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## **Transformational leadership and nonverbal behavior in the Swiss Armed Forces**

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**TRANSFORMATIONAL LEADERSHIP AND  
NONVERBAL BEHAVIOR IN THE  
SWISS ARMED FORCES**

Thesis  
presented to the Faculty of Arts  
of  
the University of Zurich  
for the degree of Doctor of Philosophy

by  
Claudia Stadelmann  
of Mörschwil SG

Accepted in the fall semester 2010 on the  
recommendation of Prof. Dr. Klaus Jonas and Prof. Dr. François Stoll

Zurich, 2010



“There can be no power without mystery.

There must always be a ‘something’ which others cannot altogether fathom,  
which puzzles them, stirs them, and rivets their attention...”

– Charles de Gaulle

### **Abstract**

The aim of this dissertation project was to assess transformational leadership in the rather unexplored context of the Swiss Armed Forces. Furthermore, a new research approach was used to define additional (nonverbal) characteristics of transformational leadership.

Study 1 (Chapter 2) examines the effects of transformational leadership on subordinates' voluntary willingness to perform beyond expectations. Thereby military personnel's affiliation became evident: Relationships of transformational leadership with subordinates' extra effort were found to be differentially moderated by superiors' hierarchy level depending on whether the subordinates were militia personnel or military professionals.

Study 2 (Chapter 3) analyzes whether military officer cadet's nonverbal communication (smiles and gestures) has an influence on the attribution of their transformational leadership style or on their leadership success. The results confirmed the assumed influence of smiles and gestures, but in a complex way. Platoon leaders that were later perceived as transformational leaders smiled significantly less during the video taped presentation task. But regarding the effectiveness of leadership, a high amount of smiles positively moderated the transformational leadership components idealized influence-behavior and appeal.

The results of the studies have meaningful implications for transformational leadership theory and practice, especially for the Swiss Armed Forces. First, and not surprisingly, the positive impact of transformational leadership could also be confirmed in the context of the Swiss Armed Forces. Particularly for military superiors at lower hierarchical levels, transformational leadership behaviors would

be very helpful in motivating subordinates to stronger commitment and performance beyond expectations.

Second, transformational leadership behaviors exceed the originally defined and well-known range. Smile and gestures are elements of nonverbal behavior that influence transformational leadership's attribution and leadership success and many other elements of nonverbal behavior (or combinations) have to be assumed.

## Acknowledgements

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I would like to express special thanks to my life partner Walter, who believed in me unwaveringly and ensured that I was not troubled by other problems.

Finally, I thank my parents, Ivo and Claire Stadelmann, who always encouraged me to do my best in all things. I wish that my mother had lived to see the completion of this dissertation. It is to them that I dedicate this work.

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# 1

## Introduction

Since the early 1990s there has been a saying in the private sector that *the only constant is change*, which expresses a certain resignation concerning the loss of values such as tradition, security, and reliability (Felfe, 2003).

Like the business undertakings, also the Swiss Armed Forces must deal increasingly with dynamic environmental conditions, such as the new threat environment and the resulting new tasks. *Armed Forces 95* and *Armed Forces XXI*, which were comprehensive reform programs of the Swiss Armed Forces carried out within just a few years' time, are examples of this (Stab Chef der Armee, 2006).

Although a great deal of leadership research was conducted in connection with the change (cf. Jansen, Vera & Crossan, 2009; Levay, C., 2010; Shin & Zhou, 2003; Waldman, Ramirez, House, R. & Puranam, 2001), including some studies with military samples (cf. Bass, Avolio, Jung & Berson, 2003; Dvir, Eden, Avolio & Shamir, 2002), there have been no studies up to now on this topic in the context of the Swiss Armed Forces.

This dissertation is divided into four chapters. Chapter 1 (Introduction) provides an overview of the theoretical background in the research areas leadership and nonverbal behavior and key information about the Swiss Armed Forces. In chapters 2 and 3 I report the tests of hypotheses in a style format following the publication requirements of the American Psychological Association (2002), with distinct sections (introduction, method, results, and discussion). Chapter 4 provides a summary of the main findings and a general discussion of the results. I draw some conclusions and discuss the outlook for future research.

### **Change in the Swiss Armed Forces**

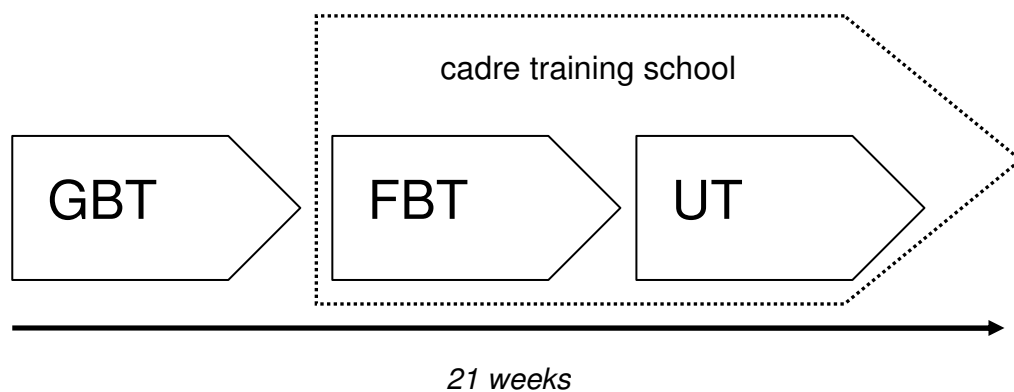
Particularly the *Armed Forces XXI* series of reforms of the Swiss Armed Forces brought some fundamental changes: Members of the armed forces were discharged from compulsory military service earlier than previously, soldiers usually at age 30. This reduced the size of the country's militia army by about one-third. To improve training, the recruit school (basic military training) was lengthened to 18 or 21 weeks, depending on the arm of the services. This is followed by six or seven refresher courses (each lasting three weeks), thus reducing the duration of military training overall. Since the reforms, women can take on any position within any arm of the services. The basic structure of the armed forces was reorganized and simplified by eliminating the corps, divisions, and regiments. Now the basic units are brigades and battalions.

With the implementation of the *Armed Forces XXI* reforms, the armed forces context had not changed with regard to uncertainty and complexity, as was made clear six years later in a report on the status of implementation of *Armed Forces XXI* (Federal Department of Defense, Civil Protection and Sport, DDPS, 2010). In addition to the lack of leadership experience of the cadre at the start of their practical service, the report also stressed in particular the problem of the lack of militia cadre at the officer level. Also, career officers and career NCOs showed dissatisfaction and signs of fatigue, which according to the report could be attributed to the increased demands, increased workload (3-start-model of the recruit school), and lack of sufficient training personnel. Contrary to the original assumptions made when the *Armed Forces XXI* reforms were planned, the demand for logistic services had not decreased. But because the finances had been cut in



accordance with the original assumptions, there was now an imbalance between tasks and services and the means in the area of logistics, which could be improved in the longer term only through further substantial changes in the armed forces (Federal Department of Defense, Civil Protection and Sport, DDPS, 2010). This made it clear that the armed forces environment cannot at all be said to be stable and certain.

In addition to the uncertain and rapidly changing context, it is especially the structure of the Swiss Armed Forces that presents a particular challenge to the leaders: The recruit school lasts 21 weeks (*Armed Forces XXI*) and is divided into three different training phases (see Figure 1).



*Figure 1.1.* Course of the recruit school (basic military training) (Bär, 2008) (GBT = general basic training; FBT = functional basic training; UT = unit training).

General basic training (GBT) lasts seven weeks, followed by six weeks of functional basic training (FBT) and, finally, eight weeks of unit training (UT). Specific skills are acquired in each training phase, and the recruits have a different direct superior in each of the phases. The superiors are not all equally experienced

with regard to their leadership tasks: Particularly the UT superiors take full responsibility for leadership tasks for the first time within the context of their practical service, following the motto *learning by doing* (Bär, 2008). Differences in the area of interpersonal leadership abilities are thus very plainly visible to the subordinates particularly in these three phases of basic training. Although the UT superiors have all had the same training, some of them succeed better at motivating and inspiring their subordinates and receive higher ratings on leadership qualities.

Even though “command and obey” in a military organization is an essential prerequisite for the functioning of the community and ultimately for task fulfillment, the importance of soldiers who are willing to do more than merely “work to rule” (willing to do more than the minimum required) should not be underestimated (Bär, 2008). In this direction, some Swiss politicians (cf. Fuhrer, 2000) demanded that members of the armed forces should develop increased willingness to voluntarily do more than the minimum required by law in order to strengthen the militia system and the Swiss Armed Forces as a whole.

That this objective can be achieved through excellent leadership was established by Bass (1999) and Hinkin and Tracey (1999). Also Mumford et al. (2008) assumed that in a complex and uncertain context, charismatic or transformational leadership plays an important role. In addition to the circumstance that according to Bass, Avolio, Jung, and Berson (2003) charismatic or transformational leadership “is at the core of what constitutes adaptive leadership, according to U.S. Army doctrine Field Manual 22-100” (p. 209), this concept seems very relevant for research on leadership style also upon the background of

the Swiss Armed Forces reforms and the associated uncertain and complex environment.

The theory of charismatic, or transformational, leadership places the focus on the personality and behavior of superiors and thus accentuates interpersonal differences as in the “Great Man” paradigm going back to Carlyle (1907). In contrast to task-centered or person-centered behavior of leaders, the concept of charismatic and/or transformational leadership looks at communication (Kirkpatrick & Locke, 1996), especially the communicating of visions and hopes for the future.

### **Charismatic Leadership Theory**

The concept of charismatic leadership is a construct that is both fascinating and difficult to capture empirically (Conger & Kanungo, 1988; Fuller, Patterson, Hester, & Stringer, 1996). There is even disagreement regarding the best research approach (Felfe, 2003): The question remains open as to whether a trait theory or behavior theory approach is more useful for clarifying the charisma concept.

In its original form, charisma is understood to mean the gift of divine grace (Felfe, 2003; House, 1977). The redefinition of charisma as a secular political and leadership concept goes back mainly to Weber (1947) (Heilmann, 2008; Leu, 2009). For Weber (1947), too, charisma is an extraordinary gift that only some people possess.

An essential characteristic of charismatic leadership is its extraordinary and deep influence on subordinates (De Cremer, 2002). In addition, according to

Rowold and Heinitz (2007), subordinates' strong willingness to identify with their leaders is an essential feature of charismatic leadership.

In Europe the concept of charisma has been viewed rather critically (Felfe, Tartler, & Liepmann, 2004). Also Howell (1988) and House and Howell (1992) discussed the risks and dangers of charisma by pointing out the motivation to exercise power. They make a distinction between a personalized and a socialized form of charismatic leadership. Personalized charismatic leadership is marked by a high need for power, narcissism, and Machiavellianism, whereas the socialized charismatic leader has high self-esteem and a tendency to govern through more egalitarian means (O'Conner, Mumford, Clifton, & Gessner, 1995).

Howell and Avolio (1992) proposed a similar distinction, distinguishing between ethical and unethical charisma. Unethical charismatic leaders use power only for personal gain and personal objectives, whereas ethical charismatic leaders use power to serve others.

### *Charisma and Personality Characteristics*

For a time in leadership research, the influence of personality traits on charismatic leadership was regarded with some skepticism (Judge, Bono, Illies, & Gerhardt, 2002), because the "Great Man" theories often evidenced deficits in methodology (Leu, 2009) and content (Yukl & Van Fleet, 1992). Conger and Kanungo (1998) described the trait approach as "too simplistic" (p. 38). However, the leadership trait perspective fell out of favor somewhat wrongly (Judge, Piccolo, & Kosalka, 2009; Leu, 2009). There have since been methodological improvements thanks to better statistical methods (Leu, 2009) and also content

improvements through structuring of the traits and combining of traits with situative influences (Kalma, Visser & Peeters, 1993; Zaccaro, 2007), providing empirical support and renewing the importance of the trait theory research approach (Baum, Locke, & Kirkpatrick, 1998; Judge et al., 2002; Peterson, Smith, Martorana, & Owens, 2003). The revival of the charismatic leadership theory is also apparent in a study by Bligh and Kohles (2008), who applied it to the 2008 U.S. presidential election, stating, “much of the commentary surrounding the presidential candidates remains primarily focused on the personal characteristics of the leaders” (p. 483).

According to House and Howell (1992), charismatic leaders differ from non-charismatic leaders on several personal attributes including *self-assurance in social situations, willingness to take risks, empathy, self-confidence, creativity, and innovation*. In a review of leadership studies in connection with the Big Five personality traits (Costa & McCrae, 1992), Judge and Bono (2000) found positive correlations especially between Extraversion and charismatic leadership.

All in all, these research approaches found self-confidence and Extraversion to be relevant personal attributes of charismatic leaders (Felfe, 2003).

### *Charisma and Behaviors*

In addition to special personal attributes, charismatic leaders also stand out from the crowd with their extraordinary behaviors. The most important behavior named here is the strong and genuine role model function of leaders, with often Gandhi given as an example (Avolio & Gibbons, 1988). In addition, charismatic persons state their opinions and articulate their visions and ideals (House, 1977).

Through their convincing argumentation and rhetorical skill (Bligh & Kohles, 2009), charismatic persons are able to make lasting impressions on others. For instance, most of us immediately associate a particular person with “I have a dream” or “Yes, we can”.

Another important model for investigating charismatic leadership behaviors was developed by Conger and Kanungo (1994). The theory is based on six specific behaviors: (1) strategic visioning and communication behavior, (2) sensitivity to the environment, (3) unconventional behavior, (4) personal risk, (5) sensitivity to organizational members’ needs, and (6) deviation from the status quo. With this, charismatic leaders develop a vision for the organization (or work group) and communicate this vision persuasively and in an inspiring way (Murphy & Ensher, 2008).

Also nonverbal aspects have been examined in connection with charisma. As having particular impact, for example, Lindholm (1990) and Willmer (1984) name leaders’ intensive eye contact behavior, which followers describe as hypnotic and magnetic.

#### *Criticisms of the Concept of Charismatic Leadership*

Neuberger (2002) criticized the concept of charismatic leadership on an ideological/political level, fearing that charismatic leaders could succeed at holding the masses in their spell and manipulating them. Blind obedience and fanaticism could result. Also Howell (1988) and Kark, Shamir, and Chen (2003) pointed out the danger of dependency as a consequence of (excessively) strong identification with the leader.

Yukl (1999) raised a criticism that is more at the conceptual level. Yukl stated that the explanatory value of the construct was fundamentally overestimated. In addition, through the focus on characteristics of charismatic leadership, further factors, such as situative or procedural influences, were neglected (Beyer, 1999).

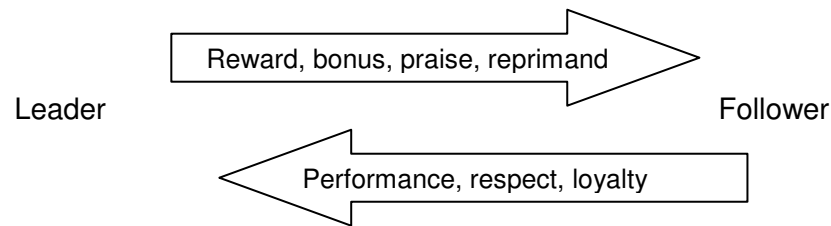
Shamir (1999) warned against overrating the concept of charismatic leadership and against stating it too dramatically, for this could lead to a loss of its relevance to everyday life. However, there is also the danger that under certain conditions essential aspects of charisma become lost (Felfe, 2003) and everyday behaviors no longer do justice to the extraordinary behaviors.

### **Transformational and Transactional Leadership Theory**

Based on the ideas of Burns (1978), Bass (1985) developed the concept of transformational leadership. In contrast to Burns' approach, which viewed transactional and transformational leadership as opposite poles of one single dimension, Bass postulated two independent dimensions. In addition, Bass focused on specific behaviors for determination of leadership style.

#### *Transactional Leadership*

In contrast to concepts in which leadership is defined as a unidirectional process of exertion of influence on subordinates, the transactional leadership model interprets the process as social interaction, in that leaders and followers influence each other mutually (see Figure 1.2).



*Figure 1.2.* The process of transactional leadership.

Transactional leadership works according to the principle of reciprocal reinforcement. Depending on the behavior, positive or negative consequences are to be expected. Further, the concept of transactional leadership starts out from the assumption of a balance of give-and-take and foresees a stable exchange relationship.

Bass (1985) differentiates three components of transactional leadership. *Contingent Reward*: Leaders clarify expectations and set the goals. They give rewards to employees if they fulfill the requirements according to expectations. *Management by Exception active*: The leaders actively monitor adherence to the rules and instructions and the correct course of the company processes. *Management by Exception passive*: The leaders wait passively and intervene as necessary when problems or mistakes occur.

### *Transformational Leadership*

In contrast to transactional leadership, transformational leadership does not posit a state of balance between give and take. Instead, Bass (1985) assumes that



with this style of leadership, followers will be willing to achieve more than what is expected of them.

Transformational leadership addresses subordinates' values, motives, and goals and can have a positive effect on them. Transformational leaders inspire followers to transcend short-term and egoistic goals and shift their goals to long-term and overarching values and ideals.

The transformational leadership style can be described by the "four I's" (Bass, 1985). *Idealized Influence* is defined as the role model function of leaders, which causes followers to develop admiration, respect, and trust for them. Followers try to emulate the behavior of their leaders and identify with them. *Inspirational Motivation*: The leaders are convinced visionaries. They fire their subordinates with enthusiasm for new challenges and arouse in them hope, trust, and confidence in the future. *Intellectual Stimulation*: The leaders support and encourage followers' creativity and innovative thinking. Followers are stimulated to reframe problems and try out new solution approaches. *Individualized Consideration*: Leaders support their followers taking into consideration their needs and motives. Central to this leadership component is the leader's consideration of employees as individuals.

### *Success Measures*

In addition to the components of transactional and transformational leadership, Bass (1985) postulated three subjective elements that mark successful leadership: voluntary willingness of the subordinate for higher levels of performance (*Extra*

*Effort*), satisfaction with the leader (*Satisfaction*), and effectiveness of the leader as perceived by subordinates (*Effectiveness*).

