) examined how the transformational leadership of parents affects the future leadership behavior of their children in sport. It was found that adolescents whose fathers showed transformational leadership behavior, were later also described as transformational leaders. However, not everybody becomes a leader in future life. Therefore, leadership skills must not become salient.

Moreover, the existence of implicit leadership theories provides support for the assumption that communicator styles are proximal antecedents of transformational leadership behavior. According to implicit leadership theories, everyone has certain assumptions of which characteristics a leader should have (Lord, Foti, & De Vader, 1984; Offermann, Kennedy, & Wirtz, 1994). These implicit assumptions were matched with perceived leadership behaviors. The more consistent the observed behaviors are with existing assumptions, the more this person is perceived as a leader. According to Norton (1983), communicator styles give form to content: “the way one verbally and paraverbally interacts to signal how literal meaning should be taken, interpreted, filtered, or understood.” (Norton, 1983, p.19). Therefore, communicator styles frame the message and signal how the content should be understood (Norton, 1983; Holladay & Coombs, 1993). Norton (1983) states that everybody has an individual communicator style. Therefore individuals differ from one another in their way they communicate and how they are perceived by others. As a consequence the communicator style influences followers’ perception of their leader.

2.5 Training evaluation and training effectiveness

According to Alvarez (2004), evaluation and effectiveness are two different constructs. Evaluation is defined as measurement technique that focusses on learning outcomes (Alvarez, 2004). With an evaluation the individual benefit of the participants in

terms of learning outcomes and enhanced job-performance could be captured. However, effectiveness considers the learning system as a whole and provides a view of the training outcomes on a macro level (Alvarez, 2004). In terms of effectiveness, the main question is why individuals take a benefit from the training or not. In this sense, all variables that have an impact on trainings success were studied.

The common approach for trainings evaluation is the one of Kirkpatrick (1979). Kirkpatrick (1979) differentiated four levels of trainings success criteria. At the first level, the affective reaction of the participants is captured. As an example, they have been asked if they were satisfied with the content of the training or the presentation, afterwards. At the second level, the acquisition of declarative knowledge as though as the changes of attitudes and cognitions were being considered. The main question here is, how much the knowledge of the participants has increased as a result of the training. At the third level, the changes of the job related behaviors of the participants as a result of the training were focused (Kirkpatrick, 1979). The results are on the scope of the fourth level. The impact of behavioral changes, triggered by the training on organizational performances is analyzed. According to Kirkpatrick (1979) the four levels build upon another and higher levels depend on the form of lower levels. However, the prominence of Kirkpatrick's (1979) approach engenders some criticism which is mainly aimed at the relationship between the four levels (Alliger, Tannenbaum, Bennett, Traver, Shotland, & Alliger, 1997). Finally, the classification of Kirkpatrick (1979) is a useful approach to classify evaluation criteria. In their meta-analysis Arthur, Winfred, Jr., Bennett, Winston, Jr., Edens, and Bell (2003) reported effect sizes range from $.60 < d < .63$ for reaction, learning, behavioral and results criteria. Therefore, organizational training is effective from a medium to a large degree (Arthur Jr. et al., 2003).

The theoretical approaches of training effectiveness are far more complex than those of training evaluation (Hochholdinger, Rowold & Schaper, 2008). They consider all individual, organizational and trainings related variables that are related to all learning processes above and beyond the intervention.

Baldwin and Ford (1988) have developed a well-known model of trainings transfer. According to them, the transfer process consist of training-input factors, training outcomes and conditions of transfer (Baldwin & Ford, 1988). Firstly, training inputs are defined by

the characteristics of the trainee. However, the expectation of self-efficacy (Colquitt, LePine & Noe, 2000) or the big-five traits extraversion and openness to experience (Barrick & Mount, 1991) largely determine the trainings transfer. Moreover, the training designs (e.g. Training content) and the work environment, such as support by the leader or the possibility to perform the learned behaviors in the daily job, are considered (Baldwin & Ford, 1988). Secondly, training output means the amount of what is learned in the training and what is kept in mind after the training. Thirdly, conditions of transfer means that the training content could be transferred on the job and the maintenance of the learned over time (Baldwin & Ford, 1988).

A similar model was developed by Tannenbaum, Mathieu, Salas, Cannon-Bowers, and Tannenbaum, 1991. They examined the relationship between training fulfillment, trainee reaction and training performance on the development of changes in participants' attitudes after the training (Tannenbaum et al., 1991). In this approach all four levels of Kirkpatrick's model were causal linked.

Based on the existing research, Holton (1996) developed an extended theory of training effectiveness. He developed the *Learning Transfer System Inventory (LTSI)* to assess all the personal and organizational factors that influence the way participants put the learned into practice (Holton III, Bates, & Ruona, 2000).

In my dissertation I evaluate a two-day intervention with transformational leadership and communication as the main topics. Only few studies exist that indicate that transformational leadership behavior as being actively improved through training (Collins & Holton, 2004). Barling et al. (1996) found significant improvements of transformational leadership behavior, subordinates' commitment, and subordinates' financial performance. Kelloway, Barling, and Helleur (2000) validated the results a few years later, using the same training intervention. A newer investigation comes from Abrell et al. (2011). In their study they evaluated a two-day transformational leadership intervention. In contrast to Barling et al. (1996) the six-dimensional conceptualization of transformational leadership from Podsakoff et al. (1990) was used. In line with the findings of Barling et al. (1996) and Kelloway et al. (2000) they could show that transformational leadership could be

actively developed and that leaders show significant improvements on the trained leadership behaviors.

Until now only one study exists that took communication into account within the context of leadership training. In their remarkable investigation Frese et al. (2003) evaluated a 1.5 day intervention that focusses on inspirational communication of a vision and charismatic leadership. The results of their two studies indicated that participating managers could actively improve their inspirational speech. Nevertheless, Frese et al. (2003) only considered the inspirational speech as a single aspect of charismatic leadership. Therefore, I aim to extend the existing investigations on transformational leadership and inspirational communication training to specific communicator styles that are relevant under consideration of all transformational leadership dimensions.

Additionally, I address the aforementioned issue of training effectiveness. According to Alvarez (2004) effectiveness refers to the individual benefit that an individual takes from the training. However, participants differentiate from each other concerning their individual improvements in consequence of the training. The existence of *ceiling effects* is an indicator that there are differences. According to the ceiling effect, individuals with initial high values in the behavioral patterns addressed by the training, had lower improvements after the training than participants with initial low values (Barling et al., 1996; Larsson et al., 2016).

In Study 2 I shed light on this aspect in more detail. I calculated effect-sizes depending on participants initial values of transformational leadership behavior. This is especially a crucial point for practical reasons. So, organizations could save a lot of money if it is clear which participants benefit from the training and which ones not.

Study 1 - A Three-Sample Investigation on the Relationship between Leadership and Communication

3.1 Introduction

“Leadership is the heart and soul of an organization” (Spinks & Wells, 1995, p.14). Through their behavior, leaders can guide the performance of their subordinates to levels that exceed expectations (Antonakis, 2006; Lowe al., 1996). What, however, differentiates a successful leader from a low-performing one?

One of the earliest approaches to this question focused on the traits of successful leaders. Traits can be defined as “individual attributes, including personality, temperament, needs, motives, and values” (Yukl, 2006, p. 180) that remain relatively stable over the person`s whole lifespan. Several meta-analyses indicate that extraversion is especially related to leadership emergence, leadership success, conscientiousness, and professional success in general (Judge, Heller, & Mount, 2002b; Judge & Piccolo, 2004). The findings, however, remain inconsistent across different studies (Yukl, 2006) and other schools of leadership research have, therefore, emerged where the focus has shifted from traits to a more behavioral perspective.

Over the last 25 years, transformational leadership has evolved as a dominant area of leadership research in this field. Transformational leaders *transform* individual values and attitudes of employees towards collective organizational goals by communicating a vision of the future, providing individual support, serving as an appropriate role model, fostering group goals, expecting high performance, and stimulating subordinates intellectually (Podsakoff et al., 1996). Transformational leadership has many positive effects on different objective and subjective organizational outcome variables, including trust, job satisfaction, commitment to an organization, performance, and turnover intentions (Dvir et al., 2002; Judge & Piccolo, 2004; Lowe al., 1996; Podsakoff et al., 1990).

To put the trait and the behavioral approaches together in the following years meta-analyses haven been carried out to test the dispositional basis of transformational leadership (Judge & Bono, 2000). Unfortunately, however, the relationship between the

five-factor structure and the promising transformational leadership style remains disappointing. All in all, only 9% of the variance could be explained by personality factors. Extraversion proved as the most stable predictor of transformational leadership (Bono & Judge, 2004).

These inconsistent findings led to new theoretical advancements and integrative models of leadership emerge (Zaccaro, 2012; Derue et al., 2011). Zaccaro et al. (2004) postulate an integrative model of leader attributes and leader performance. In this model, personality traits constitute distal attributes and social appraisal skills are proximal attributes of leadership emergence and effectiveness. Consequently, social skills are crucial for the perception of leadership behavior because they are linked more closely to leadership behavior than traits. Zaccaro et al. (2004) put social skills on a level with social intelligence, that is, the leader's ability to understand the feelings, thoughts, or behaviors of others in a social situation.

Zaccaro et al.'s (2004) model does not take into account the communication style of a leader as a remarkable social skill. Given the fact that leaders spend 78 % of their time in verbal communication (Mintzberg, 1990), this is somewhat surprising. Communicator style is defined as "the way one verbally and paraverbally interacts to signal how literal meaning should be taken, interpreted, filtered, or understood" (Norton, 1983, p.19). In this sense, communicator style gives form to the content. For example, if something is said with a smile, we can assume that the person is joking or that the message is meant ironically. Communicator style has a second function where style is recognized as "a function of consistently recurring communicative associations" (Norton, 1983, p.19). According to Norton (1978; 1983), everyone has their own specific way of communicating.

Transformational leadership is especially characterized by an intensive interpersonal relationship between leader and subordinates. However, there is a dearth of studies to show which communicator styles are most effective within the context of transformational leadership. Some investigations focus on the relationship between charismatic leadership and communication. Charismatic leadership has many aspects in common with transformational leadership. Vries et al. (2010), for example, found that charismatic leadership and human-orientated leadership mediate the relationship between the leader's communicator styles and different leadership outcomes. Moreover, Holladay and

Coombs (1994) found that delivery and content play an important role in the perception of charisma.

If communicator styles that are related to leadership success could be identified, specific leadership interventions could be developed. This is where this current study is positioned. With the present three-sample investigation, I aim to complement Zaccaro et al.'s (2004) model of leaders' communicator styles as proximal predictors of transformational leadership (see Figure 2 for the research model).

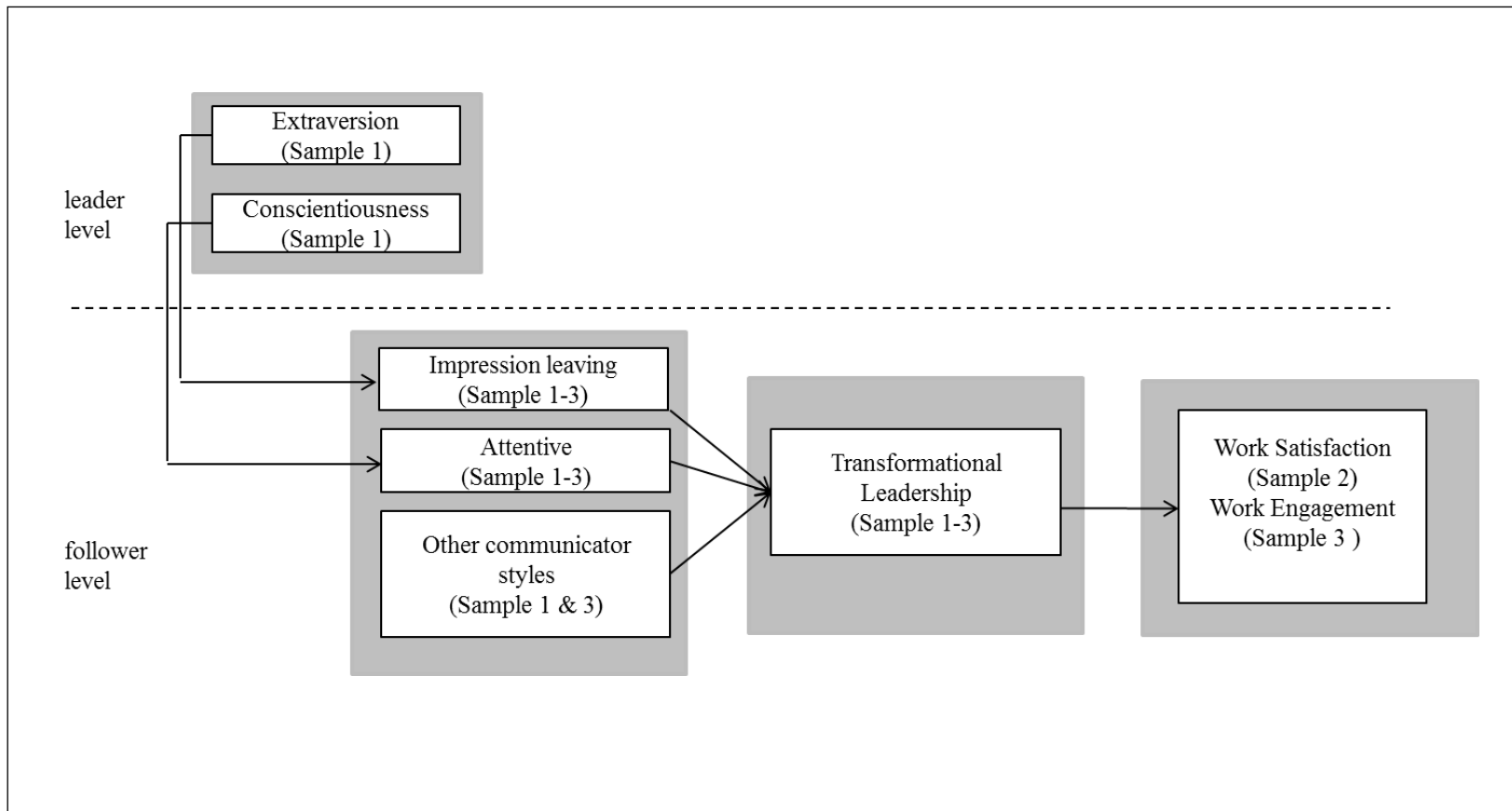


Figure 2. Overview about the Three Samples.

In Sample 1, I focus on two personality traits (extraversion and conscientiousness) as distal factors of transformational leadership behavior and two communicator styles (attentive and impression-leaving) as proximal factors. I have focused on these variables because extraverts are confident, outgoing and talkative, and therefore likely to display transformational leadership behavior (Judge & Bono, 2000). Conscientiousness is one of the most generalizable predictors of performance (Barrick & Mount, 1993). Leaders with an impression-leaving communicator style inspire others through the way they communicate (Norton, 1983). Moreover, I highlight the attentive style because attentive communicators are perceived as empathic, an attribute that plays an important role in providing transformational leadership behavior, especially when it comes to giving individual support.

I propose that communicator styles mediate the relationship between personality traits and transformational leadership. With Sample 2 and 3, I aim to replicate the results of Sample 1 by using the attentive and impression-leaving styles as a proximate for followers' perception of their leader's transformational behavior. As I am utilizing an integrative research model and also want to ensure criterion validity, I also consider leadership outcomes. I used work satisfaction (Sample 2) and work engagement (Sample 3) to capture organizational outcomes, criteria I chose because they are among the key direct consequences of leadership behaviors (Lambert, Tepper, Carr, Holt, & Barelka, 2012). Moreover, these attitudes are indicators of subordinates' acceptance of the organization's values and goals (Johnson & Chang, 2006) and are precursors to a variety of important effectiveness criteria such as organizational commitment, counterproductive work behavior, absenteeism, turnover, and work performance (Braun, Peus, Weisweiler, & Frey, 2013; Dirks & Ferrin, 2002; Iaffaldano & Muchinsky, 1985; Judge, Thoresen, Bono, & Patton, 2001; Spector, 1997)

3.2 Theoretical Background

3.2.1 The Dispositional Basis of Transformational Leadership

Zaccaro (2012) postulates that individual differences between leaders can be explained by relatively stable attributes such as personality traits and social appraisal skills. The Big Five provide an integrative framework to describe leaders in terms of their individual characteristics (McCrae & Costa, 1987). The five personality traits of extraversion, conscientiousness, neuroticism, openness to experience, and agreeableness were defined within this taxonomy (McCrae & Costa, 1987).

