

2 Literature Review

Chapter overview

The second chapter of this work deals with the most widely recognized leadership theories of the past decades. After a thorough introduction of the Full Range Leadership and Leader-Member Exchange, recent concepts such as empowering leadership and self-leadership are highlighted. The subsequent part of the work covers the latest publications on distance leadership, delineating e-leadership, virtual leadership, and distance leadership from one another. In the course of the literature review, definitions of distance dimensions are illustrated and their interaction with organizational work-related outcomes is indicated, continually placing particular emphasis on physical distance, relationship quality, and leader-member interaction frequency. Additional forms of distance are outlined and defined. The chapter finally presents a summary of the most compelling studies with regard to self-leadership and distance leadership.

2.1 Leadership Theories – From Early Stages to Modern Concepts

Definitions

The need to study leadership exists jointly with the requirements to lead people in international corporations. Whereas leadership in its early stages was studied predominantly as a hierarchical phenomenon, today, leadership encompasses many issues surrounding the leader, subordinates, peers, and context (Avolio, Walumbwa & Weber, 2009, p. 422). With its numerous facets, leadership has gradually evolved into one of the most investigated fields in organizational science (Yukl, 2013). The key role of leadership is regarded as enhancing organizational relationships among individuals. Effective international corporate leadership relies upon functioning leader-follower relationships (Avolio & Kahai, 2003). With the number of investigations, the number of definitions of leadership has risen to a substantial level, involving the frequently discussed controversy between process and behavioral views. Whereas Bass (1990) views effective leadership as dependent on contextual factors, others see leadership as a behavior reflecting the quality of understanding (House, Javidan, Hanges & Dorfman, 2002). Bass (1990) states that leadership relies on “physical proximity, social and organizational propinquity, and networks of open channels of communications” (p. 658). House et al. (2002) refer to organizational leadership as “the ability of an individual to influence, motivate,

and enable others to contribute toward the effectiveness and success of the organizations of which they are members” (p. 5).

A look into the past

Research in leadership has undergone a transition over time, originally placing particular focus on the investigation of personality traits and competences of organizational members in the first half of the twentieth century (Jenkins, 1947). From then on research began to pay attention to the hierarchical component of leadership. The leader and his/her behavior were the center of focus (Scott, Nahrgang, Wellman & Humphry, 2011). With the investigation of behavioral aspects of leadership, it was soon discovered that leaders have to adjust their behavior according to the requirements of a specific situation (Blake & Mouton, 1978). Almost contemporaneously, behavior-based models were further developed, resulting in the evolution of contingency theories of leadership. Contingency models unite ideas from behavior-based approaches, yet they also consider interaction with followers (Fiedler, 1967; Fiedler & Garcia, 1987). Other popular contingency leadership theories were developed by Hersey and Blanchard (1969) and Vroom and Yetton (1973). Only in the 1990s, more attention was paid to the relationship between leader and followers, pushing relationship-oriented leadership to the fore. The most widely recognized concept describing the relationship between the two parties is leader-member exchange theory (Graen & Uhl-Bien, 1995). According to this model, leaders and members form differentiated relationships during their work span which can take on diverse degrees of quality. High quality relationships are ascribed to a basis in mutual trust and respect. Low quality relationships do not extend past the mere fulfillment of work duties (Graen & Uhl-Bien, 1995).

With the further development of relationship-oriented leadership, Bryman (1992) defined a paradigm called *New Leadership*. Opposed to the *Old Leadership* paradigm, in which transactional leadership and a concentration on role and task fulfillment were dominant behaviors (Antonakis, 2012), charismatic and transformational leadership play a central role in the New Leadership approach (Furtner & Baldegger, 2013; Judge & Piccolo, 2004). Charisma is described as a phenomenon that is frequently subject to research. The charismatic leader can be defined as an individual who can bring about social change (Weber, 1947). Weber defines charisma as “specific gifts of the body and spirit not accessible to everybody” (Weber, 1986, p. 19). The fundamental aspect describing a charismatic individual lies in the ascription of charisma, entirely relying on *others’ perceptions* (Bass, 1985; Neuberger, 2002). Yet, Antonakis (2012) traces the roots of charisma to centuries ago. The author claims that Aristotle (trans. 1954) provided a definition of charisma that

continues to inform the modern understanding of the concept. He explains the use of rhetoric in persuading followers, using terms similar to literature on charismatic behavior. With this, Aristotle is not only a pioneer in the field of charisma, but also in Full Range Leadership (Bass, 1985).

Transformational leadership has progressed since its first publication by James MacGregor Burns in 1978. Effectiveness of leaders and performance outcomes due to effective leadership have since been investigated carefully. The researcher describes transformational leadership as a process of transforming leader and followers by establishing a shared vision and a sense of ethical and moral behavior. The leader recognizes the needs of followers and tries to fulfill them. In the best scenario, this stimulates intrinsic motivation and leads to improved productivity (Bass & Riggio, 2006). Leaders must act people-oriented as well as task-oriented. Focusing solely on one function is far less effective (Denison, Hooijberg & Quinn, 1995). Favorable leadership has been identified in terms of being active in the leadership role, initiating structure, exhibiting consideration, and articulating the team goal (Bass, 1990; Kolb, 1995). Particularly, problems of integrating members and neglecting to respond to individual needs can cause severe disruptions in the leader-follower relation. The most successful leaders can provide both: structure and consideration (Bass, 1990; Kayworth & Leidner, 2002). The structural component can be enhanced by continuously providing feedback on task-related issues. Consideration can be pushed through motivational and mentoring activities by leaders that affect the value-oriented side of followers. Leadership effectiveness is observed carefully by subordinates since leadership largely depends on the perception of followers (Bass, 1990).

The New Leadership paradigm is characterized by its concentration on the *heroic leader* who uses their power to influence others (Furtner & Baldegger, 2013). Yet, the leader-centric approach in empirical investigations is subject to criticism (Alimo, 1995). Leadership concepts focus on the influence of one central individual on other individuals and the organization, yet it is often noted that effective leadership of people and organizations requires multiple individuals and/or their cooperation (Crevani, Lindgren & Packendorff, 2007). The *post-heroic* approach to leadership shifts the central view away from the leader to more complex interactional processes (Fletcher, 2004). The most recognized streams in post-heroic leadership research are *empowering leadership*, and with it *shared leadership*, *superleadership*, and *self-leadership*.

The present study assumes a critical position with regard to heroic, leader-centric approaches to leadership. Not only does it place the attention on followers, it com-

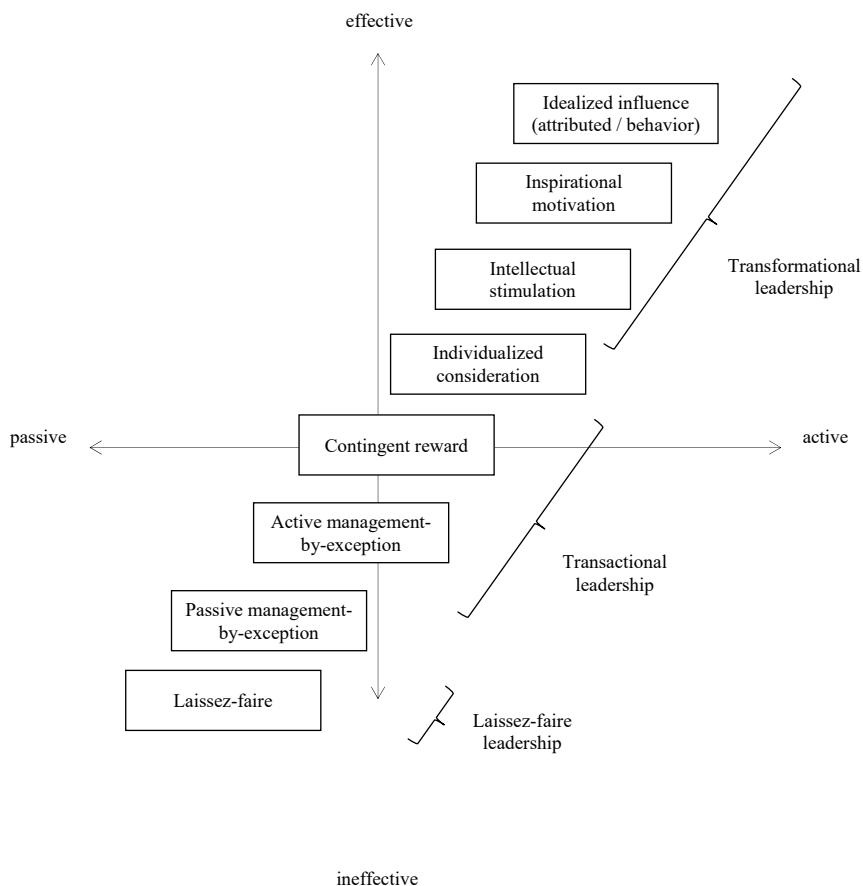
biner fragments of the New and Old Leadership paradigms with post-heroic streams from recent academic work. The research is directed at investigating effects of leadership behavior on followers' work-related outcomes, taking concepts of post-heroic leadership into account. The most widely accepted model reflecting leadership behaviors is the Full-Range Leadership Model developed by Bass and Avolio (1995). It not only represents transformational behaviors, but also takes a more holistic view of leadership including transactional and passive behaviors. Moreover, the research takes follower-centric aspects into account by incorporating self-leadership into the empirical investigation. To understand the mechanisms of leadership and self-leadership, related theories of empowering leadership, shared leadership, and superleadership are explained. As the interaction between leader and followers involves a relational component, Leader-Member Exchange theory is presented as an integral part of this study.