#### *Augmentation Effect*

The augmentation effect is understood in statistical terms to be the additional variance in leadership success that can be explained by transactional leadership. Bass (1998) states: “transformational leadership styles build on the transactional base in contributing to the extra effort and performance of followers” (p. 5). Consequently, transformational leadership styles should predict higher scores on the success measures than transactional leadership components do.

The augmentation effect has been verified in most investigations (Geyer & Steyrer, 1998; Howell & Avolio, 1993; Judge & Piccolo; 2004; Lowe, Kroeck, & Sivasubramaniam, 1996).

#### *Full Range of Leadership*

Despite the clear theoretical delimitation of the individual leadership behavior dimensions, Bass and Avolio (1994) assume that also transformational leaders show transactional leadership behaviors at times. What is decisive is the weighting of the individual leadership components. An optimal leadership style is characterized by a clearly higher level of transformational components than transactional behaviors (Felfe, 2003). Howell and Avolio (1993) even state that transformational leadership is not possible without the basis of transactional leadership. Judge and Piccolo (2004) point to this as well by explaining the actual meaning of the term augmentation as amplification or extension. Here the implicit

assumption is that there must first exist something to amplify or extend, or in other words, there must first exist the transactional leadership portion (Avolio, 1999).

All of the different styles and behaviors together make up the full range of leadership according to Bass and Avolio (1994), which is complemented by the element *laissez-faire*, which is passive behavior and avoidance of leadership. In the optimal case, leaders do not practice *laissez-faire* (Bass & Avolio, 1994).

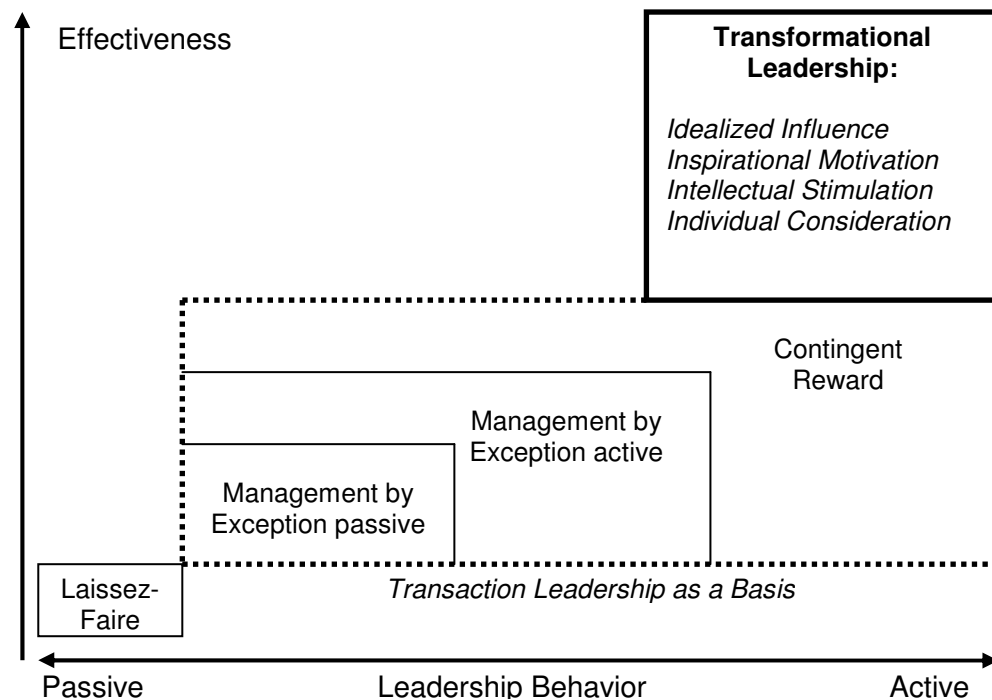


Figure 1.3. Full range of leadership.

### Context

In a number of investigations, researchers have pointed out that the influence of context must not be neglected (Bass, 1999; Bass, Avolio, Jung, & Berson, 2003; Hinkin & Tracey, 1999). The supposition is that a complex and uncertain context

is favorable to outstanding leadership (De Hoogh et al., 2004; Felfe, 2003; Levay, 2010; Waldman, Ramirez, House, & Puranam, 2001; Pawar & Eastman, 1997). Yukl (1999) assumes that outstanding leadership appears especially under unstructured conditions, and Mumford et al. (2008) state that change is a central prerequisite for outstanding leadership.

In addition, the hierarchical structure of an organization was found to have an influence (Fuller et al., 1996; Lowe et al. 1996). Higher values for transformational leadership were found on lower levels of hierarchy.

### **Transformational Leadership and Charisma**

When the concept of transformational leadership was initially developed, charisma was a central component (Felfe, 2003). Bass and Avolio (1990) then replaced the term with *Idealized Influence*. Following Bass and Avolio, charisma is a necessary but not sufficient condition for transformational leadership (Felfe, 2003). Here Bass's (1985) considerations were based on the ability that is characteristic of charismatic leaders, namely, the ability to have subordinates form a strong emotional attachment to them. However, this emotional attachment alone is no guarantee for transformation of the subordinates' needs and level of aspirations.

A further and fundamental difference between charismatic leadership and transformational leadership concerns the research approach. In contrast to trait theory concepts following Weber (1947), Bass and Avolio (1990) base their approach on concrete and observable behaviors. Further, different shades or

gradations are allowed in the area of transformational leadership, and it is thus assumed that transformational leadership can be learned and trained.

A different view is taken by, for example, House and Shamir (1993), Hunt and Conger (1999), and Schyns, Felfe and Blank (2007), who use the two terms charismatic leadership and transformational leadership synonymously, due to the great similarity and overlapping. Rowold and Heinitz (2007) state, “both transformational leaders and charismatic leaders are agents of change” (p. 122), and Mumford, Antes, Coughron, and Friedrich (2008) point out that transformational and charismatic leadership theories “share a common core” (p. 145). House and Podsakoff (1994) call the difference between the two terms “minor” and a matter of “fine tuning” (p. 71). In this dissertation I use the two terms synonymously.

### **Multifactor Leadership Questionnaire (MLQ)**

The first measuring instrument to capture transformational leadership goes back to the originator of the concept of transformational leadership, Bass (1985). Since then, however, the Multifactor Leadership Questionnaire (MLQ) has been modified several times through the years (Bass, 1985; Bass, 1995; Bass & Avolio, 1995) and translated into a number of languages (see Felfe & Goihl, 2002). In the most recent version, the MLQ Form 5X Short questionnaire (Bass & Avolio, 1995), the nine leadership components (Idealized Influence attributed, Idealized Influence behavior, Inspirational Motivation, Intellectual Stimulation, Individualized Consideration, Contingent Reward, Management by Exception

active, Management by Exception passive, Laissez-Faire) are represented by 4-item scales.

The questionnaire is usually filled out by subordinates, who rate the leadership style of their leaders. But there is also a self-rating version (“self form”) of the MLQ (on this, see Felfe, Tartler, & Liepmann, 2004).

Despite various still unresolved problems, the MLQ is today acknowledged to be the most widely used and validated measuring instrument for transformational leadership (Bass & Avolio, 1989; Bass & Avolio, 1995; Bass, 1999, Felfe, 2006).

There have been criticisms of the MLQ, particularly with regard to the conceptual assignment of the leadership dimension Contingent Reward (CR) (Goodwin, Wofford, & Whittington, 2001; Judge & Piccolo, 2004). The high correlations of this scale to the other transformational scales as well as the high loadings of the items on transformational factors indicate that CR belongs to transformational leadership, even though conceptually CR lies at the heart of the transactional leadership.

Especially in Europe, replication of the factor structure seems problematic (Felfe, 2006). For this reason, many researchers modified the originally postulated factor structure (Awamleh & Gardner, 1999; Den Hartog, v. Muijenm, & Koopman, 1997; Geyer & Steyrer, 1994) or used shortened scales (Hinkin & Tracey, 1999; Heinitz, Liepmann, & Felfe, 2005). But also these variants can rarely be replicated (Felfe, 2006). It seems that the research on this has stagnated at present (Felfe, 2006; Leu, 2009).

It has also been viewed critically that not all items on the MLQ represent exclusively observable behaviors (Judge & Bono, 2000). Although one of the

central components of transformational leadership, charisma, was renamed *Idealized Influence* and describes for the most part role model behaviors, the origin of this behavior remains unclear (Judge & Bono, 2000).

Pointing in the same direction are the items on a scale called *Appeal*, which was added to the German language version of the MLQ 5X Short (Felfe & Goihl, 2002). *Appeal* describes the ability of the leader to appear fascinating and to radiate something special, but it does not describe a specific behavior.

It therefore appears that there could be further behaviors that characterize a transformational leadership style (Felfe, 2003). These characteristics could possibly be found in the area of nonverbal behavior (Cherulnik, Donley, Wiewel, & Miller, 2001; Schyns & Moor, 2004). For this reason, Berson, Shamir, Avolio, and Popper (2001) proposed the use of qualitative research approaches such as observation and interviews.

### **Nonverbal Behavior and Transformational Leadership**

The theory of nonverbal communication looks back on a long tradition: In *De Oratore*, "On the Orator," a treatment of rhetorical doctrine and the orator, Cicero (55 B.C.) wrote: *Imago animi vultus* [The countenance is the portrait of the soul], holding the theory that feelings and moods can be expressed without words and be perceived by others.

In Europe, research on body language goes back to the eighteenth century and Johann Kaspar Lavater, a Protestant pastor in Zurich, who claimed in *Physiognomische Fragmente zur Beförderung der Menschenkenntnis und*

*Menschenliebe* (1775-1778; *Essays on Physiognomy*) that character could be read in the human face.

A scientifically tenable approach was Darwin's *The Expression of the Emotions in Man and Animals* (1872), in which Darwin demonstrated that people of all ages and races show outstanding parallels in the way they express emotions (Friedman, Prince, Riggio, & DiMatteo, 1980).

The importance of nonverbal communication is undisputed in the social psychology literature (see Argyle, 1967; Ekman & Friesen, 1975). Watzlawick, Beavin and Jackson (1996) even claim that at the nonverbal level it is not possible to *not* communicate. Here nonverbal communication comprises usually facial expressions and body language, whereby the following main communication channels are differentiated: auditory (for example, variation in voice frequency), visual (facial expressions and gestures), tactile (skin contact), and olfactory (body odor). Argyle (1979) named some significant functions of nonverbal communication: (a) expression of emotions and attitudes, (b) self-presentation of one's personality, and (c) to accompany verbal communication (p. 105). Ekman and Friesen (1975) showed that especially emotions are communicated more often nonverbally than verbally.

### *Facial Expressions and Gestures*

The face is generally viewed as the most important channel for the expression of emotions (Ekman, 1993; Harrigan & Taing, 1997). Here, the smile in particular is a central component (Cherulnik et al. 2001; Ekman, 1993). In the area of leadership research Awamleh and Gardner (1999) and Cherulnik et al. (2001)



showed that leaders perceived as charismatic smiled more frequently than non-charismatic leaders. Recent investigations studied not only the quantitative aspect (number) of smiles but also quality and intention (Ambadar, Cohn, & Reed, 2009; Forgas & East, 2008)

Body movements are another core element of nonverbal communication (Gullberg & Kita, 2009). Like the facial expressions, body movements can express emotions (Coulson, 2004), especially at distances where the recognition of emotion from facial expressions is not possible.

A recent study by Casasanto and Dijkstra (2010) provided evidence of the association between body movements and (one's own) positive or negative emotions. In these experiments, participants retrieved memories of a positive event much more quickly when they carried out a simple motor action in an upward direction. They retrieved memories of events with a negative valence faster when they carried out a simple motor action in a downward direction.

According to Mio, Riggio, Levi, and Reese (2005), many aspects of charisma are connected with emotional expressiveness. Charismatic leaders succeed at conveying emotions using dynamic movements and gestures (Friedman et al., 1980) and through this are perceived by others as effective and convincing (Awamleh & Gardner, 1999).

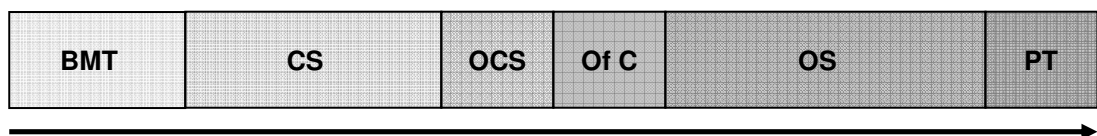
### **Goal of this Dissertation**

Based on research findings, this dissertation examines the question as to whether and to what extent transformational leadership is found in the Swiss

Armed Forces and whether in this context the positive effects of a transformational style of leadership can be shown (Chapter 2).

In chapter 3 the focus is on nonverbal communication in connection with transformational leadership. Here I investigate whether there are certain nonverbal characteristics (facial expressions and gestures) that (a) indicate a transformational style of leadership, and (b) influence the association of leadership style and leader effectiveness.

This dissertation project is designed as a field study: Officer cadets were filmed while making presentations in the context of an officer candidate selection assessment (KBII) at the recruitment centers Rütli ZH and Windisch, and the video recordings were scored for smiles and gestures. After this officer candidate selection assessment, the officer cadets started their officer acquisition training as planned. At the end of the officer's training (see figure 1.4) during practical service, recruits rated the same officer cadets' leadership style and leadership success on the German language version of the MLQ 5X Short.



*Figure 1.4.* Officer training 2005.

(BMT = Basic Military Training [7 weeks], CS = Candidate School [10 weeks], OCS = Officer Candidate School [5 weeks], Of C = Officer Course [4 weeks], OS = Officer School [15 weeks], PT = Practical Training in a recruit school [6 – 9 weeks])

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# 2

Swiss Armed Forces Militia System:  
Effect of Transformational Leadership  
on Subordinates' Extra Effort and the  
Moderating Role of Command Structure

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### Abstract

This study examines the effects of transformational leadership on subordinates' extra effort in the unique case of the Swiss Armed Forces' militia system. The transformational leadership style of 201 superiors who were perceived as outstanding was examined in a first study using the German version of the Multifactor Leadership Questionnaire (MLQ-5X). Relationships of transformational leadership with subordinates' extra effort were found to be differentially moderated by "command structure" depending on whether the subordinates were militia personnel or military professionals. For military professionals, all components of transformational leadership on the part of lower-ranking superiors had a positive effect on subordinates' extra effort. For militia personnel, only the interaction between "command structure" and idealized influence increased subordinates' extra effort. A second study of 51 platoon leaders supported the augmentation effect postulated by transformational leadership theory.

**Keywords:** Transformational leadership, command structure, militia system

## Swiss Armed Forces Militia System: Effect of Transformational Leadership on Subordinates' Extra Effort and the Moderating Role of Command Structure

Interest in military leadership research never wanes, because military and leadership components are inseparably linked (Wong, Bliese, & McGurk, 2003). Although it was recently pointed out that empirical studies extending leadership research to other cultures, countries, and organizational contexts are needed (Rowold & Heinitz, 2007), so far no study has examined the role of transformational leadership in the Swiss Armed Forces.

The Swiss Armed Forces [Schweizer Armee] are organized as a classic militia system [Milizsystem] with universal male conscription [Militärdienstpflicht] and therefore differ from all-volunteer armies, such as the frequently studied U.S. Army (e.g., Wong et al. 2003). For this reason, the unique military system of the Swiss Armed Forces appears to be a new leadership research area.

In Europe, the concept of transformational leadership became a topic only recently. Whereas leadership research has been booming in North America since the 1980s, especially research based on the work of Bass (1985) and Conger and Kanungo (1987), it has only been an active research area in Europe for the last 15 years. Transformational leadership has been studied exploratively mainly in connection with personality characteristics (House & Howell, 1992), organizational commitment (Avolio, Zhu, Koh, & Bhatia, 2004), and organizational citizenship behavior (Felfe, 2003). Compared to North American research, European research looked at the negative consequences of

transformational leadership much more critically (Hentze & Kammel, 1996). Things seem to have calmed down in this area of research. The latest studies in North America and Europe examine the transferability of previous findings, make recommendations for future research, and provide general overviews based on meta-analyses (Judge & Piccolo, 2004) and reviews (Hannah, Avolio, Luthans, & Harms, 2008; Hunter, Bedell-Avers, & Mumford, 2007; Judge, Fluegge, Woolf, Hurst, & Livingston, 2006). A majority of the studies examine the influence of transformational leadership on team performance (Bass, Avolio, Jung, & Berson, 2003; Mumford, Antes, Caughron, & Friedrich, 2008) or efficiency, or effectiveness (Hannah et al., 2008). Willingness to voluntarily perform beyond expectations has been the focus of research and most often in connection with three subjective measures of success postulated by Bass (1985): *extra effort*, *satisfaction* with leadership, and perceived leader *effectiveness*.

### Key Organizational Characteristics

#### *Militia System*

As Wong et al. (2003, p. 659) noted for the U.S. Army: “The military is far from the monolithic society often held in stereotypes.” This is especially true of the Swiss Armed Forces. In accordance with the Federal Constitution of the Swiss Confederation, the Swiss Armed Forces are organized as a militia. This means that every Swiss male is required to do military service. After receiving their assignments, the men are trained and must participate in periodic refresher courses [Wiederholungskurse] to update their know-how. As a rule, a militia provides its own training (Annen, 2004), that is, part of the basic military training

[Rekrutenschule] and the refresher courses are conducted mainly by militia instructors or trainers.

Among European countries, Switzerland's Armed Forces come the closest to a genuine militia system, based on the relatively small percentage of professional and regular soldiers (about 3%). Countries like Austria, Finland, and Sweden have systems similar to a militia or mixed army systems (Klein, 1999).

### *Change*

An important element in leadership research is change. Conditions of complexity and uncertainty favor transformational leadership (Bass, 1999; Hinkin & Tracey, 1999). According to Mumford et al. (2008), change creates conditions in which outstanding leadership is able to emerge. Changes in the technical, economic, and social political environment have also affected the Swiss Armed Forces (Haltiner, 1999). For one, there has been constant change in the security policy situation since the end of the Cold War. Under the current world political conditions it is difficult to set distinct focuses in the range of tasks of the Swiss Armed Forces. According to an article in the newspaper *Neue Zürcher Zeitung* (Fuhrer, 2000), short-term shifts of emphasis in the army's role dictated by certain individual events lead to increased uncertainty among Armed Forces personnel. For another, the European states with militia-like systems are moving away from universal compulsory military service [Militärdienstpflicht] and professionalizing their armed forces. This has made the fundamental question as to whether Switzerland should retain universal compulsory military service, and militia system in general, a constant topic in political debates (Haltiner, 1999).