The present investigation's main focus lies on the personality traits of extraversion and conscientiousness. Extraverts are characterized as enthusiastic, talkative, energetic, assertive, active, and outgoing (McCrae & John, 1992). These attributes encourage extraverts to exhibit transformational leadership behavior. They are able to inspire others with their confidence and enthusiasm and to create an interesting picture of the future, or a vision. Moreover, extraverts often seek sensation and change. It is, therefore, likely that they perform intellectual stimulation. They also seek positive emotions, which in turn may have a positive effect on interpersonal relationships. Meta-analyses indicate that extraversion is a valuable predictor of transformational leadership behavior (Barrick & Mount, 1993; Bono & Judge, 2004). Moreover, extraversion is positively related to job satisfaction, which is an important organizational outcome and a subject of the present investigation (Judge et al., 2002b).

Conscientiousness is the second personality trait examined in this sample and refers to a style of behavior that is planned, reliable, responsible, organized, and efficient (McCrae & John, 1992). According to Bass (1985), transformational leaders have greater knowledge and expertise than their followers. It would be reasonable to assume that it is easier for people with high conscientiousness to acquire a wide range of knowledge. Additionally, the results of different studies indicate that conscientiousness has a crucial effect on learning strategies and academic performance (Blickle, 1996; Chamorro-Premuzic & Furnham, 2003; Laidra, Pullmann, & Allik, 2007). It has proven to be one of the most generable performance predictors of the Big Five factors (Barrick & Mount, 1993).

By taking these theoretical arguments and current empirical results into account, it can be assumed that extraversion and conscientiousness are the most valuable predictors of transformational leadership. For this reason, they were subject of Sample 1.

3.2.2 Communicator Styles and Followers' Perception of Transformational Leadership

Norton (1978; 1983) explored communicator styles mainly within the context of teaching. Critics might argue that communicator styles therefore provide no appropriate model for assessing the communication of leaders. However, a deeper look into the topic shows that transformational leadership has also proven to be an effective behavior within the school context (Hallinger, 2003; Leithwood & Jantzi, 2000; Marks & Printy, 2003). I therefore assume that the communicator style approach is, conversely, also suitable for the business context. In addition, a wide range of empirical studies in the field of leadership research examines communicator styles (Allen et al., 2006; Baker & Ganster, 1985; Bednar, 1982; Burris, 2012; Dion & Notarantonio, 1992).

According to Norton (1983), the individual communicator style is relatively stable but also dependent on the situation. Based on the influence of different theories about personality and interpersonal communication (Bales, 1970; Leary, 1957; Liebermann et al., 1973; Mann et al., 1967; Schutz, 1958), Norton (1978; 1983) developed a framework of communicator styles, operationalizing the communicator style through ten sub-constructs. The independent variables are as follows: attentive, impression-leaving, dominant, animated, open, friendly, contentious, dramatic, and relaxed. The dependent variable is the communicator image. According to Norton (1978; 1983), these independent variables predict the dependent variable communicator image. The communicator image describes someone's own view of their communicator style. I have focused on the attentive and the impression-leaving styles as proximal attributes of transformational leadership.

A communicator with an impression-leaving style is remembered because of the way he or she says something (Norton, 1983; Cohrs et al., 2016). From a theoretical point of view, the impression-leaving style is closely related to the conceptualization of charisma (Conger, 1991). Transformational leaders are also described as charismatic people

who communicate visions in an impressive manner. Research by Den Hartog and Verburg (1997) showed that the rhetorical construction of a vision leads followers to perceive a leader as charismatic and inspiring. In line with the results of Den Hartog and Verburg (1997), Awamleh and Gardner (1999) showed that the delivery and content of the vision are also important sources of inspiration. These findings demonstrate that the perception of a vision is strongly influenced by the rhetorical devices that are used to communicate it. Beyond the scope of Norton's framework, impression-leaving communication is an important component of impression management (Mummendey & Bolten, 1993; Schlenker, 1980; Tedeschi, 2013). Moreover, a relationship was found between the leader's impression management and the perception of transformational leadership (Gardner & Cleavenger, 1998). The impression-leaving style is, therefore, of particular interest for transformational leadership research.

Additionally, the attentive style is considered as a proximal attitude of transformational leadership. According to Norton, the attentive style "signals an ongoing willingness to provide feedback that the person's messages are being processed in an alert and/or understanding manner" (Norton, 1983, p.154). This willingness is reflected by nonverbal cues like eye contact, smiling, or nodding, all signals that differentiate the attentive style from attentive listening. You can listen to somebody attentively without showing it, but with the attentive style, you can also convince somebody that you are interested in what they are saying. The conversation is more structured, efficient, and even longer when an attentive style is used. Moreover, the attentive communicator appears empathic, even though empathy is not a necessary condition for the attentive communicator style. Through using an attentive communicator style, a leader can show interest in the wishes and needs of a subordinate. By using eye contact and active listening, the leader conveys empathy. These verbal and nonverbal behaviors manifest in the subordinate's perception of being individually supported by the leader (Podsakoff et al., 1990). The inescapable conclusion that emerges from this theory is that the attentive style is a valuable proximal attitude of transformational leadership.

Several empirical investigations also underpin the relevance of these two communicator styles. Norton (1983) found that the attentive style has a positive impact on teacher effectiveness as perceived by pupils and is linked to leadership emergence. However, the organizational context has also shown that the attentive and impression-leaving styles

have a positive effect on trust (O’Hair et al., 1988), service orientation (Kang & Hyun, 2012), managerial effectiveness (Allen et al., 2006), and job satisfaction (Baker & Ganster, 1985).

3.3 Sample 1

With Sample 1, I aim to shed light on the relationship of the two personality traits of extraversion and conscientiousness as distal factors of transformational leadership behavior and the two communicator styles of attentive and impression-leaving as proximal factors. I claim that communicator styles mediate the relationship between personality traits and transformational leadership. In line with Zaccaro et al.’s integrative model (2004), I propose that the dispositional variables of extraversion and conscientiousness have a relatively stable and significant distal influence on transformational leadership behavior. Moreover, these stable distal attributes are precursors for the more situation-related and proximal personal characteristic communicator styles (e.g. attentive and impression-leaving). By using an impression-leaving or attentive style, leaders can enhance their subordinates’ perception of transformational leadership behavior.

I have identified extraversion and conscientiousness as the most valuable dispositions of transformational leadership. Extraverts are described as enthusiastic and facially and gesturally expressive. They are outgoing, assertive, and have the ability to inspire others through their behavior (McCrae & John, 1992). I therefore propose that extraverts are likely to display an impression-leaving communicator style, which is defined as charismatic and enthusiastic (Norton, 1983). Transformational leaders inspire subordinates by communicating an appealing vision and arouse strong emotions among their followers (Podsakoff et al., 1990; Yukl, 2006). Research by Den Hartog and Verburg (1997) has shown that the rhetorical construction of a vision leads followers to perceive their leader as charismatic and inspiring. In line with the results of Den Hartog and Verburg (1997), Awamleh and Gardner (1999) have shown that the delivery and content of the vision are also important sources of inspiration. In consideration of these theoretical assumptions and the empirical evidence, I come to the following hypothesis:

Hypothesis 1: The impression-leaving communicator style mediates the relationship between the leaders' personality trait of extraversion and the followers' perception of the leaders' transformational behavior.

Secondly, I postulate the importance of conscientiousness as a distal attribute of transformational leadership. People scoring high on conscientiousness are well-planned, reliable, responsible, organized, and efficient (McCrae & John, 1992). An attentive communicator can be described as an accurate listener who can reproduce what was said exactly. Conscientiousness, accordingly, includes attributes like reliability and responsibility. I therefore propose that people scoring high on conscientiousness are likely to display an attentive communicator style. Interpersonal communication plays an important role within the framework of transformational leadership, especially within the context of individual support (Vries et al., 2010). By using an attentive communicator style, a leader shows interest in the wishes and needs of the subordinate. By using eye contact and active listening, the leader conveys empathy. As a consequence, subordinates feel that the supervisor is taking them seriously and their trust in him or her is increased. I accordingly come to the following hypothesis:

Hypothesis 2: The attentive communicator style mediates the relationship between the leaders' personality trait of conscientiousness and the followers' perception of the leaders' transformational behavior.

3.3.1 Method

Sample

In line with the suggestion made by D'Innocenzo, Mathieu, and Kukenberger (2014) that student groups competing in complex situations form proper contexts in which to study leadership development, I tested my hypotheses by capturing 51 teams ($N = 193$) of students enrolled in a management program at a German university. After the participants had agreed to take part in the experiment, they were randomly assigned to groups

of three to four people. A leader of the group was then also selected at random. As a reward, a €20 gift coupon was given to the best group.

The average age of the participants that took on the role of the subordinates ($N = 142$) was 23.27 years ($SD = 3.83$ years); 57 % were male and 43 % female. They had 3.62 years ($SD = 4.51$ years) of job experience and 80 % were native speakers. The average age of the participants that took on the role of the leader ($N = 51$) was 23.10 years ($SD = 2.55$ years); 54 % were male and 46 % female. They had 3.21 years ($SD = 2.51$ years) of job experience.

Task

The participants were told that they were members of a workgroup in an imaginary company. The group's challenge was to make strategic decisions within the management simulation. The overall task was ordering goods in a timely manner. Three different warehouses were presented to the participants. Every day in the game, goods were sold from the warehouses. The group's assignment was to order enough goods to keep the warehouses stocked at 100% at all times. Goods could be ordered from a central warehouse and the delivery time in the game was six days. Groups had to calculate the anticipated requirement. The aim of the game was to maximize the *operating profit*, which is the relationship between costs and profit.

In addition to the management simulation, the participants were required to create a PowerPoint presentation. They were asked to create a name for their organization and to consider which goods their company would sell or which market strategy the organization should pursue. The participants received only a few pointers, and there were no fixed guidelines concerning the content of the presentation. The groups were informed that they should give their presentation after the experiment had been run four times. This task was conducted in order to enable the team leader to show a broader range of leadership behaviors, like communicating a vision or providing individual support to team members.

Procedure

An online management simulation (Burris, 2012) was used to create a realistic leadership workplace situation. The study comprised four runs once a week. Each of the runs lasted 90 minutes and followed the same procedure. It was only the number of rounds of the simulation game that varied, amounting to 50 rounds on the second run, 65 rounds on the third, and 65 rounds on the fourth. In order to prevent learning effects, the game parameters were changed for every run. During the first part of the run, participants carried out the management simulation. During the second part, they worked on a PowerPoint presentation. The co-workers were placed in front of a laptop with a view of the screen, whereas the leader sat on the other side of the laptop with no view of the screen. This design was chosen in order to make the superior dependent on the information given by his or her subordinates. In real organizations, leaders often do not have access to all necessary information and are dependent on their subordinates to fill any gaps. Ultimately, the superior had to make the final decisions about how and what volume of goods to order.

The first run served to give an introduction to the management simulation and to form the groups. To make sure that everybody adhered to their role within the experiment, the instructor distributed detailed role descriptions to the participants. They also received further information about the management simulation and the presentation task, and had some time to become familiar with this and any noteworthy figures. After this training phase, the participants started with the first 35 rounds of the simulation game. After a time cap of 20 minutes, they had to change tasks and begin working on their presentations. At the end of the first run, the students who had taken on the role of the leader, self-assessed their personality traits in terms of extraversion and conscientiousness.

After the second run, the students who had taken on the role of the subordinates, rated the communicator style of their team leaders.

At the third run no assessment was made but the subordinates assessed their leaders' transformational leadership after the fourth run. I have therefore created a research design with three measurement points to reduce any common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012).

Measures

Communicator style. I used the CSM-D, a German validated version (Cohrs et al., 2016) of the communicator style measure (CSM, Norton, 1983), to assess the subordinates' view of the communicator style of their leader. The internal consistencies are illustrated in Table 3. All 26 items started with "The person that I evaluate..." and continued with, for example, "...can always repeat back to a person exactly what was meant." I used a five-point Likert scale ranging from 1 (fully disagree) to 5 (fully agree). The communicator styles showed medium inter-correlation (see Table 3). These inter-correlations were generally lower than those found in the initial investigation of CSM-D conducted by Cohrs et al. (2016).

Transformational Leadership. I used a German 22 item version (Heinitz & Rowold, 2007) of the Transformational Leadership Inventory (TLI, Podsakoff et al., 1990) to assess the subordinates' perception of their leaders' transformational leadership behavior. All items started with "The person that I evaluate..." and went on with, e.g., "... is always seeking new opportunities for the organization." The internal consistency was $\alpha = .92$.

I evaluated the leader's *personality* with the BFI-K (Rammstedt & John, 2005). For this investigation, I assessed the relevant traits of extraversion and conscientiousness with four items that started with "I..." and went on with, e.g., "completes tasks carefully." The subscales extraversion ($\alpha = .71$) and conscientiousness ($\alpha = .68$) turned out to be reliable.

Control variables

In order to explore the incremental contribution of the attentive and impression-leaving communicator style on transformational leadership behavior, I controlled for the seven other communicator styles, calculating the direct effect of all communicator styles on transformational leadership behavior but only exploring the indirect effects for the attentive and impression-leaving styles.

Construct Validation

I performed a set of confirmatory factor analyses (CFA) with the following fit indices to evaluate the model fit: the root mean square error of approximation (RMSEA), comparative fit index (CFI), and standardized root mean square residual (SRMR). To take the potential multivariate non-normality of the data into account, I carried out the scaled Satorra–Bentler procedure (Satorra & Bentler, 2001) to correct the maximum likelihood chi-square variate and the standard errors of parameter estimates.

As a first step, I pooled the 22 TLI times into two parcels (Bandalos, 2002; Landis, Beal, & Tesluk, 2000) then loaded the communicator style items as single items on the dimensions. I next tested a 10-factor model with transformational leadership and the nine communicatory styles as single dimensions against a one-factor baseline model. The postulated 10-factor model provided a satisfying model fit with $\chi^2 = 524.69$ (305), CFI = .81, RMSEA = .07, and SRMR = .08. The fit indices lie just below the values recommended by Hu and Bentler (1999) with an appropriate model fit of > .90 CFI and < .08 for RMSEA and SRMR. In addition, I built a baseline model with all items loading on one factor, resulting in a poor model fit with $\chi^2 = 1184.60$ (350), CFI = .30, RMSEA = .13, and SRMR = .15.

Data analysis

In light of the hierarchical data structure with leaders' personality self-ratings (level 2 variable) and followers' ratings of leaders' communicator styles (level 1 variables) and transformational leadership behavior (level 1 variable), I considered using multilevel methods (Raudenbush & Bryk, 2002) as an appropriate approach to test my hypotheses. I obtained the F-ratio and *ICC*(1) for transformational leadership as a dependent variable and calculated a significant F-ratio, $F(34) = 12.07$, $p < .01$, and an *ICC*(1) of .13. Thirteen percent of the variance in transformational leadership proved to lie between groups and could, therefore, be explained by group-level variables. I conducted a multilevel path analysis using Mplus (Version 5.1 / Muthén & Muthén, 2012) with maximum likelihood robust parameters to test the hypotheses, then constructed an overall model with leaders' personality traits as the independent variable, attentive and impression-leaving styles as mediators, and transformational leadership as the outcome variable.

3.3.2 Results and Discussion

Means, standard deviations, and correlations between all study variables are shown in Table 3.

Table 3. *Sample 1: Means, Standard Deviations, Correlations, and Reliabilities for Study Variables*

	MW	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Team Level (Leader)</i>												
(1) Extraversion	3.72	0.66	(.71)									
(2) Conscientiousness	3.70	0.64	.10	(.68)								
<i>Individual level (Subordinate)</i>												
(1) Attentive	3.75	0.67	(.62)									
(2) Impression-leaving	3.46	0.78	.31**	(.81)								
(3) Dominant	2.87	0.85	-.22	.39*	(.79)							
(4) Animated	3.07	0.70	.04	.35*	.41**	(.51)						
(5) Open	3.41	0.64	.13	.28*	.17*	.36**	(.48)					
(6) Friendly	3.39	0.65	.44**	.43*	.20*	.14	.20*	(.46)				
(7) Contentious	2.29	0.89	-.42**	-.02	.52**	.22**	.10	-.27**	(.70)			
(8) Dramatic	2.41	0.99	-.36**	.08	.34**	.28**	.28*	-.18*	.61**	(.70)		
(9) Relaxed	3.90	0.81	.53**	.24**	-.12	-.15	-.08	.30**	-.42**	-.38**	(.70)	
(10) TL	3.34	0.63	.40**	.42**	.23*	.15	.11	.33**	-.11	-.10	.19*	(.92)

Note. Internal consistency reliability estimates (alphas) are on the diagonal. Relationships below the diagonal are individual level ($N = 142$ in $N = 51$ teams) relationships above the diagonal are from leaders ($N = 51$). TL = Transformational Leadership. * $p < .05$; ** $p < .01$

Hypothesis 1 postulated an indirect cross-level effect of a leader's personality trait of extraversion. The results show no indirect effect of extraversion on transformational leadership with an impression-leaving style as a mediator ($estimate = .02$; ns). Therefore, Hypotheses 1 must be rejected.