2.1.1 Full Range Leadership

Early theories of leadership restrictedly incorporate exchanges between leaders and subordinates. Proceeding from Burns' (1978) work on transformational leadership and recognizing that charismatic leadership might not lead to desired results as the sole characteristic of successful leaders, new core functions and behavioral aspects came to inform expectations of modern leadership. With the introduction of transformational leadership, Bass (1985) affected a paradigm shift in the understanding of effective leadership (Antonakis, Avolio & Sivasubramaniam, 2003). The Full Range Leadership Model (Bass & Avolio, 1995) integrates dimensions of charismatic, transformational, contingent reward, management-by-exception (MBE) and laissez-faire leadership into one single theory and opens up a new era of comprehensive leadership research. Bass and Avolio's (1995) model takes value-intensive needs of subordinates into account for the first time in the history of leadership theory. Undoubtedly, Full Range Leadership has evolved to one of today's most discussed theories in leadership research and might be regarded as an advanced approach to explaining behavioral relations between leaders and followers in international corporations.

The original model comprised four factors, however it was revised after repeated empirical application. The latest model consists of nine single-order factors accounting for leadership effectiveness, active and passive leadership (Antonakis et al., 2003). Five transformational leadership factors, three transactional and one passive leadership factor are encompassed in the model (Figure 2).

Figure 2. The Full Range Leadership Model



Source: Bass and Avolio (1995)

Transformational leadership

Literature reviews on Full Range Leadership revealed that more studies have been published on transformational and charismatic leadership than on any other popular leadership theory (Furtner, 2010; Judge & Piccolo, 2004). Transformational leadership can be seen as a matter of directed influence belonging to the New Leadership

paradigm (Furtner & Baldegger, 2013, p. 136). The dimension focuses on proactive and inspirational components of organizational leadership. Transformational leaders strive to elevate subordinates' awareness by providing vision and emphasizing collective interests over self-interest. Furtner (2010) proposes that transformational leadership carries traits of soft and emotional leadership characteristics.

Transformational leadership as a higher-order factor includes five behavioral sub-facets: (1) *idealized influence (attributed)*, (2) *idealized influence (behavior)*, (3) *inspirational motivation*, (4) *intellectual stimulation*, and (5) *individualized consideration* (Bass & Avolio, 1995). The original term for idealized influence was *charisma*. Therefore, definitions of the facet still include annotations referring to the early terminology (Antonakis, 2012, p. 266).

Idealized influence (attributed) describes the socialized charisma of leaders, e.g., whether followers perceive a leader as powerful and confident, pursuing higher-order ideals (Antonakis et al., 2003).

Idealized influence (behavior) builds on leaders' charismatic actions considering strong inner values and beliefs. Leaders are admired for their extraordinary capabilities and determination (Bass & Riggio, 2006). The main differentiator between attributed and behavioral idealized influence is the focus entirely on *attributions and perceptions* by followers for the first facet, whereas behavioral aspects are determined by *observation* (Antonakis, 2012). The two dimensions lead in the best case scenario to identification with the leader.

Inspirational motivation encompasses behaviors that inspire followers by providing vision and practicing role modeling (Michel, Lyons & Cho, 2011). These result in the specific engagement of subordinates by sparking enthusiasm and optimism (Bass & Riggio, 2006). Providing confidence, leaders raise followers' expectations to achieve ambitious goals that may have seemed unreachable (Bass, 1985). As with idealized influence, inspirational motivation is strongly linked to perceptions of charismatic leadership (Bass & Avolio, 1993).

Intellectual stimulation refers to leaders taking actions that activate subordinates' logical thinking, strengthen their creative behavior, and encourage them to take on new perspectives and be more flexible (Antonakis et al., 2003; Michel et al., 2011; Sosik, Kahai & Avolio, 1998). It is the only *non-emotional* facet of transformational leadership (Antonakis, 2012, p. 266). The leader raises followers' awareness of problems and stimulates them to solve the issues (Bass, 1985, p. 99).

The last component of transformational leadership, *individualized consideration*, contains attributes helping followers to reach their potential by providing socio-

emotional support (Bass, 1985; Yammarino & Bass, 1990). Leaders pay attention to subordinates' individual needs allowing for personal development. Providing constant support and coaching, followers are encouraged to perform in order to meet organizational goals. Individualized consideration is characterized by frequent contact and feedback (Bass, 1985; Bass & Avolio, 1990).

Early considerations on transformational leadership raised assumptions that leaders inhibiting strong transformational attributes might be hindered in building relationships and impacting the performance of their followers (Kerr & Jermier, 1978). Since then, it has been confirmed that transformational leaders are instead the relationship builders who are associated with high effectiveness and are perceived as effective by subordinates (Neufeld et al., 2010). Individuals trust transformational leaders and display a high degree of satisfaction (Hoyt & Blascovich, 2003). Transformational leaders apply mentoring and coaching techniques, encouraging followers to solve problems creatively and to challenge traditional processes. Effective leaders tend to use more metaphors, symbols, and imagery-based argumentation when communicating (Bass, 1985). Fostering personal growth, transformational leaders augment the relationship between individuals and the team they belong to. Transformational leaders identify themselves with their work and display a high degree of self-efficacy which in turn may lead to improved individual performance (Walumbwa et al., 2008). An earlier study links transformational leadership to business unit performance, pointing out that leaders must develop transformational skills in order to lead effectively (Howell & Avolio, 1993). Research suggests that transformational leaders can stimulate intrinsic motivation in follower behavior and expect them to perform because of the nature of the task (Kahai & Avolio, 2008). Those leaders have the power to promote intrinsic value in followers in order to achieve goals and might in turn foster organizational commitment (Avolio, Zhu, Koh & Bhatia, 2004). Transformational leaders can guide followers to envision a better future and to achieve their goals. With their optimistic attitude they give meaning to followers' work. Those leaders are further projected to empower people through their optimism and integrity (Bass & Avolio, 1994). Yet, differentiation exists between group and individually focused transformational leadership. A study by Tse and Chiu (2014) discovered that transformational leadership focused on the individual significantly strengthens creativity but is less effective in encouraging organizational citizenship behavior. Conversely, citizenship behavior is enhanced when transformational leadership is directed to the group.

Results of the Global Leadership and Organizational Behavior Effectiveness (GLOBE) Research Program initiated by Robert House in 1991 indicate that outstanding leaders display characteristics associated with transformational leadership,

such as being trustworthy and honest, and showing integrity. Being dynamic, decisive, dependable, and a team builder further figured among the highest-ranked attributes (Den Hartog, House, Hanges, Ruiz-Quintanilla & Dorfman, 1999, p. 239). On the contrary, being dictatorial, asocial, and non-cooperative were viewed as undesired features. The researchers' proposal that numerous characteristics related to transformational leadership are universally validated as contributing to successful leadership, were confirmed. Den Hartog et al. (1999) name them as "motive arouser, foresight, encouraging, communicative, trustworthy, dynamic, positive, confidence builder and motivational" (p. 250). Furthermore, findings suggest that leadership competence means more than displaying a set of attributes – rather, it denotes that adaptation to each individual culture is necessary (Den Hartog et al., 1999).

Whereas transformational leadership and follower performance have often been the subject of interest, only little attention has yet been paid to the impact of transformational leadership behavior on follower leadership potentials (Cole et al., 2009). In their meta-analysis of the effects of transformational and transactional leadership on effectiveness, Lowe, Kroeck and Sivasubramaniam (1996) found transformational leadership to appear more frequently at lower hierarchy levels. Transformational leadership further revealed higher team effectiveness than transactional leadership (Howell et al., 2005; Lowe et al., 1996). It doesn't matter whether transformational leadership is applied in a vertical or shared way; both conditions influence team effectiveness positively (Pearce & Sims, 2002). Particularly individualized consideration and charisma were revealed to predict business unit performance (Howell & Avolio, 1993). Evidence was found that transformational leadership is also perceived as more efficient by followers than transactional leadership (House & Shamir, 1993). Mihalcea (2014) discovered particularly attributed idealized influence and individual consideration to be significantly positively related to subordinates' performance.