Within the Swiss Armed Forces, the change can be seen in the form of reforms. The Armed Forces XXI reform project to restructure the army went into effect in 2004, but not all of the changes have been implemented. Today, five years after the Armed Forces XXI restructuring policy went into effect, discussion about the fundamental task of the army has not subsided. For military personnel, there is great uncertainty about the tasks the Swiss Armed Forces are supposed to perform.

### *Transformational Leadership*

In the context of the debates on the Armed Forces XXI restructuring of the Swiss army, Swiss politicians demanded that the Swiss Armed Forces take on a credible and authentic face in order to strengthen the militia system so that many military personnel would be increasingly willing to voluntarily put in more effort than required by the law (Fuhrer, 2000). This demand corresponds exactly with Bass' (1985) concept of leadership called "performance beyond expectations." Accordingly, Swiss Armed Forces superiors are supposed to strengthen the militia system through outstanding leadership, that is, by engaging and motivating their subordinates to perform beyond expectations. By definition, transformational leadership is leadership designed to motivate subordinates to exceed expectations. Specifically, transformational leaders communicate a clear vision, inspire commitment to that vision, and engender trust and motivation from their subordinates.

Bass' (1985) concept of transformational leadership comes from the United States. Nonetheless, in the last twenty years, the concept has been used in various countries and contexts (mostly organizations, but also in military samples) and

validated (Felfe, 2006b); it is held to be context-free (Felfe, Tartler, & Liepmann, 2004).

Bass (1985) differentiated between transformational and transactional leadership. Transactional leaders engage followers in a relationship of fair and mutual exchange, and goals are achieved through control. In contrast, transformational leaders increase followers' motivation and willingness to perform because they are able to shift, or "transform," their followers' needs, values, and attitudes. Followers are thereby induced to do more than what is expected of them. The two styles of leadership are not mutually exclusive but instead, and in the sense of a "full range of leadership," complementary and can be adapted to the situation. They consist of more or less different components. Bass named the Four I's of transformational leadership as follows: (1) *Idealized influence*: leaders are role models for their followers regarding knowledge and ethics/morals and in this way gain the trust and respect of their followers; (2) *Inspirational motivation*: leaders convincingly convey shared visions and meaning through which followers gain hope and confidence; (3) *Intellectual stimulation*: leaders stimulate followers to innovate and question assumptions and encourage them to bring in new solutions; and (4) *Individualized consideration*: leaders foster their followers systematically and personally, acting as coach or mentor.

In contrast, transactional leadership is characterized by more pragmatic rather than extraordinary behaviors: (1) *Contingent reward*: describes the fair and constructive exchange between leader and subordinate. The leader sets the goals that are to be achieved and rewards subordinates who achieve their goals (contingent reinforcement). Followers do exactly what is expected of them; (2)

*Management by exception active*: the leader actively looks for deviations in order to avoid errors and problems; (3) *Management by exception passive*: the leader intervenes only if problems become acute; and (4) *Laissez-faire*: this last component refers to non-leadership, characterized by passivity. The leader largely foregoes leading and exerting influence.

Additionally, Bass (1985) defined three success criteria of leadership: (1) subordinates' *satisfaction* with the leadership, (2) the perceived *effectiveness* of the leader and (3) subordinates' willingness to over-perform (termed "*extra effort*").

This willingness of subordinates to voluntarily put in more effort as addressed in the previously mentioned political discussions is called the *augmentation effect* in the literature on the concept of transformational leadership (Bass, 1985). Bass (1998) defined the augmentation effect as the extent to which "transformational leadership styles build on the transactional base in contributing to the extra effort and performance of followers" (p. 5). Transformational leadership should account for unique variance in the explanation of *extra effort*, *effectiveness*, and *satisfaction*, as shown in Lowe, Kroeck, and Sivasubramaniam's meta-analysis (1996). To test this voluntary willingness to perform beyond expectations under transformational leadership, I propose the following hypothesis:

*Hypothesis 1*: Subordinates put in more extra effort under transformational leadership than under transactional leadership.

Wong et al. (2003) suggested that the military consists of a diverse collection of organizations, roles, cultures, and people (cf. the Departments of the Army, Navy, and Air Force in the U.S. military). Each department has its own culture and hence its own unique aspects of leadership. The Swiss Armed Forces are basically

composed of the following organizational units and services: *Headquarters* [Hauptquartier] (Armed Forces Staff [Armeestab] and Armed Forces Joint Staff [Führungsstab der Armee]), *Land Forces* [Teilstreitkraft Heer] (infantry [Infanterie] and mountain infantry [Gebirgsinfanterie], armored corps [Panzertruppen] and artillery [Artillerie], engineer/rescue [Genie-/Rettungstruppen], and military security [Militärische Sicherheit]), *Air Force* [Luftwaffe] (aircrew [Fliegertruppen], air defense [Fliegerabwehrtruppen], and command support [Führungsunterstützung]), and the *Armed Forces College* [Höhere Kadernschule der Armee]. The support units are the *Armed Forces Logistics Organisation* [Logistikbasis der Armee] and the *Armed Forces Command Support Organisation* [Führungsunterstützungsbasis], which may also differ in their leadership cultures along the lines of Wong et al.'s findings.

However, there are serious doubts as to the comparability of the Swiss Armed Forces, with its unique militia system, and other Armed Forces, particularly with regard to system (i.e., U.S. Army) and sense of purpose (i.e., Armed Forces of Israel). This led me to the following research question instead of hypothesis: Do the profiles of transformational leadership differ in various organizational units of the Armed Forces and with respect to military personnel's affiliation?

*Proposition 2a:* The profiles of transformational leadership are different in various organizational units of the Armed Forces.

*Proposition 2b:* Militia personnel and military professionals are rated differently on transformational leadership.



*Proposition 2c:* Militia personnel and military professionals are rated differently on transformational leadership in various organizational units of the Armed Forces.

Further, some studies show that hierarchical level influences leadership behavior (Avolio et al., 2004; Felfe, 2006a). Oshagbemi and Gill (2004) argued that transformational leadership is more frequent at higher than at lower hierarchical levels. Bass and Avolio (1995) supported this argument, but specified that the effectiveness of transformational leadership is the same at all hierarchical levels. Additionally, Lowe et al. (1996) found that higher-level leaders used transformational leadership more frequently.

With regard to the individual transformational leadership components, Bruch and Walter (2007) found idealized influence and inspirational motivation more often at higher hierarchical levels.

Furthermore, Felfe (2003, 2006a) found that the hierarchical level had an influence on both the quality (level) of leadership components and the strength of the associations with measures of success. Based on meta-analyses, Fuller, Patterson, Hester, and Stringer (1996) and Lowe et al. (1996) examined the effects of hierarchical level on leadership success criteria. Fuller et al. (1996) found stronger associations for high-level leaders with subordinates' performance than for low-level leaders although the differences were not statistically significant. A similar result is presented by Lowe et al.: The association between transformational leadership and effectiveness was found to be stronger on higher than on lower hierarchical levels. The following hypotheses are therefore of interest here:

*Hypothesis 3a:* Transformational leaders are found more frequently at higher than at lower hierarchical levels.

*Hypothesis 3b:* Transformational leaders at the higher hierarchical level are rated higher than transformational leaders at the lower hierarchical level.

*Hypothesis 3c:* The effect of transformational leaders at higher hierarchical levels on subordinates' extra effort is stronger than the effect of transformational leaders at lower hierarchical levels on subordinates' extra effort.

Study 1 explored what characteristics and behaviors are associated with outstanding leadership in the Swiss Armed Forces. In addition, the study examined whether and to what extent transformational leadership in the Swiss Armed Forces differs from that found in previous research and what moderators influence it. Study 2, in which the group of superiors described was not selected for outstanding leadership, investigated the augmentation effect regarding subordinates' extra effort postulated in Hypothesis 1.

## Study 1

### *Method*

#### *Design*

For Study 1, in order to capture outstanding leadership based on the concept of transformational leadership, for a period of 18 months at several leadership training courses (staff training course [Stabslehrgang] II, general staff course [Generalstabslehrgang] I, and leadership course [Führungslehrgang] II), as well as at the Rütli recruitment center, and at the Military Academy at ETH Zurich, I asked military personnel to describe the leadership behavior of a Swiss Armed Forces

superior by filling out a questionnaire. This superior was to have made a lasting impression on them due to his/her special charisma and strong personality. The participants were also told that they needed to have or have had personal report and that they were to describe this specific person's leadership behavior, not charismatic leaders in general. The instrument used for this purpose was the Multifactor Leadership Questionnaire 5X (MLQ 5X) (Bass & Avolio, 1995; adapted and modified German version by Felfe & Goihl, 2002).

### *Sample*

Questionnaires were completed by 247 military personnel; due to missing or implausible answers, 45 questionnaires had to be excluded. Only one person described as an outstanding leader was a woman and had to be excluded due to lack of comparability. The final sample comprised 201 questionnaires describing 201 military personnel; 31.2% of the personnel described were militia personnel, and 68.3% were military professionals. These leaders were from all hierarchical levels of the Swiss Armed Forces, grouped according to the command structure laid down in the military service regulations and as follows: lower commissioned officers [Subalternoffiziere] (the grades First Lieutenant [Oberleutnant] and Second Lieutenant [Leutnant]), captains [Hauptleute] (the grade Captain [Hauptmann]), staff officers [Stabsoffiziere] (the grades Major [Major], Lieutenant Colonel [Oberstleutnant], and Colonel [Oberst]), and general officers [höhere Stabsoffiziere] (the grades Brigadier General [Brigadier], Major General [Divisionär], and Lieutenant General [Korpskommandant]). Most of the superiors described were staff officers (57.7%), followed by general officers (24%), and

lower commissioned officers (10.3%). The smallest group described was that of captains (8%).

As to the branch of the services [Truppengattungen], most of the superiors described were in the infantry (20.9%), followed closely by air crew (18.4%), and artillery/armored corps (13.4%). The remaining superiors described were distributed roughly equally across the rest of the branches of the services in the Swiss Armed Forces. Assignments could not be made for 17.4% of the superiors described, either because the participants could not remember what branch of the services the described superiors belonged to or because the branch of the services no longer exists.

For the analyses, the individual branches of the services were categorized according to organizational unit: Land Forces (39.3%), Air Force (22.9%), Armed Forces Logistics Organization (7.5%), and Headquarters (12.9%).

### *Measures*

*Leadership.* Following Felfe's (2006b) recommendation, leadership behavior was measured using nine components of the German version (Felfe & Goihl, 2002) of the MLQ-5X (Bass & Avolio, 1995). The MLQ is the most extensively validated and commonly used measure of transformational and transactional leadership (Felfe, 2006b; Fuller et al. 1996; Lowe, Kroeck, & Sivasubramaniam, 1996). However, because German and French are the most frequently spoken official languages in Switzerland, the questionnaire was translated into French and back-translated (Brislin, 1980). Felfe and Goihl's five-point Likert response categories were retained (1 = *not at all*, 2 = *once in a while*, 3 = *sometimes*, 4 = *fairly often*, and 5 = *frequently, if not always*). As in previous research (i.e., Felfe

& Schyns, 2006), no distinction between idealized influence *attributed* and idealized influence *behavior* was made. The reliability values for the transformational scales are somewhat low, but according to guidelines by Lienert and Raatz (1998) they are in an acceptable range for group comparisons. The transactional scales Management by Exception active and Management by Exception passive show very low and just sufficient reliability for simple analyses (Cronbach's  $\alpha = .51$  and  $.59$ , respectively). The reliability for the Contingent Reward scale was not sufficient (Cronbach's  $\alpha = .46$ ). Due to range restrictions (only outstanding leadership) alphas and scale intercorrelations may be lower than in other studies. Results by Felfe (2003) and Heinritz, Liepmann, and Felfe (2005) also showed low to partially insufficient reliability for these scales. In accordance with the hypotheses, the analyses reported on the following viewed only the individual components of transformational leadership. No further-reaching analyses in connection with the transactional scales and leadership were performed.

*Performance indicators.* Participants were asked to rate their own voluntary willingness to over-perform using the 4-item Extra Effort scale (Cronbach's  $\alpha = .77$ ), which ranged from 1 = *not at all* to 5 = *frequently, if not always* and is part of the German MLQ-5X (Felfe & Goihl, 2002).

## *Results*

### *Preliminary Analyses*

On all of the transformational leadership scales, the mean values for the superiors in the Swiss Armed Forces perceived to be outstanding leaders were all greater than 4. Transformational superiors in the Swiss Armed Forces were clearly

viewed as role models (Idealized Influence,  $M = 4.25$ ,  $SD = .44$ ). Participants reported that they stand out with their ability to motivate and inspire subordinates (Inspirational Motivation,  $M = 4.30$ ,  $SD = .51$ ).

For these means, ANOVAs showed no differences with regard to sex or age of the subordinates or to age of the superior. ANOVAs also showed that the time of the first encounter with this superior was not statistically relevant with respect to transformational leadership style. In addition, time of the first encounter with the superior was included as a covariate, but remained without influence.

Table 2.1

*Means, Alphas, and Correlations of the Leadership Subscales*

Subscale	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
Study 1 – charismatic leaders ( <i>N</i> = 201)											
1. Idealized Influence	4.25	.44	(.69)								
2. Inspirational Motivation	4.30	.51	.55**	(.67)							
3. Intellectual Stimulation	4.03	.56	.54**	.36**	(.66)						
4. Individualized Consideration	4.09	.56	.49**	.24**	.56**	(.69)					
5. Appeal	4.09	.61	.56**	.38**	.47**	.42**	(.73)				
6. Contingent Reward	4.30	.52	.49**	.47**	.45**	.34**	.31**	(.47)			
7. Management by Exception active	3.12	.56	.17*	-.04	.11	.17*	.03	.27**	(.51)		
8. Management by Exception passive	2.15	.66	-.26**	-.15*	-.18**	-.20**	-.26**	-.12	-.04	(.59)	
9. Extra Effort	4.12	.67	.47**	.37**	.41**	.47**	.61**	.41**	.10	-.18**	(.77)
Study 2 – platoon leaders ( <i>N</i> = 617)											
1. Idealized Influence	3.34	.79	(.87)								
2. Inspirational Motivation	3.55	.75	.74**	(.73)							
3. Intellectual Stimulation	3.23	.78	.79**	.63**	(.80)						
4. Individualized Consideration	3.23	.81	.80**	.63**	.79**	(.77)					
5. Appeal	2.76	1.05	.80**	.62**	.74**	.74**	(.92)				
6. Contingent Reward	3.61	.78	.79**	.72**	.73**	.73**	.70**	(.75)			
7. Management by Exception active	3.32	.61	.33**	.31**	.32**	.29	.21**	.28**	(.51)		
8. Management by Exception passive	2.49	.64	-.32**	-.29**	-.25**	.24**	-.26**	-.29**	-.03	(.56)	
9. Extra Effort	2.92	.94	.73**	.61**	.70**	.70**	.77**	.65**	.23**	-.25**	(.82)

Note. \*  $p \leq .05$  \*\*  $p \leq .01$

### *Hypothesis Tests*

Due to the insufficient reliability of the transactional scales in the sample selected for outstanding leadership, Hypothesis 1 on the augmentation effect was tested in Study 2 (see below).

To test Propositions 2a, 2b, and 2c, an ANOVA was conducted. Following Diehl & Arbinger (1992), in cases in which there was no homogeneity of variances, the more robust Welch's procedure was used instead of the Fisher procedure. The test of Proposition 2a showed that there were no significant differences in the means of the individual leadership components in the different organizational units. Thus, the transformational leadership profiles were not found to differ across all of the organizational units.

As Proposition 2b assumed, military professionals and militia personnel received different transformational leadership ratings. However, this was not the case for all of the leadership components: On the Idealized Influence scale, military professionals received significantly higher ratings for role model function,  $F(1, 198) = 8.31, p < .01$ . They were also rated higher than militia personnel on Appeal  $F(1, 198) = 6.27, p < .05$ . Proposition 2b was therefore supported in part. Military professionals only received different ratings than militia personnel on the Idealized Influence and Appeal scales. There were no differences with respect to other leadership components.

Regarding Proposition 2c, significant interaction effects showed that this leadership style difference between militia personnel and military professionals was not found across all organizational units (Headquarters, Land Forces, Air Force, and Armed Forces Logistics Organization). In the Air Force and the



Headquarters, militia personnel were rated higher than military professionals on Inspirational Motivation,  $F(3, 165) = 4.04, p < .01$ , and Individualized Consideration,  $F(3, 165) = 3.29, p < .05$ . This supports the proposition that militia personnel and military professionals in various organizational units receive different transformational leadership ratings.

Hypothesis 3a postulates that transformational leaders are more likely to be found at higher hierarchical levels. As de facto only military professionals have the grade *general officers* (Brigadier, Major General, and Lieutenant General), the hypothesis was tested separately for militia personnel and military professionals. In both militia personnel  $\chi^2(3, N = 57) = 34.5, p \leq .001$  and military professionals  $\chi^2(3, N = 118) = 99.0, p \leq .001$ , transformational superiors were mostly staff officers and therefore members of the second highest (for military professionals) and highest (for militia personnel) hierarchical levels. Hypothesis 3a was therefore supported for both military professionals and militia personnel.

As for Hypothesis 3b, calculations (ANOVA) were again conducted separately for military professional superiors and militia personnel superiors. Results showed no differences in the transformational leadership profile for militia personnel superiors regarding their hierarchical level. In contrast, military professional superiors at the higher level received higher ratings on Inspirational Stimulation than military professional superiors at the lower level  $F(3, 53) = 3.59, p < .05$ . Other differences in transformational leadership components regarding hierarchical level were not statistically significant. Thus, Hypothesis 3b was not supported for militia personnel. For military professionals, Hypothesis 3b was supported in part.

To test the hypothesis on the moderating factor *command structure*, moderated hierarchical regression analyses were calculated following Aiken and West (1991). The calculations were performed separately for militia personnel subordinates ( $n = 127$ ) and military professional subordinates ( $n = 48$ ).