As regards the relationship between conscientiousness, attentive communication, and transformational leadership, the results show a significant indirect cross-level effect of conscientiousness on transformational leadership ($estimate = .05$; $p < .10$). Therefore, Hypothesis 2 could be confirmed.

Beyond these initial hypotheses, the data showed that the attentive ($estimate = .19$; $p < .05$) and impression-leaving styles ($estimate = .19$; $p < .05$) and had direct effects on transformational leadership. See Table 4 for the other direct effects.

The results support the core prediction of this study, namely that communicator styles constitute a proximal attribute of transformational leadership behavior. The results of this sample consistently suggest that the impression-leaving and the attentive communicator styles are significant predictors of transformational leadership. As expected, the other communicator styles were not related to transformational leadership. These findings are in line with Vries et al.'s (2010) previous research, which showed that human-orientated leadership styles like transformational leadership, are largely grounded in communication and that leaders' communicator style significantly impacts how subordinates perceive their leadership behavior (Holladay & Coombs, 1994).

As concerns the indirect effects of personality traits on transformational leadership, the results provide only weak support for the initial assumptions. The indirect effect of extraversion did not reach significance. Only an indirect effect for conscientiousness could be shown. These findings suggest that leaders' personality traits are too strongly distal attributes to have a direct impact on transformational leadership behavior.

Despite its many strengths, including a multilevel design with different sources and several measurement points, this study has some limitations. A first point of critique concerns the sample size. I used a small sample size ($N = 51$) consisting of students. I would

suggest replicating the results with a larger sample size with older employees. Moreover, I did not include any leadership outcomes in my research model. I would recommend considering different leadership outcomes to ensure external validity. As a third point, the partially small internal consistencies, especially for the animated ($\alpha = .51$), open ($\alpha = .48$), and friendly ($\alpha = .46$) communicator styles, must be mentioned. In Norton`s (1978) initial study, the internal consistencies were also below the critical value of $\alpha = .70$ for animated (.56) and friendly (.37) subscales. In addition, one can find indications in the literature that it is acceptable to apply scales with a limited internal consistency (Cortina, 1993). Moreover, I used leaders` self-description of their personalities to avoid common method bias (Podsakoff et al., 2012). However, Colbert, Judge, Choi, and Wang (2012) found that observer ratings of extraversion could explain more variance in leadership than self-ratings. For this reason, further studies should also take observer ratings of extraversion into account.

Table 4. *Sample 1: Standardized direct effects*

	Attentive		Impression-leaving		TL	
	Estim.	(SE)	Estim.	(SE)	Estim.	(SE)
Extraversion	-.07	(.11)	.12	(.14)	-.03	(.10)
Conscientiousness	.26**	(.10)	.11	(.14)	.26**	(.09)
Attentive					.19*	(.08)
Impression-leaving					.19*	(.10)
Dominant					.13	(.08)
Animated					.00	(.09)
Open					.00	(.07)
Friendly					.12	(.09)
Contentious					.00	(.09)
Dramatic					.00	(.06)
Relaxed					-.04	(.06)
R ² (Team level)					.21	(.07)
R ² (Individual level)	.20	(.13)	.07	(.12)	.17	(.11)

Note. $N_{\text{Within}} = 137$; $N_{\text{Between}} = 51$. TL = Transformational leadership. * $p < .05$; ** $p < .01$

3.4 Sample 2

With Sample 2, I aimed to replicate the results of Sample 1 by using the attentive and impression-leaving styles as a proximate for followers' perception of leaders' transformational behavior. I also considered work satisfaction as a leadership outcome to ensure integrative research and criterion validity.

Work satisfaction can be defined as the attitude that individuals have towards various facets of their jobs (Spector, 1997). Leaders with an impression-leaving communicator style are able to use expressive, eloquent language when crafting a vision. By using this style, they are able to evoke positive emotions among their followers. They are also able to adjust their visions to the individual interests and needs of their subordinates (Holladay & Coombs, 1994; Podsakoff et al., 1990). Empirical results sustain this assumption. According to Holladay and Coombs (1994), both the content and the delivery of a vision are important.

Hypothesis 3: A leaders' transformational behavior mediates the relationship between his or her impression-leaving communicator style and followers' work satisfaction.

According to Norton (1983), an attentive style is manifested as empathic or listening. As a result, the dialogue partners feels valued and accepted. Robbins (1993) stated that employee satisfaction increases when the leader listens to the subordinates and shows personal interest in them. Therefore, transformational leaders show empathy by using an attentive communicator style and are able to respond to their subordinates' needs, abilities, and values by providing individual support (Podsakoff et al., 1990).

Hypothesis 4: A leaders' transformational behavior mediates the relationship between his or her attentive communicator style and followers' work satisfaction.

3.4.1 Method

Sample and Procedure

Research assistants invited participants from different organizations to take part in this study. Data were assessed at two measurement points to control for common method bias (Podsakoff et al., 2012). At the first measurement point, participants were asked to assess the transformational leadership behavior and communicator style of their leader. Three weeks later, the dependent variable of work satisfaction was assessed.

The participants were employees from organizations. In total, 481 employees answered both questionnaires and the mean age was $M = 31.29$ ($SD = 10.84$) and 52% were female. They had worked with their leader for $M = 12.51$ ($SD = 8.89$) years. Around 72% of the leaders were male and 43% belonged to the top management.

Measures

As in Sample 1, I used the CSM-D (Cohrs et al., 2016) to assess the subordinates' view of the communicator style of their leader, utilizing only the six items to assess the attentive and impression-leaving styles. Cronbach's alpha was $\alpha = .83$ for attentive and $\alpha = .86$ for impression-leaving.

I again used a German version (Heinitz & Rowold, 2007) of the Transformational Leadership Inventory (TLI, Podsakoff et al., 1990) to assess subordinates' perception of the transformational leadership behavior of their supervisors. Cronbach's alpha was $\alpha = .94$.

I assessed *work satisfaction* with eight items from Neuberger and Allerbeck (1978). One item was "How satisfied are you with your job?" I used a five-point Likert scale with 1 (very unsatisfied) to 5 (very satisfied). Cronbach's alpha was $\alpha = .86$.

Construct Validation

As in Sample 1, I pooled the 22 TLI items into two parcels (Bandalos, 2002; Landis et al., 2000) and used the communicator style items as single items. To assess model fit,

I performed a CFA with a postulated 4-factor model (transformational leadership, attentive style, impression-leaving style, and work satisfaction as subscales) and a 1-factor baseline model. The four-factor model postulated provided a satisfying model fit with $\chi^2 = 81.07$ (29), CFI = .98, RMSEA = .06 and SRMR = .03. In addition, I performed a baseline model with all items loading on one-factor, resulting in slightly lower fit indices with $\chi^2 = 807.75$ (35), CFI = .73, RMSEA = .21 and SRMR = .11. In order to take the potential multivariate non-normality of the data into account, I carried out the scaled Satorra–Bentler procedure (Satorra & Bentler, 2001) to correct the maximum likelihood chi-square variate and the standard errors of parameter estimates.

Data analysis

In order to test the hypotheses, I calculated a path-analysis with the attentive and impression-leaving communicators styles as independent variables, work satisfaction as a dependent variable, and transformational leadership as a mediator with Mplus (Version 5.1 / Muthén & Muthén, 2012), using the maximum robust likelihood parameter.

3.4.2 Results and Discussion

The means, standard deviations, correlations, and reliabilities for the study variables are summarized in Table 5. I found positive and significant correlations between all variables of interest.

Table 5. *Sample 2: Means, Standard Deviations, Correlations, and Reliabilities for Study Variables (N = 481)*

	MW	SD	1	2	3	4
(1) Attentive	3.40	0.95	(.83)			
(2) Impression-leaving	3.67	0.88	.49**	(.86)		
(3) TL	3.41	0.76	.73**	.62**	(.94)	
(4) Work Satisfaction	3.55	0.73	.44**	.33**	.50**	(.86)

Note. Internal consistency reliability estimates (alphas) are on the diagonal.

TL = Transformational Leadership. * $p < .05$; ** $p < .01$.

In order to test the fit of transformational leadership as a mediator for the impression-leaving style and the attentive style, I examined the indirect effects. I found an indirect effect of both communicator styles on work satisfaction (impression-leaving: *estimate* = .10; $p < .01$; attentive: *estimate* = .16; $p < .01$). Hypotheses 3 and 4 could therefore be confirmed.

I also found direct effects of the impression-leaving style (*estimate* = .29; $p < .01$) and the attentive style (*estimate* = .46; $p < .01$) on transformational leadership. See Table 6 for the other direct effects.

Table 6. *Sample 2: Standardized direct effects (N = 481)*

	TL		WS	
	Estim.	(SE)	Estim.	(SE)
Attentive	.46**	(.03)	.13**	(.05)
Impression-leaving	.29**	(.03)	.02	(.04)
TL			.34**	(.06)
R ²	.61	(.03)	.26	(.04)

Note. TL = Transformational Leadership, WS = Work Satisfaction.

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

The results of Sample 2 support the initial assumption that the impression-leaving and the attentive styles are essential ingredients of transformational leadership behavior. Both had a direct and significant positive relation to leaders' transformational behavior. Therefore, the results of Sample 1 could be replicated with a more descriptive sample size. In addition, both transformational leadership behavior and communicator styles explain a slight amount of variance of work satisfaction, which was used as an outcome criterion in this study. The results of mediational analyses indicate that the relationships of the communicator styles to work satisfaction are statistically mediated by the leader's transformational behavior. A leader who uses an impression-leaving or attentive style is therefore perceived as more individually supportive, more visionary, or more of a role model. These perceived leadership behaviors then enhance subordinates' job satisfaction.

Despite the noteworthy findings of this study, it also has some limitations. First of all, I did not control for the other communicator styles. I therefore cannot exclude the possibility that the other styles also had an impact. Moreover, transformational leadership and the two communicator styles were assessed at the same time. The relatively high inter-correlations between transformational leadership and the impression-leaving style ($r = .62, p < .01$) and the attentive style ($r = .73, p < .01$) could be a result of common method variance (Podsakoff et al., 2012). Further investigations should take this point

into account. In the present investigation, I used work satisfaction as an external outcome criterion, which is a valuable theoretical improvement to Sample 1. But there are many other variables that have an important impact on employees' performance. I therefore aimed to validate the results of this study with a further organizational outcome in Sample 3.

3.5 Sample 3

I consider work engagement as a leadership outcome in Sample 3 because, in contrast to work satisfaction, engagement connotes activation (investing effort in one's work, enthusiasm, or persistence), whereas work satisfaction is defined by a sense of satiety. According to Schaufeli, Salanova, Gonzalez-Romá, & Bakker (2002), work engagement is a three-dimensional construct with the subscales vigor, dedication, and absorption. Vigor is characterized by an especially high level of energy and mental toughness during work and a strong perseverance in the face of difficulty. Employees high in dedication show strong involvement, pride, enthusiasm, inspiration, and challenge. Absorption refers to a feeling of flow and of completely losing oneself in one's work (Schaufeli, 2006). Work engagement emerged as excellent predictor for job performance (Bakker & Bal, 2010; Salanova, Agut, & Peiro, 2005) and other organizational outcomes (Halbesleben, 2010).

As I pointed out in Samples 1 and 2, the impression-leaving style can enhance the perception of transformational leadership behavior. Visions especially appear more appealing, inspiring, and credible if the leader uses an impression-leaving style. Transformational leaders inspire followers by communicating a vision and painting an emotional, fascinating picture of the future. They explain the reasons behind their decisions and enable followers to understand how their role fits into the big picture. This leads to affective commitment and employees who are more strongly involved with the goals (Podsakoff et al., 1996; Tims, Bakker, & Xanthopoulou, 2011). According to Shamir, House and Arthur (1993), transformational leadership behavior leads subordinates to experience work as more challenging, interesting, and enjoyable, prompting them to more strongly identify with organizational goals and be more involved. I therefore came to the following hypothesis:

Hypothesis 5: Transformational leadership mediates the positive relationship between the impression-leaving communicator style and work engagement.

In line with Samples 1 and 2, I propose that leaders with an attentive communicator style are perceived as providing more individual support and having a better understanding of their followers' needs and values. Employees are more engaged in work when the negative demands of their jobs are buffered by positive job resources (Bakker & Demerouti, 2007). A leader's support provides just such a resource (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). I therefore claim that leaders' transformational behavior mediates the relationship between an attentive communicator style and work engagement.

Hypothesis 6: Transformational leadership mediates the positive relationship between the attentive communicator style and work engagement.

3.5.1 Method

Sample and Procedure

Research assistants invited participants from different organizations to take part in this study. Data were assessed at two measurement points to control for common method bias (Podsakoff et al., 2012). At the first time of contact, all attendees were informed that the survey would consist of two questionnaires and that the data could only be used if both questionnaires were answered. On the second occasion three weeks later, participants were contacted directly via e-mail.

In total, 259 employees answered both questionnaires, the mean age was $M = 28.58$ ($SD = 8.81$), and 53 % were female. They worked $M = 9.30$ ($SD = 9.30$) hours in direct contact with their leader per week. Around 69 % of the leaders were male and 40 % belonged to the top management.

Measures

At the first measurement point, participants were asked to assess the communicator style of their supervisor. Transformational leadership behavior as a mediator variable and the dependent variable work engagement were then assessed three weeks later.

To assess subordinates' view of leaders' communicator style and transformational leadership behavior, I used the same questionnaires as in Sample 1 and Sample 2. See Table 7 for the internal consistencies.

To assess *work engagement*, I used a German version of the Work Engagement Scale (Schaufeli et al., 2002), which measures the participants' vigor, dedication, and absorption in their current job. The measure is a 17-item 7-point Likert-type scale ranging from 1 (fully disagree) to 7 (fully agree). Examples of items include the following: for vigor, "At my work, I feel bursting with energy"; for dedication, "I am proud of the work that I do"; and for absorption, "When I am working, I forget everything else around me." The internal consistency (Cronbach's alpha) was $\alpha = .95$.

Control variables

To explore the incremental contribution of the attentive and impression-leaving communicator styles on transformational leadership behavior, I controlled for the seven other communicator styles and then calculated the direct effect of all communicator styles on transformational leadership behavior. I explored the indirect effects only for the attentive and impression-leaving styles.

Construct Validation

As in Sample 1 and 2, I performed CFAs performed to assess model fit. I first tested the postulated 11-factor model, which provided a model fit with $\chi^2 = 1789.24$ (545), CFI = .65, RMSEA = .09, and SRMR = .16. Because of the low fit indices, I performed an additional 4-factor CFA with the variables of interest (transformational leadership, impression-leaving style, attentive style, and work engagement). The fit of the 4-factor model was satisfying, with $\chi^2 = 83.87$ (29), CFI = .93, RMSEA = .09, and SRMR = .08.

The unsatisfying fit-indices of the 11-factor model might be due to the fact that the reliability of the remaining communicator styles is generally low, ranging from .55 to .82. However, I considered all communicator styles in a supplemental analysis to control for their impact on transformational leadership behavior.

In addition, I created a baseline model with all items loading on one-factor, resulting in slightly lower fit indices with $\chi^2 = 1768.67$ (350), CFI = .42, RMSEA = .13, and SRMR = .17. To take the potential multivariate non-normality of the data into account, I carried out the scaled Satorra–Bentler procedure (Satorra & Bentler, 2001) for correcting the maximum likelihood chi-square variate and the standard errors of parameter estimates.

Data analysis

In order to test the hypotheses, I calculated a path-analysis with the attentive and impression-leaving communicators` styles as independent variables, work engagement as a dependent variable, and transformational leadership as a mediator, using the Statistical Package for Social Science (SPSS) macro of Preacher and Hayes (2008) to calculate the indirect effects. I also calculated the direct effects.

3.4 Results and Discussion

The results presented in Table 7 include the means, standard deviations, correlations, and reliabilities for the study variables. The correlations between all variables of the research model determine significance.

Table 7. *Sample 3: Means, Standard Deviations, Correlations, and Reliabilities for Study Variables*

	MW	SD	1	2	3	4	5	6	7	8	9	10	11
(1) Attentive	3.46	0.75	(.68)										
(2) Impression-leaving	3.71	0.79	.25**	(.81)									
(3) Dominant	3.40	0.95	-.15*	.48**	(.82)								
(4) Animated	2.98	0.76	.25**	.36**	.40**	(.64)							
(5) Open	3.23	0.80	.37**	.13*	-.05	.21**	(.55)						
(6) Friendly	3.17	0.79	.54**	.25**	-.10	.32**	.33**	(.64)					
(7) Contentious	2.67	0.96	-.32**	.23**	.63**	.27**	-.01	-.14*	(.75)				
(8) Dramatic	2.59	1.07	-.36**	.04	.42**	.28**	-.01	-.11	.60**	(.72)			
(9) Relaxed	3.68	0.85	.47**	.21**	-.18**	-.01	.15*	.21**	-.42**	-.43**	(.69)		
(10) TL	3.39	0.64	.53**	.43**	-.01	.27**	.33**	.54**	-.17**	-.23**	.42**	(.93)	
(11) Work Engagement	4.46	1.02	.21**	.29**	.03	.14*	.29**	.26**	.08	.07	.14*	.36**	(.95)

Note. Internal consistency reliability estimates (alphas) are on the diagonal. TL = Transformational Leadership.