Despite empirically tested direct effects (Birasnav, 2014; Judge & Piccolo, 2004; Mihalcea, 2014) some scholars searched for underlying indirect effects of transformational leadership on work-related outcomes. One of these studies investigated the role of positive mood in the leadership-performance relation. Tsai, Chen and Cheng (2009) highlighted that followers' positive mood can contribute to a favorable work-performance when transformational leadership is executed. In other words, it functions as mediator suggesting that followers with a positive mood generally show an increased task performance. Another study tested for mediation effects of basic-needs satisfaction and work engagement on the leadership/performance relation. Kovjanic, Schuh and Jonas (2013) articulate that trans-

formational leadership is positively linked to followers' satisfaction of needs for competence, relatedness, and autonomy. Needs for competence and relatedness mediated the influence of transformational leadership on work engagement which in turn led to increased performance quality, quantity, and task persistence. Identification with the leader further appeared to potentially enhance the influence of transformational leadership on work performance (Cavazotte, Moreno & Bernardo, 2013).

Transactional leadership

The second higher-order dimension of Full Range Leadership requiring consideration is transactional leadership. The foundations of transactional leadership lie in expectancy theory (Vroom, 1964) and can be allocated to the Old Leadership paradigm (Furtner & Baldegger, 2013, p. 136). Transactional leadership builds on the fact that individuals are likely to engage in activities that capitalize on their expected return for performance. Using reward systems, transactional leadership seeks to explain the *effort-reward relationship* (Pearce & Sims, 2002, p. 174). Whereas transformational leadership places the focus on developing followers, transactional leadership is characterized by exchange between leaders and followers (Avolio, 2011). Transactional leaders emphasize a rational exchange process which is typically characterized by setting clear objectives and monitoring for achievement.

The transactional leadership dimension includes three first-order factors: (1) *contingent reward*, (2) *active management-by-exception (MBEa)*, and (3) *passive management-by-exception (MBEp)* (Bass & Avolio, 1995). *Contingent reward* leadership is based on an exchange process between leader and followers. It is considered an effective and efficient leadership behavior (Judge & Piccolo, 2004). Targets are set with followers which in turn are promised rewards if goals are met. Contingent rewards can be either transactional or transformational in nature. A reward might be categorized as transactional when it is materialistic. Psychological rewards, such as praise, make a contingent reward transformational (Antonakis et al., 2003).

Active management-by-exception describes a facet of transformational leadership that is characterized by monitoring and control by the supervisor. If required, the leader may take immediate corrective actions to prevent bigger mistakes. For this reason, active MBE is considered effective in many situations.

Passive management-by-exception is less effective than active MBE as it strives to place responsibility in the hands of the follower. Followers are required to make decisions on their own and have to deal with the consequences. The leader assumes

a passive role and only interferes if mistakes have already been made (Furtner & Baldegger, 2013, pp. 159-161).

Transactional leadership is considered to be more effective in stable environments when there is no immediate need for change (Daft & Lengel, 1998). Transactional leaders encourage followers by emphasizing rewards in return for work performance (Kahai & Avolio, 2008). Transactional leadership has often been linked to successful performance. Leaders that exhibit strong contingent reward leadership traits are perceived as effective communicators (Neufeld et al., 2010). Contingent reward leadership was further found to positively influence performance (Bass & Avolio, 1990). A recent study found transactional rather than transformational leadership to be associated with subordinates' satisfaction (Mihalcea, 2014). The author claims that immediate reward and liberty are of utmost importance. Contradictory findings outline that the relationship between leadership behavior and performance is more difficult than assumed, as group quantitative performance was found to be better under transactional leadership, whereas group qualitative work was enhanced under transformational leadership (Hoyt & Blascovich, 2003). This could be due to the intellectual stimulation associated with transformational leadership (Jung & Avolio, 2000). Whereas transactional leadership encourages followers to meet the negotiated standard for performance, transformational leadership promotes performance beyond the negotiated level (Bass, 1985). Howell and Avolio (1993) account for this difference in terms of the commitment expressed by followers towards leaders.

Laissez-faire leadership

While transformational and transactional leadership are active behaviors, laissez-faire leadership is characterized by a fairly passive way of interacting with followers (Den Hartog, Van Muijen & Koopman, 1997, p. 21). As the name suggests, laissez-faire is considered to be non-participative leadership and is therefore also referred to as *non-leadership*. Laissez-faire leaders' behavior is characterized by the avoidance of decision-making and the disposal of responsibility (Antonakis et al., 2003). These supervisors tend to miss meetings, often excusing themselves (Furtner & Baldegger, 2013). The interaction between supervisor and subordinates is limited and a relationship between the two parties is unable to evolve. Rather, followers substitute their own knowledge and competences for the missing leadership (Furtner, 2012; Furtner & Baldegger, 2013). In contrast to transformational and transactional leaders, leaders with predominantly laissez-faire characteristics do not actively execute leadership and success is often a result of coincidence. Team members must thus make and rely on their own decisions, and are left alone

in most situations as feedback and direction are rare. Laissez-faire leadership is viewed as a counterproductive way of engaging with followers as it may result in interpersonal conflict (Skogstad, Einarsen, Torsheim, Schanke-Aasland & Hetland, 2007, p. 89). While this might be true if the leader fails to interfere during conflicts or is unable to motivate followers, a healthy portion of less leadership activity may on the other side result in the empowerment of subordinates (Den Hartog et al., 1997, p. 21). Indeed, most sources describe only negative effects of laissez-faire leadership and the suffering of followers under those circumstances, yet a laissez-faire leader provides potential for proactive followers to substitute their individual self-leadership for the (missing) leadership (Furtner & Baldegger, 2013; Manz & Sims, 1980).

Augmentation effect

Burns (1978) thought of transformational and transactional leadership as opposed to one another. Bass (1985) was one of the first to introduce the notion that leaders could exhibit both transformational and transactional behaviors. In fact, Full Range Leadership dimensions should be regarded as belonging to a continuum rather than to separable behaviors. Transformational and transactional leadership are related to such an extent that it is often difficult to discern their effects (Judge & Piccolo, 2004). Transactional leadership reflects its position as a precondition for transformational leadership, and ideal leaders exhibit a composition of both transactional and transformational leadership (Furtner & Baldegger, 2013).

Bass and Avolio (1994) claim that in addition to the effects of transactional leadership, transformational leadership explains an additional positive variance of subordinates' performance known as augmentation effect. Followers are more motivated to accomplish targets and even go the extra mile to achieve them, and they perceive higher satisfaction (Bass, 1995). Yet, contradictory results expose the augmentation effect to criticism. Wang, Tsui and Xin (2011b) could not confirm effects of the augmentation hypothesis. A recent study by Birasnav (2014), however, found that transformational leadership is positively linked to organizational performance even after controlling for effects of transactional leadership. The study also supported assumptions that transformational leadership is positively associated with knowledge management procedures beyond the effects of transactional leadership.

Assessing leadership behavior

Zäch (2014, p. 119) identified seven appropriate scales for assessing leadership behavior. The Conger-Kanungo Scale (Conger & Kanungo, 1988) measures leader-

ship behavior over a period of time. Criticism of the instrument includes the high intercorrelation between its subscales (Rowold & Heinitz, 2007). The Transformational Leadership Behavior Inventory (Podsakoff, MacKenzie, Moorman & Fetter, 1990) is the most widely accepted and theoretically substantiated measure of transformational behavior besides the MLQ. The measure evaluates transformational and transactional leadership in terms of 33 items (Podsakoff, Todor, Grover & Huber, 1984). A validated German language version offering high reliability is also available (Rowold & Heinitz, 2007). The Leadership Practice Inventory (Posner & Kouzes, 1993) is a 30-item measure repeatedly showing low to moderate internal consistency (Zagorsek, Stough & Jaklic, 2006). Behling and McFillen (1996) created the Follower Belief Questionnaire which assesses nine dimensions of transformational leadership behavior. Zäch (2014, p. 121) found that the measure has thus far been applied only sparsely in academic research and lacks a validated German translation. Alimo-Metcalfe and Alban-Metcalfe (2001) developed the Transformational Leadership Questionnaire which is used in accordance with FRL, yet reflects only the transformational dimension. Some researchers criticize the focus of leadership assessment scales on management rather than on the leadership process itself (Kent, Crofts & Azziz, 2001). Six dimensions reflecting the process were developed, of which only four factors could be confirmed thus far (Kent et al., 2001, p. 223). The scale developed by Rafferty and Griffin (2004) reflects all aspects of the FRL compared to the other discussed measures. However, the scale shows high intercorrelation between the different sub-dimensions. Contingent-reward leadership displayed high positive correlation with the transformational scale. Zäch (2014, p. 123) concludes that using the MLQ for assessing leadership behavior bears advantages over the discussed instruments. High intercorrelation between subscales and lower internal consistency of some measures do not abrogate the criticism of the MLQ (Bass & Avolio, 1995). The original MLQ consisted of 73 items and was first published as a 67-item version by Bass and Avolio in 1990. The revised scale, the MLQ 5X (Bass & Avolio, 1997) shows consistently acceptable reliability (Antonakis et al., 2003; Bass & Riggio, 2006). Furthermore, a thoroughly validated German language version exists (Felfe, 2006). Den Hartog et al. (1997) suggested that passive management-by-exception and laissez-faire leadership should be condensed to one *passive leadership* factor, as transactional behavior is far more active than passive MBE. This is assumed to be reflected in the improved internal consistency. Felfe and Goihl (2002) confirm the lack of adequate discriminant validity of passive MBE and laissez-faire leadership.