Moderating effects were found for command structure for military professionals for all interactions of the transformational leadership components (table 2), but not in the hypothesized directions.

Table 2.2

*Results of Moderated Hierarchical Regression for Command Structure (Study 1)*

Military professionals		Extra effort		
		$\beta$	$R^2$	$\Delta R$
Step 1 (Independent):	Idealized Influence (II)	.64***	.41	.41***
Step 2 (Moderator):	Idealized Influence	.60***	.44	.03
	Command Structure	.18		
Step 3 (Interaction):	Idealized Influence	.46***	.53	.09**
	Command Structure	.12		
	Command Structure x II	-.39**		
Step 1 (Independent):	Inspirational Motivation (IM)	.32***	.10	.10*
Step 2 (Moderator):	Inspirational Motivation	.26***	.15	.05
	Command Structure	.23		
Step 3 (Interaction):	Inspirational Motivation	.32***	.30	.15**
	Command Structure	.16		
	Command Structure x IM	-.40**		
Step 1 (Independent):	Intellectual Stimulation (IS)	.60***	.36	.36***
Step 2 (Moderator):	Intellectual Stimulation	.56***	.38	.02
	Command Structure	.15		
Step 3 (Interaction):	Intellectual Stimulation	.48***	.47	.09**
	Command Structure	.02		
	Command Structure x IS	-.35**		

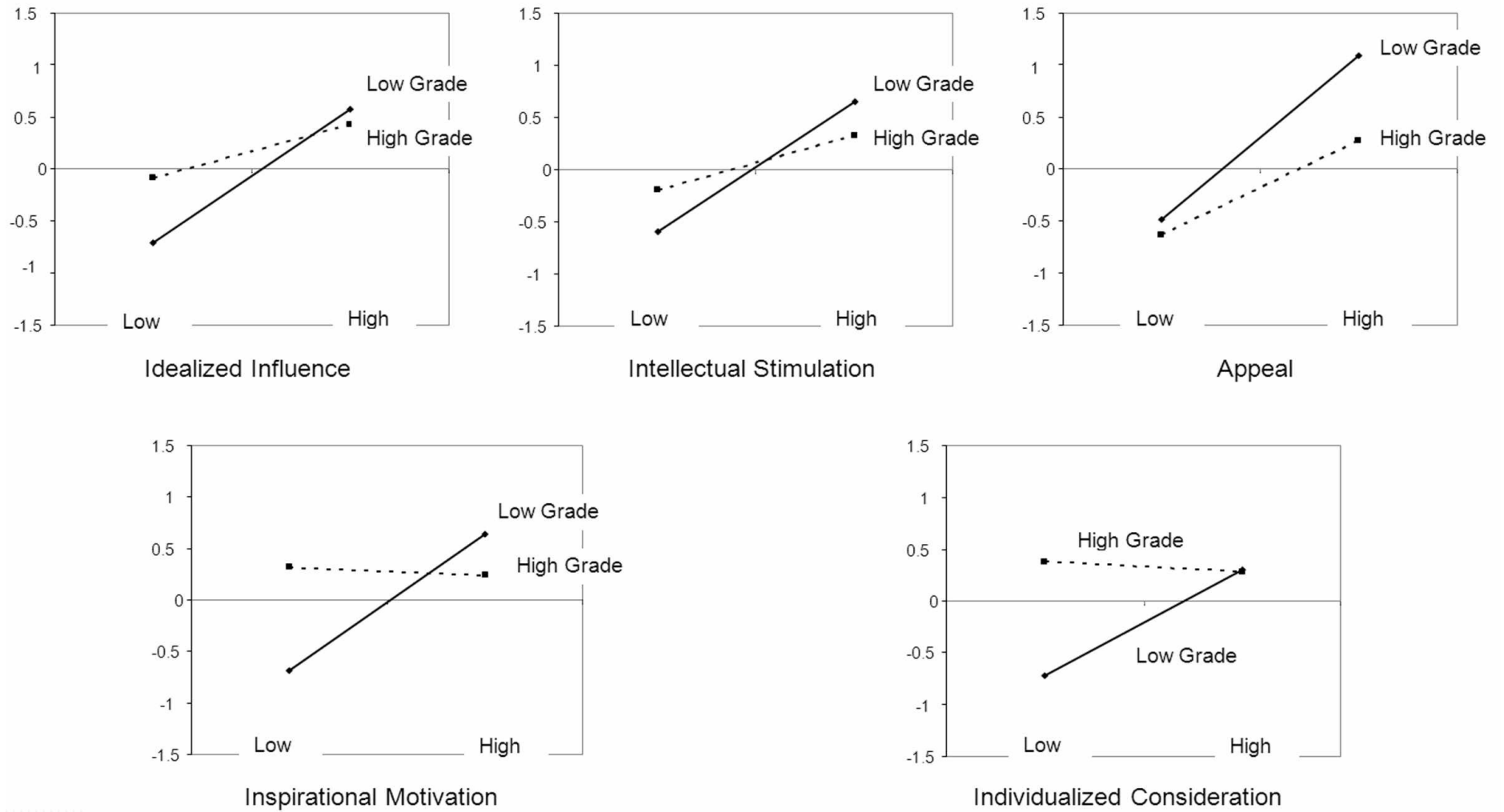
Table 2.2 (continued)

Military professionals		Extra effort		
		$\beta$	$R^2$	$\Delta R$
Step 1 (Independent):	Individualized Consideration (IC)	.45***	.20	.20***
Step 2 (Moderator):	Individualized Consideration	.41**	.25	.05
	Command Structure	.22		
Step 3 (Interaction):	Individualized Consideration	.28	.37	.12**
	Command Structure	.32*		
	Command Structure x IC	-.38**		
Step 1 (Independent):	Appeal (AUS)	.74***	.55	.55***
Step 2 (Moderator):	Appeal	.79***	.56	.01
	Command Structure	-.10		
Step 3 (Interaction):	Appeal	.65***	.62	.06*
	Command Structure	-.25*		
	Command Structure x AUS	-.35*		

Notes.  $N = 48$  , \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

Figure 2.1 shows a moderating effect for all of the transformational leadership components, but contrary to the hypothesis subordinates showed more extra effort for superiors at the lower hierarchical level than for superiors at the higher level. Although the regression lines' direction tends to indicate that Inspirational Motivation and Individualized Consideration were negatively related to subordinates' extra effort for high-ranked superiors, simple slope analyses do not confirm the regression lines' difference from zero.

Figure 2.1. Military professionals' extra effort moderated by command structure and charismatic leadership components



For militia personnel, only the interaction between moderator command structure and Idealized Influence resulted in a statistically higher willingness to put in extra effort ( $\beta = -.16, p \leq .05$ ). Contrary to the hypothesis, subordinates showed more extra effort for leaders at the lower than for leaders at the higher hierarchical level. The results did not support Hypothesis 3c for professional personnel or for militia personnel.

## Study 2

### *Method*

The data collected in Study 1 served mainly to capture transformational leadership within the leadership culture of the Swiss Armed Forces. Due to this sample constraint (only outstanding leadership), the reliabilities of the transactional scales in particular were too low to allow valid general statements to be made. In order to test whether the transformational leadership components result in more extra effort on the part of subordinates as compared to the transactional leadership style, Study 2 investigated platoon leaders [Zugführer] with respect to leadership style and measures of success.

### *Design*

The leadership style of various platoon leaders was examined at the end of their practical service [praktischer Dienst] during their one-year officer candidate school [Offiziersschule]. For this, the study participants (subordinates) were asked to describe their platoon leader's leadership behavior using a questionnaire. As in Study 1, the questionnaire used was the German version of the MLQ-5X (Felfe & Goihl, 2002).

In the research on transformational leadership, aggregation is a common procedure. For the present study, however, aggregated data were disadvantageous: The hypothesis concerned voluntary extra effort on the part of the individual subordinate and not the platoon. Aggregated data would hide variance within platoons. Following the argumentation and procedure suggested by Dvir, Eden, Avolio, and Shamir (2002), the data were therefore not aggregated.

### *Sample*

The leadership style of 51 platoon leaders was rated. There are 10 to 20 soldiers in a platoon on average. Of 636 questionnaires, 617 ratings were included in the study. The platoon leaders completed their practical service in various branches of the service, categorized as in Study 1: Land Forces (39.2%), Air Force (51%), and Armed Forces Logistics Organization (9.8%). All platoon leaders are members of the militia.

### *Measures*

*Leadership.* As in Study 1 above, leadership behavior was measured using nine components of the German version of the MLQ (Felfe & Goihl, 2002), and again no distinction was made between idealized influence *attributed* and idealized influence *behavior*. As compared to the sample selected for outstanding leadership, the transformational leadership scales showed much higher reliabilities (Table 1). Once again, the transactional scales Management by Exception active and Management by Exception passive showed only minimally sufficient reliability values (Cronbach's  $\alpha = .51$  and  $.56$ , respectively) for simple evaluations.

*Performance indicators.* Subordinates again rated their own voluntary willingness to over-perform: Extra Effort (Cronbach's  $\alpha = .82$ ). This scale is from

the German version of the MLQ-5X (Felfe & Goihl, 2002) and ranged from 1 = *not at all* to 5 = *frequently, if not always*.

## *Results*

### *Preliminary Analyses*

A confirmatory factor analysis using AMOS 17 did not indicate satisfactory model fit of the eight leadership dimensions. However, the fit indices only narrowly failed to meet the cut-off criteria: goodness of fit (GFI) = .84, adjusted goodness of fit (AGFI) = .82 and root mean square error of approximation (RMSEA) = .06.

Because of this slight deviation from the recommended cut-off indices and following Felfe (2006b), who suggested the complete factor model to ensure further comparability, I continued analyses based on the single leadership dimensions.

As Table 2.1 shows, the platoon leaders' mean ratings on the transformational leadership scales and the Contingent Reward scale were about one scale point lower than the mean ratings in Study 1, which explicitly asked about outstanding leadership style.

It is conspicuous that the mean ratings on the transactional scale Management by Exception active ( $M = 3.32$ ,  $SD = .61$ ) were similar to those on the transformational leadership components. Appeal was hardly attributed to the platoon leaders by the subordinates ( $M = 2.76$ ,  $SD = 1.05$ ), making it an exceptional characteristic as expected (Felfe & Goihl, 2002). This leadership

profile appears to be a general pattern in platoon leaders at this stage of their training: ANOVA revealed no differences among different branches of service.

### *Hypothesis Test*

In order to test Hypothesis 1, a hierarchical regression analysis was conducted to assess the impact of different leadership styles on subordinates' extra effort. Based on the theoretical concept developed by Bass (1985), transactional leadership was entered in the first step. In the second step, the different transformational leadership styles and the Appeal scale were included (Felfe & Goihl, 2002). The results presented in Table 3 indicate that transformational leadership scales predict a significant increase in extra effort ( $\Delta R = .22, p \leq .001$ ). The leadership components Intellectual Stimulation ( $\beta = .15$ ) and especially Appeal ( $\beta = .42$ ) were the most important components. This fully supports the hypothesis on augmentation of the transformational leadership components as was also the case in most of the previous studies.



Table 2.3

*Results of Hierarchical Regression Analyses for Augmentation (Study 2)*

Variables	Extra Effort	
	$\beta$	$\Delta R$
Step 1		.43***
Contingent Reward	.61***	
Management by Exception active	.06	
Management by Exception passive	-.07*	
Step 2		.22***
Contingent Reward	.01	
Management by Exception active	.00	
Management by Exception passive	-.01	
Idealized Influence	.10	
Inspirational Motivation	.01*	
Intellectual Stimulation	.15**	
Individualized Consideration	.12**	
Appeal	.42***	
Total $R^2$	.65	

Note.  $N = 617$ . \*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$

## Discussion

This investigation looked at the influence of transformational leadership on subordinates' voluntary extra effort within the unique militia system of the Swiss Armed Forces. As for extra effort, the conceptually postulated augmentation effect (Bass, 1985) was also found in the Swiss Armed Forces at the platoon [Zug] level. Transformational leaders were found more frequently at higher hierarchical levels. The transformational leadership profile seems to be general in nature: Differences relating to organizational units became evident only when differences between

militia personnel and military professionals were considered. The distinction between militia personnel and military professionals was also relevant with regard to the influence of the moderator “command structure”: The moderator “command structure” influenced military professionals’ Extra Effort in interaction with all transformational leadership components, but it only influenced militia personnel’s Extra Effort in interaction with Idealized Influence.

### *Implications*

Although there is evidence that leadership styles (transformational and transactional) and personality share a certain amount of variation at the genetic level (Johnson, Vernon, Harris, & Jang, 2004), this does not necessarily mean that good leaders cannot be trained (Judge et al., 2006). Data collection for Study 2 revealed that many commanding officers at the recruit training centers are concerned about developments regarding the quality and quantity of the next generation of cadres. To continue to guarantee sufficient cadres, leaders are needed who can convey the goals and mission of the Swiss Armed Forces, especially to militia personnel, convincingly and in a visionary way. Felfe (2003) demonstrated empirically that this can be accomplished through a transformational style of leadership. There is also empirical evidence showing that transformational leadership can be successfully trained (Dvir et al., 2002; Frese, Beimeel, & Schoenborn, 2003). Therefore, it would also be advisable in the Swiss Armed Forces to include the concept and training of transformational leadership in officer training, especially for militia personnel.

Moreover, the findings showed that general applicability of leadership outcomes within the Swiss Armed Forces cannot be assumed and that differences between professional and militia personnel must always be considered.

#### *Future Directions*

As for the measuring instrument, the MLQ basically fulfills its main function of differentiating among the different styles of leadership. As recommended by Felfe (2006b), the theoretically postulated scales were used to ensure a differentiated observation of mean value differences and to provide as much information as possible for future research. However, in a sample selected for outstanding leadership, the behavior items for the superiors described could not be captured sufficiently reliably. This was not a problem with the instrument alone, but a problem with the questionnaire method in general. Franke and Kühlmann (1986) pointed out, for instance, that outstanding leadership must unite inconsistencies, which stands in contradiction to uniform or standard behaviors. In addition, Judge et al. (2006) suspected that charisma, conversely, is necessarily a personal quality that cannot be adequately depicted by means of a behavioral description alone. It is possible that charismatic individuals stand out not only with compelling behaviors or characteristics but also with further characteristics (such as body language) that cannot be tapped this way. This is also indicated by the items on the Appeal scale developed by Felfe and Gohl (2002), which showed an impressive and fascinating effect of transformational leaders but left the question as to how that effect comes about largely unexplained or attribute it to personality.

*Limitations*

The first limitation is the relatively small sample size. Although more than 200 military personnel participated in this study, the separation of the units of analysis into militia personnel and military professionals reduced the sample size considerably. A further limitation of both Studies 1 and 2 is that all variables (leadership style and the success criterion Extra Effort) were measured by the view of the subordinates using the same questionnaire (single source bias and common method variance). This may have resulted in an overestimation of the actual associations (Lowe et al., 1996). However, the Extra Effort scale describes subordinates' voluntary willingness to put in more effort than required and was therefore considered in this study.

Further, I cannot exclude the possibility that despite the explicit instructions given to the respondents (describe a person you know), the results of Study 1 may have been distorted by the respondents' implicit theories (e.g., charisma). Moreover, some of the respondents encountered the people they described up to 20 years previously, and it is possible that later positive and negative judgments may have distorted their memories.

As to hierarchical level, I was not able to reconstruct from the respondents' answers the rank they held when they first encountered the person they described. Using existing research approaches such as structural distance (Avolio et al., 2004), power distance (Schaubroeck, Lam, & Cha, 2007), and especially perceptual distance (Gibson, Cooper, & Conger, 2009), this missing information may have explained the in part surprising moderating results on extra effort with respect to subordinates' affiliation.

### *Conclusion*

The aim of this investigation was twofold. The first point of interest was the influence of transformational leadership on subordinates' extra effort in the unique case of the Swiss Armed Forces militia system. The second aim was to examine the influence of objective moderators like hierarchical level (command structure) on extra effort on the part of militia personnel and military professionals.

Within the different organizational units of the Swiss Armed Forces, a homogenous perception of transformational leadership was found. Some differences were revealed for militia cadre and professional cadre, but they were not consistent across the organizational units. Regarding subordinates' affiliation, the interrelation between subordinates' extra effort and transformational leadership was moderated differently by "command structure."

Whereas the demand for objective criteria for moderators and success criteria in connection with leadership is, of course, justified, the importance of subjective criteria should not be ignored or devalued. The differences regarding subordinates' affiliation could be interpreted better based on subjective data on acceptance of hierarchical differences (i.e., perceptual distance).

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# 3

Attribution of Swiss Armed Forces Officers'  
Transformational Leadership  
Based on Their Nonverbal Behavior

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### Abstract

This study examined whether military officers' body language (smiles and gestures) has an influence on whether the officers are attributed with transformational leadership. To test this, 51 officer cadets of the Swiss Armed Forces were filmed while making 6-minute-long presentations in the context of an officer candidate selection assessment, and the video recordings were scored for facial expressions and gestures. Later, subordinates rated the same officer cadets' leadership behavior on the German language version of the Multifactor Leadership Questionnaire, MLQ-5X Short. The results showed that platoon leaders that were later perceived as showing transformational leadership by subordinates smiled significantly less often during the presentation task. In addition, the officers' smiles moderated the influence of transformational leadership on perceived leader effectiveness. It was also found that as a moderator, intensive use of arm and hand gestures had a negative influence on the effect of transformational leadership on subordinates' willingness to make extra effort.

Charisma, transformational leadership, gestures, facial expressions, smiles

### Attribution of Swiss Armed Forces Officers' Transformational Leadership Based on Their Nonverbal Behavior

Since the 1980s, outstanding leadership has been described using the concepts of charismatic (e.g., Conger & Kanungo, 1998; House, 1977) and/or transformational leadership (Bass, 1985). These (and other) definitions of outstanding leadership have in common that leadership is understood as a process of exerting influence (Yukl, 2002). The process is influenced by characteristics of the leader (e.g., Judge & Bono, 2000), characteristics of the leader in combination with special contexts (e.g., DeHoogh, Den Hartog, & Koopman, 2005), or by concrete behaviors (Bass, 1985).