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

In consideration of the dissatisfying fit indices of the 11 – factor model, I performed two path analyses without the control variables. The results show an indirect effect between the impression-leaving communicator style and work engagement ($estimate = .16$; $p < .01$). Therefore, the relationship between the impression-leaving communicator style and work engagement is mediated by transformational leadership and Hypothesis 5 was able to be confirmed. The results also show that the attentive style has significant positive effect on work engagement ($estimate = .25$; $p < .01$). Hypothesis 6 could, therefore, also be confirmed. The relationship between the attentive communicator style and work engagement is mediated by transformational leadership.

Supplemental analyses

I considered all communicator styles in a supplemental analysis to control for their impact on transformational leadership behavior. The results show a positive and significant indirect effect of the impression-leaving ($estimate = .10$; $p < .01$) and attentive styles ($estimate = .04$; $p < .10$) on work engagement. Additionally the open, friendly, and relaxed styles also had direct effects on transformational leadership behavior (see Table 8).

Table 8. *Sample 3: Standardized direct effects (N = 259)*

	Direct Effects		Direct Effects	
	TL		WE	
	Estim.	(SE)	Estim.	(SE)
Attentive	.11*	(.06)	.02	(.11)
Impression-leaving	.23**	(.05)	.26**	(.10)
Dominant	-.02	(.05)	-.19*	(.09)
Animated	.06	(.05)	-.08	(.09)
Open	.09*	(.04)	.21**	(.08)
Friendly	.23**	(.05)	.04	(.10)
Contentious	-.03	(.05)	.15 [†]	(.09)
Dramatic	-.04	(.04)	.15*	(.07)
Relaxed	.13**	(.04)	.06	(.09)
TL			.40**	(.13)
R ²	.51	(.05)	.22	(.05)

Note. TL = Transformational Leadership, WE = Work Engagement.

*p < .05; ** p < .01, [†]p < .10

The aim of Sample 3 was to replicate the results of Sample 1 and 2 concerning the relationship between transformational leadership and the attentive as well as the impression-leaving communicator styles. As in the previous studies, I found a significant and positive relationship between transformational leadership and the two communicator styles. In contrast to Samples 1 and 2, I assessed all the communicator styles in the present study. Additionally, to avoid common method bias, I assessed communicator styles and

leadership behavior at two different measurement points. Three important conclusions can be drawn from the empirical results. Firstly, the direct effects of the two communicator styles on leadership behavior significantly decrease if assessed at different measurement points. In the recent investigations of Vries et al. (2010) or Baker and Ganster (1985), communicator styles and leadership behavior were assessed at the same measurement point and the relationships may have been overestimated.

Secondly, I found that the attentive and impression-leaving styles were not the only significant predictors of transformational leadership – the open, friendly, and relaxed styles were, as well. Infante and Gorden (1982) sum up the attentive, friendly, and relaxed and styles as an *affirming* style, which can be seen as a complement to an argumentative style. Moreover, Norton (1983) asserts that the friendly, relaxed, and attentive styles build a cluster and tend to be more passive, receptive, and other-orientated. In contrast, the open and impression-leaving styles can be clustered together because they entail more “active” communicative behaviors (1983, p.72). It is therefore not surprising that these communicator styles also have effects on transformational leadership. Further research should take these findings into account and shed light on the relationship of style clusters on leadership behavior.

Thirdly, transformational leadership proved to be a mediator between leaders’ communicator style and leadership outcomes (work engagement), similarly to Sample 2. The impression-leaving and the attentive styles especially enhanced the subordinates’ perceptions of transformational leadership behavior, which in turn has a significant impact on various organizational outcomes. I considered work satisfaction and work engagement as outcomes, but further investigations should validate the results of the present investigation using other performance criteria.

3.6 Overall Discussion

With the present three-sample investigation, I aimed to complement Zaccaro et al.’s (2004) model regarding leaders’ communicator style as a proximal factor of transformational leadership. In Sample 1, I first focused on two personality traits (extraversion and conscientiousness) as distal factors of transformational leadership behavior and two com-

municator styles (attentive and impression-leaving) as proximal factors. I found an indirect effect of conscientiousness on transformational leadership mediated by an attentive style. In contrast, extraversion had no effect on transformational leadership. The results support the initial assumption that communicator style could be seen as a proximal social skill of transformational leadership. Additionally, it can be assumed that personality traits as distal attributes are too distant from the behavior actually displayed by the leader.

Within my extensive framework of three-sample investigations, I considered the distal and proximal factors of leadership. I identified the attentive and impression-leaving communicator styles as proximal attributes of transformational leadership behavior. Moreover, I could show that the two styles are relevant for the two leadership outcomes work satisfaction and work engagement.

In all three samples, the attentive and impression-leaving styles proved to be significant proximal attributes of transformational leadership. In Sample 1, I determined the impact of two central personality traits (extraversion and conscientiousness) and two communicator styles with a multilevel design. In contrast to other investigations (Bono & Judge, 2004), I found that extraversion had no impact on transformational leadership. Additionally, the attentive communicator style mediated the relationship. This finding provides a crucial basis for leadership training and coaching. Given the fact that personality traits remain stable over time, communication skills can be enhanced through different kinds of training. In Sample 2 and Sample 3, I focused on the outcomes of transformational leadership. I shed light on the effects of leaders' communicator style and leadership behavior on two organizational outcomes (work satisfaction and work engagement). In both studies, I found that transformational leadership had a mediating effect. Leadership and communication are therefore both important antecedents of organizational performance. This effect should be validated in further research with other outcome variables.

The strength of this three-sample investigation is that I was able to examine transformational leadership within the context of a framework with distal proximal and outcome factors. Moreover, I used different methodical designs to avoid common method variance and also controlled for the effects of other communicator styles in Sample 1 and

3. However, I must also point out that the results should be judged in light of the consideration that causal statements are not ineligible.

In conclusion, I claim that leadership behavior should not be regarded separately from communication and that both constructs should, instead, be considered in the context of leadership performance.

3. Study 2 - Transformational Leadership and Communication: Evaluation of a Two-day Leadership Development Program

4.1 Introduction

U.S. organizations spent \$1,252 per employee on direct learning expenditures in 2015 (ATD Research, 2016). Investment in leadership development was particularly high, reaching approximately \$15.5 billion in 2013 (Bersin by Deloitte, 2014). Leadership development is thus an important issue for top management and human resources managers.

The present study designed and evaluated a leadership development intervention with a focus on transformational leadership behavior. The concept of transformational leadership has been extensively discussed in literature over the last 25 years. Transformational leaders communicate an inspiring vision, provide individual support and intellectual stimulation, serve as role models, and have a high performance expectation (Bass & Avolio, 1990; Heinitz & Rowold, 2007; Podsakoff et al., 1990; 1996). Many positive effects on organizational outcomes – including trust, job satisfaction, commitment to the organization, performance, and turnover intentions – have been found (Dvir et al.; 2002; Judge & Piccolo, 2004; Lowe al., 1996; Podsakoff et al., 1990). As a consequence, the central question arises whether transformational leadership behavior could be actively improved through training.

In spite of the impressive number of studies on the outcomes of transformational leadership behavior, until now only few studies exist that investigate the effects of transformational leadership training within the organizational context (Barling et al., 1996; Frese et al., 2003, Abrell et al. 2011). The need for further research is crucial as practitioners need tools and development programs that help leaders implement these promising leadership behaviors in their everyday life.

Moreover, existing research merely provides a short excerpt, because it has often only focused on specific dimensions of transformational leadership (e.g., intellectual

stimulation or articulating a vision) (Barling, et al., 1996; Frese et al., 2003). Only Abrell et al. (2011) considered all dimensions of transformational leadership in their evaluation study.

To sum up: While we have a very detailed understanding of which mediating and moderating effects affect transformational leadership behavior and we know that transformational leadership generally can be actively improved by training, our knowledge concerning the efficacy of training is still rudimentary. We, accordingly, do not know which participants have benefitted more or less from the intervention. Various empirical findings indicate that differences may exist (Day, Fleenor, Atwater, Sturm, & McKee, 2014; Larsson et al., 2016). Meta-analytic results underline that leadership development programs have positive effects that vary widely in strength, ranging from 0.35 to 1.37 (Burke & Day, 1986; Collins & Holton, 2004).

In their meta-analysis of 89 empirical studies, Blume, Ford, Baldwin, and Huang (2010) identified several predictive factors of training transfer. With regard to leadership skill training, Blume et al. (2010) identified post-training knowledge, work environment, and motivation as transfer predictors.

Beyond the valuable findings of Blume et al. (2010), most evaluation studies do not consider how learning in general works. The existence of *ceiling effects* indicates that there are indeed differences. Austin and Brunner highlighted the importance of controlling for this bias as early as 2003. The underlying mechanism is also quite simple to understand because people learn according to a generally predictable pattern. The *learning-curve* increases monotonously and the steeper the slope, the more effective the learning (Wright, 1936). The slope is influenced by previous knowledge, skills, and the learning context. For evaluation studies, this means that participants who already score very highly could hardly achieve significant improvements from the training. Albanese (2000) pointed out that it is unreasonable to expect effect sizes of 0.8 – 1.0, because that would require some participants changing from initially low to high performers. Albanese (2000) reported effect sizes of .50 and below for problem-based learning curricula as acceptable.

A current investigation (Larsson et al., 2016) stresses the relevance of this topic for leadership development. The study showed that leaders with initial low or medium ratings improved the most in a leadership development program. In their remarkable evaluation study about transformational leadership behavior, Barling, et al. (1996) also addressed this point. In addition, no other evaluation study that focuses on leadership development mentions this bias. This is somewhat surprising, given the fact that organizations spend billions of dollars on leadership development (Blume et al., 2010). Therefore, addressing this issue is important not only for theoretical but also for practical reasons. Organizations could save a great deal of money if only those participants who would actually benefit from it, were sent for training.

As a third point, the current study addresses communication as a core aspect of transformational leadership (Bass & Avolio, 1990; Podsakoff et al., 1990). Transformational leaders must be good communicators because they need to be able to communicate motivating visions and exchange a lot of information with their followers. Moreover, communication has been considered as a meaningful predictor of leadership success (Holladay & Coombs, 1993; Norton, 1983; Vries et al., 2010), but to date there are hardly any evaluation studies investigating the role of communication in transformational leadership training. For example, Frese et al. (2003) were able to show that leaders' charismatic leadership behavior and vision communication could be improved through action training. Nevertheless, just as in Barling et al.'s (1996) study, the research focused on only one specific leadership behavior (communication of a vision).

The present investigation therefore designed practical exercises, feedback, and peer coaching to improve the participants' communication.

4.2 Theoretical Background

4.2.1 Study goals

The present study aims to address the aforementioned limitations of the existing research by:

1. Evaluating a two-day transformational leadership and communication intervention by using a pre-test post-test control group design. The contribution is to replicate the existing findings of Barling et al. (1996) or Abrell et al. (2011) and to show that transformational leadership could be actively improved by training.
2. Enlarging the existing research by adding communication to the development program as a core aspect of transformational leadership.
3. Taking participants' initial scores on transformational leadership behavior into account. The contribution here is to show that participants differ in how much they benefit from the intervention. This is especially important, as organizations could save a lot of money with this knowledge.

4.2.2 Training transformational leadership and communication

By communicating an appealing vision and providing individual support, transformational leaders encourage their followers to perform beyond the levels of expectation (Barling et al., 1996; Bass, 1985). Moreover, they transform followers' individual beliefs and goals into higher-order organizational and team targets (Podsakoff et al., 1990). The concept of transformational leadership was originally introduced by Bass (1985), whose approach to it includes four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1997). A few years later, Podsakoff et al. (1990) presented a revised version of the transformational leadership concept including six sub-scales: identifying and articulating a vision, high

performance expectations, providing individualized support, intellectual stimulation, fostering the acceptance of group goals, and providing an appropriate model.

The research on transformational leadership is promising, as it has found relationships between transformational leadership behavior and various objective and subjective performance criteria, such as followers' job satisfaction, trust, and commitment (Dumdum, Lowe, & Avolio, 2013; Lowe et al., 1996; Sturm et al., 2011). Transformational leadership therefore benefits organizations economically and the question arises whether these leadership skills could be improved by leadership training and coaching (Barling et al., 1996).

In the past, several empirical investigations researched whether transformational leaders were born or made. The concept of transformational leadership is originally grounded in the behavioral approaches of leadership (Yukl, 2010). Nonetheless, some evidence indicates that transformational leadership is also grounded in personality traits, at least slightly (Bono & Judge, 2004; Judge & Piccolo, 2004). Extraversion is especially related to transformational leadership behavior (Bono & Judge, 2004; Judge & Piccolo, 2004). Still, the common opinion is that the concept of transformational leadership consists of behaviors that can be actively improved (Bass & Avolio, 1990; Burke & Day, 1986).

Due to the fact that training evaluation investigations are difficult to perform in the organizational context, only few studies exist that indicate that transformational leadership behavior could be actively improved through training (Collins & Holton, 2004). One of the few studies evaluating the development of transformational leadership behavior is the investigation of Barling et al. (1996). In their study the effects of a one-day transformational leadership training that was followed by four individual booster sessions were assessed. A pre- test post-test control-group design was used. Twenty bank branch managers in Canada participated in the study. As a result, Barling et al. (1996) found significant improvements of leaders' transformational leadership behavior and positive effects on subordinates' organizational commitment, and subordinates' financial performance. Kelloway et al. (2000) validated the results a few years later, using the same training

intervention. The findings of Barling et al. (1996) and Kelloway et al. (2000) indicate that transformational leadership can be actively developed and that leaders significantly improved their trained leadership behaviors.

Based on the theoretical foundation and the results of the previous research, the author hypothesizes that:

Hypothesis 1: Subordinates will rate participating leaders' transformational leadership higher about three months after the intervention.

The framework of transformational leadership converges on the idea that transformational leaders communicate a vision and inspire others. Moreover, they engage in a dialogue with their followers to set development goals based on individual values and skills (Podsakoff et al., 1990). Communication is, accordingly, a crucial social skill for transformational leaders. The empirical research underlines the importance of leaders' communicator styles for subordinates' perception of transformational leadership. The charismatic leadership style was the subject of many recent investigations. The charismatic leadership style and transformational leadership are similar in content (Yukl, 2010).

Research by Den Hartog and Verburg (1997) indicated that followers perceive a leader as charismatic and inspiring because of the rhetorical construction of a vision. Further research by Awamleh and Gardner (1999) and Holladay and Coombs (1994) showed that both the delivery and the content of a vision are important elements of inspiring followers. Vries et al. (2010) further found that human-oriented and charismatic leadership styles are grounded largely in communication. In spite of the various findings concerning the relationship between leadership and communication, only one study exists that examined the impact of transformational leadership and specific communicator styles. Cohrs et al. (2016) found that leaders with an attentive, impression-leaving, and friendly communicator style were perceived as especially transformational by their subordinates.

Cohrs et al. (2016) used Norton's (1978; 1983) communicator styles as a theoretical foundation.

According to Norton (1978; 1983), everyone has an individual communicator style that is relatively stable over time but sufficiently variable. For example, a person with an attentive style is mostly an active listener, but if that person is stressed or distracted, he or she will tend to listen less carefully. From Norton's definition, one can conclude that everyone has an individual communication pattern but that this pattern can be modified through learning or vary across different situations. Norton examined communicator styles predominantly in the context of teaching (Norton, 1978; 1983). But his communicator style framework has also turned out to be important in the organizational context, especially for leadership success (Allen et al., 2006; Baker & Ganster, 1985; Bednar, 1982; Burris, 2012; Dion & Notarantonio, 1992).

Under consideration of the theoretical and empirical relevance of leaders' communicator style, this study contributes that transformational leadership training should be complemented by communication. So far, only one study exists that took communication into account within the context of leadership training. Frese et al. (2003) evaluated a 1.5-day charismatic leadership training intervention that focusses on inspirational communication of a vision as part of the training. The results of their two studies indicated that participating managers could actively improve their inspirational speech. In spite of Frese et al.'s valuable results, they only shed light on a single aspect of charismatic leadership, namely inspirational speech. Therefore, the present investigation has aimed to extend the existing investigations on transformational leadership and inspirational communication training to specific communicator styles that are relevant under consideration of all dimensions of transformational leadership.