Although Full Range Leadership is among the most influential leadership theories of the last decades, meta-analyses show that it is not free of criticism (Judge & Pic-

colo, 2004; Wang, Oh, Courtright & Colbert, 2011a). Full Range Leadership and the major academic focus on transformational leadership neglect the task and strategic-oriented facets of leadership (Yukl, 2008). Beyond FRL, leaders must take environmental factors into consideration and ensure efficient use of resources (Mumford, 2006). Antonakis and House (2002) call the particular behavior of striving for organizational effectiveness *instrumental leadership*. Instrumental leadership was found to be strongly linked with prototypically good leadership and to be more important for effectiveness outcomes than transformational or transactional leadership (Antonakis & House, 2014, p. 765).

2.1.2 Relationship Quality

Conceptualization of relationship quality between individuals has mostly been reflected in an expression of the quality of leader-member exchange (Graen & Uhl-Bien, 1995). The review by Erdogan and Bauer (2014) provides reasonable evidence that the quality of relationship is indeed replicated in LMX literature that has found practical application in many research attempts. The term relationship quality is thus used synonymously with leader-member exchange in this work. An argument for viewing relationship quality as a part of *distance* is provided by Shamir (2013), on the one hand, who declares distance to be actively related to the leadership relation. On the other hand, Eichenberg (2007) used the reciprocal of LMX to determine *relationship distance*.

Fundamentals of relationship quality and the evolution of leader-member exchange

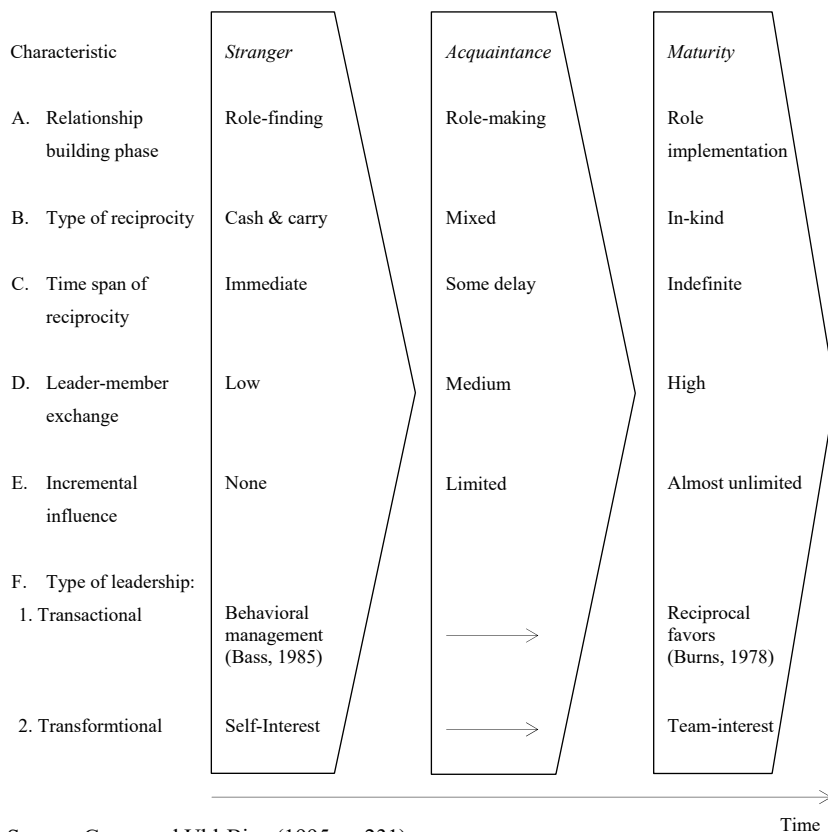
Some 40 years ago, leader-member exchange began revolutionizing leadership theory as it was one of the first concepts to concentrate on the dyadic relationship between two individuals within an organization (Graen & Uhl-Bien, 1995, p. 225). The relationship-based approach holds that leaders and direct reports possess the ability to form mature partnerships (Graen & Uhl-Bien, 1991a). Leader-member exchange theory evolved from vertical-dyadic linkage theory (Dansereau, Graen & Haga, 1975) and is estimated to be the foremost dyadic leadership theory in research (Erdogan & Liden, 2002). Hence, LMX is considered the key to understanding effects of dyadic relationships (Erdogan & Bauer, 2014, p. 407). It perceives relationships between leaders and subordinates as unequal due to limitations in time and social resources which manifest in either low or high quality relationships (Mayer, Keller, Leslie & Hanges, 2008). Since the 1970s, LMX has undergone investigations considering many different perspectives. From dyadic over group level

to intra-group dyadic considerations, LMX has frequently been the subject of academic interest (Graen & Uhl-Bien, 1995).

Leader-member exchange postulates that in order for effective leadership to occur, leader and subordinates must develop mature partnerships. Research has shown that relationships may differ in terms of quality. Whereas supervisors' relationships with some members manifest in high quality exchange, built on trust and respect, different individuals could be exposed to lower quality exchanges (Erdogan & Bauer, 2014; Zalesny & Graen, 1987). Low quality relationships are characterized by limited personal interaction with leader and follower appearing to be almost strangers to each other. Leadership is primarily existent because of the obligation by subordinates to comply, which in turn exhibits parallels to the exchange processes existent in transactional leadership (Bass, 1985; Graen & Uhl-Bien, 1995). Gouldner (1960) explains that trust evolves while the type of exchange moves from economic to social as favors are returned after a while by intrinsic motivation rather than formal obligation. In other words, individuals stop keeping count of the favors performed, resulting in a purely voluntary behavior (Erdogan & Bauer, 2014, p. 408).

Based on a series of studies Graen and Uhl-Bien (1991b) developed the "Life Cycle of Leadership Making" (Figure 3), which identifies stages of relationship formation, and provides suggestions on developing high quality leader-follower relations. Three stages are grounded on a life cycle model of leadership relationship maturity (Graen & Uhl-Bien, 1995, p. 231). The first stage, called *stranger*, amounts to the relationship-building phase. Individuals have their first interactions which occur on a formal basis. Exchanges are pursued adhering to contractual agreement. Leaders provide the information which followers need to perform; in return, followers behave as required. Social exchange is vital at that point in time for the relationship to move on. Leaders and followers may then reach the *acquaintance* stage which is characterized by limited relationships. Individuals begin to exchange social information beyond contractual agreement. Leaders and followers share information and resources, still limitedly though. As these relationships grow, leaders and followers enter the *maturity stage*. At this step, leader and subordinate have developed a mature partnership that is characterized by respect, obligation, and a high degree of mutual trust. Both partners should be able to benefit from reciprocal influence and by taking on supplementary responsibilities within the organization (Graen & Uhl-Bien, 1995).

Figure 3. The Life Cycle of Leadership Making



Source: Graen and Uhl-Bien (1995, p. 231)

The key hypothesis of LMX is that individuals form differentiated relationships (Erdogan & Bauer, 2014, p. 408). Taking this into account, leader-member exchange may affect not only the relationship between leader and follower but also work-related outcomes. The potential influence of LMX appears realistic as followers could respond negatively to differentiation of individuals within groups as this might be perceived as unfair by followers (Uhl-Bien, Graen & Scandura, 2000). Perception of unfairness by followers was in turn found to predict performance negatively (Johnson, Truxillo, Erdogan, Bauer & Hammer, 2009). On the contrary, followers might develop a feeling of disappointment as their leader develops the

same degree of relationship with each subordinate. This may be especially true for cases when contributions made by some followers to a project differ largely from those made by others (Sias & Jablin, 1995). Team members finding themselves in high quality LMX positions might attain the chance to grow personally and professionally in the first place as they receive more mentoring and coaching (Erdogan & Bauer, 2014; Law et al., 2000).

Leader-member exchange and work-related outcomes

There are many ascendants associated with the emergence of LMX. Team members showing that they invest attention and effort in cultivating a good relationship with their leader will facilitate the emergence of a high leader-member exchange quality (Maslyn & Uhl-Bien, 2001). Employees seeking feedback from their supervisors might further value their leaders' opinion which in turn leads to the development of LMX quality (Lam, Huang & Snape, 2007). Lee, Park, Lee and Lee (2007) discovered that employees were much more likely to actively seek feedback from their supervisors when LMX quality was high. In turn, supervisors were found to be more favorable to providing feedback if the relationship was well-functioning (Harris, Harris & Eplion, 2007).