That competencies in social interaction are emphasized (cf. Hogan & Shelton, 1998) as particular the requirements of a successful leader can be seen in job advertisements or in the assessment criteria used in assessment centers, for instance. These special abilities in the area of social interaction include nonverbal communication (Argyle, 1967; Schyns & Mohr, 2004). In this connection, eye contact, facial expressions, gestures, body movements, and body posture are important and much-studied elements of nonverbal behavior (Hall, Coats, & Smith LeBeau, 2005).

Although studies on outstanding leadership repeatedly pointed out that there are additional behavioral characteristics that can be captured only insufficiently via questionnaires (cf. Berson, Shamir, Avolio, & Popper, 2001; Felfe, 2003; Mio, Riggio, Levin, & Reese, 2005), the role of nonverbal communication has received rather little attention in leadership research up to now (Awamleh & Gardner, 1999;

Schyns & Mohr, 2004). This is all the more surprising in view of the fact that in connection with charisma, nonverbal elements like eye contact, facial expressions, and gestures have been called key factors in successful charismatic leadership (Bass, 1985; Bryman, 1992; Holladay & Coombs, 1994).

The goal of this field study is to examine the effects of leaders' nonverbal communication on their perceived transformational leadership and leadership success.

### *Transformational Leadership*

Although it was developed a quarter of a century ago, the concept of transformational leadership (Bass, 1985) continues to enjoy great popularity. Bass' theory describes outstanding leadership on the basis of concrete behaviors. Transformational leaders motivate their subordinates by serving as role models and by convincingly conveying hopeful visions and goals. Transformational leaders show genuine interest in the well-being and development of their subordinates, attending to and supporting their individual needs (Bass, 1985). The "transformation" in the name of the theory refers to the impact of leadership on subordinates' values and attitudes. Transcendent values and ideals come to supersede short-term goals based on individuals' self-interest. Based on the behavior-oriented approach of the concept, Bass (1985) defined four dimensions of transformational leadership behavior: *Idealized influence* (—*attributed* and —*behavior*) means that leaders serve as a task-related and charismatic role model, through which they gain the respect and trust of their subordinates. *Inspirational motivation* refers to transformational leaders being able to articulate clear visions believably and convincingly; they pass on their own passion and motivation to

subordinates and in this way generate hope and confidence that the goals can be reached. *Intellectual stimulation* involves increasing subordinates' awareness with regard to complex issues. Transformational leaders encourage subordinates to question and challenge status quo approaches and to test new approaches. *Individualized consideration* involves attending to the individual needs of subordinates and supporting them in a coaching or mentoring way.

In contrast, Bass (1985) called the form of leadership that is normally found today transactional leadership. As modeled by Bass, transactional leadership is comprised of the following activities, which are based on the exchange process with subordinates: In *contingent reward*, leaders try to establish a fair exchange relationship with subordinates, setting agreed-upon goals and promising rewards for desired performance. *Management by exception—active* involves active monitoring of processes by the leader in order to prevent deviations and errors. *Management by exception—passive* means that the leader intervenes only when errors or problems demand it.

Avolio and Bass (1991) pointed out that leaders can utilize the full range of leadership. In their opinion, in the optimal style of leadership, transformational leadership behaviors clearly outweigh transactional leadership behaviors.

Many research studies confirmed the positive impact of transformational leadership on leader effectiveness compared to transactional leadership (augmentation effect) (e.g., Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996).

These leadership behaviors and also the subjective measures of leadership success (satisfaction with the leader, leader effectiveness, subordinates'



willingness to perform beyond expectations) are usually measured with the Multifactor Leadership Questionnaire (MLQ), which in its original form was developed by Bass (1985). There have been many further developments of the MLQ (e.g., Awamleh & Gardner, 1999; Heinitz, Liepmann, & Felfe, 2005), and it has been translated into many languages (e.g., Felfe & Goihl, 2002) and validated (Felfe, 2006b). Still, certain disadvantages and limitations of the MLQ in research remain unresolved. The theoretical factor structure can be replicated especially in European countries only rarely (Felfe, 2006b), and particularly the high correlations between the transformational scales and the transactional scale contingent reward are problematic with regard to the underlying concept (Judge & Piccolo, 2004)

In this connection, also Felfe (2003) pointed out that the conceptual distinction between transformational and transactional leadership needs to be demonstrated more clearly. Felfe and Goihl (2002) developed a scale called *Ausstrahlung/emotionale Bindung* [appeal] and included it in the German version of the MLQ-5X, and it has since been shown to be a useful addition (Felfe, 2003), as it in part shows much better values than the original scales. In addition, Felfe (2003) saw a possible route to a solution in the identification of further facets that represent outstanding and unusual behavior. Other researchers (e.g., Beyer, 1999) pointed out that for measuring outstanding leadership the questionnaire method is problematic generally. As the items on the German-language MLQ-5X subscale “appeal” (Felfe & Goihl, 2002) make clearer (example item: “I find his/her personality impressive and fascinating”), outstanding and impressive leadership is characterized by qualities that cannot be described in terms of stringent behaviors

and thus cannot be operationalized unambiguously. It is also conceivable that subordinates can find leaders impressive and fascinating because of their intensive body language (Felfe, 2006a). Cherulnik, Donley, Wiewel, and Miller (2001) showed that the perception of leaders' nonverbal signals is an important factor in perceived charisma. Berson, Shamir, Avolio, and Popper (2001) made a similar supposition, for which reason they proposed the use of qualitative approaches such as observation and interviews for clarification and capturing of outstanding leadership.

This study aimed to examine the relationship between nonverbal behavior and transformational leadership in the context of the Swiss Armed Forces. Here it was important not to fail to consider that nonverbal (leadership) behavior is influenced by various factors, in particular by leaders' individual characteristics and by context factors (Schyns & Mohr, 2004).

#### *Context and Gender*

In accordance with the Federal Constitution of the Swiss Confederation, the Swiss Armed Forces are organized as a militia with universal male conscription (Stadelmann, 2010). This means that every Swiss man – not woman – is required to do military service. Women may serve voluntarily, provided that they fulfill the fitness for military service requirements.

As in most armies, women serving in the Swiss Armed Forces are in the minority. For the year 2009 the newspaper *Basler Zeitung* reported the following percentages: 0.5% women in the militia and 2% women in the regular army (Hunziker, 2009). Despite the small percentages of women, gender differences should not be disregarded, although that is not the main focus of this study.

Traditionally, the army is probably the least suitable career field for women (Finch, 1994). This is particularly because in the army, leadership is seen traditionally as a masculine matter, and it is structured according to a tightly hierarchical system. As Ayman, Korabik, and Morris (2009) point out, “men are more likely than women to view the world in terms of hierarchical relationships” (p. 857). In addition, men having a strong acceptance of hierarchies – which members of the army can be assumed to have – tend to have negative stereotypes of women (Schmid Mast, 2005).

*Leadership and gender differences.* The findings on leadership-related gender differences are very heterogeneous. Morgan (2004) found only small differences in leadership style owing to gender differences in the West Point Class of 1998. But in a meta-analysis, Eagly and Carli (2003) found that in 45 studies women tended to show more transformational leadership than men did. Still, women’s leadership behavior was perceived as less effective as compared to men’s leadership particularly in the military context, especially if the women were in charge of many male subordinates (Eagly & Carli, 2003). This provided confirmation of the not entirely undisputed findings by Dobbins and Platz (1986), who conducted a meta-analysis that indicated that male leaders are rated as more effective than female leaders.

Ayman, Korabik and Morris (2009) examined the influence of the “gender composition of the leader–subordinate dyad on the relationship between leaders’ transformational leadership behavior and their subordinates’ ratings of the leaders’ effectiveness” (p. 852). They discovered that gender moderated the influence of transformational leadership on the perceived effectiveness of leaders. Male

subordinates' ratings of female leaders' effectiveness were significantly less positive than female subordinates' ratings, whereas this difference was not found for male leaders.

For this study I formulated the following hypotheses:

*Hypothesis 1a:* Female platoon leaders in the Swiss Armed Forces show more transformational leadership than male platoon leaders.

*Hypothesis 1b:* Female platoon leaders in the Swiss Armed Forces are rated by male subordinates as less effective leaders than male platoon leaders are.

*Nonverbal behavior and gender differences.* The roots of the study of nonverbal behavior can be traced as far back as to Darwin, who already in the late nineteenth century pointed out the strong expressiveness of the face and body (Friedman, Prince, Riggio, & DiMatteo, 1980). The face in particular was found to have many possibilities of expression, and for this reason it is generally viewed as the most important channel for the expression of emotions (Ekman, 1993; Harrigan & Taing, 1997). In the early 1980s Friedman et al. (1980) argued that particularly strongly expressive persons utilize nonverbal elements to inspire, motivate, and impress others. These nonverbal elements that characterize passionate and fiery communication are facial expressions, gestures, and body movements (Friedman et al, 1980).

In the study of facial expressions, the smile is a frequently examined element (cf. Cherulnik et al., 2001; Ekman, 1993). Some studies investigating smiles in connection with dominance (cf. Deutsch, 1990; Keating, 1985) found very different results, which according to Cashdan (1998) can be attributed more to the varying definitions of the term dominance used in the studies than to the effect of

smiles. As to the frequency of smiles (and disregarding the type and purpose of the smiles) Keating (1985) and Keating and Bai (1986) found that men that did not smile were perceived as more dominant. However, this effect could not always be replicated (Deutsch, LeBaron, & Freyer, 1987). But undisputed is the finding by Hall (1984) and by Hall and Halberstadt (1986) that women smile more often than men. For this study, I formulated the following hypothesis:

*Hypothesis 2a:* There is a difference between male and female officer cadets in frequency of smiles: During a presentation task, women smile more frequently than men.

In addition to facial expressions, body movements are a core element of human expression (Gullberg & Kita, 2009). Ekman and Friesen (1975) pointed out that gestures are an important element supporting spoken language. People point at objects, for instance, or use gestures to indicate spatial relationships (big, small, above, below). However, there are great differences between persons when it comes to the use of accompanying gestures (Argyle, Alkema & Gilmour, 1971). In addition, Hall (1984) pointed out that men and women can differ in general body language, for in that study men had more open/expansive body postures and positions than women did. For this study I hypothesized:

*Hypothesis 2b:* Male and female officer cadets differ in the number of expansive gestures (involving both the hands and arms): Men gesticulate more intensively.

*Nonverbal behavior and leadership.* Regarding leadership behavior, Awamleh and Gardner (1999) and Cherulnik et al. (2001) showed that charismatic leaders are associated with more frequent smiles. This leads to the question as to

whether transformational platoon leaders differ from non-transformational platoon leaders because of their frequency of smiles. I hypothesized:

*Hypothesis 3a:* The frequency of smiles differs with leadership style: Platoon leaders that smile frequently are perceived by their subordinates as more transformational leaders.

Mio, Riggio, Levin, and Reese (2005) investigated what behaviors on the part of leaders that are perceived as charismatic/transformational cause them to gain the trust and respect of subordinates. They also found that many aspects of charisma are associated with emotional expressiveness – that is, the ability to convey emotions using movements and gestures, among other things (Friedman, Prince, Riggio, & DiMatteo, 1980). The importance of gestures supports also the findings of a study by Awamleh and Gardner (1999), which showed that leaders were perceived as more charismatic and as more effective in their leadership when they used dynamic gestures to accompany the conveying of their messages. Based on these arguments I formulated the following hypothesis:

*Hypothesis 3b:* Platoon leaders with intensive gesturing are perceived by their subordinates as more transformational.

Nonverbal behavior maintains the force of language, but it is apparent that nonverbal elements should not be considered a language in themselves. Nonverbal cues may interact with verbal messages but cannot carry complex information (Friedman et al., 1980). In addition, Newcombe and Ashkanasy (2002) cited Archer and Akert (1977), who showed that nonverbal cues can change the meaning of words and sentences. These arguments give rise to the supposition that there is a moderator effect, and it can be hypothesized that the connection between

transformational leadership and leadership success is moderated by nonverbal cues:

*Hypothesis 4:* The association between transformational leadership and leadership success is all the more positive, the more nonverbal cues that the leader shows.

## Method

### *Procedure*

In the Swiss Armed Forces, recruits striving for a military career and/or demonstrating leadership potential as rated by superior officer take part in a standardized assessment. This officer leadership potential assessment (called the KBII) consists in a full day of assessment and testing conducted at one of the various recruiting centers of the Swiss Armed Forces. The aptitude testing is conducted by trained psychologists and includes cognitive abilities tests, personality tests, and a presentation task. For the presentation task, the officer cadets are assigned a topic and given 50 minutes' time to prepare a presentation 5-6 minutes in length. For this study, presentations given during assessments between August and December 2007 in the recruiting centers in Rütli ZH and Windisch, Switzerland, were videotaped and then scored quantitatively only (physical/morphological) on body language and facial expressions. This limitation (no consideration of quality, such as how a person smiles) is in accord with the behavior-oriented approach on which the concept of transformational leadership is based (Bass, 1985).

Qualitative evaluations also always involve the danger of subjectivity. This study is based on the quantitative approach – that is, I tested whether the potential

leaders showed or did not show the relevant nonverbal behaviors. Nevertheless, with this quantitative procedure it still has to be clarified whether “many” is also “good.” For this, I used the judgments of the professional raters from the leadership potential assessment and correlated them with the quantitative results.

The leadership style of the officer cadets was measured at the end of one-year officer acquisition training, when they were completing their practical training. For this, their subordinates were asked to rate the leadership behavior of the platoon leaders using the German version of the MLQ-5X (Felfe & Goihl, 2002).

### *Sample*

A total of 263 presentations made by officer cadets during the officer potential assessments (KBII) were captured on video. Of these candidates, about one-third were not authorized to enter officer training, some other candidates chose not to enter into the training, and another third decided during the initial training to change their training objective (to non-commissioned officers); the final sample therefore consisted of 51 officer cadets (94.1% men [ $n_{\text{men}} = 48$ ] and 5.9% women [ $n_{\text{women}} = 3$ ]).

The platoon leaders completed their practical training in various branches of the service: service land forces (39.2%), service air force (51%), and Armed Forces logistics organization (9.8%). All platoon leaders are members of the militia.

At the end of their officer training, the officer cadets led a platoon of 10-20 soldiers for five to eight weeks. In the sample in this study, all of their subordinates were men. The subordinates rated their platoon leader by questionnaire; of 636 questionnaires filled out, 617 complete questionnaires could be included in the study.



### *Measures*

*Nonverbal behavior.* The first five minutes of the 6-minute-long presentations were coded. For each observation run it was noted: how many times the officer cadets smiled, how many times they gestured with only their hands (left or right hand separately), and how many times they gestured with their whole arms. To be noted as an arm gesture, the person had to actively move their arm away from their torso. Reactive movements, such as a reactive swing of the arm as a consequence of another movement or twitches, were not counted as arm gestures. The individual hand gesture and arm gesture counts were added together for the combined number of gestures. The raters counted the number of gestures and smiles with the sound of the videotape turned off, so that they would not be influenced by the spoken content of the presentations. To check the raters' counts, an additional rater counted the smiles, hand gestures, and arm gestures of all officer cadets; the interrater reliability was .98 (smiles), .97 (hand gestures), and .99 (arm gestures).

*Leadership.* Leadership behavior was measured with the nine scales of the German version of the Multifactor Leadership Questionnaire (MLQ) (Felfe & Goihl, 2002). The MLQ is the most frequently used and most validated questionnaire in leadership research (Felfe, 2006a). The subordinates rated the four items per scale on a 5-point scale ranging from 1 = *not at all* to 5 = *frequently, if not always*. The majority of the calculated reliabilities were good: idealized influence—attributed (Cronbach's  $\alpha = .87$ ), inspirational motivation (Cronbach's  $\alpha = .73$ ), intellectual stimulation (Cronbach's  $\alpha = .80$ ), individualized consideration (Cronbach's  $\alpha = .77$ ), appeal (Cronbach's  $\alpha = .92$ ), and contingent reward

(Cronbach's  $\alpha = .75$ ). The internal consistency of the scale idealized influence—behavior was satisfactory (Cronbach's  $\alpha = .69$ ). The transactional scales management by exception—active and management by exception —passive showed just sufficiently satisfactory reliabilities for simple evaluations (Cronbach's  $\alpha = .51$  and Cronbach's  $\alpha = .56$ ). Not surprisingly (cf. Felfe, 2006b) the transformational scales were highly correlated both among themselves and with the transactional scale contingent reward (see Table 3.1).

*Performance indicators.* On the part of the subordinates, the postulated (Bass, 1985) leadership success was assessed using the following scales: leader effectiveness (Cronbach's  $\alpha = .69$ ), subordinates' satisfaction with leader (Cronbach's  $\alpha = .85$ ), and subordinates' voluntary willingness for *extra effort* (Cronbach's  $\alpha = .82$ ). The scales were from the German version of the MLQ-5X (Felfe & Goihl, 2002), and the answer scales ranged from 1 = *very low* to 5 = *very high*.