The present study included three of Norton's communicator styles (attentive, impression-leaving, and dominant) as part of the leadership training session. The other communicator styles were beyond the scope of the present investigation. The study focused

on these three styles because they are conceptually linked to the concept of transformational leadership.

One core aspect of transformational leadership is that of providing individual support (Podsakoff et al., 1990) – leaders accordingly treat their subordinates with respect and with regard to their individual feelings. By using an attentive communicator style that is characterized by active listening, the leader shows empathy and concern.

Another core aspect of transformational leadership is the communication of an inspiring vision. Previous research indicates that both the content and the delivery of the vision are important (Frese et al., 2003; Holladay & Coombs, 1993; 1994). According to Frese et al., inspirational speech is characterized by metaphors, eye contact, value orientation, and appealing to positive emotions. These are also attributes of the impression-leaving communicator, to use Norton's (1978; 1983) terminology. For this reason, the impression-leaving communicator style is part of the leadership training in the present investigation. Both the attentive and the impression-leaving styles are also important for organizational outcomes. Research has found that the attentive and impression-leaving styles have positive effects on trust (O'Hair et al., 1988), service orientation (Kang & Hyun, 2012), managerial effectiveness (Allen et al., 2006), and job satisfaction (Baker & Ganster, 1985).

Based on the theoretical foundation and the results of the previous research, I hypothesize that:

Hypothesis 2a: Subordinates will rate the participating leaders' attentive communicator style higher about three months after the intervention.

Hypothesis 2b: Subordinates will rate the participating leaders' impression-leaving communicator style higher about three months after the intervention.

Thirdly, the leadership training session accommodated the dominant style. According to Norton (1978; 1983), a dominant communicator is defined as taking the lead in

conversations or acting in a dominant way in social situations. In combination with the relaxed style, a dominant communicator appears confident (Alimo-Metcalfe & Alban-Metcalfe, 2001; Allen & Griffeth, 2001; Norton, 1983). With regard to the implicit leadership theory, these are attributes that characterize a leader (Offermann, et al., 1994). Therefore, the dominant style is related to leadership behavior. More precisely, *leadership self-efficacy* leaders, who believe in their capabilities to perform functions that are necessary to fulfill a specific leadership role effectively, set higher goals (Kane, Zaccaro, Tremble, & Masuda, 2002). In terms of transformational leadership, especially for the formulation of high performance expectations, confidence is an important prerequisite. Therefore, the dominant communicator style is important for performing transformational leadership behavior. In contrast to the attentive style, however, a dominant style is associated more with subordinates' performance outcomes, while an attentive style is associated more with subordinates' satisfaction (Vries et al., 2010).

On the other hand, a dominant communicator also has negative qualities, especially if the dominance is too strong (Norton 1978; 1983). In consequence, for example, the conversation partner may have no chance to speak.

In conclusion, I claim that a dominant communicator style expressed in a moderately strong way might be a key factor for leadership success. For this reason, the dominant style was included in the leadership feedback and participants received theoretical input during their training. However, no specific training tasks were implemented. As participating leaders were informed about the risk of the dominant style, I hypothesize that:

Hypothesis 2c: Subordinates will rate the participating leaders' dominant communicator style lower about three months after the intervention.

4.2.3 Effectiveness of the leadership development program

Leadership development is defined as “every form of growth or stage of development in the life cycle that promotes, encourages, and assists the expansion of knowledge and expertise required to optimize one’s leadership potential and performance” (Brungardt, 1996, p. 83). Commonly, the predominant opinion in organizations is that leadership development programs improve leadership skills, which in turn increase organizational performance. Considering the great number of variables that affect the effectiveness of leadership trainings, that is a naive assumption.

A glance at the existing literature reveals that the participants’ personality explains a considerable amount of the variance in training effectiveness (Barrick & Mount, 1991). The personality traits extraversion and openness to experience have an especially positive relation with training effectiveness (Barrick & Mount, 1991). Because of their assertiveness and talkativeness, participants high in extraversion might benefit more greatly from training that includes tasks that require social interaction, like group discussions or role-play. Openness to experience affects the participant’s general attitude to learning. Participants who are motivated at the training’s start benefit more from the training and are more likely to learn from it (Barrick & Mount, 1991; Goldstein, 1986; Sanders & Vanouzas, 1983). Since extraversion and openness to experience are important for training effectiveness, the present investigation used them as control variables; however, I derived no separate hypotheses for these personality traits, as a sufficient body of research already exists and such an investigation would go beyond the scope of the present study.

Another significant aspect of training effectiveness is the question of which participants benefit the most from the development program. This question is crucial because organizations invest considerable resources in leadership development (Blume et al., 2010). As mentioned before, the empirical findings addressing personality traits provide first but insufficient indications. Therefore, it is important to enhance the existing literature with additional perspectives. In their meta-analysis, Blume et al. (2010) identified

several predictors of training effectiveness. They found that, inter alia, post-training knowledge is positively related to training transfers.

The present investigation sheds light on the acquisition of knowledge or, more precisely, on the change in leadership behavior and communication after training. This is a crucial point because the most empirical studies use effect sizes to assess training effectiveness. Calculating effect sizes is definitely a promising procedure, but it does not consider how learning in general works. Educational research indicates that learning is only linear to a certain point, after which no further knowledge is acquired (Wright, 1936). In terms of training evolutionary studies, this means that leaders who score highly on transformational leadership in the pre-test, could only achieve small improvements in the post-test. This may lead to the conclusion that the training was not effective. This ceiling effect is a bias that affects the effect size, an aspect that is often not taken sufficiently into account (Andrew, Salamonson, Everett, Halcomb, & Davidson, 2014; Austin & Brunner, 2003; Barling, et al., 1996; Larsson et al., 2016). Therefore, I aim to extend the existing research on leadership development with this aspect and hypothesize:

Hypothesis 3: Leaders with an initial low level of transformational leadership behavior benefit more from training than leaders of the control group.

4.3 Method

Participants

To obtain data for the experimental group, several organizations were contacted to participate in this study. I explained the goals of the study, the method of data collection, and the contents of the leadership training session to the management or human resources representatives. In the end, three organizations decided to take part in the study. Additionally, eight leaders – all from different organizations – participated in a separate training session. The control group was recruited by research assistants and consisted of participants from different organizations.

The experimental group (EG) encompassed 38 leaders who took part in the training session. Twenty-one of the participating leaders were female and seventeen were male with a mean age of 46 years ($SD = 10.58$). About 47 % of the leaders were from the lower management, 32 % were from the top management, and the rest were from the middle management. About four weeks prior to the leadership training session, I distributed an online questionnaire to 258 subordinates who rated their leader's transformational behavior and communicator styles. Their mean age was 39 years ($SD = 11.58$) and 63 % were female. In total, 54 % worked full-time, 44 % part-time, and 3 % as temporary employees.

About three months after the leadership training session, subordinates rated their leader's transformational behavior and communicator styles again. This second time, 193 subordinates participated in the study; 70 % were female. Their mean age was 39 years ($SD = 11.95$). The mean size of the team consisted of 6.43 team members ($SD = 4.75$) per leader.

The control group was made up of 58 leaders. Their mean age was 46 years ($SD = 10.76$) and 81 % were male. Subordinates rated their leader's transformational leadership behavior and communicator styles at two measurement points with a three-month interval. At the first measurement point (t_1), 249 subordinates took part in the study. Their mean age was 40 years ($SD = 11.88$) and 49 % were female. Most of them had a full-time position. At the second measurement point (t_2), 163 subordinates rated the transformational leadership behavior and communicator styles of their leader. Their mean age was 39 years ($SD = 11.69$) and 50 % were female. The type of employment was not assessed at t_2 . The mean size of the team consisted of 3.98 team members ($SD = 3.42$) per leader.

Further I tested whether the demographics of the experimental and control groups differed. I found that the leaders' demographics differed considerably in their team size (T -Test: $t(61,70) = 2.75$, $p < .01$), management level (Mann-Whitney U Test: $z = -3.01$, $p < .01$), and gender (Chi-Square Crosstable Test: $\chi^2(1) = 13.33$, $p = .00$). Consequently, I consider these variables as controls in the following data analysis.

Furthermore the percentage of male and female team members differed significantly in the groups (Chi-Square Crosstable Test: $\chi^2(1) = 36.15$, $p = .00$). In addition, the

study found differences concerning the subordinates' type of employment (Chi-Square Crosstable Test: $\chi^2(1) = 36.15, p = .00$). Therefore, these variables were also considered as controls in the following analysis.

Procedure

Data for the experimental group was collected at t_1 , about four weeks before the training session, and at t_2 , about three months after it. The link for the online survey was sent to the participating leaders, who passed it on to their subordinates. Additionally, the information was given that the results of the survey were being used for research and that conclusions could not be drawn about the organization or individual employees. Additionally, both leaders and subordinates were informed that leaders would receive leadership feedback during the training session, based on the average assessments of the subordinates.

Data for the control group was obtained by research assistants. They invited teams consisting of a leader and his or her subordinates from different organizations to take part in the study. Depending on the recipient, the subordinates either passed the link on to their co-workers, or the leader passed the link on to his or her employees. Participating employees were informed that their assessments would be summarized in leadership feedback that their leader would receive after the survey had been conducted twice. Additionally, they were specifically notified that conclusions could not be drawn about the organization or individual employees.

In both groups, transformational leadership behavior and communicator styles were assessed at the two measurement points.

Training intervention

The training intervention was a two-day training of transformational leadership behavior and three selected communicator styles. The training's scope focused on the attentive, impression-leaving, and dominant communicator styles.

As in Abrell et al.'s (2011) investigation, the contents of the leadership training were tailored to the German participants in order to increase their acceptance of them. Additionally, the theoretical and practical inputs were adjusted to accord with Podsakoff et al.'s (1990) conceptualization of transformational leadership. To enhance transformational leadership training programs further, the second day of the training focused on the leaders' communicator styles. Norton's conceptualization of communicator styles formed the theoretical foundation. All exercises for the three communicator styles were newly developed.

On the first day, transformational leadership was introduced to participants as a form of effective and general leadership behavior, and they were given a general overview of the full range of the leadership model and the six dimensions of transformational leadership. Further, a detailed definition of the six dimensions, directly followed by a practical exercise, was introduced in the course of the first day. Participating leaders were asked to collect positive and negative examples of leadership behavior based either on their own experience or on new ideas. This exercise served to make participants more familiar with the concept of transformational leadership and to show them that they knew what transformational leadership meant. Next, the participants received their personal leadership feedback report. The results of the online survey conducted four weeks prior to the training session build the foundation of the report. The leadership feedback report was intended to help participants to put the theory into practice in their own leadership and to obtain an overview of their own strengths and weaknesses. The results of the survey were illustrated in graphs that displayed the leader's self-assessment of transformational leadership behavior/communicator styles and his or her subordinates' external assessment.

The dimension of *intellectual stimulation* was first introduced. A theoretical input by the trainer was followed by a group discussion of which questions were particularly suitable to intellectually stimulate subordinates. To improve behavioral strategies regarding high performance expectations, participants were asked to discuss relevant questions, such as: "What does high performance mean for you?"; "How do you distinguish average from high performance?"; "Why do you believe your team members are able to perform

at a high level?"; "On what occasions do you explicitly communicate high performance expectations to your team members?".

To introduce the dimension of individualized support, the trainer explained Schwartz's (1992) value model. Schwartz's original model was reduced to four memorable values, to allow the participants to build an understanding of the individual differences in motives and beliefs. Then, the participants should develop strategies about how the different team members should be led and how they could provide them with support.

After the trainer had given them a theoretical introduction in fostering the acceptance of group goals, the leaders were asked how they would strengthen their team members' feelings of belonging. Different forms of team events were the most mentioned example.

Then, participants were conveyed how to develop and communicate an appealing vision for their team. They were asked to answer relevant questions such as: "What are the specific strengths and shared values of your team?" and "What is an attractive goal for your team in the future?". Next, leaders presented their own vision in the form of a significant picture or slogan to the other participants.

Finally, the participants were asked to think about the values and attitudes that they wanted to exemplify as a leader to provide an appropriate model.

The second day of the training intervention was meant to teach appropriate communicator styles to allow the participants to communicate the contents of transformational leadership. The day started off with a short summary of the issues that had been discussed on the first day. The trainer then provided theoretical input on Norton's communicator style framework, followed by using the concept of active listening to introduce the attentive communicator style. To put the theory into practice, the participants were told to form groups of three, in which one person should practice active listening, the second person take on the role of the dialogue partner, and the third person act as the

observer. In the course of the exercise, each participant took on each role. Subordinates had the opportunity to participate with their own discussion topics.

The trainer only gave theoretical input on the dominant communicator style, because empirical research indicates that this style's negative effects on transformation leadership behavior outweigh its positive effects.

To improve the participants' impression-leaving style, the trainer introduced them to Antonakis et al.'s (2012) *charismatic leadership tactics* (e.g., metaphors, non-verbal cues, etc.). The leaders were then asked to choose three of the stylistic devices, prepare a short speech, and present it to the other participants. The possibility of video feedback was given.

At the end of the second day, the participants were instructed to formulate individual goals for the next three months, and the trainer checked the appropriateness of these goals. To ensure the sustainability of the training, a photo protocol with all discussion results was sent to the participants after the training had ended. Moreover, the participants were introduced to a workshop concept designed to appropriately communicate the results of the leadership feedback to their subordinates.

In total, six training sessions were conducted, all of which were run by the author.

Measures

Transformational leadership. I used a German 22-item version (Heinitz & Rowold, 2007) of the Transformational Leadership Inventory (TLI, Podsakoff et al., 1990) to assess the subordinates' perception of their leaders' transformational leadership behavior. All items started with "The person that I evaluate..." and continued with, e.g., "...shows respect for my personal feelings." The internal consistency was $\alpha = .92$ at t_1 and $\alpha = .93$ at t_2 .

Communicator style. I used the CSM-D, a German validated version (Cohrs et al., 2016) of the communicator style measure (CSM, Norton, 1983), to assess the subordinates' view of their leader's attentive, impression-leaving, and dominant communicator

styles. All nine items started with “The person that I evaluate...” and continued with, for example, “...really likes to listen very carefully to people.” I used a five-point Likert scale ranging from 1 (fully disagree) to 5 (fully agree). The internal consistencies are at t_1 $\alpha = .80$ (attentive), $\alpha = .83$ (impression-leaving) and $\alpha = .81$ (dominant) and at t_2 $\alpha = .76$ (attentive), $\alpha = .86$ (impression-leaving) and $\alpha = .82$ (dominant).

Personality was assessed using the BFI-K (Rammstedt & John, 2005). For this investigation, the traits of extraversion and openness to experience were relevant. Extraversion was assessed with four items. Five items were used to assess openness to experience. The items started with “I...” and went on with, e.g., “have wide interests.” The subscale extraversion ($\alpha = .78$) turned out to be reliable. For openness to experience ($\alpha = .54$), the internal consistencies lay below the critical value of $\alpha = .70$. Still, I retained them given their theoretical relevance.

Control variables

In order to explore the changes in transformational leadership behavior and communicator styles from t_1 to t_2 , I controlled for the leaders’ personality traits of extraversion and openness to experience. Moreover, I controlled for the following demographics: the leader’s team size, management level, and gender; and the subordinate’s type of employment and gender.

Construct Validation

To evaluate the model fit, performed four confirmatory factor analyses (CFA) with the following fit indices: the root mean square error of approximation (RMSEA) and the comparative fit index (CFI). To take the potential multivariate non-normality of the data into account, I carried out the scaled Satorra–Bentler procedure (Satorra & Bentler, 2001) to correct the maximum likelihood chi-square variate and the standard errors of parameter estimates.

I pooled the 22 TLI times into two parcels (Bandalos, 2002; Landis et al., 2000) and then loaded the communicator style items as single items on the dimensions. For both measurement points I tested a four-factor model with transformational leadership and the three communicatory styles as single dimensions against a one-factor baseline model. For the data of t_1 , the postulated four-factor model provided a satisfying model fit with $\chi^2_{t1} = 164.67$ (42), $CFI_{t1} = .94$, and $RMSEA_{t1} = .08$. The same applies to t_2 : $\chi^2_{t2} = 173.06$ (42), $CFI_{t2} = .93$, and $RMSEA_{t2} = .09$.

In addition, I built a baseline model with all items loading on one factor, resulting in a poor model fit with $\chi^2_{t1} = 1055.94$ (55), $CFI_{t1} = .51$, and $RMSEA_{t1} = .21$ for the data of t_1 and $\chi^2_{t2} = 896.50$ (45), $CFI_{t2} = .53$, and $RMSEA_{t2} = .23$ for the data of t_2 .