A meta-analytic study by Gerstner and Day (1997) found that LMX quality is an indicator for individual performance. The meta-study further investigated correlations between LMX and performance ratings done by followers. For leader-reported LMX the mean sample-weighted correlation was higher than for member-rated LMX and member-rated performance. The authors further found associations of LMX with satisfaction, commitment, and role clarity. Testing leader-rated LMX and performance and member-rated LMX and performance the scholars found that there is a difference whether LMX is rated by leaders or team members. Results indicate that the relationship between LMX and performance is stronger when LMX is measured from the leaders' perspective (Gerstner & Day, 1997, p. 833). This outcome might be justified as performance ratings were done by supervisors in the majority of studies. As supervisors with high quality LMX tend to rate followers more highly in performance (Kacmar et al., 2003) this might be an issue of which side responses are collected on. For supervisors rating followers' performance LMX thus might produce higher correlations. Self-ratings of performance by followers are therefore predicted to correlate more strongly with follower ratings of LMX.

A different study analyzed 106 dyads for leaders' and subordinates' perceptions of LMX and the correlation with the level of delegation they encounter in their jobs

(Schriesheim, Neider & Scandura, 1998). For evaluating leader-member exchange they used a six-item scale by Schriesheim, Neider, Scandura and Tepper (1992). The researchers show that leaders' and followers' perceptions of LMX are significantly correlated with delegation. Delegation also shows a significant relationship to follower performance. In support of the multidimensionality of LMX, delegation did not account for most of the variance in the regression model as it probably would have done if LMX was merely a task-related concept, the authors argue. Supervisors' ratings of LMX also moderated the relationship between delegation and individual performance. Erdogan and Bauer (2014, p. 412) explain delegation as a way for leaders to test their subordinates. The ability of a leader to delegate thus comes with a higher level of job autonomy in which the follower may decide themselves how to perform the work (Erdogan & Bauer, 2014).

Murphy and Ensher (1999) investigated the effects of high quality LMX relationships on performance outcomes. The researchers discovered that supervisors liked subordinates better who were higher in self-efficacy. Those participants who were perceived to be more similar to their supervisors, experienced higher quality relationships and were rated as better performers compared to those lower in self-efficacy. Furthermore, similarities with regards to perceptions of supervisors and followers were found to be pivotal compared to demographic similarities.

Another study tested the effects of LMX and communication frequency on performance ratings by supervisors (Kacmar et al., 2003). In a sample of 188 private sector workers, the researchers found evidence that LMX was positively related to performance ratings by supervisors. This finding indicates that followers in high LMX relationships received significantly higher performance ratings by supervisors than did those in low LMX relationships. Furthermore, for those followers reporting frequent communication, LMX was related more strongly to job performance. For those communicating infrequently, the relationship was weak. When LMX was low, frequent communication corresponded to unfavorable job performance ratings, whereas infrequent communication correlated with higher job performance ratings. At high levels of LMX quality, outcomes were the opposite. Followers communicating frequently with their managers received the highest job performance ratings while those communicating infrequently received unfavorable ratings. Summarizing the findings, frequency of communication moderated the relationship between LMX and job performance ratings. In high LMX relationships, the more frequently supervisor and subordinates communicated with each other, the higher the job performance ratings. Conversely, in low LMX quality relationships, the more frequently the two parties communicated the further job performance ratings dropped. The second study confirmed outcomes of the first study (Kacmar et al., 2003).

Wang et al. (2005) investigated the relationship between transformational leadership and task performance taking mediating effects of leader-member exchange into account. The researchers found transformational leadership to correlate significantly and positively with task performance and organizational citizenship behavior. LMX showed similar results correlating with both outcomes. Mediation analysis revealed that LMX fully mediated the effects of transformational leadership on performance. The finding was true for both task performance and organizational citizenship behavior. Conclusions of the work entailed the potential of transformational leadership to foster high quality LMX relationships and to encourage “extrarole behaviors, through processes of personal and/or social identification” (Wang et al., 2005, p. 429). LMX makes transformational leadership meaningful to followers.

Bauer, Erdogan, Liden and Wayne (2006) investigated the effects of leader-member exchange on performance, turnover intention, and actual turnover during new executive development. The authors tested for the moderating role of extraversion and found it to be moderating the relationship between LMX, turnover intention, and turnover. Interestingly, the researchers found extraverts to be performing at the same level, regardless of their LMX relationships. Yet, for introverts LMX quality did matter. Those introverted individuals that failed to establish high LMX relationships were rated lower in performance by supervisors. Findings of the study suggest that LMX could be regarded as a substitute for extraversion and might thus act as moderator as the difference between extraverted and introverted followers with regards to performance and turnover only existed in low quality LMX relationships.

A study by Johnson et al. (2009) assessed the relationship between organizational and departmental fairness and follower work performance while investigating moderation effects of leader-member exchange quality. The researchers found that overall organizational fairness was positively correlated with organizational citizenship behavior targeting individuals. Yet, the relationship became insignificant when departmental fairness was included in the model. This finding strongly suggests that organizational fairness and departmental fairness are distinct and of utmost importance. It was detected that task performance as well as organizational citizenship behavior towards the organization were more intensely impacted by the extent of perceived departmental fairness. The authors further found interaction between organizational fairness and leader-member exchange quality indicating that LMX assumes a moderating role in the relationship between fairness and task performance. Results of positive correlations between perceptions of overall organizational fairness and in-role task performance occurring only under low LMX relationships lead to the assumption that fairness takes on higher relevance when trust

is lacking (Johnson et al., 2009, pp. 444-445). LMX was furthermore found to moderate the relation between departmental fairness, in-role task performance, and organizational citizenship behavior towards the organization. In high quality LMX relationships departmental fairness did not predict performance, whereas in low quality LMX relationships departmental fairness did matter.

Liden, Erdogan, Wayne and Sparrowe (2006) studied the influence of LMX differentiation on individual performance and group performance with a sample of 834 employees from six organizations. Findings included that LMX differentiation predicted neither individual performance nor group performance, yet individual LMX did positively predict individual performance. A link between LMX differentiation and individual performance for team members with a low degree of LMX was confirmed. Followers low in LMX who belong to a team with high LMX differentiation could gain motivation to increase their performance with the aim of achieving a similar high quality relationship with their leader to that of their peers. For members high in LMX, the level of LMX differentiation had limited effects (Liden et al., 2006). For teams with high task interdependence, LMX differentiation positively predicted group performance. LMX median further moderated the relationship between LMX differentiation and group performance. For groups with a low median, LMX differentiation was positively and significantly related to team performance, whereas for high LMX median groups, the relationship could not be confirmed.

Conducting three field studies, Mayer and colleagues (2008) found that coworkers' LMX moderated the relationship between individual LMX and work-related outcomes. In other words, relationships were stronger when coworkers' LMX was high. In summary, individual-level outcomes (job satisfaction, organizational commitment, competence perceptions, group identification, organizational citizenship behavior, deviance, performance) were more promising when LMX scores of individual team members and peers were consistent.

Research by Golden and Veiga (2008) was undertaken to explore effects of working virtually and how the condition influences the relationship between LMX quality and work-related outcomes. Testing for moderation of working virtually on LMX and organizational commitment, the authors found that the influence of LMX on commitment, job satisfaction, and job performance was affected by the degree of virtual work. For instance, team members with well-established LMX relationships showed high commitment when frequently working virtually. Members with less established LMX showed less commitment when working similarly frequently in virtual mode. The degree of virtual work also moderated the influence of LMX on job satisfaction in the sense that job satisfaction was highest when members

were working extensively virtually and had good LMX relationships. When established relationships were limited, job satisfaction decreased when working even more virtually. Finally, the researchers found the degree of virtual work also moderated the influence of LMX on job performance. Findings show that LMX (on all levels) was more positively linked to individual performance when jobs are performed virtually.

LMX was tested as potential mediator in the dyadic leader-follower relationship in a study by Carter, Jones-Farmer, Armenakis, Field and Svyantek (2009). The authors found that LMX and interactional justice mutually mediated the relationship between transformational leadership and follower job performance. It was discovered that LMX and interactional justice form a reciprocal relationship, yet if one mediator was excluded, the model was still significant. This outcome indicates that LMX alone still acts as a mediator. Major results of the research include that transformational leadership stimulates leader-follower dyadic relationships. Furthermore, followers are able to interpret relationships and, most importantly, the quality of their relationship did impact their job performance. A study published shortly afterward investigated effects of organizational justice on work performance while assessing mediating roles of organizational justice and leader-member exchange (Wang, Liao, Xia & Chang, 2010). The researchers discovered that organizational commitment and LMX generally mediated the relationship between organizational justice and work performance.

Particular attention in leader-member exchange theory was placed on the leader in published work by Schwind-Wilson, Sin and Conlon (2010). The conceptual framework discusses the question of what leaders derive from their dyadic relationships followers. The authors claim that, for instance, friendship is shared by both leaders and followers and may thus benefit both parties. Yet, there are some relationship outcomes that are beneficial exclusively to leaders. The researchers suggest that followers should know their leaders in order to provide the best support reciprocally (Schwind-Wilson et al., 2010, p. 369).