Table 3.1

*Means, Alphas and Correlations of the Variables included in the Study*

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. II attr	3.40	.80	(.87)														
2. II beh	3.45	.52	.82**	(.69)													
3. IM	3.66	.51	.79**	.84**	(.73)												
4. IS	3.33	.56	.89**	.85**	.78**	(.80)											
5. IC	3.33	.56	.94**	.88**	.83**	.93**	(.77)										
6. AUS	2.93	.82	.89**	.77**	.73**	.92**	.89**	(.92)									
7. CR	3.69	.55	.90**	.85**	.81**	.91**	.90**	.85**	(.75)								
8. MbEa	3.31	.42	.22	.32*	.39**	.16	.22	.15	.15	(.51)							
9. MbEp	2.52	.47	-.51**	-.45**	-.40**	-.36**	-.46**	-.30*	-.50**	-.17	(.56)						
10. EFF	3.49	.55	.86**	.87**	.88**	.88**	.88**	.82**	.85**	.29*	-.41**	(.69)					
11. SAT	3.50	.82	.90**	.74**	.70**	.90**	.88**	.89**	.88**	.20	-.31*	.81**	(.85)				
12. Extra	3.08	.67	.86**	.85**	.81**	.92**	.91**	.91**	.84**	.10	-.42**	.88**	.83**	(.82)			
13. Smiles	6.45	6.84	-.24	-.30*	-.32*	-.26	-.26	-.25	-.30*	-.25	.14	-.35*	-.30*	-.25	--		
14. Gestures	5.9	1.20	-.01	.01	-.01	.05	.02	.07	-.03	-.19	.07	.05	-.03	.07	-.01	--	
15. KBII	5.4	1.13	-.14	-.07	-.00	-.07	-.13	-.01	-.09	-.14	.15	-.06	-.21	-.01	.03	.52**	--

*Note.* II attr = Idealized Influence attributed, II beh = Idealized Influence behavior, IM = Inspirational Motivation, IS = Intellectual Stimulation, IC = Individualized Consideration, AUS = Appeal, CR = Contingent Reward, MbEa = Management by Exception active, MbEp = Management by Exception passive, EFF = Effectiveness of leadership, SAT = Satisfaction with leadership, EXTRA = Subordinates voluntary extra effort, Smiles = Number of smiles, Gestures = Number of gestures (arm gestures and hand gestures combined), KBII = professional rating during leadership potential assessment;  $N = 51$   
 \*\*  $p \leq .01$  \*  $p \leq .05$

## *Results*

### *Preliminary Analyses*

As Table 2 shows, the subordinates' ratings of the platoon leaders' leadership style are in the average range of values. It is interesting that the mean values of the transactional scale contingent reward ( $M = 3.69$ ,  $SD = .55$ ) and management by exception—active ( $M = 3.30$ ,  $SD = .42$ ) are in the same range as those of the transformational scales. This agrees with Avolio and Bass (1991), according to which the full range of leadership behaviors will be shown (as required). It also indicates that in this stage of officer training a lot of importance is placed on fair exchange and active control.

Appeal is hardly attributed to the platoon leaders by the subordinates ( $M = 2.93$ ,  $SD = .82$ ), making it an exceptional characteristic, as was expected (Felfe & Goihl, 2002). This leadership profile appears to be a general pattern in platoon leaders at this stage of their training; ANOVA revealed no differences among different branches of service.

For the following statistical analyses and especially for their interpretation, I tested whether intensive gesturing as rated by the professional observers was also seen as a positive sign of quality in the officer/leadership potential assessment. Table 1 shows that intensive gesturing during the presentation task was associated with a positive rating in the assessment ( $r = .52$ ,  $p \leq .01$ ). The rating of gestures in the assessment did not correlate with either later leadership style components or leadership success. In addition, the rating of gestures by the professional assessors also did not predict leadership success or future leadership style.

Table 3.2

*Leadership style and Nonverbal Behavior of the platoon leaders*

	Women <sup>a</sup>		Men <sup>b</sup>		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Leadership style					
Idealized Influence attributed	2.01	.80	3.49	.73	-3.40***
Idealized Influence behavior	2.69	.34	3.50	.48	-2.86**
Inspirational Motivation	2.96	.27	3.70	.49	-2.56*
Intellectual Stimulation	2.47	.48	3.38	.52	-2.95**
Individualized Consideration	2.36	.58	3.39	.51	-3.40***
Appeal	1.83	.71	3.00	.79	-2.50*
Contingent Reward	2.93	.48	3.74	.52	-2.61*
Management by Exception active	3.21	.26	3.31	.43	-.61
Management by Exception pass	3.18	.73	2.48	.43	1.62
Leadership success criteria					
Effectiveness	2.80	.43	3.54	.53	-2.34*
Satisfaction with leadership	2.30	1.02	3.57	.76	-2.77**
Extra Effort	2.09	.48	3.14	.64	-2.78**
Nonverbal Behavior					
Number of smiles	10.33	6.51	6.21	6.85	1.02
Number of gesture	88.67	57.72	163.5	107.8	-2.03

Note.  $n^a = 3$ ,  $n^b = 48$ . \*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$

*Hypothesis Test*

Table 3.2 shows the leadership style and leadership success of the platoon leaders as rated by subordinates. Contrary to the hypothesis that women tend to show more transformational leadership, in this study men received higher ratings by subordinates on all transformational leadership dimensions (idealized influence—attributed  $t(49) = -3.40$ ,  $p = .001$ ; idealized influence—behavior  $t(49) = -2.86$ ,  $p = .006$ ; inspirational motivation  $t(49) = -2.56$ ,  $p = .014$ ; intellectual stimulation  $t(49) = -2.95$ ,  $p = .005$ ; individualized consideration  $t(49) = -3.40$ ,  $p =$

.001; appeal  $t(49) = -2.46, p = .016$ ). The findings thus do not support hypothesis 1a. However, the findings show that male subordinates rate the leader effectiveness of female leaders lower than the leader effectiveness of male leaders, thus supporting hypothesis 1b (effectiveness  $t(49) = -2.34, p = .023$ ).

Regarding nonverbal behavior and gender, hypothesis 2 posits that (a) female platoon leaders show more smiles than men, and that (b) male platoon leaders use more gestures. As Table 3.2 shows, surprisingly, the nonverbal behavior of male and female platoon leaders did not differ on number of smiles or gestures. Thus, neither hypothesis 2a nor hypothesis 2b could be confirmed.

For the prediction of perceived transformational leadership based on leaders' nonverbal behavior (hypotheses 3a and 3b) a multiple linear regression (Enter) was computed with two predictors: smiles and gestures. Table 3.3 shows that the number of smiles was a significant predictor for higher ratings on the transformational leadership components idealized influence—behavior ( $\beta = -.30, p = .03$ ) and inspirational motivation ( $\beta = -.32, p = .02$ ). Surprisingly, the beta weight is negative, which means that platoon leaders that smiled more often during the presentation task received lower ratings by subordinates on the transformational leadership components idealized influence—behavior and inspirational motivation. Table 3.3 shows further that gestures do not predict transformational leadership. Thus, no support was found for hypotheses 3a and 3b.

Table 3.3

*Multiple Regression Analyses: Nonverbal Behavior Predicting Transformational Leadership*

	Transformational Leadership					
	II_attr	II_beh	IM	IS	IC	AUS
	Standardized Betas ( $\beta$ )					
Smiles	-.24	-.30*	-.32*	-.26	-.26	-.25
Gestures	-.01	.01	-.01	.05	.02	.07
<i>R</i>	.24	.30	.32	.26	.27	.26
<i>R</i> <sup>2</sup>	.06	.09	.10	.07	.07	.07

*Note.* II\_attr = Idealized Influence attributed, II\_beh = Idealized Influence behavior, IM = Inspirational Motivation, IS = Inspirational Stimulation, IC = Individualized Consideration, AUS = Appeal; *N* = 51

\*  $p \leq .05$

The supposition in hypothesis 4 was that facial expressions and gestures influence the connections between transformational leadership and leadership success. This hypothesis was tested using a moderated hierarchical regression analysis, which – if a moderator effect is confirmed – includes a graphical analysis to illustrate the moderator relationship. Following the recommendation by Aiken and West (1991), the dependent and independent variables were centered to avoid multicollinearity between the predictors and the interaction term. In addition, the sex of the platoon leader was controlled for because of the above-mentioned considerations concerning gender differences.

Table 3.4 shows the significant results of the moderated hierarchical regression. Moderating effects were found for the subjective measures of leadership success leader effectiveness and subordinates' voluntary willingness for extra effort. It is clear from the results that leader effectiveness is predicted by both idealized influence—behavior ( $\beta = .87, p \leq .001$ ) and appeal ( $\beta = .80, p \leq .001$ ).

Here, leaders' smiles have no additional predictive value ( $\beta = -.10, p = .22$ , resp.  $\beta = -.15, p = .09$ ). Only after the entering of the interaction term in step 4 does the predictive power of the regression equations increase again. Both idealized influence—behavior ( $\beta = .84, p \leq .001$ ) and appeal ( $\beta = .77, p \leq .001$ ) as well as the corresponding interaction terms ( $\beta = .19, p \leq .00$ , resp.  $\beta = .22, p \leq .05$ ) influence leader effectiveness.

Gestures were found to moderate subordinates' voluntary willingness to make extra effort. Here again, a significant effect of gestures was found in combination with the transformational leadership component idealized influence—behavior ( $\beta = -.19, p \leq .05$ ). In addition, gestures also moderated the influence of the transactional leadership component contingent reward ( $\beta = -.18, p \leq .05$ ) on subordinates' voluntary willingness for extra effort, but both times with a negative beta weight.

Figure 3.1 shows that smiles moderated both the influence of idealized influence—behavior and the influence of appeal on leader effectiveness as rated by subordinates. Here, the effectiveness of platoon leaders that serve as role models (idealized influence—behavior high) and have high appeal (appeal high) was rated higher by subordinates if the leaders smiled more often. Platoon leaders' gestures moderated the influence of both idealized influence—behavior and the influence of the transactional leadership component contingent reward on subordinates' voluntary willingness to make extra effort. Here, the subordinates were surprisingly more willing to make extra effort if platoon leaders used few gestures.



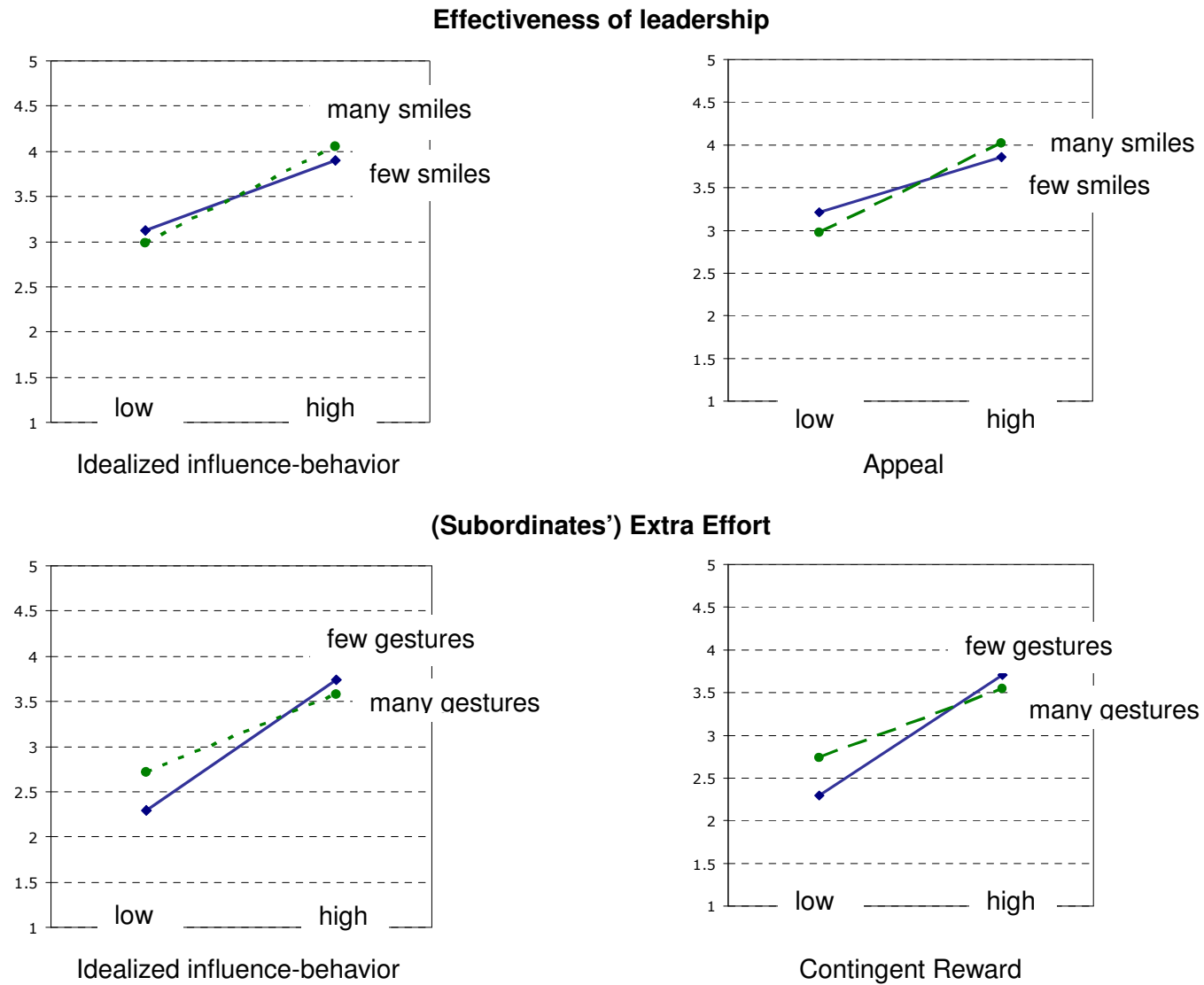
Table 3.4  
*Significant Results of Moderated Hierarchical Regression for Nonverbal Behavior*

		Effectiveness			Extra Effort		
		$\beta$	$R^2$	$\Delta R$	$\beta$	$R^2$	$\Delta R$
Step 1 (Control):	Sex	.32*	.10	.10*			
Step 2 (Independent):	Sex	-.01	.75	.65***			
	II_b	.87***					
Step 3 (Moderator):	Sex	-.02	.76	.01			
	II_b	.84***					
	Smile	-.10					
Step 4 (Interaction):	Sex	-.02	.78	.02*			
	II_b	.84***					
	Smile	.01					
	II_b x Smile	.19*					
Step 1 (Control):	Sex	.32*	.10	.10*			
Step 2 (Independent):	Sex	.05	.67	.66***			
	AUS	.80***					
Step 3 (Moderator):	Sex	.04	.69	.02			
	AUS	.77***					
	Smile	-.15					
Step 4 (Interaction):	Sex	.04	.73	.04*			
	AUS	.77***					
	Smile	-.03					
	AUS x Smile	.22*					
Step 1 (Control):	Sex				.37**	.14	.14**
Step 2 (Independent):	Sex				.05	.73	.59***
	II_b				.83***		
Step 3 (Moderator):	Sex				.04	.73	.00
	II_b				.84***		
	Gesture				.05		
Step 4 (Interaction):	Sex				-.02	.77	.03*
	II_b				.86***		
	Gesture				.10		
	II_b x Gesture				-.19*		
Step 1 (Control):	Sex				-.37**	.14	.14**
Step 2 (Independent):	Sex				.09	.71	.57***
	CR				.81***		
Step 3 (Moderator):	Sex				.07	.72	.01
	CR				.82***		
	Gesture				.09		
Step 4 (Interaction):	Sex				.02	.76	.03*
	CR				.83***		
	Gesture				.10		
	CR x Gesture				-.18*		

Note. II\_b = Idealized Influence behavior, AUS = Appeal, CR = Contingent Reward.  $N = 51$ .

\*\*\*  $p \leq .001$  \*\*  $p \leq .01$  \*  $p \leq .05$ .

Figure 3.1. Effectiveness and Extra Effort moderated by leaders' smile and leaders' gestures.



### Discussion

The findings of this study largely confirm an association between outstanding (transformational) leadership and nonverbal behavior. For the most part, it is the transformational leadership component idealized influence—behavior, or leaders serving as role models, that was significant in combination with smiles and in interaction with gestures. Idealized influence—behavior and inspirational motivation can be predicted by the frequency of the platoon leader's smiles – but in a way contrary to the hypothesis, as platoon leaders that showed few smiles were rated higher on the leadership components mentioned above. Here, gestures had no direct predictive power.

The two nonverbal elements (smiles and gestures) were found to have a moderator effect regarding the measures of leadership success – leader effectiveness and subordinates' extra effort. Here, the interaction of (many) smiles with the transformational leadership components idealized influence—behavior and appeal had a positive effect on leader effectiveness. With regard to extra effort, interestingly the subordinates were more willing to make voluntary extra effort if the platoon leaders – in spite of higher ratings on the leadership components idealized influence—behavior and contingent reward – used fewer gestures.

The findings of this study regarding gender differences deviate in part from previous empirical results: Whereas women in Swiss Armed Forces were rated lower on leader effectiveness as reported by other studies, in contrast to the findings by Eagly and Carli (2003) they were also rated lower than their male colleagues on transformational leadership.

Further, in this study no differences in body language were found for male and female platoon leaders. As previous studies demonstrated (Cashdan, 1998; Coats & Feldman, 1996) the findings for women are complex, particularly for smiles and the meaning of women's smiles. Still, it is surprising that men and women did not differ in the two elements of body language examined (smiles and gestures). A possible explanation can be found Antonakis, Avolio, and Sivasubramaniam (2003), who point out the importance and strength of the context. For instance, in a context entailing strict behavior norms (such as an army) individuals have little leeway for their own behaviors. Applied to this study, this means that both the male and female officer cadets try to display behaviors, including nonverbal behaviors, that accord with the norms in the Swiss Armed Forces.

As for Felfe's (2003) plea for a better conceptual distinction between transformational and transactional leadership on the basis of additional characteristics, this study provides some indications that some of those characteristics may be found in the area of nonverbal behavior. However, the elements smiles and gestures (hand and arm gestures) do not serve sufficient differentiation, in that they only influenced the transformational leadership components idealized influence—behavior and appeal. In addition, gestures influenced subordinates voluntary willingness to make extra effort also in connection with the transactional leadership component contingent reward, which once again raises doubts concerning the conceptual assignment of this dimension to transactional leadership.

With the design of this study, there is the fundamental question of the explanatory power of the associations. Can body language be viewed as a personality characteristic that is stable over time, or is it a learned behavior that is changeable and influenceable? Weisbuch, Slepian, Clarke, Ambady, and Veenstra-Vander Weele (2009) pointed out the stability of nonverbal behavior as a personality characteristic. There is also sufficient evidence that the elements of body language are highly correlated with personality characteristics (e.g., Funder & Colvin, 1991). Since personality characteristics are considered to be stable over time, it follows that nonverbal behavior, or at least the disposition for certain nonverbal behaviors, is stable over time as well.

### *Implications*

In this study sample, in contrast to previous research findings, women showed less transformational leadership than their male colleagues. For successful leadership, however, transformational leadership would be advantageous for women, because it contains some behaviors that are consistent with the female gender role's demand for supportive, considerate behaviors (Eagly et al., 2003). Consequently, it makes sense to consider more training in these leadership skills for women, which brings up the fundamental question as to the extent to which outstanding leadership can be trained at all. A number of empirical studies (e.g., Dvir, Eden, Avolio, & Shamir, 2002) demonstrated that transformational leadership, based on concrete behaviors, is learnable to some extent.