Data analysis

As recommended by Gentry and Martineau (2010) I considered a two-level hierarchical model as an appropriate approach to test the impact of level 2 training variables (experimental vs. control group) and leaders' personality self-ratings (level 2 control variables) on the change in the leaders' transformational behavior over time. Here, the slope corresponds to the growth rate. In more detail, the slope of t_1 on t_2 provides information about the changes of transformational leadership in the experimental and the control group.

I considered using a longitudinal multilevel path analysis (Raudenbush & Bryk, 2002) using Mplus (Version 5.1/Muthén & Muthén, 2012) with maximum likelihood robust parameters to test the hypotheses.

To investigate whether a longitudinal multilevel path analysis was appropriate for the data, I obtained the F-ratio and $ICC(1)$ for transformational leadership and communicator styles as dependent variables. For transformational leadership the F-ratio, $F(53) = 20.29$, $p < .01$ reached significance. Also, I calculated an $ICC(1)$ of .22 for t_1 . 22 % of the variance in transformational leadership could be explained by group-level variables. For the attentive communicator style, the F-ratio was $F(60) = 2.56$, $p < .01$, and $ICC(1)$ was

.15; for the impression-leaving style, $F(55) = 6.90$, $p < .01$, and $ICC(1)$ was .40; and for the dominant style, $F(59) = 4.26$, $p < .01$, and $ICC(1)$ was .27. Three randomly chosen team members of every leader were considered in the analysis, because most of the leaders had a minimum of three team members.

For t_2 , I calculated a significant F -ratio, $F(69) = 17.67$, $p < .01$, and an $ICC(1)$ of .28 for transformational leadership. For the attentive communicator style, the F -ratio was $F(49) = 2.73$, $p < .01$, and the $ICC(1)$ was .22; for the impression-leaving style $F(45) = 8.03$, $p < .01$, and $ICC(1)$ was .44; and for the dominant style $F(42) = 7.56$, $p < .01$, and $ICC(1)$ was .42. Three randomly chosen team members of every leader were considered in the analysis, because most of the leaders had a minimum of three team members.

Moreover, I calculated the effect size to test the initial assumption that leaders with an initial middle level of transformational leadership behavior benefit the most from training. To allocate the leaders to the three groups (low, middle, high), I divided both the experimental group and the control group into three equal parts by using the median split. The cut-off value for the *low* group was $M < 3.4$ in the EG and $M < 3.6$ in the CG of leaders' transformational behavior at t_1 . Finally, the low group consisted of thirteen leaders from the EG and 22 leaders from the CG. Additionally, the cut-off value for the *middle* group was $M < 3.8$ in the EG and $M < 3.98$ in the CG of leaders' transformational behavior at t_1 . The middle group consisted of fourteen leaders from the EG and nineteen leaders from the CG. Leaders of the EG with an initial transformational leadership behavior of $M > 3.9$ and leaders from the CG with $M > 4.0$ were allocated to the *high* group. The middle group consisted of eleven leaders from the EG and eighteen leaders from the CG.

To calculate the effect size, I followed Morris (2008) and used Carlson and Schmidt's (1999) effect size d_{ppc} . The "effect size d_{ppc} based on the mean pre-post change in the treatment group minus the mean pre-post change in the control group, divided by the pooled pre-test standard deviation" (Morris, 2008, p. 346).

$$d_{ppc} = c_p \left[\frac{(M_{post,T} - M_{pre,T}) - (M_{post,C} - M_{pre,C})}{SD_{pre}} \right]$$

$$SD_{pre} = \sqrt{\frac{(n_T - 1)SD_{pre,T}^2 + (n_C - 1)SD_{pre,C}^2}{n_T + n_C - 2}}$$

$$C_P = 1 - \frac{3}{4(n_T + n_C - 2) - 1}$$

Following the recommendations of Cohen's (1988) standards of effect sizes, an effect size of $d_{ppc} > .20$ is interpreted as a small effect, $d_{ppc} > .50$ as a medium one, and $d_{ppc} > .80$ as a large one.

4.4 Results

Means, standard deviations, and correlations between all study variables are shown in Table 9.

Table 9. Study 2: Descriptive Statistics, Intercorrelations and Internal Consistencies of Study Variables at Pre-test and Post-test

Pretest																		
Variable	Experimental Group				Control Group				1	2	3	4	5	6	7	8	9	10
	N	M	SD	α	N	M	SD											
1 Transformational Leadership (employee rating)	38	3.49	.59	.92	58	3.73	.46	(.92)	.63**	.56**	.31*	.14	-.07	.76**	.50**	.59**	.37**	
2 Attentive (employee rating)	38	3.67	.66	.80	58	3.68	.64	.88**	(.80)	.41**	.08	-.13	-.08	.60**	.67**	.19	.18	
3 Impression-leaving (employee rating)	38	3.72	.58	.83	58	4.05	.57	.57**	.53**	(.83)	.55**	.31*	-.14	.42**	.21	.61**	.48**	
4 Dominant (employee rating)	38	2.97	.71	.81	58	3.25	.76	-.13	-.15	.33*	(.81)	.20	.00	.24	-.03	.52**	.80**	
5 Extraversion (self rating) ¹	38	3.49	.73	.78	58	3.92	.76	.11	.14	.54**	.44**	(.78)	.01	.18	-.08	.24	.10	
6 Openness to experience (self rating) ¹	38	3.78	.57	.54	58	3.70	.67	.08	.20	.04	-.13	.34*	(.54)	-.22	-.24	-.22	.09	
Posttest																		
7 Transformational Leadership (employee rating)	38	3.57	.52	.93	58	3.66	.50	.73**	.57**	.48**	-.07	.20	.21	(.93)	.66**	.58**	.30*	
8 Attentive (employee rating)	38	3.64	.50	.76	58	3.70	.63	.55**	.53**	.41*	-.16	.17	.15	.70**	(.76)	.38**	.08	
9 Impression-leaving (employee rating)	38	3.67	.61	.86	58	3.94	.56	.37*	.32	.58**	.32	.48**	.03	.54**	.60**	(.86)	.52**	
10 Dominant (employee rating)	38	2.87	.76	.82	58	3.27	.86	.07	.03	.32*	.83**	.37*	-.22	.09	.04	.48*	(.82)	

Note. Values in the diagonal represent Internal Consistencies (Cronbach's α). Intercorrelations are presented for Experimental group Data below the diagonal and above the diagonal intercorrelations for the control group were presented. * $p < .05$, ** $p < .01$. ¹variables measured only at pretest

Intercepts and slopes as outcome model

With Hypothesis 1, this study postulated that employees' ratings of transformational leadership would improve for those leaders trained in the experimental group compared to the control group. To test this hypothesis, I performed a two-level hierarchical path analysis. The intercepts and slopes as the outcome model test whether Level 2 variables such as training (experimental = 1 vs. control group = 0), the leader's personality (extraversion and openness to experience), and different demographics (e.g., gender or team size) would be related to initial status and growth rate. The *t*-test revealed that *training* was related negatively to initial status ($\beta_{001} = -0.57, t(21) = -2.90, p < .01$), such that leaders of the control group were rated higher in transformational leadership before the training. The other variables were not related to initial status. Examining the growth rate, *training* was positively related to the growth rate ($\beta_{101} = 0.29, t(21) = 2.88, p < .01$), such that transformational leadership behaviors improve more after training in the experimental group than in the control group. Therefore, the results supported Hypothesis 1. Additionally, the gender of the leader was related to growth rate. Employees' ratings of transformational leadership improve more for male leaders after the training than for female leaders (see Table 10).

Table 10. *Multilevel Analysis of Training Effects on Transformational Leadership Behavior Development*

Fixed Effect	coefficient	SE	T
Model for initial status, π_0			
Intercept, γ_{000}	3.67	0.61	6.06**
Extraversion, γ_{002}	0.09	0.10	0.97
Openness to experience, γ_{003}	-0.06	0.11	-0.54
Gender_leader, γ_{004}	-0.51	0.21	-2.43*
Gender_subordinates, γ_{005}	0.23	0.22	1.03
Management level, γ_{006}	0.07	0.11	0.67
Team size, γ_{007}	0.00	0.02	-0.05
Type of employment, γ_{008}	0.31	0.18	1.72
Training, γ_{001}	-0.57	0.20	-2.90**
Model for linear growth, π_1			
Intercept, γ_{100}	-0.10	0.39	-0.25
Extraversion, γ_{102}	-0.02	0.05	-0.35
Openness to experience, γ_{103}	-0.02	0.06	-0.31
Gender_leader, γ_{104}	0.22	0.12	1.88
Gender_subordinates, γ_{105}	-0.12	0.10	-1.21
Management level, γ_{106}	0.02	0.05	0.39
Team size, γ_{107}	-0.01	0.01	-1.39
Type of employment, γ_{108}	-0.04	0.12	-0.38
Training, γ_{101}	0.29	0.10	2.88**

Note. Training: 1 = Experimental group; 0 = Control group; Gender leader: 1 = male, 2 = female, Gender subordinates: 1 = male, 2 = female; Management level: 1 = lower Management, 2 = middle Management, 3 = top Management; Type of employment: 1: temporary employees, 2 = part time; 3 = full time.

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

To test Hypothesis 2a-c, I performed the same analysis as for Hypothesis 1. With Hypothesis 2a I postulated that employees' ratings of the attentive communicator style improve after training for the experimental group compared to the control group. The *t*-test revealed that *training* was related negatively to initial status

($\beta_{001} = -0.73$, $t(21) = -2.88$, $p < .01$), such that leaders of the control group were rated higher in the attentive style at t_1 than the participants of the experimental group at t_1 . More precisely, members of the control group had higher initial values for the attentive style than members of the experimental group. Additionally, the gender of the leader was related to the initial status. Male leaders had higher ratings of their attentive style. Examining the growth rate, *training* was positively related to the growth rate of the attentive style ($\beta_{101} = 0.30$, $t(21) = 2.43$, $p < .05$), such that employees' ratings of the attentive style improve more after training in the experimental group compared to the control group. Therefore, the results supported Hypothesis 2a. (see Table 11).

Table 11. *Multilevel Analysis of Training Effects on Attentive communicator style*

Fixed Effect	coefficient	SE	T
Model for initial status, π_0			
Intercept, γ_{00}	3.97	1.04	3.80**
Extraversion, γ_{002}	-0.06	0.12	-0.48
<i>Openness</i> to experience, γ_{003}	0.08	0.13	0.63
Gender_leader, γ_{004}	-0.58	0.26	-2.22*
Gender_subordinates, γ_{005}	0.55	0.34	1.60
Management level, γ_{006}	-0.04	0.15	-0.27
Team size, γ_{007}	0.01	0.03	0.42
Type of employment, γ_{008}	2.62	0.28	0.99
Training, γ_{001}	-0.73	0.25	-2.88**
Model for linear growth, π_1			
Intercept, γ_{100}	-0.46	0.60	-0.77
Extraversion, γ_{102}	0.02	0.07	0.33
<i>Openness</i> to experience, γ_{103}	-0.12	0.09	-1.37
Gender_leader, γ_{104}	0.32	0.15	2.10*
Gender_subordinates, γ_{105}	-0.07	0.19	-0.39
Management level, γ_{106}	0.00	0.08	-0.01
Team size, γ_{107}	-0.01	0.01	-0.62
Type of employment, γ_{108}	1.16	0.17	0.91
Training, γ_{101}	0.30	0.12	2.42*

Note. Training: 1 = Experimental group; 0 = Control group; Gender leader: 1 = male, 2 = female, Gender subordinates: 1 = male, 2 = female; Management level: 1 = lower Management, 2 = middle Management, 3 = top Management; Type of employment: 1: temporary employees, 2 = part time; 3 = full time. *p < .05; ** p < .01

The results show no improvements for the impression-leaving style after the training ($\beta_{001} = 0.15$, $t(21) = 1.32$, *ns*). In addition, none of the other variables were related to the slope, with the exception of extraversion, which was significantly and positively related to the initial status, such that extraverted leaders were rated higher on the impression-leaving style. In sum, Hypothesis 2b must be rejected.

For the dominant style I found a weak significant negative effect of *training* on the slope ($\beta_{101} = -0.20$, $t(21) = 1.76$, $p < .10$), such that leaders of the experimental group were rated lower in their dominant style after the training. Therefore, as postulated with Hypothesis 3c, the leadership training results in a lower rating of the participant's dominant style after the intervention. Therefore, Hypothesis 2c could be confirmed. Similar to the impression-leaving style, extraversion was significantly and positively related to the initial status of the dominant style.

Effect sizes

To test Hypothesis 3 that leaders with an initial low level of transformational leadership behavior benefit more from training than the leaders of the control group, the effect size d_{ppc} was calculated. Results indicated a significant effect from pre- to post-test for leaders with an initial low level of transformational leadership behavior $d_{ppc} = 0.55$. Leaders with an initial low level of transformational leadership behavior benefitted the most from the training ($d_{ppc} = 1.26$). Thus, Hypothesis 3 must be rejected. Leaders with initial high ratings showed no improvements after the training (see Table 12).

Additionally, the study calculated the training's effects on the improvements in the leaders' communicator styles, and found that training affected the attentive style. The effect was higher for the *low* leaders ($d_{ppc} = 0.52$) than for the *middle* leaders. The training has an impact on the improvement of the impression-leaving style only for the *middle* leaders ($d_{ppc} = .49$). Concerning the dominant style, the training has middle to negative effects for the *low* and *high* leaders, but no effect for the *middle* leaders.

Table 12. *Effect sizes*

	d_{ppwc} low ($N_{CG} = 22 / N_{EG} = 13$)	d_{ppwc} middle ($N_{CG} = 19 / N_{EG} = 14$)	d_{ppwc} high ($N_{CG} = 18 / N_{EG} = 11$)
TL	0.55	1.26	0.08
Attentive	0.52	0.34	-0.24
IL	0.11	0.49	-0.09
Dominant	-0.25	-0.09	-0.21

Note. low = $M_{TF_T1_EG} < 3.4$ und $M_{TF_T1_CG} < 3.6$; middle = $M_{TF_T1_EG} < 3.9$ and $M_{TF_T1_CG} < 4.0$; high = $M_{TF_T1_EG} > 3.9$ and $M_{TF_T1_CG} > 4.0$. EG = Experimental Group; CG = Control Group. TF_T1 = Transformational leadership at measurement point 1. TL = Transformational Leadership. IL = impression-leaving

4.5 Discussion

The aim of the present investigation was to develop and evaluate a leadership development program with a focus on transformational leadership and communication. For this reason, the study conducted a two-day intervention with a pre-test post-test, control group design. Additionally, the initial subordinates' ratings of their leaders' transformational leadership behavior and communicator styles of their leaders were considered in order to answer the question as to which participants gained the most benefit from the intervention.

In sum, there are two main findings. Firstly, in line with other studies (Abrell et al., 2011; Barling, et al., 1996; Frese et al., 2003), I could show that transformational leadership behavior could be actively improved through training. Therefore, transformational leadership behavior ratings of the participating leaders improved significantly after the training in comparison to a control group that received no intervention. In accordance with Abrell et al. (2011), I could demonstrate that the six dimensions of Podsakoff's (1996) transformational leadership are applicable in the German context and lead to improvements in the participants' behavior. Moreover, in contrast to previous studies of

Barling et al. (1996) or Frese et al. (2003), the intervention considered all dimensions of transformational leadership.

In addition, I could extend the current research on transformational leadership development, I added leader's communicator style to the leadership development program. On the second day, the participants received theoretical input combined with practical exercises in the three communicator styles (attentive, impression-leaving, and dominant). Therefore, I developed a more time-efficient intervention, because I could demonstrate that an improvement of both leadership and communication skills is possible with a two-day intervention.

Training transformational leadership and specific communicator styles together is crucial because transformational leadership behavior implies communication per definition (Podsakoff et al., 1990; Podsakoff et al., 1996). Communication brings transformational leadership alive. Transformational leaders necessarily need an attentive communicator style to be empathic and take the needs of their subordinates into account. In contrast, a too dominant style, in which the leader controls the conversation too much or leaves no scope for fair exchange with his or her subordinates, is not a transformational behavior.

In spite of the positive results for the dominant and attentive styles, the participants' impression-leaving style did not significantly improve. One reason for the rejection of this initial hypothesis may be that an impression-leaving style is harder to affect, similar to the development of a vision (Barling et al., 1996). In addition, impression-leaving communication is closely linked to the concept of charisma (Conger & Kanungo, 1987; Frese et al., 2003), something that could hardly be improved in a time span of three months. Another reason might be that the impression-leaving style is not an everyday behavior. Leaders do not have to communicate an appealing vision or generate enthusiasm every day. Maybe the usage of the impressing-leaving style is limited to extraordinary situations like a crisis or change in general. It is based a more long-term assessment and short-term improvements might not be visible to subordinates.