Davis and Bryant (2010) undertook the attempt to research LMX, trust, and performance in an academic and scientific environment (research centers). The authors treated LMX and trust as distinct indicators which were confirmed in their study. Findings revealed that research center performance fully mediated the relationship between LMX and satisfaction with the research center, as well as between trust and satisfaction with research centers, and between LMX and commitment to research centers. Research center performance further predicted satisfaction and

commitment to research centers. Yet, LMX and trust did not mediate any relationship.

Looking for mediation effects of self-efficacy on the relation between LMX and job performance, self-efficacy turned out to fully mediate this relationship. In addition, LMX was found to be a positive direct predictor of job performance (Luo & Cheng, 2014). Yet, leader-member exchange quality is not only linked to better performance, it also works the other way around. Sue-Chan, Au and Hackett (2012) found that job performance did predict supervisors' trust in employees positively. The study further outlined that better job performance led to higher assessment in LMX. Trust was found to mediate the relationship between followers' job performance and leaders' experience of LMX.

In their review of more than 400 studies, Erdogan and Bauer (2014) conclude that there is no consistency in demographic variables linked to LMX. The only variable which showed frequent significance was dyad tenure. It is yet unclear whether dyad tenure is a predictor or a consequence of LMX as team members that do not get along with their leader well would presumably leave the team earlier (Erdogan & Bauer, 2014, p. 411).

Assessing relationship quality

Discussions on how to measure the quality of relationships has since been ongoing. The originally developed scale by Dansereau and colleagues (1975) has been refined multiple times. Liden and colleagues (2006) assessed leader-member exchange quality with the LMX-13 scale from subordinates' perspective. In a survey prepared by Kacmar et al. (2003) a seven-item scale developed by Scandura, Graen and Novak (1986) was applied. The scale showed strong reliability with a Cronbach alpha value of .87. Another study by Mayer et al. (2008) used a measure by Scandura and Graen (1984) to evaluate LMX in three independent samples of 209 employees ($\alpha = .80$), 904 employees ($\alpha = .93$), and 455 individuals ($\alpha = .92$).

Graen and Uhl-Bien (1995) theorize about two aspects that have mainly driven the evolution of the LMX measure. First, it has undergone multiple phases of refinement and second, the question whether it is uni- or multidimensional has not been solved. As the range of reliability for a single measure is expectedly high, the hypothesis of LMX being unidimensional has often caused controversies. The researchers claim LMX to have three dimensions: *respect*, *trust*, and *obligation* (Graen & Uhl-Bien, 1995, p. 237). As all three sub-dimensions are greatly correlated, they may be employed as a unidimensional instrument. The LMX-MDM, containing 12 items, is applied as a multidimensional scale assessing *affect*, *loyalty*,

contribution, and *professional respect* (Liden & Maslyn, 1998). Whenever used, studies revealed no evidence that any of the subscales showed stronger predictive validity (Erdogan & Bauer, 2014, p. 409). A frequently applied LMX measure is the LMX-7 (Lee, Scandura & Sharif, 2014; Zhang, Waldman & Wang, 2012) which is recommended by Graen and Uhl-Bien (1995). The seven-item measure generated reliability values between .80 and .90 and is assumed to constitute the most appropriate measure of leader-member exchange to date. Davis and Bryant (2010) adopted the LMX-7 in their investigation and reported a reasonable coefficient alpha of .83.

The meta-analytic review by Gerstner and Day (1997) included assessments of 79 studies containing 85 independent samples. Checking for reliability, the authors discovered a mean item-number of 7.57 with a mean sample-weighted alpha of .85. Predictably, the seven-item version of the LMX (Graen, Novak & Sommerkamp, 1982) showed a higher alpha coefficient for members' LMX ($\alpha = .89$) than all other related scales ($\alpha = .83$) (Gerstner & Day, 1997, p. 831). The researchers detected a slightly better reliability for members than for leaders ($\alpha = .77$).

To the question of whether LMX is transactional or transformational, the researchers argue that it entails elements of both dimensions:

LMX is both transactional and transformational: It is a dyadic social exchange process that begins with more limited social "transactions" [...], but for those who are able to generate the most effective LMX relationships, the type of leadership that results is transformational. (Graen & Uhl-Bien, 1995, p. 239)

This definition leads to the understanding that LMX is expected to relate to both, transactional and transformational leadership behavior with transformational leadership being associated with greater LMX quality. LMX development was found to increase with the leader communicating a compelling vision, which is related to the demonstration of transformational leadership behaviors (Wang et al., 2005).

Erdogan and Bauer (2014) argue that team members with a high quality LMX with their supervisors experience a much more favorable work atmosphere. Thus, leaders in high quality LMX relationships tend to challenge followers, whereas lower LMX quality results in much more authority (Fairhurst & Chandler, 1989). Team members involved in a high quality relationship with their supervisor are given several advantages over those who have low quality work relationships. Benefits include generous resources, superior projects and emotional support (Liden & Graen, 1980). If less frequent communication limits the amount of exchange and

feedback between leader and subordinate even in high quality relationships, uncertainty may appear and limit performance and subsequently performance ratings by supervisors (Andrews & Kacmar, 2001; Kacmar et al., 2003).

The role of trust in distance relationships

Situations of predominantly virtual collaboration raise issues of trust between leaders and followers. Trust is one of the most researched fields of investigation within virtual and distance leadership literature. Lack of physical interaction and infrequent communication bear the potential of not only nurturing misunderstandings but also creating a decrease in trusting relationships. Trust is generally known to be perceived differently by individuals and, first and foremost, it is difficult to establish and maintain (Kossler & Prestridge, 1996; Shamir, 1995). Moreover, the development of trust between individuals is a time-intensive process (Kollock, 1998) just as developing a high quality LMX relationship is (Graen & Uhl-Bien, 1995). Erdogan and Bauer (2014) draw parallels between LMX and a trust-building process. Each individual pays attention to capabilities, integrity, and benevolence of the other individual (Bauer & Green, 1996). In particular, a virtual work environment is reliant on trusting relationships among team members and leaders as common methods of control are redundant and trustworthiness is perceived as showing commitment (Zolin, Hinds, Fruchter & Levitt, 2004). Hoyt and Blascovich (2003) found that team members in virtual teams had greater trust in transformational leaders. The researchers confirmed the moderating role of trust in the relationship between transformational leadership and group cohesiveness and satisfaction. LMX was further discovered to be a direct predictor of performance.

Several factors have been revealed to enable trusting relationships in organizations. Schaubroeck, Lam and Peng (2011) identified the mediating role of cognition-based and affect-based trust in leader-follower relationships. Their findings disclose that leaders' trust in team members might unlock potential by displaying confidence in the team which in turn results in better team performance. Regular information sharing about work processes is further acknowledged as a trust-enabler in distributed environments (Zolin et al., 2004). Team members develop more trust in leaders with whom they can identify. This was found to be evident in both close and distant settings (Connaughton & Daly, 2004).

Moreover, teams highest in trust show rotating leadership behavior wherein each individual exhibits some leadership traits while an actual leading figure is not present. Leadership emerges in a dynamic manner, somewhat more distributed than

static. As the need for active leadership rises, one team member fills the gap (Jarvenpaa, Knoll & Leidner, 1998). Teams rather low in trust perceive missing guidance as challenging, since leadership is either absent or negative. This indicates that leaders play a significant role in the development of trusting relationships. Confirming these findings Joshi, Lazarova and Liao (2009) emphasize the role of distant leaders who have the potential to enhance commitment and trust in virtual teams. Findings indicate that in virtual settings trust does not only grow during virtual collaboration, but that an essential proportion might even be established prior to collaborative work. Co-location extends the influence of team members as trust is already established (Bradner & Mark, 2008, p. 63). Trust could be maintained even after physical co-location shifts to virtuality.

A study by Torres and Bligh (2012) aimed at assessing the role of leader-follower distance on employees' trust level, among other factors, found that study participants tended to express a higher degree of trust towards their direct leaders than organizational leaders. Perceived social distance was negatively associated with trust, whereas neither physical distance nor interaction frequency revealed any significant correlations. The authors follow an earlier definition of distance (Antonakis & Atwater, 2002) and compare groups of those leaders who are close and distant on all dimensions of social distance, physical distance, and interaction frequency. Mayer, Davis and Schoorman (1995) define trust as the "willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor" (p. 712). A sample of 241 cases revealed that followers tend to express higher levels of trust towards their direct leaders compared to organizational leaders. Perceptions of leader-follower distance were further significantly correlated with trust in leadership. Social trust was negatively related to trust, which indicates that the more socially distant a leader is perceived, the less trust employees will express (Mayer et al., 1995).