Whether and to what extent nonverbal behavior supporting outstanding leadership can be learned or trained has been examined to date in a number of popular scientific investigations. The often-cited study by Howell and Frost (1989)

examined the influence of charismatic leaders' nonverbal behaviors, among other behaviors, on subordinates' performance. However, the study was a laboratory experiment (professional actors played the part of leaders, and the study participants were students) with a cross-sectional design. Sustainable trainability of the behaviors cannot be deduced empirically from that study. If nonverbal behaviors are viewed as stable components, analogous to personality characteristics, that would speak per se against trainability. DePaulo (1992) concluded that nonverbal behaviors, especially expressive nonverbal behavior, are difficult to control and influence. However, some studies (cf. Sosik & Dworakivsky, 1998) also found dispositional attributes (i.e., self-consciousness, self-monitoring, and purpose-in-life) that influence emotional expressiveness and thus indirectly influence nonverbal behaviors. Thus, another option (but not yet investigated) is at least that with the changeability of dispositional attributes of that kind, certain nonverbal elements can be influenced.

An additional finding in this study was that the professional rating of gestures during the officer/leadership potential assessment KBII did not correlate with either the transformational or transactional leadership components, and it did not correlate significantly with the later leadership success of the platoon leaders. It is therefore worth considering to what purpose this nonverbal behavior is rated during the assessment and whether perhaps other behaviors should be rated instead.

#### *Future Directions*

A number of researchers in the field of nonverbal behavior (cf. Ellgring, 1997; Kempter & Möller, 2000; Knapp, 1978) pointed out that the great variety of

human expression is not only connected with the intensity of individual stimuli and that combinations and hierarchical links of individual segments of the musculoskeletal system are also important, thus making multichannel analyses necessary. In connection with nonverbal behavior and leadership research Schyns and Mohr (2004) recommended that combinations of nonverbal behavior elements should be examined; they suspected that certain nonverbal behaviors can reinforce or possibly also level out the effect of other nonverbal behaviors.

This study investigated elements of nonverbal expression (smiles, gestures) on the part of the sender exclusively. Future studies should also consider how recipients integrate these stimuli into their total impression of the sender and should examine what factors influence this perception (nonverbal behavior and leadership).

Another nonverbal characteristic is physical attractiveness. Very recent findings (Olivola & Todorov, 2010; Riggio & Riggio, 2010) showed that first impressions of the attractiveness of politician's faces, for example, can predict their electoral success. Automatic judgments based on qualities of physical attractiveness, such as physical features associated with masculinity (Olivola & Todorov, 2010), also play a role in the judgments and selection of leaders (Riggio & Riggio, 2010). Thus, the ratings of the platoon leaders' effectiveness and the subordinates' willingness to make extra effort can also depend on the physical attractiveness of the platoon leaders and should be measured and controlled for in future studies.

Based on the reasons mentioned above for assuming that nonverbal behavior is stable, the nonverbal components were entered into the analyses as independent

variables and style of leadership entered as the dependent variable, thus implying causality. It is also conceivable, however, that a certain style of leadership causes a certain kind of body language (for example, a leader may wish to convey a vision and for this reason uses more gestures). Elements of body language would consequently have to be viewed as dependent variables, with the causal relationship going in the other direction.

### *Limitations*

The first limitation to be mentioned is of a fundamental nature: Like all armies, the Swiss Armed Forces has a culture of orders and obedience. The findings of this study can therefore be compared to findings from other contexts to a limited extent only. Making things more difficult is the fact that the Swiss militia system is not comparable to other armies that are frequently investigated in leadership research – like the U.S. Army and the Armed Forces of Israel (Stadelmann, 2010).

A second limitation is the comparatively small sample size. Particularly for more in-depth statistical analysis a higher percentage of women would have been better. But that would have meant a loss of representativeness, which is important with regard to the external validity of the findings.

Owing to the design, the common source and common method bias could be avoided in part, in that the body language of the platoon leaders was not rated by the subordinates. However, common source and common method bias could not be avoided completely with regard to leadership style and leadership success. It had been planned originally to use information from the officer training school, including professional qualifications and feedback from superiors. Unfortunately,



in the end only one single training commander was willing to make these data available to this study, so that leadership success had to be determined based on ratings by subordinates.

This study was a field study, which in connection with the qualitative design has a negative effect on sample size. But it was also a great advantage: The results do not reflect hypothetical assumptions from sterile laboratory settings (where the participants must *imagine* that they are subordinates of a person in a video film); instead, they provide insight into the real everyday life of the Swiss Armed Forces.

### *Conclusion*

The findings of this study confirmed researchers' suppositions (cf. Felfe, 2003; Schyns & Mohr, 2004) that there are features in the realm of nonverbal behavior that are associated with outstanding leadership and leadership success.

However, the nonverbal element leaders' *smiles* is associated with only some components of transformational leadership (idealized influence—behavior, inspirational motivation, and appeal), and leaders' *gestures* are associated with the transactional leadership component contingent reward. Unfortunately, this shatters hopes (Felfe, 2003) of contributing towards a better conceptual distinction between transformational and transactional leadership, at least with these two elements.

Further, the findings are complex with regard to the direction of the effects (for example, for predicting future leadership style, smiles has a negative beta weight, but in the function of moderator, a higher number of smiles predicts greater perceived leader effectiveness). This consequently serves as a warning that trivial recommendations concerning body language should not be followed uncritically or

disregarding the context. In this connection a great deal of research will be needed to provide evidence-based findings.

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# 4

## General Discussion

This dissertation project examined the concept of transformational leadership in the context of the Swiss Armed Forces theoretically and empirically. The starting points were, for one, considerations by various researchers (Bass, 1985; Bass, Avolio, Jung, & Berson, 2003; Osborn, Hunt & Jauch, 2002), according to whom an uncertain and dynamic environment – to which, with the armed forces reform programs *Armed Forces 95* and *Armed Forces XXI*, the Swiss Armed Forces are subject to – forms a precondition for outstanding leadership. For another, there has been no systematic investigation of transformational leadership in the context of the Swiss Armed Forces to date.

In this chapter the results are presented in summary, listed in table form, and then discussed in connection with implications for practice. In closing, strengths and weaknesses of this investigation are outlined and indications for future research discussed.

### **Summary of Results**

According to Hardy et al. (2010), it continues to be very important in leadership research to test the generalizability of existing findings in a variety of contexts and to examine further context effects on transformational leadership. The context of the Swiss Armed Forces is a completely new research field not least due to its unique military system (Stadelmann, 2010).

The results of the first study (Chapter 2) confirm the augmentation effect (Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996) with regard to the subjective success measures; this is not surprising also in the context of the Swiss Armed Forces.

To take into account the unique military system of the Swiss Armed Forces, the spread and extent of transformational leadership was investigated in dependency on affiliation (militia vs. professional army). Based on a study by Wong et al. (2003), which found that within the U.S. Army each unit has its own culture and thus its own aspects of leadership, this first study took into consideration also the individual branches of service, or organizational units of the Swiss Army.

Within the different organizational units, no difference in the extent of transformational leadership style was found. However, differences were revealed with regard to affiliation: Transformational leaders in the professional armed forces were rated significantly higher on the leadership components *idealized influence* and *appeal* than transformational leaders among the militia cadre were. When both organization unit and affiliation were considered, there were interaction effects regarding the components *inspirational motivation* and *individualized consideration*: Here the transformational leaders among the militia cadre, who serve in the Air Force and in the headquarters, were rated higher on those two leadership components by their subordinates.

Regarding hierarchy levels, the results on the Swiss Armed Forces confirmed also the findings that transformational leadership is found more frequently at higher hierarchy levels (Bass & Avolio, 1995; Lowe et al., 1996; Oshagbemi & Gill, 2004). This was found for transformational leaders in both the professional army and the militia.

In addition, transformational leaders in the militia at all hierarchy levels were rated by subordinates equally highly on all of the individual transformational leadership components. In contrast, transformational leaders among career officers

at higher hierarchy levels were rated higher on 'inspirational stimulation' than transformational leaders among career officers at the lower hierarchy levels.

Further, a moderating effect of hierarchy level was found between transformational leadership and voluntary willingness of the subordinates for higher levels of performance (*Extra Effort*), with a difference, however, between members of the professional armed forces and members of the militia. In the professional armed forces the subordinates showed higher extra effort when their superior officer was a transformational leader and belonged to a lower hierarchy level. This moderating effect was found in connection with all transformational leadership components. In the militia the hierarchy level moderated the voluntary willingness of the subordinates for higher levels of performance only in connection with idealized influence.

The results of the first study (Chapter 2), in particular the somewhat low reliabilities of the scales in the sample with exclusively outstanding leaders, indicate that it continues to be difficult to portray outstanding leadership by means of consistent and temporally stable behaviors (Judge et al, 2006). The second study (Chapter 3) examined the question as to whether transformational leaders differ from non-transformational leaders possibly in their nonverbal behaviors (Schyns & Mohr, 2004).

In contrast to existing findings that women show a transformational style of leadership more frequently than men (Eagly & Carli, 2003), this study found that in the Swiss Armed Forces it is mainly men who are transformational leaders. With regard to nonverbal behavior (smiles and gestures) no fundamental gender

differences were found, which also contradicts previous research findings (Hall, 1984; Hall & Halberstadt, 1986).

Regarding style of leadership, smiles significantly predicted the transformational leadership components idealized influence—behavior and inspirational motivation, but with a negative beta weight, however. This means that platoon leaders that smiled more often during the presentation task received lower ratings by subordinates on those two components.

In addition, smiles moderated the effect of the transformational leadership components idealized influence and appeal on leader effectiveness as perceived by subordinates. Transformational leaders that stand out as role models and have high appeal were rated higher on effectiveness by subordinates if they smiled frequently.

Gestures moderated the influence of idealized influence—behavior on subordinates' voluntary willingness to make extra effort, but here, “frequent” does not equal “good.” Subordinates were more willing to make extra effort if platoon leaders used few gestures.

Table 4.1

*Summary of Hypotheses and Results*

Chapt.	Hypothesis	Results
2	Subordinates put in more extra effort under transformational than under transactional leadership	Hypothesis completely confirmed
2	The profiles of transformational leadership are different in various organizational units of the Armed Forces	Proposition not supported: Transformational leaders had equal ratings in all organizational units

Table 4.1 (continued)

Chapt.	Hypothesis	Results
2	Militia personnel and military professionals are rated differently on transformational leadership	Proposition supported only for idealized influence and appeal
2	Militia personnel and military professionals are rated differently on transformational leadership in various organizational units of the Armed Forces	Proposition supported: Militia officers of the Air Force and Headquarters were rated higher on transformational leadership
2	Transformational leaders are found more frequently at higher than at lower hierarchical levels	Hypothesis completely confirmed
2	Transformational leaders at the higher hierarchy level are rated higher than transformational leaders at the lower hierarchy level	Hypothesis not supported for militia personnel; hypothesis supported in part for professional personnel
2	The effect of transformational leaders at higher hierarchy levels on subordinates' extra effort is stronger than the effect of transformational leaders at lower hierarchy levels	Hypothesis not supported: The moderator effect ran contrary to the hypothesis
3	Female platoon leaders show more transformational leadership than male platoon leaders	Hypothesis not supported: Male platoon leaders received higher ratings on transformational leadership
3	Female platoon leaders are rated by male subordinates as less effective leaders than male platoon leaders are	Hypothesis completely confirmed
3	Female officer cadets smile more frequently (during a presentation task) than male officer cadets	Hypothesis not supported: No differences were found between male and female platoon leaders

Table 4.1 (continued)

Chapt.	Hypothesis	Results
3	Male officer cadets gesture more intensively than female officer cadets	Hypothesis not supported: No differences were found between male and female platoon leaders
3	Platoon leaders that smile frequently are perceived by their subordinates as more transformational leaders	Hypothesis not supported: Frequent smiles was a negative predictor for transformational leadership
3	Platoon leaders with intensive gesturing are perceived by their subordinates as more transformational	Hypothesis not supported: Intensive gesturing did not predict transformational leadership
3	The association between transformational leadership and leadership success is all the more positive, the more nonverbal cues that the leader shows	Hypothesized moderator effect confirmed for frequency of smiles. For gesturing the moderator effect was negative

### **Major Findings: The Relevance of the Context of the Swiss Armed Forces and the Importance of Nonverbal Behavior**

The studies conducted for this dissertation project throw light for the first time on transformational leadership in the context of the Swiss Armed Forces. The findings of the first study (Chapter 2) showed that with regard to officers' leadership behavior and also in regard to subordinates' voluntary willingness for higher levels of performance, it plays a role whether the persons belong to the militia or the professional armed forces.

Analogous to existing findings of previous leadership research (Felfe, 2003; Berson, Shamir, Avolio, & Popper, 2001) the first study here (Chapter 2) also



showed clearly that in addition to established behaviors there must be further characteristics that distinguish transformational leadership from other styles of leadership.

The second study (Chapter 3) revealed that elements of body language (smiles and gestures) are connected with transformational leadership. Frequent smiling was found to be a negative predictor for the transformational leadership components idealized influence—behavior and inspirational motivation.

As for successful leadership (leader effectiveness), however, frequent smiling was found to be advantageous: Subordinates rated superiors higher on leader effectiveness if they act in an exemplary manner (idealized influence—behavior), possess a great deal of appeal, and smile frequently.

Further, gestures had an influence on subordinates' voluntary willingness to make extra effort but in a contrary manner to existing research findings (Awamleh & Gardner, 1999). For leaders that stand out as role models (idealized influence—behavior) and make few gestures, subordinates were more willing to perform beyond expectations.

### **General Discussion and Implications**

The concept of transformational leadership is important also in the context of the Swiss Armed Forces, and it has a positive influence in particular on the voluntary willingness of subordinates for higher levels of performance. Here it should be taken into consideration that in Switzerland military service is compulsory, so that the soldiers do not necessarily serve in the military with personal conviction (Stirnemann, 2007). Despite the culture of command and obey

and a strictly hierarchical organization, people cannot be ordered to show commitment and personal initiative; a certain degree of voluntary commitment on the part of subordinates is prerequisite for successful outcomes (Bär, 2008).

Both in the political discussions in the run-up to the army reform program *Armed Forces XXI* (Führer, 2000) and 10 years later in the report on the status of implementation of *Armed Forces XXI* (Federal Department of Defense, Civil Protection and Sport DDPS, 2010), it is still pointed out vehemently that there is a lack of cadre in the militia. Despite the restructuring measures (cf. shortened intervals between refresher courses, certification of leadership courses), motivation on the part of members of the militia to complete military cadre training has not increased. For the reason, there is a demand (Führer, 2000) for current leaders to convey visions and in this way to create enthusiasm among soldiers and recruits for military careers.

In both studies conducted (Chapter 2 and Chapter 3) it was always the transformational leadership component *idealized influence* that had a positive effect on subordinates' voluntary willingness to perform beyond expectations and on leader effectiveness as perceived by subordinates. The fact that transformational leadership is learnable and trainable, to a certain extent at least, was demonstrated empirically (Barling, Weber, & Kelloway, 1996; Dvir et al., 2002; Frese, Beimeel, & Schoenborn, 2003). Here, Antonakis et al. (2003) and Hardy et al. (2010) pointed out that the different components of leadership behavior are influenced by interventions (schooling and training) to differing degrees. However, the items on the relevant idealized influence—behavior scale (“talks about their most important values and beliefs”, “specifies the importance of having a strong sense of purpose”,

“considers the moral and ethical consequences of decisions”, and “emphasizes the importance of having a collective sense of mission”) suggest that this behavior may be learnable.

That nonverbal behavior is also a feature of transformational leadership is shown by the findings reported in Chapter 3. However, especially with regard to trainability, it must be noted that these findings are complex. For ratings on *idealized influence* and *inspirational motivation* (according to Bass & Riggio (2006) the two major behavioral components of transformational leaders' charisma), frequency of smiles is a negative predictor; as a moderator, however, frequent smiling in connection with *idealized influence* has a positive effect on leader *effectiveness*. Thus, whether leaders should smile a lot, or had better not, remains an open question. But fundamentally, the complexity of the findings serves also as a warning against dispensing too trivial advice in the area of nonverbal behavior.

But a further finding provides a clear indication that training in transformational leadership behaviors could benefit women. That transformational leadership has a positive effect on successful leadership is the central part of the theory, and it has been demonstrated empirically many times (Lowe et al., 1996). In the second study (Chapter 3), the female platoon leaders were rated by their (male) subordinates clearly lower on leader effectiveness than their male colleagues were. Here it also emerged clearly that female platoon leaders' leadership was more transactional than transformational. It can therefore be assumed that if their leadership behaviors shifted into the transformational area, they would improve their leader effectiveness.

The first study (Chapter 2) demonstrated the relevance of hierarchy level. Analogous to existing findings (Bruch & Walter, 2007; Lowe et al., 1996), transformational leaders were found more at the higher hierarchy levels. However, the findings also showed that subordinates' voluntary willingness to make extra effort is higher if their leaders belonged to the lower hierarchy level. In their function as direct superiors of recruits and soldiers, leaders at the lower hierarchy level have the important task of creating enthusiasm on the part of subordinates for the Swiss Armed Forces and motivating them to show stronger commitment. Here it is absolutely advisable for the Swiss Armed Forces to train leaders in transformational leadership behaviors, especially leaders at the lower hierarchy levels, as here there is still the greatest unexploited potential.

### **Strengths**

First of all, it should be noted that this project entered unknown territory, so to speak: Up to now, no empirical investigations had been conducted on transformational leadership in the context of the Swiss Armed Forces.

This dissertation project is based on two field studies, which means that the findings depict the actual facts of the case in the Swiss Armed Forces. As opposed to constructed situations in experimental laboratory settings and hypothetical surveys, in these studies leaders and subordinates stand in real-life interaction.

Another advantage of these studies is that transformational leadership could be investigated at all hierarchy levels. Precisely in connection with research on contexts, present-day studies (Chun, Yammarino, Dionne, Sosik & Moon, 2009;

Judge, Piccolo & Kasalka, 2009, Nemanich & Vera, 2009, Osborn & Hunt, 2007) are focusing on the effects of hierarchy levels.

And finally, it is positive that these findings for the first time establish a connection between concrete nonverbal behaviors and components of transformational leadership as well as reveal a moderating effect of nonverbal behaviors in connection with transformational leadership style on leader effectiveness.