As a second contribution, I could show that participants of the leadership development program benefitted to different degrees from their training. Therefore, the effectiveness of the intervention was biased by ceiling effects. Surprisingly, the participants with the initial lowest scores on transformational leadership exhibited the second-best improvements three months after the training intervention. The participants who initially had a medium score showed the most improvement. These results are in line with the findings of Larsson et al. (2016), who also found that leaders with low and medium scores improved the most after training. One possible explanation for the present results might lie in the various factors that affect training transfer (Blume et al., 2010; Day, 2000; Day et al., 2014). One explanation among many perspectives might be the role played by the leaders' confidence in their skills and their motivation to improve themselves. One can assume that leaders with an initial middle score are on the correct path, because they are already performing transformational leadership to a certain extent. The leadership feedback and the additional exercises during the training allow them to focus on their strengths and weaknesses and to raise their leadership behavior to a higher level. In contrast, leaders with initial low scores may not have had the chance to develop confidence in their skills because they had either not taken part in leadership development training before or were still new in their leadership position. Additionally, they may not have been motivated to improve themselves. These assumptions should be validated in further investigations.

In sum, the study was able to confirm the initial hypothesis that ceiling effects exist as a bias and that, as a consequence, participants with initial high scores did not benefit further from the intervention.

Moreover, another strength of the present investigation is the heterogeneity of the sample. In contrast to other leadership development evaluation studies (e.g., Abrell et al. 2011), in the present study the gender relation was equalized and the leaders come from different organizations. Also, control group data could be obtained. According to Collins and Holton (2004), only few studies could gain such data.

4.5.1 Limitations

As mentioned before, one limitation of the present investigation is that it could only control for a short selection of transfer variables (e.g. extraversion, gender). There are a few other variables that could have biased the results (Blume et al., 2010), and further investigations should control for more variables.

In line with this point, further studies should explore the role of other communicator styles in the context of leadership development. Cohrs et al. (2016) identified several other communicator styles related to transformational leadership behavior. The open or friendly style offers an interesting topic for further research.

Third, the assignment to the experimental and control group was not random. Participants of the control group voluntarily applied to take part in the study, meaning that they were interested and motivated to develop their own leadership skills. This was reflected in their scores for transformational leadership behavior, which were initially higher than those of the control group.

Fourth, the time span of three months between the intervention and the post-test was relatively short. Some dimensions of transformational leadership – like implementing a vision or formulating group goals – are more long-term leadership tasks (Barling et al., 1996). Also, the results do not address the sustainability of the developments.

As a fifth and last point, the sample size must be mentioned. This sample size is considerably larger than those of other relevant investigations, such as Barling et al. (1996) with $N_{EG} = 9 / N_{CG} = 11$ participating leaders, Frese et al. (2003) with $N = 25$, or Abrell et al. (2011) with $N_{EG} = 25 / N_{CG} = 9$. Nevertheless, in the present study the control group consisted of significantly more participants than the experimental group. Moreover, the demographics of the groups differed. Additionally, considerably fewer subordinates rated their leaders' transformational behavior and communicator style at t_2 . Further investigations should strive for equal and larger sample sizes to validate the results.

4.5.2 Practical Implications

This investigation's most important contribution is to show that both transformational leadership behavior and communicator styles could be significantly improved through training. This is an important message for human resources experts as well as managers. Investing in leadership training and development, especially transformational leadership, pays. This study developed an economic, two-day intervention, proving that investigations that last a week or longer are not necessary to develop leadership skills. The current leadership intervention is also more useful than existing interventions because it taught not only transformational leadership but also communication skills. Accordingly, these communication skills do not have to be taught in an additional seminar.

Moreover, leadership behavior will improve shortly after the intervention. Therefore, the training could also be used in times of change or organizational crisis.

However, the most valuable finding of the present study is that participants gain different benefits from the intervention. Leaders who already scored high on transformational leadership behavior gained no additional improvements from the training. With this knowledge, organizations could save a lot of money and spend it in more promising interventions for these leaders, such as individual coaching. .

In conclusion, the present study enlarges the existing literature on leadership development with some remarkable details. While the study's limitations mean that its results need to be replicated by further research, it already offers new and important insights for practitioners.

5. Overall Discussion

The overarching goal of my dissertation was to explore the relationship between leaders' communicator style and transformational leadership behavior. I conducted two empirical studies. With my first study I aimed to explore the relationship between leaders' personality traits, communicator styles, transformational leadership and organizational

outcomes across 3 independent samples. I postulated that communicator styles are more proximal antecedents of transformational leadership behavior and personality traits are more distal antecedents (Sample 1). Moreover, I claimed that transformational leadership mediates the relationship between communicator styles and leadership outcomes (Sample 2 and three). Building on Study 1, I aimed to demonstrate with Study 2 that both transformational leadership behavior and communicator styles could be actively improved through training. Additionally, I postulated that there were individual differences concerning the improvements.

With my dissertation I extend the existing literature concerning the relationship of leadership and communication by clarifying the role of communication within the leadership process. Moreover, I considered the communication-leadership relation from a practical point of view and give important advices for practitioners on how leadership behavior and communication could be effectively improved.

Study 1 consists of 3 independent samples exploring the relationship between leaders' transformational leadership behavior and communicator styles. The results indicate that in all three samples the attentive and the impression-leaving style had a positive relationship with transformational leadership. Concerning the direction of the effects, the results revealed that transformational leadership mediates the relationship between the two communicator styles and work satisfaction as well as work engagement. Moreover, the first sample provides some evidence that communicator styles constitute more proximal antecedents of transformational leadership behavior and personality traits function as more distal antecedents.

With Study 2, I could demonstrate that transformational leadership and communicator styles behavior could be actively improved through training. Additional, I found that participants with initial middle follower ratings in transformational leadership behavior had the most benefit from the intervention. This finding goes slightly against the initial assumption that participants with initial low score gain the most benefit.

In the following section the results will be discussed in more detail with respect to the initial research question of my dissertation. Thereafter, the limitations are discussed

and directly linked to implications for future research. At least, implications for practitioners are presented.

5.1 Summarization of Findings and Contribution

The contribution of my dissertation is that I could identify specific communicator styles that enhance followers' perception of leaders' transformational leadership behavior. Moreover, I present a research model that considers both antecedents and consequences of transformational leadership behavior (Study 1). Additionally, I extend the existing research on the field of leadership development. Only a few studies exist that contribute to the evaluation of a transformational leadership training intervention (Abrell et al., 2011; Barling et al., 1996). With my investigation I also contribute to single weaknesses of the recent studies. Firstly, I evaluated a two-day leadership intervention that captures all dimensions of transformational behavior. Secondly, I considered communication as a relevant predictor of transformational leadership behavior. Thirdly, I took participants' initial follower transformational leadership behavior ratings into account. Consequently, I could precisely describe which participants had the most improvements three month after the training.

Moreover, my two investigations had further methodical strengths. I controlled for different sources of common method bias (Podsakoff et al., 2012). Firstly, I measured in both studies predictors and criterion variables at different points in time. In Sample 1 I even used three measurement points. Secondly, I used different rating sources. Thirdly, I used validated and already published scales in my studies to assess the data. Fourthly, to avoid the disadvantages regarding the aggregation of employees' ratings, (Heck & Thomas, 1999) I employed a multilevel path-analysis in Sample 1 and Study 2. Fifthly, I used a complex pretest-posttest-control-group design in Study 2. The advantage of using such a design is that, initial differences concerning the variables of interest could be detected. Consequently, the risk that differences in the pretest could bias the result of the posttest could be reduced (Morris & DeShon, 2002). For instance, in my investigation the

control group had higher initial follower rating concerning leaders' transformational behavior. Another advantage of the pretest-posttest control group design is that changes from pre- to posttest in the experimental group are considered in relation to changes in the control group. This allows the adoption that the effects are a consequence of the training and that no other variables confounded the results (Morris, 2008).

In the following, I will discuss the results of the two studies in the light of the initial research questions.

The first research question (*RQ1: Are leaders' personality traits extraversion and conscientiousness distal antecedents and leaders' attentive and impression-leaving communicator styles proximal antecedents of transformational leadership behavior?*) refers to the direction of the relationship of transformational leadership behavior and communicator styles. There are already some hints in the existing literature that communicator styles provide antecedents of transformational leadership behavior. In their two studies Holladay and Coombs (1993; 1994) found that 65% of charisma could be explained with the friendly, attentive, open and dominant style (Holladay & Coombs, 1993) and 76% (Holladay & Coombs 1994) by the friendly, attentive, relaxed and dominant style. Holladay and Coombs (1993; 1994) use the communicator styles concept to explain the relationship of delivery and charisma. They argue that the perception of the speaker is influenced by the way he or she delivers the message. According to Norton (1978; 1983), communicator styles on the micro level give form to the content of a message: "the way one verbally and paraverbally interacts to signal how literal meaning should be taken, interpreted, filtered, or understood." (Norton, 1983, p.19). Therefore, communicator styles influence listeners' perception of the speaker.

A newer investigation of Vries et al. (2010) goes in the same direction. They found that human-orientated leadership is more communicative than task-related leadership. Moreover, the relationship between communication and outcome criteria is mediated by leadership styles. To sum up, communicator styles had an impact how the speaker is perceived by the listener.

Based on the results of the existing research I present an additional perspective on the communicator style – leadership behavior relation. Firstly, I chose transformational leadership as a leadership construct. Transformational leadership is a well-established construct and many positive effects on organizational outcomes could be found (Lowe et al., 1996; Podsakoff et al., 1990). Secondly, I selected Zaccaro et al.'s (2004) integrative model of leadership as a theoretical framework. Zaccaro et al. (2004) describe leadership behavior in terms of distal (e.g. personality, motives or values) and proximal attributes (e.g. social appraisal skills or problem solving skills). Communication is not explicitly mentioned in Zaccaro et al.'s (2004) model, but as similar to social skills it should provide a proximal attribute. To deepen the understanding of the role that communication plays in the transformational leadership process, I focused on the relationship between leaders' personality traits (e.g. extraversion and conscientiousness) as distal attributes and the attentive and impression-leaving communicator styles as proximal attributes of transformational leadership in sample 1. I found that the attentive style mediates the relationship between conscientiousness and transformational leadership behavior. In contrast, the impression-leaving style did not mediate the relationship between extraversion and transformational leadership. Against the existing research (Bono & Judge, 2004) extraversion also had no direct effect on transformational leadership behavior. Nevertheless, the attentive and the impression-leaving style were the only communicator styles that predicted transformational leadership behavior. The conclusion drawn from sample 1 is that the attentive and impression-leaving communicator styles are relative stable proximal predictors of transformational leadership behavior. The impact of personality traits on the communicator styles – transformational leadership relation has to be investigated in further studies.

As in Sample 1, in Sample 3 I controlled for the impact of the other communicator styles. The results indicate that also the open, friendly and relaxed styles had a positive relationship with transformational leadership. These results might be due to the assumption of Norton (1983) that the friendly, relaxed, and attentive styles build a cluster and tend to be more passive, receptive, and other orientated. In contrast, the open and impres-

sion-leaving styles can be clustered together because they entail more “active” communicative behaviors (1983, p.72). Therefore, the styles are conceptually closely related. Additionally, Holladay and Coombs (1993; 1994) also found positive a relationship of the relaxed and open style with followers’ perception of leaders’ charisma that is conceptually related to transformational leadership. Therefore, the relationship between transformational leadership behavior and communicator styles should be deepened in further investigations.

With the second research question I aimed to clarify the direction of the communicator style – transformational leadership relation (*RQ2: Does transformational leadership mediate the relationship between communicator styles and work satisfaction as well as work engagement as leadership outcomes?*). In line with my first research question, I postulated that personality traits are distal antecedents and communicator styles are a proximal attributes of transformational leadership behavior. As discussed above this assumption could be confirmed by the results of Sample 1. With Sample 2 and three I considered the relationship of transformational leadership behavior and communicator styles in more detail. In both studies transformational leadership behavior mediated the relationship between the attentive style and the impression-leaving style on work satisfaction (Sample 2) and work engagement (Sample 3). Therefore, the impression-leaving and the attentive styles especially enhanced the subordinates’ perceptions of transformational leadership behavior which in turn had a significant impact on the focused organizational outcomes. These findings correspond to recent research (Vries et al., 2010) demonstrating that human orientated leadership styles are grounded in communication and also mediate the relationship between communicator styles and leadership outcomes. In my study I used work satisfaction and work engagement as outcome variables but further investigations should validate the results of the present investigation using other performance criteria.

In my second study I, considered transformational leadership and communicator styles from a more practical point of view. The study was conducted to answer my third

and fourth research question. At first, I postulated with research question three that transformational leadership behavior and the attentive and impression-leaving style could be actively improved through training (*RQ3: Does a training of transformational leadership and communication improve leaders' transformational leadership behavior and communicator style?*). I used a longitudinal multilevel path analysis (Gentry & Martineau, 2010; Raudenbush & Bryk, 2002) to test the hypotheses. The results indicate that transformational leadership behavior could be actively improved through training. Therefore, subordinates' ratings of leaders' transformational leadership behavior improved significantly after the training in comparison to a control group that received no intervention. These findings are in line with other research of Barling et al. (1996) or Abrell et al. (2011). Therefore, the results suggest that transformational leadership is grounded to a great amount in acquired skills.

The results concerning the improvement of the communicator styles were ambiguous. Firstly, in line with the initial assumption, employees' ratings of the attentive style improved more after training in the experimental group compared to the control group. Secondly, as expected the leadership training results at a lower rating of participant's dominant style after the intervention. Thirdly, no effect of the training on employees' ratings of participants' impression-leaving style was found. This might be due to the fact that the impression-leaving style is more difficult to improve than the other styles. To improve their impression-leaving style the participants were asked to develop an inspirational speech by using stylistic devices as metaphors or alliterations as an example. That was difficult for some participants because it didn't correspond with the way they commonly communicate. Additionally, the inspirational speech is not an everyday leadership behavior. Maybe it is more likely to be used in crisis or in times of change (Conger & Kanungo, 1987). Additionally, the impression-leaving style is more complex than other communicator styles. As Conger (1991) stated, inspirational speech is not only the utilization of stylistic device, quite more important is that the leader is credible and congruent. These aspects could not be assessed with the CSM-D (Cohrs et al., 2016).

With regard to the complexity of the impression-leaving communicator style construct, the three month time span from the training to measurement point two maybe was

too short to assess improvements. Further research should examine the long term effects of training on the impression-leaving communicator style and other tasks to improve the impression-leaving style should be developed. (Conger & Kanungo, 1987)

The fourth research question goes beyond the communicator style – transformational leadership relation (*RQ4: Are there individual differences concerning the improvements three month after the intervention?*).

To answer the question concerning the effectiveness of the leadership intervention I calculated effect sizes based on participants' initial transformational leadership ratings. The results indicated that participants' with initial middle ratings of transformational leadership had the most benefit from the training. This was against the initial assumption that participants with initial low ratings would have the most improvements. There are multiple explanations for this result. Firstly, one possible explanation might be grounded in the various factors that affect trainings transfer (Blume et al., 2010; Day, 2000; Day et al., 2014). So, leaders with an initial middle score perform transformational leadership actually to a certain amount. The leadership feedback and the additional exercises during the training allowed them to focus on their strengths and weaknesses and to put their leadership behavior on a higher level. In contrast leaders with initial low score maybe did not have the chance to develop self-esteem in their skills because they did not take part in leadership development trainings yet or they were still new in their position as a leader.

Secondly, transformational leadership ratings are influenced by the interpersonal affect (i.e., liking) of the rater towards their leader (Rowold & Borgmann, 2014; Brown & Keeping, 2005). According Liden, Wayne and Stilwell (2013) subordinates' ratings of their relationship with their leader within the first two weeks of the interaction, predicted their ratings of the leader member exchange six month later (Liden et al., 1993). Therefore, if employees' ratings of their leaders' transformational behavior were biased by liking, the three month time span between the intervention and the post-test is either too short for employees to change their attitudes towards their leader. Further research should clarify the role of liking within the improvement of transformational leadership behavior.

Thirdly, leadership behavior is more difficult to improve because it is more complex than communication. The results concerning the effect sizes of the communicator styles indicate that participants with initial low ratings in transformational leadership behavior had the most improvements in their attentive communicator style. Therefore, changes in leadercommunicator style like active listening or more eye contact might be more salient for employees than complex leadership behavior. This assumption goes in line with the third research question that postulated that transformational leadership mediates the relationship between communicator styles and leadership outcomes.

To sum up with my second study, I contribute to the existing research by demonstrating that initial leadership ratings bias the effectiveness of leadership interventions. In line with Larsson et al. (2016), I could show that leader with initial low and middle ratings of transformational leadership took the most benefit from the leadership intervention. Leaders' with initial high values had the lowest improvements. Therefore, ceiling effects should be considered as a possible bias in further evaluation studies.