2.1.3 Empowering Leadership

The process of organizational restructuring recurs every other decade and as firms again move to decentralized formations and reduce hierarchy levels, they often encourage employees to take on a higher degree of responsibility for their work and outcomes (Houghton & Yoho, 2005). Empowering leadership is therefore closely linked to self-leadership. Researchers justify that association as they explain that self-leadership is "a process of utilizing a set of complimentary behavioral and cognitive strategies while empowerment is a cognitive state created by a constellation of malleable cognitions" (Houghton & Yoho, 2005, p. 68). Empowering lead-

ership further encourages team members to make use of self-influence and self-leadership strategies (Pearce & Sims, 2002). Often, managers interfere intensively to provide support; however, this prevents team self-leadership energy from developing and reinforces dependence on leaders (Davis, 2004).

Pearce and Sims (2002, p. 175) identify six attributes of empowering leaders: (1) *encouraging independent action*, (2) *encouraging opportunity thinking*, (3) *encouraging teamwork*, (4) *encouraging self-development*, (5) *using participative goal-setting*, and (6) *encouraging self-reward*. The researchers show that shared empowering leadership is positively linked to self-rated team effectiveness. Comparable outcomes are revealed in a study employed in a public high school as empowering leaders drove subordinates to higher performance (Vecchio, Justin & Pearce, 2010). Vecchio et al. (2010) refer to empowering leadership as “behaviors that share powers with subordinates” (p. 531). The researchers claim that sharing of power might result in a better performance of followers. Manz and Sims (2001) similarly hypothesize empowering leadership to reveal the best in people in order to reach higher performance initially. It is assumed that, for example, transactional leadership predicts only low degrees of creativity and innovation, whereas empowering leadership behavior is believed to lead to a high level of creativity and innovation in organizations. Particularly, employees in environments that are rather unstructured might benefit from empowering leadership which might consequently lead to employee empowerment. Yet, there are situations in which different leadership behaviors might be more appropriate (Houghton & Yoho, 2005). In case of routine tasks with simple structure, transactional leadership can be more effective. Also critical or crisis situations might stipulate transactional or transformational leadership behavior.

Superleadership

In order for organizational leaders to be effective they must be able to revert to a wide range of leadership behaviors targeted to a specific situation. Leaders are not only expected to function as formal leading figure but also to trigger certain behaviors in followers. Leaders primarily need to develop self-leadership abilities as effective self-leadership builds the foundation for effective leadership (Furtnr, Baldegger & Rauthmann, 2013). In two studies, the researchers assessed the interrelation between self-leadership and facets of Full Range Leadership. In the first study, the relation between leaders' self-reports of leadership behavior and self-leadership was investigated. The researchers detected self-leadership to be positively related to transformational and transactional leadership, yet negatively to laissez-faire leadership. The second study included leaders' self-leadership in relation to

followers' reports of supervisors' leadership behavior. Outcomes show that natural reward strategies rated by leaders were positively associated with followers' perceptions of active leadership (transformational and transactional, and less passive).

Building on extended self-leadership competences some supervisors are able to transfer these capabilities to followers. Those leaders can be described as *Superleaders* (Manz & Sims, 1991). The researchers claim true leadership originates within a person, the outside serves as a supporting structure only. The most effective leaders are seen as those who are not afraid to reveal and encourage their followers' strengths. The *superleader* does not assume a heroic status; instead, these leaders strive to bring out the best in followers, whom they in turn expect to become self-leaders. With this starting point, the focus of leadership is entirely shifted towards the followers. Leaders thus become *super* due to the empowerment of others to utilize their capabilities (Pearce & Sims, 2002, p. 175).

Manz and Sims (1991, pp. 22-33) introduced *Seven steps to Superleadership*. The framework provides instructions on becoming a superleader. In the first step, one must become a self-leader. In the authors' words, self-leadership is described as "the influence we exert on ourselves to achieve the self-motivation and self-direction we need to perform" (Manz & Sims, 1991, p. 23). Subsequently, the researchers recommend becoming a role model and constantly displaying self-leadership behavior in daily business to enhance subordinates' behavior. Brown and Fields (2011) discovered that followers are capable of detecting self-leadership in leadership behavior. Often this can be achieved by setting goals, particularly when goals are set by subordinates themselves, and leaders actively seek this behavior. The researchers point out that goal-setting is a learned behavior and can be executed basically by any individual. The more difficult consequence is to encourage employees to think in positive thought patterns and to allay doubts and fears of followers by expressing confidence in them. To ensure these patterns are followed, leaders need to reinforce good behavior through rewards such as incentive payments. Nevertheless, leaders must also ensure the development of an environment conducive to developing self-leadership. A positive and performance-oriented organizational culture may add to such an environment (Manz & Sims, 1991). The authors claim that everyone practices self-leadership to some extent, even if unconsciously. Yet, not everyone is an effective self-leader. Considering organizational settings, self-leadership is essential for all hierarchical levels and all individuals in an international corporation. Superleadership has become necessary due to innovative workplace arrangements, lean management techniques, and flatter structures in general. Followers today are expected to manage themselves rather than to be managed by someone else. To embed superleadership in the entire organization, not

only managers but also followers should possess sufficient self-leadership skills (Furtner, 2010). In the sense of *guided participation* (Manz & Sims, 1991, p. 31), leaders are required to give direction with a view of followers becoming effective self-leaders.

Self-leadership behaviors of supervisors and perceptions of those by followers were investigated by Brown and Fields (2011). Using the Self-Leadership Questionnaire by Anderson and Prussia (1997) and linking supervisor self-leadership to perceived leadership behavior, the strongest correlation was detected with role-modeling. Behavior-focused strategies may help leaders to emphasize the effect of setting an example. The researchers argue that leaders who focus on behavior-oriented self-leadership strategies, practicing a high degree of self-discipline, would have better chances of encouraging subordinates to follow their example. Neither natural reward strategies nor constructive thought patterns showed correlations with *inspiring a shared vision* or *challenging the process*. Self-leadership of supervisors had limited effects on leadership behavior. Based on the findings, the influence of self-leadership on leadership behavior perceived by followers might be exaggerated (Brown & Fields, 2011, pp. 288-289).

Furtner et al. (2013) undertook the first attempt, to wit, to link leader self-leadership to the entire Full Range Leadership model. The researchers postulate self-leadership to be associated with transformational leadership and transactional leadership, although the latter association is expected to be less strong. For this reason, the authors conducted two studies in which they assessed influences of self-leadership self-ratings and other-ratings on Full Range Leadership facets. Findings of the first study revealed that self-leadership was positively related to transformational and transactional leadership. Self-leadership showed further negative relations with laissez-faire leadership facets. The authors projected this outcome as this behavior is often linked to introverted, hesitant, and thoroughly passive leaders (Avolio, 2011). The second study was concerned with the interrelatedness of self-leadership and follower-ratings of leadership behavior. The researchers discovered that self-ratings of leaders' natural reward strategies did predict followers' perceptions of active leadership. In other words, leaders were attributed stronger transformational and transactional and less passive behavior. Leaders' self-cueing behavior was perceived as more passive by subordinates though (Furtner et al., 2013).

Superleadership is thought to promise many favorable work-related outcomes in subordinates. Since 2000, the term is used synonymously with *empowering leadership* (Vecchio et al., 2010). Yet, only few endeavors have been undertaken thus far to study the concept empirically.

Shared leadership

With the *law of the situation* Follett (1924) introduced a modern group leadership approach where - instead of following hierarchical leaders - it sometimes made more sense to follow the group member who was the most knowledgeable in that particular field of interest. The first illustrations of shared forms of leadership were only found in the second half of the twentieth century (Pearce & Conger, 2003). When leadership begins to function independently without direct control from an external individual, leadership might shift from hierarchical to shared forms. For the past two decades, shared leadership has often been the subject of study even if the majority of research has been conceptual in nature (Wassenaar & Pearce, 2012, p. 364). Shared leadership occurs when senior roles are shifted from one team member to another in order to achieve set goals. It includes the minimization of power distribution between team member and the enhancement of perceptions of psychological empowerment and solidarity within the group, resulting from an increase in group-level caring (Houghton, Pearce, Manz, Courtright & Stewart, 2014, in press). Leadership influence is thus distributed among team members.

Cox, Pearce and Sims (2003) argue that “shared leadership involves mutual influence processes between the members of teams” (p. 171). Pearce and Conger (2003) contribute to that definition by concluding that shared leadership is a “dynamic, interactive influence process among individuals in groups for which the objective is lead one another to the achievement of group or organizational goals or both” (p. 1). Official as well as unofficial leaders emerge in this process consecutively (Pearce, 2004, p. 48). Shared leadership is often used interchangeably with collective leadership and distributed leadership (Avolio et al., 2009; Carson, Tesluk & Marrone, 2007; Ensley, Hmielski & Pearce, 2006; Murphy & Ensher, 2008).