### **Limitations and Future Research**

The two studies have also several limitations that need to be noted. First, this was a military sample, and the leaders were all military officers. Due to this and other, specifically military aspects (such as compulsory military service, homogeneous age distribution in the platoons), this means that it is not possible to generalize the findings to the private sector. Owing to the unique military system of the Swiss Armed Forces (see Chapter 2), it is even difficult to compare this sample with other military samples (such as the U.S. Army or the *Deutsche Bundeswehr*).

This investigation was designed as a field study, which means that I had no influence on the final sample size and its composition. Originally, in the context of an officer candidate selection assessment, 263 officer candidates were videotaped while making presentations. In the final sample of the second study, 51 officer candidates remained. The other candidates either discontinued or postponed their officer training or had not been selected for training at all. With this remaining sample, the statistical analysis methods were unfortunately limited. Future studies

would have to start out with larger samples, so that even if high numbers of participants drop out of the study, there is still a respectable sample size, allowing the use of further analyses such as structural equation models.

Another limitation concerns the type of data collection. Ratings of the officers' leadership style and the subjective measures of successful leadership success (satisfaction with the leader, effectiveness of the leader as perceived by subordinates, and voluntary willingness of the subordinate for higher levels of performance) were collected from the same source at the same point in time using the same instrument. This leads inevitably to shared method variance, which results in overestimation of the actual associations (Lowe et al., 1996). In addition, in connection with data collection it should also not be disregarded that the subordinates had to rate their platoon leaders at the very end of recruit school. According to statements by the recruit school commander, at that point in time motivation and attitudes towards the army are especially low. Besides that, the whole platoon was asked to fill out the questionnaire at the same time, which means that possible distortions caused by group dynamics and group mood cannot be excluded.

Especially the second study (Chapter 3), with regard to the influence of smiling and gesturing on transformational leadership, yielded interesting but complex results. In the course of the investigation a quantitative method (physical-morphological) for capturing the nonverbal elements of body language was deliberately chosen, to do justice to the behavior-oriented approach. However, the quantitative approach alone does not offer much explanatory value, and for this

reason, future studies should in addition include qualitative aspects (such as type of smile [unsure vs. natural] or type of gesture [supportive vs. exaggerated]).

In this connection, also the prevailing situation should be included in the investigation. Schyns and Mohr (2004) surmised that nonverbal behavior must fit the situation. For example, “smiling in crisis situations may be regarded as cynical rather than supportive” (Schyns & Mohr, 2004, p. 300).

In this second study I focused on two single elements (smiles and gestures), based on research findings in the area of charismatic or transformational leadership (Awamleh & Gardner, 1999; Cherulnik et al., 2001). Future studies should include body language systematically and comprehensively, by examining additional elements and also combinations of different nonverbal behaviors (Schyns & Mohr, 2004).

In both studies I examined the variables at the individual level only. The findings of the first study in particular point to the uniqueness of the context of the Swiss Armed Forces (militia vs. professional army), which could be studied further using multilevel analyses (collection of the variables at the level of the group, organization, or culture) (Berson & Avolio, 2004).

### **Conclusion**

As was previously demonstrated by other studies in the military context (Bass, Avolio, Jung, & Berson, 2003; Dvir, Eden, Avolio, Bass, & Shamir, 2002), the present findings also show that transformational leadership is important also in the context of the Swiss Armed Forces. Confirmed here in particular is the positive

effect of the transformational style of leadership (augmentation effect) on subordinates' voluntary willingness to perform beyond expectations.

In accordance with the suppositions of Berson and Avolio (2004) and Felfe (2006), the data collection methods used in this study that differed from the questionnaire method produced new findings in the area of transformational leadership. Through observation two nonverbal behavior elements (smiles and gestures) can be defined that are associated with various components of transformational leadership. However, for the limited purpose of relevant nonverbal elements' identification observation is appropriate. Regarding the explanation of results, this method is more disadvantageous and the question remains, how to capture quantitative and qualitative aspects simultaneously and satisfactorily.

Still, the concept of transformational leadership is very useful for the Swiss Armed Forces in a number of different regards. The results of this investigation demonstrate that transformational leadership has a positive effect on voluntary willingness of subordinates for higher levels of performance (extra effort). Voluntary willingness to perform beyond expectations has currently been found wanting in particular in the area of the Swiss Armed Forces, and it has become noticeable in, among other things, lacking motivation and insufficient cadre (Federal Department of Defense, Civil Protection and Sport DDPS, 2010). Here militia officers could communicate persuasive and convincing visions to convey sense and meaning to military young trainees and to inspire them to develop greater effort and commitment.



In closing, this research project, in a new and up to now little studied context (militia system of the Swiss Armed Forces) and using a new research approach (observation and counting of elements of nonverbal behavior), complements previous findings and thus represents a further piece in the puzzle in the efforts towards a fuller understanding of transformational leadership.

On ne voit bien qu'avec le coeur.

L'essentiel est invisible pour les yeux.

Antoine de Saint-Exupéry, "Le Petit Prince"

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# Appendix



### Appendix A. Declaration of Consent

Sehr geehrter Kaderanwärter

Im Rahmen einer an der Universität Zürich laufenden Studie zum Führungsverhalten werden anlässlich dieser Kaderpotenzialabklärungen die fünfminütigen Präsentationen auf Video aufgezeichnet.

Im weiteren Verlauf der Studie werden die Kaderanwärter am Ende ihrer Offiziersausbildung kurz schriftlich befragt.

Mit Ihrer Unterschrift erteilen Sie die Erlaubnis, Ihre Präsentation auf Video aufzuzeichnen und Sie am Ende des Offizierslehrganges kurz schriftlich zu befragen.

Die Aufnahmen werden ausschliesslich für diese universitäre Untersuchungen verwendet und nicht an Dritte weitergegeben oder veröffentlicht.

Name: .....

AHV-Nummer: .....

Ort und Datum: .....

Unterschrift: .....

## Appendix B: Instruction for Video Recording

# VIDEOAUFNAHMEN

## ANLEITUNG

*Besten Dank für die Mithilfe !!!*

### Information Kaderanwärter

- Kurz darauf hinweisen, dass Präsentationsaufgabe für eine Studie der Uni Zürich aufgezeichnet wird, sofern die Einwilligung erteilt wurde
- Check: Liegt Einwilligung vor?
- **Kandidaten müssen zu Beginn ihrer Präsentation ihren Namen nennen**

### Kassetten

- Pro Kassette (240 min) jeweils 2-3 Gruppen aufnehmen
- Wenn möglich keine Kassetten vom Vortag verwenden
- Beschriftung nicht vergessen (RekrZen, Datum, Gruppe)

### Kamera-Einstellung

- Wichtig: Ganze Person muss ersichtlich sein, aber möglichst nahe und deutlich!
- **Ziel: Körpersprache und Mimik muss später codiert werden können und entsprechend gut erkennbar sein**

### Aufnahme

- Darauf achten, dass die Aufnahme früh genug läuft: Name des Kandidaten muss unbedingt aufgenommen werden.
- Nach Beendigung einer Präsentation auf „Pause“ oder „Stop“ drücken
- Bei kleinen Gruppen, bei denen alle Kandidaten die Filmerlaubnis erteilt haben, muss die Aufnahme nicht zwingend nach jeder Präsentation angehalten werden.

## Appendix C: Letter to Commanding Officers at the Recruit Training Centers



Rekrutierungszentrum Rütli ZH  
Spitalstrasse 33  
8633 Rütli ZH

Sehr geehrter Herr Oberst

Wie Sie wissen, werden angehende Offiziere jeweils nach Erhalt des „Vorschlages“ in den Rekrutierungszentren hinsichtlich Kaderpotenzial beurteilt (KBII). Diese Prüfverfahren werden stetig kontrolliert, verbessert und aktualisiert.

Seit Mitte 2005 laufen zum Bereich *Auftreten/Vortragsstil* (Präsentationsaufgabe) Untersuchungen, die nun in die Abschlussphase gelangen:  
Anlässlich der in Rütli ZH und Windisch durchgeführten KBII vom August 05 und Dezember 05 haben die Of-Aspiranten schriftlich eingewilligt, an diesen Untersuchungen teilzunehmen und gegen Ende ihrer VBA abschliessend befragt zu werden.

Die vorgesehene Befragung erfolgt sowohl durch eine Selbst- wie auch durch eine Fremdeinschätzung der Führungsqualitäten durch die unterstellten Rekruten. Diese Beurteilungen erfolgen mittels Fragebogen, der geschätzte Zeitaufwand (Kurze Instruktion sowie Beantwortung der Fragen) beträgt **maximal** 45 min.

Ich wäre Ihnen dankbar, wenn Sie uns dieses Zeitfenster gewähren und nach Möglichkeit in der zweitletzten oder letzten Woche der VBA1 einplanen würden. Sie leisten damit einen wichtigen Beitrag zur Qualitätssteigerung der Kaderprüfverfahren!

Ich werde Sie in den nächsten Tagen telefonisch kontaktieren, um Vorgehen und Termin zu besprechen. Selbstverständlich stehe ich für Fragen und weitere Informationen bei dieser Gelegenheit gerne zur Verfügung.

In der Beilage erhalten Sie eine Liste mit den von uns im August 2005 geprüften Kandidaten, welche ihr OK zur weiteren Befragung erteilt haben. Ich bitte Sie höflich, auf dieser Liste diejenigen Kandidaten zu markieren, welche ihre Ausbildung planmässig begonnen und weitergeführt haben.

Ich danke Ihnen bestens für Ihre Unterstützung!

Mit freundlichen Grüssen

Claudia Stadelmann, Psychologin lic.phil

## Appendix D: Questionnaire Based on the MLQ

### CHARISMA IN DER SCHWEIZER ARMEE

Vielen Dank,

dass Sie sich die Zeit nehmen, den folgenden Fragebogen zum Thema „Charisma in der Schweizer Armee“ zu beantworten. Das Ausfüllen des umfangreichen Fragebogens wird etwa 30 Minuten in Anspruch nehmen.

Zweck dieses Fragebogens ist, eine **Ihnen bekannte charismatische Person innerhalb der Schweizer Armee** zu beschreiben, welcher es durch Charisma, Ausstrahlung und starker Persönlichkeit gelungen ist, Sie nachhaltig zu beeindrucken.

**Wichtig: Die Einschätzung soll sich ausschliesslich auf diese Person beziehen und nicht auf Charisma im Allgemeinen!**

Bitte beantworten Sie die Fragen zügig und vertrauen Sie dabei Ihrem spontanen Urteil.



### **Persönliche Angaben**

In diesem ersten Teil geht es einerseits um Merkmale zu Ihrer eigenen Person, andererseits um Angaben zur Beziehung zwischen Ihnen und der charismatischen Person. Sämtliche Angaben werden vertraulich behandelt!

Ihr Jahrgang: .....

Die charismatische Person ist:

älter       gleich alt       jünger

Ihr Geschlecht:

Mann       Frau

Geschlecht der charismatischen Person:

Mann       Frau

Ihr Grad und Ihre Truppengattung in der Schweizer Armee?

.....

Grad und Truppengattung der charismatischen Person in der Schweizer Armee?

.....

Sie sind Angehörige/r von:

Berufsmilitär     Miliz

Die charismatische Person ist Angehörige/r:

Berufsmilitär     Miliz

Wie lange liegt das erste Zusammentreffen mit der charismatischen Person  
zurück?

.....

*Bevor Sie nun mit dem Beantworten der Fragen beginnen, nehmen Sie sich bitte  
einen kurzen Augenblick Zeit und denken Sie an die Person, die Sie gleich  
einschätzen werden und an die Situationen, in denen Sie von dieser Person  
beeindruckt waren.*

### **Führungsstil**

In diesem Teil geht es um den Führungsstil der Ihnen bekannten charismatischen Person. Schätzen Sie ein, wie häufig die nachfolgenden Aussagen auf diese Person zutreffen.

Die Person, die ich einschätze,....

	nie	selten	hin und wieder	oft	regelmässig, fast immer
1. bietet im Gegenzug für meine Anstrengung ihre Hilfe an	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. überprüft stets aufs neue, ob zentrale / wichtige Annahmen noch angemessen sind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. versäumt es, sich um Probleme zu kümmern, bis sie wirklich ernst geworden sind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. konzentriert sich überwiegend auf Fehler und Abweichungen von Vorschriften	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. versucht, sich nicht herauszuhalten, wenn wichtige Fragen anstehen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. spricht mit anderen über ihre wichtigsten Überzeugungen und Werte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. ist immer da, wenn sie gebraucht wird	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. sucht bei der Lösung von Problemen nach unterschiedlichen Perspektiven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. äussert sich optimistisch über die Zukunft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. macht mich stolz, mit ihr zu tun zu haben	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. macht deutlich, wer für bestimmte Leistungen verantwortlich ist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. wartet bis etwas schief gegangen ist, bevor sie etwas unternimmt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. spricht mit Begeisterung über das, was erreicht werden soll	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. macht klar, wie wichtig es ist, sich 100%-ig für eine Sache einzusetzen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. verbringt Zeit mit Führung und damit, den Untergebenen etwas beizubringen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. spricht klar aus, was erwartet werden kann, wenn die Ziele erreicht wurden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. ist fest davon überzeugt, dass ohne Not nichts geändert werden sollte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. stellt die eigenen Interessen zurück, wenn es um das Wohl der Gruppe geht	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	nie	selten	hin und wieder	oft	regelmässig, fast immer
19. berücksichtigt meine Individualität	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. vertritt die Ansicht, dass erst bei wiederholten Problemen Handlungsbedarf besteht	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. handelt in einer Weise, die bei mir Respekt erzeugt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. kümmert sich in erster Linie um Fehler und Beschwerden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. berücksichtigt die moralischen und ethischen Konsequenzen von Entscheidungen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. verfolgt alle Fehler konsequent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. strahlt Stärke und Vertrauen aus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. formuliert eine überzeugende Zukunftsvision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. macht mich auf Fehler aufmerksam, damit die Anforderungen erfüllt werden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. trifft schnell und ohne zu zögern ihre Entscheidungen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. erkennt meine individuellen Bedürfnisse, Fähigkeiten und Ziele	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. bringt mich dazu, Probleme aus verschiedenen Blickwinkeln zu betrachten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. hilft mir, meine Stärken auszubauen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. schlägt neue Wege vor, wie Aufträge bearbeitet werden können	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. klärt wichtige Fragen sofort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. betont die Wichtigkeit von Teamgeist und einem gemeinsamen Aufgabenverständnis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. zeigt Zufriedenheit, wenn andere die Erwartungen erfüllen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. hat grosses Vertrauen, dass die gesteckten Ziele erreicht werden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. setzt sich effektiv für meine (militärischen) Bedürfnisse und Interessen ein	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. sorgt durch ihr Führungsverhalten für Zufriedenheit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. bringt mich dazu, mehr zu schaffen, als ich ursprünglich erwartet habe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. kann meine Interessen gut bei höheren Vorgesetzten vertreten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

41. gestaltet die Zusammenarbeit so, dass ich wirklich zufrieden bin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. spornt mich an, erfolgreich zu sein	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. setzt sich effektiv für die Belange der Armee ein	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. erhöht meine Bereitschaft, mich stärker anzustrengen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. kann eine Gruppe effektiv führen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. ist für mich so wichtig, dass ich den Kontakt zu ihr suche/pflege	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. vermag mich durch ihre Persönlichkeit zu beeindrucken und zu faszinieren	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. versteht es, mich immer wieder zu begeistern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. verfügt über Fähigkeiten und Eigenschaften, die ich bewundere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**BESTEN DANK FÜR IHRE TEILNAHME!!**

Bei Fragen und für weitere Auskünfte:

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## CURRICULUM VITAE

### PERSONAL INFORMATION

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Full Name: Claudia Stadelmann  
Date of Birth: 20 November 1967  
Citizenship: Switzerland (from Mörschwil SG)  
Home Address: Oberzelg 14  
8627 Grüningen  
Tel. +41 (0)79 357 67 85  
+41 (0)43 243 92 92  
E-mail: stadelmann@stc-consulting.ch

### EDUCATION

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2005 - 2010 **Doctoral studies at the University of Zurich**

- Doctoral dissertation on transformational leadership
- Participation at international congresses

1999 - 2004 **Master's Degree in Psychology, University of Zurich**

- Religious Studies (first minor)
- Criminology (second minor)
- Diploma thesis: Elderly and pets: Physical health and well-being

1987 - 1989 **Studies in Law at the University of Zurich**

1980 - 1986 **Realgymnasium Rämibühl, Zurich**

- Type B: Latin

### WORK EXPERIENCES

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since 2010 **Fernfachhochschule FFHS**  
Lecturer "Leadership and Communication" for Business Studies

2008 - 2009 **Swiss Military Academy at ETH Zurich (Birmensdorf)**  
Research assistant

- Project: *Feedback Refresher Courses*
- Project: *Assessment Center Region Switzerland*

- 2003 - 2008      **Recruitment Center Rüti ZH**  
Psychological assistant
- Leadership potential assessments for military cadre
  - Diagnostic explanation for persons liable to serve
  - Interviews within the scope of SWISSINT
- 1996 - 2003      **RBA-Finanz, Uster**  
Management assistant
- Participant in various projects
- 1991 - 1995      **Wirtschafts-Mathematik AG, Zurich**  
Management and research assistant
- Project: *Sozialhilfestatistik* (BfS)
  - Project: *Kriminalstatistik* (Cantonal Police)
- 1987 - 1991      **UBS, Zurich**  
Part-time besides Studies in Law
- Project board KIS (client information system)
- since 2006      **Organization of seminars**  
Training
- Seminar on soft skills development (in cooperation with Dr. B. Gorsler)
  - Seminar on learning strategies
- since 2007      **Various activities as moderator and assessor**  
Personnel Selection & Human Resources Development
- FRIES Management
  - Zürcher Kantonalbank
  - PHW Business School
  - Swiss Military Academy at ETH Zurich (ACABO)

#### **FURTHER QUALIFICATIONS AND INTERESTS**

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- Languages:      **German:**      Native language  
                      **English:**      Upper intermediate  
                      **French:**      Basic knowledge
- IT:                **MS Office:**      Expert knowledge  
                      **SPSS:**            Expert knowledge  
                      **AMOS:**            Expert knowledge
- Interests:      equestrian sports and horse breeding