5.2 Limitations and Implications for Future Research

The limitations of Study 1 and Study 2 have been discussed in chapter three and chapter four; I will discuss some general limitations of my dissertation in the following section.

Firstly, due to the cross-sectional design, causal statements are not ineligible for Study 1. Therefore, communicator styles could be also a consequence of transformational leadership behavior. In this sense communicator styles could be viewed as a tool of leadership (April, 1999). Leaders actively decide which communicator style they choose to deliver their leadership behavior to their followers. Especially the results of Sample 2 and Sample 3 indicate that transformational leadership behavior and communicator styles are conceptually similar constructs. The correlations between the attentive style ($r = .73; p < .01$) as well as the impression-leaving style ($r = .62; p < .01$) with transformational lead-

ership were even higher when assessed at one measurement point. In contrast, the correlations in Sample 3 were transformational leadership behavior and communicator styles were assessed at different measurement points (attentive style, $r = .53$; $p < .01$ and the impression-leaving style, $r = .43$; $p < .01$) were even lower. The relationship between transformational leadership behavior and communicator styles should be explored with a cross-lagged correlation (Kenny, 1975) in more detail. Moreover longitudinal studies should be conducted to explore the relationship between communicator styles, transformational leadership behavior and outcome variables.

Secondly, the external validity of my first study is limited due to the samples that I used. In Sample 1 I tested my hypotheses by capturing teams of students. According to D'Innocenzo et al. (2014), student groups competing in complex situations form proper contexts in which to study leadership development. However, the results should be replicated with a larger sample size in an organizational setting. In Sample 2 and Sample 3 I engaged research assistant to invite participants from different organizations to take part in the study. According to Wheeler, Shanine, Leo and Whitman (2014) student-recruited samples do not differ demographically from non-student-recruited samples.

In study 2 there are also some critical issues concerning the sample. Firstly, the participants were not randomly assigned either to the experimental or to the control group. However, according to Dimitrov and Rumrill (2003), this must not be a disadvantage because the nonrandomized control group pretest - posttest design deals with intact groups. Therefore, the external validity is improved.

Secondly, the experimental and the control group differed with regard to the demographics. I found significant differences concerning their team size, management level and gender. Consequently, I considered these variables as controls. However, further investigations should aim to use experimental and control groups with similar demographics.

Additionally, two-third of participants of the experimental group originated from the same organization. Therefore, organizational conditions might have biased the results

on the one hand and the external validity is partially limited on the other hand. Further investigations should also control for the characteristics of the organization.

On a methodological basis, another limitation is that, except for Sample 1, same source data subordinates ratings were used. According to Taylor, Russ-Eft, and Taylor et al. (2009) subordinate ratings are more accurate than self-ratings and provide an appropriate basis. However, significant smaller effect sizes were found when subordinates ratings were used to assess training effectiveness (Taylor et al., 2009; Morrow, Jarrett, & Rupinski, 1997). Therefore, I would recommend that further investigations should compare participants' self-ratings and other-ratings concerning the effectiveness of the training to gain a more complete picture.

Moreover, in both studies quantitative data were used. During the last years the call for the application of multiple research approaches became louder among leadership researchers (Stentz, Plano, & Matkin, 2012). One possibility therefore is the combination of qualitative and quantitative methods to gain a more complete understanding (Stentz et al., 2012). As an example, in their case study Berson and Avolio (2004) used a mixed-method approach to examine the relationship of leadership style and the effectiveness in conveying strategic organizational goals.

The combination of qualitative and quantitative method is a valuable approach especially for leadership and communication research.

Apart from the methodological limitations there are also some critical issues concerning the theoretical approaches. Firstly, Norton's foundation of a communicator style construct is a more general approach to describe communication. Further research could use a framework that focusses more on communication in the organizational context. Secondly, the main focus in my studies was on the attentive and impression-leaving style. However, the results of Sample 3 indicated that also other styles were related to transformational leadership behavior. These results provide also an avenue for further research.

Thirdly, in all studies transformational leadership behavior was not considered on a dimensional level. To deepen the understanding of the relationship between transformational leadership and communicator styles further studies should investigate which

communicator styles are related to the single dimension of transformational leadership. This would be an important aspect for leadership development or personnel selection processes.

Also, I was not able to control for all relevant process variables that are important for the communication – leadership relation. The research model of Study 1 could be complemented by further mediating and moderating or outcome variables. So, recent studies indicate that not all aspects of transformational leadership were uniform across cultures (Den Hartog et al., 1999). Also, communicator styles that individuals use vary across cultures (Gudykunst et al., 1996). Therefore, further research should consider culture (also organizational culture) as a moderator of the relationship between transformational leadership and outcomes.

Additionally, it would be valuable to evaluate the two-day leadership intervention in other countries.

According to Study 2, also further transfer variables such as personal characteristics of the participants (e.g. Motivation) or organizational variables (e.g. support by the leader) should be considered.

Moreover, the similarity between leader and followers might have an impact on the relationship between transformational leadership behavior and communicator styles. According to Felfe and Schyns (2010) leadership dyads are more likely to cooperate successfully when they were perceived as similar in their personality traits in the eyes of the followers. Moreover, Infante and Gorden (1982) found that similarity and dissimilarity in communicator styles has an impact on subordinates' satisfaction. Therefore, similarity between leader and followers provides an avenue for further research.

In figure 3 a model for further research is presented.

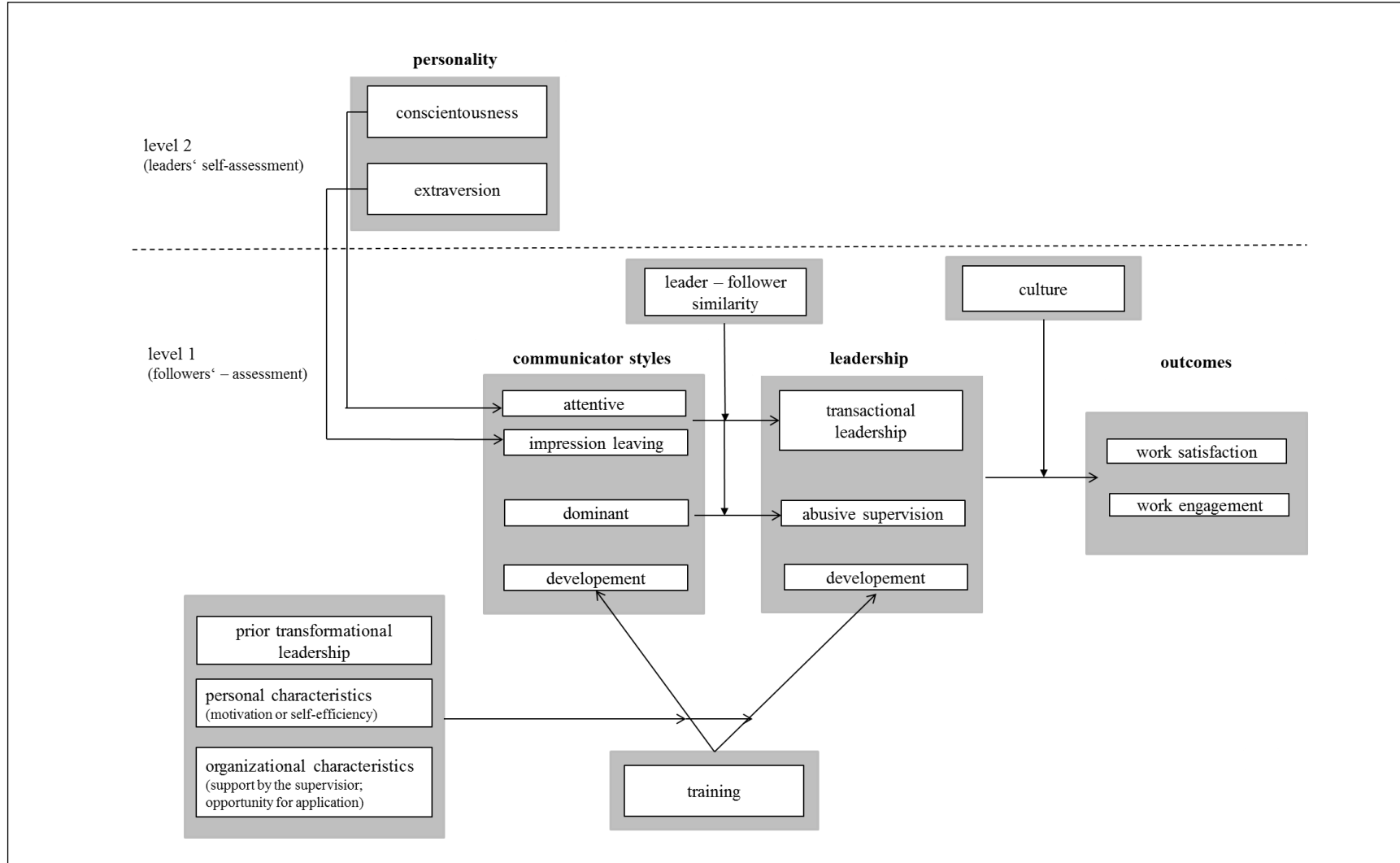


Figure 3. Model for Further Research

5.3 Practical Implications

With regard to the practical implications of this dissertation, two major pillars of contribution can be depicted: First, both transformational leadership behavior and communicator styles have a beneficial impact on organizational performance criteria. Secondly, both transformational leadership behavior and communicator styles could be significantly improved through training.

The results of my dissertation indicate that using an attentive or impression-leaving communicator style enhance followers' perception of transformational leadership behavior. Moreover, transformational leadership behavior and the attentive / impression-leaving communicator styles lead to higher follower work satisfaction and work engagement. Therefore, fostering transformational leadership behavior and an attentive / impression-leaving communicator style in organization's culture beneficial organizational performance. Consequently, HR managers should aim to establish transformational leadership and attentive / impression-leaving communicator styles. This could be accomplished by CEOs that set an example of transformational leadership behaviors. Moreover, a code of conduct could be formulated that compromises the underlying ideas of transformational leadership. For instance, team spirit, providing a role model for colleagues, support others or to be visionary and open minded.

A 360-degree feedback could be used to assess follower perceptions of their leaders' transformational behavior and communicator style. On this basis leadership trainings or coaching could be derived. Moreover, the improvement of transformational leadership behavior and attentive / impression-leaving communicator styles could be included in leaders' performance appraisal. Additionally, the 360-degree feedback is a valuable tool to compare leaders' self-assessment of transformational leadership behavior and communicator styles to the assessment of their followers. A comparison of self-ratings and other ratings should be taken into consideration because it has an impact on leader performance. Therefore, leaders with a high and good self-other agreement are more effective than leaders, who overestimate themselves (Yammarino & Atwater, 1997). Therefore, it is important to identify leaders with a high discrepancy and to offer leadership development interventions or coaching to them.

Further the results of my dissertation indicate that a two-day leadership intervention that focusses on training transformational leadership behaviors and an attentive / impression-leaving communication is a successful approach to develop these skills. Therefore, it is beneficial for organizations to invest in the development of transformational leadership and communicator styles. Additionally, the conceptualization of transformational leadership formulated by Podsakoff (1990), was shown to be a valid and reliable approach that can be understood and applied relatively easily by the training participants.

Moreover, my results indicate that it is important to integrate communication into a leadership training. Often, leaders do not know how to communicate with their followers in an effective manner. For instance, Miller (2016) stated that the main problem, that managers have, is active listening. However, leaders that listen carefully to their followers are able to detect problems earlier and to increase productivity because mistakes and misunderstanding could be reduced (Miller, 2016). Moreover, transformational leadership is grounded to a great amount in communication. Consequently, HR managers should consider communication as an important part of leadership development.

Next, the results of my dissertation indicate that participants gain different benefits from the intervention. Leaders who perform actually high on transformational leadership behavior before the training achieve no additional improvement through the training. In contrast participants with initial low or middle ratings had the most improvements. With this knowledge organizations could save a lot of money and spend it in more promising intervention for this leaders, individual coaching for leaders with already high transformational leadership ratings as an example. Moreover, leaders with already high transformational leadership ratings could act as a mentor for leaders with lower rating. Therefore, it might be beneficial for organizations to foster networking among leaders, in form of a regular discussion rounds for instance. Moreover, leaders with initial high ratings of transformational leadership can benefit from regular team-coaching. During the coaching leaders can introduce individual case studies that were then discussed by the other participating leaders. Finally, possible solutions were derived. Team-coaching provides also an appropriate tool to enhance trainings transfer.

Additionally, transformational leadership behavior and communicator style should be used in leader selection activities. HR managers should aim to identify those applicants

already leveling high on transformational leadership and attentive / impression-leaving communicator styles. Therefore an initial assessment of transformational leadership and communicator styles should be part of the personnel selection process. For instance, the Transformational Leadership Inventory and the CSM (-D) could be used to assess applicants self-assessment. Additionally, role-plays, presentations or biographical and situational interview questions could be used to assess observer ratings of transformational leadership behaviors or attentive / impression-leaving communicator styles.

Furthermore, my dissertation provides the basis for a further discussion about cost-benefit analysis of leadership development interventions in general. In times of increasingly shorter budgets, this is an important issue. There are two main critical issues in HR development practice. First, often the effectiveness of interventions is not verified. Consequently, studies addressing the evaluation of leadership interventions are of particular importance. Second, personnel development interventions are often not imbedded in an overall strategy of the company and it is not clear how the selected performance criteria are linked to strategic organizational goals. Thus, for example, if the number of days of sickness is chosen as a criterion for the evaluation of a stress-training, the relative importance of this criterion remains unclear.

The second issue is beyond the scope of my dissertation. However, I aim to discuss the effectiveness of leadership development from a holistic perspective. Further, I aim to stimulate HR managers to consider this aspect when thinking about the effectiveness of leadership development interventions.

The Human Capital (HC) BRidge™-Modell of Boudreau and Ramstad (2001; 2005) provides an integrated approach that includes strategic organizational goals. The HC BRidge™-Modell consists of three essential points that have all business decision sciences in common: efficiency, effectiveness, and impact Boudreau and Ramstad (2005). Keeping the model of Boudreau and Ramstad (2005) in mind, the leadership and communication training of this dissertation could meet an organizations' overall strategy as described exemplarily in the following. A start-up wants to imply a consistent culture of leadership. The young company could ideally profit from a leadership and communication training to develop a consistent vision and organizational values. Starting with the

top management, the training could go top down to reach all hierarchical levels of leaders. An adequate communication of the organizational vision and values should be trained to reach all of the personnel. Furthermore, topics such as teambuilding, individual support and high performance expectations could be interesting for start-ups in particular. Therefore the training would need to focus on those aspects. To address the „right“ mindset and abilities of the leaders, the training should help developing a vision for each team fitting the organizational overall goals as well as promoting an adequate communicator style.

Therefore, a training in transformational leadership and communication seems more than appropriate. Essentially, when thinking about useful arrangements, the HC BRidge™-Modell should be considered to meet organizational overall goals and sustainable effects.

5.4 Conclusion

With my dissertation I was able to deepen the understanding of antecedents of transformational leadership behavior. I identified the attentive and impression-leaving communicator styles as relevant predictors of transformational leadership behavior. Moreover, based on Zaccaro et al.'s (2004) integrative model of leadership, I tested a complete research model with personality traits as stable and distal attributes of transformational leadership, communicator styles as more adjustable proximal attributes and work satisfaction and work engagement as leadership outcomes. Building on the results of my first study, I developed and evaluated a two-day leadership intervention with transformational leadership and communicator styles as focal points. I could show that both transformational leadership and communicator styles could be actively improved through training. Moreover, concerning the effectiveness of the training, I found leaders with initial low and middle employee ratings of transformational leadership to have the most improvements after the training. Taken together, with my dissertation I could enhance the existing research on leadership development and provide further insights on the role of communication in the transformational leadership process.

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6. Appendix A: Instruments Applied in Study 1 and Study 2

Table 13. *Instruments Applied in Study 1 and Study 2*

Construct	Instru- ment	Number of items	Study 1	Study 2	Original publica- tion
<i>Leadership behaviors</i>					
Transformational leadership behaviors	Transformational Leadership Inventory	22	x	x	Podsakoff et al. (1990)
<i>Communicator styles</i>	CSM - D				Norton (1978)
Attentive		3	x	x	
Impression Leaving		3	x	x	
Dominant		3	x	x	
Animated		3	x		
Open		3	x		
Friendly		3	x		
Contentious		3	x		
Dramatic		2	x		
Relaxed		3	x	x	
<i>Personality traits</i>					
	BFI-K				
Conscientiousness		4	x		
Extraversion		4	x	x	
Openness to experience		5		x	
<i>Organizational outcomes</i>					
Work satisfaction		8	x		Allerbeck (1978)
Work Engagement	Work Engagement Scale	17	x		Schaufeli et al. (2002)