Shared leadership is applicable in situations where individuals must rely on a certain degree of interdependency (Wassenaar & Pearce, 2012, p. 382). The group exists with the lack of a designated leading individual, thus each group member actively participates in the leadership process (Pearce & Manz, 2005). The researchers attempt to portray the clear distinction between leadership and shared leadership. Whilst leadership research places its focus predominantly on individuals (either leaders or followers), shared leadership concentrates rather on the process of work collaboration and supposes that leaders will emerge based on situation and need (Pearce, 1997; Pearce & Sims, 2002). To fully leverage the potential of shared leadership, group members must willingly and proficiently participate in the leadership process (Conger & Pearce, 2003). In particular situations, shared leadership is considered the more efficient way of leading, as identified in a study of startups by

Ensley et al. (2006). Even if shared leadership is attracting scholarly attention recently, hierarchical leadership will not become obsolete as there will always be a need for vertical leadership (Leavitt, 2005; Wassenaar & Pearce, 2012).

Scholars frequently support the hypothesis that shared leadership is a determinant of organizational performance (Wassenaar & Pearce, 2012) and team effectiveness (Pearce & Sims, 2002; Pearce, Yoo & Alavi, 2004; Small & Rentsch, 2010). For shared leadership to evolve, two conditions must be fulfilled: (1) team members must seek to provide direction while (2) they are willing to rely on leadership (Katz & Kahn, 1978). In order for shared leadership to occur, group members need to have a common understanding of the group's purpose and goals (Carson et al., 2007). Followers must also provide social support to each other and communicate constructively. *Voice* can enhance shared leadership and is defined as the group members' degree of influence on the team's purpose (Carson et al., 2007, p. 1222). In a supportive environment, shared leadership is more likely to occur. Manz and Sims (1987) argue that supportive coaching enables in-group leadership development as it raises self-competence and independence.

Teams where leadership rotates among team members are amongst the most effective (Davis, 2004; Ensley et al., 2006). Shared transformational and shared empowering leadership were positively related to performance. Yet, vertical transformational and empowering leadership were negatively associated with performance, which contradicts recent findings (Pearce & Sims, 2002). Ensley et al. (2006) explain this outcome within the specific context of new ventures. Like the context, the internal environment also plays a significant role in the emergence and success of shared leadership. Furthermore, team empowerment might enhance the development of shared leadership within groups (Carson et al., 2007). Another study relates shared leadership to team performance by using a direct measure of distribution. Small and Rentsch (2010) found more collectivistic team members to increase the likelihood that shared leadership will emerge even if team members do not know each other. Therefore, this leadership behavior requires a high degree of intra-team trust (Small & Rentsch, 2010).

Assessing shared leadership in virtual teams, directive leadership behavior was found to be higher in high-performing teams, whereas transformational and participative leadership did not differ in low and high-performing teams (Carte, Chidambaram & Becker, 2006). Two key findings were further identified. First, members of virtual teams with specific task-related skills play a significant role when leading the group, due to expertise. Second, expertise alone might still not be sufficient as the group must monitor activities collectively and drive tasks forward. Shared lead-

ership was found to be a predictor for virtual team performance, even more than vertical leadership (Yoo & Alavi, 2004).

Pearce and Conger (2003) conclude that self-leadership determinants could also work for shared leadership if abilities, skills, organizational understanding, and motivation were present within each individual group member. Shared leadership could even substitute for traditional leadership when age diversity in the team is low (Hoch, Pearce & Welzel, 2010). Developing shared leadership is still difficult. It might not be the solution to all leadership issues as it could fail under certain circumstances, for example, if a group is incompetent at performing a task (Pearce, Hoch, Jeppesen & Wegge, 2010).

2.1.4 Self-Leadership

The roots of self-leadership

The beginning of self-leadership theory dates back to the early 1980s with the concept of self-management addressed by Manz and Sims. First attempts at substituting traditional leadership with self-management were undertaken as researchers found work-related outcomes to be mainly predicted by substitutes for leadership as opposed to any other action (Kerr & Jermier, 1978). It took another three years before the term *self-leadership* appeared in a publication directed at practitioners (Manz, 1983). Interpretations of self-management describe it as “a set of strategies that aides employees in structuring their work environment, in establishing self-motivation [...] that facilitate appropriate behaviors for achieving minimal deviations from primarily lower-level behavioral standards” (Manz, 1986, p. 590). Manz and Sims (1980) argue that everyone demonstrates self-management to some extent. Particularly, organizational leaders are expected to become aware of their own internal image before they may be able to direct others (Davis, 2004).

Deeply investigating the theory of self-management, academics discovered that encouraging self-management of individuals carries unknown potential for organizations. Undertaking a first empirical endeavor to identify self-management characteristics of team leaders, Manz and Sims (1987) noted that self-management differed from traditional leadership paradigms with respect to locus of control and direction, as those were found to lie within the teams. At that time, self-management and self-control were still considered to be closely related or even interchangeable (Thoresen & Mahoney, 1974, p. 12). Manz and Sims (1987) believed that self-management would contribute to leader-effectiveness in many ways as leaders en-

courage self-reinforcement, self-observation, and evaluation in subordinates (Manz & Sims, 1987, p. 124).

Self-management was handled earlier by Mahoney and Arnkoff (1979). The researchers found self-management procedures to include: (1) *self-observation*, which is demonstrated by the systematic approach of collecting information on oneself in order to self-evaluate one's behavior and reinforce desired behavior; (2) *specifying goals*, demonstrating that goals which are stated officially are more effective; (3) *cueing strategies*, by stimulating a desirable behavior; and (4) *rehearsal*, the continuous practice of desired or imagined performance (Mahoney & Arnkoff, 1979). Evaluating how leaders may encourage subordinates to engage in self-management, role-modeling could certainly be one important element. Leaders' self-management behavior could serve as an idealistic example to others. As soon as followers finally engage in self-management, the leadership behavior must change in order to provide subordinates with more self-responsibility. Leaders should therefore sooner take actions to encourage followers rather than reinforce a specific behavior actively (Manz & Sims, 1980).

Self-management is explained to be an activity helping to complete difficult but necessary tasks, whereas self-leadership is intrinsically motivated (Stewart, Courtright & Manz, 2011), going beyond self-management by leading the system of self-influence (Manz, 1986, p. 590). Self-management directs the focus onto behaviors and cognitive strategies, whereas self-leadership takes the deeper intrinsic value behind a specific behavior or task into account. Self-leadership is furthermore affected by a higher degree of self-guidance compared to self-management. Manz (1986) depicts self-leadership as a perspective of leading the self toward personal standards and intrinsic motivation. He conceives self-leadership as "a comprehensive self-influence perspective that concerns leading oneself toward performance of naturally motivating tasks as well as managing oneself to do work that must be done but is not naturally motivating" (Manz, 1986, p. 589). Furthermore, he identifies three key factors of self-leadership: (1) *standards for self-influence*, (2) *intrinsic work motivation*, and (3) *strategies for employee self-control*. Self-influence encompasses the dynamic augmentation of intrinsic motivation through development of competence and self-control towards a process, whereas self-leadership focuses on the need to do a job rather than feeling a task should be done (Manz, 1986).

In contrast to self-management, self-leadership appreciates rewards due to the performance of the activity itself. This may be achieved by redesigning tasks in order to establish motivating processes that naturally provide a feeling of purpose. Manz

(1986) identifies several self-leadership strategies that can assist in stimulating intrinsic motivation. *Work context strategies* include choosing a work environment that (by physical nature) enhances performance. This pattern includes generating shared values, and establishing high quality leader-member exchange relationships. *Task performance process strategies* focus on how tasks are performed, purposefully placing natural rewards in the process. Followers aware of the things they enjoy doing may assess upcoming duties reasonably and may establish processes to maintain this performance level by increasing their self-leadership. The third practical strategy identified is *self-leadership of thought patterns*. The researcher describes the definite purpose of self-leadership to enhance the performance of employees by managing their thought patterns. Since every task holds pleasant and unpleasant responsibilities, mental energy is the essential differentiator. If an individual places mental energy on unpleasant duties, one might experience the project as unfavorable. If mental energy however is placed on the pleasant parts of the job, it might result in a positive project experience. In that case, mental energy has the power to stimulate intrinsic motivation and make unpleasant tasks seem pleasant. The ultimate aim must be to cultivate thought patterns that enhance employee motivation and performance (Manz, 1986).

In 1992, Neck and Manz proposed a cognitive self-leadership model and tested whether relationships between cognitive strategies and performance of employees existed. The authors suspected individuals to be able to influence their performance by controlling their own thoughts. The authors describe cognitive strategies that may be applied to change one's behavior: (1) *beliefs*, (2) *internal dialogues*, (3) *mental imagery*, and (4) *thought patterns*. The suggested theory of Thought Self-Leadership (TSL) carries the underlying assumption that *thought* is a medium that can be self-controlled and applied through cognitive strategies (Neck & Manz, 1996). Leaders are able to encourage thinking by asking questions and by helping others to clarify their thought processes (Manz & Neck, 1991). The researchers define thought self-leadership as the action of leading oneself by applying control over one's own thoughts. Especially in organizations with less centralized structures, self-leadership might be an effective tool to influence performance (Tata & Prasad, 2004).

According to a publication by Manz and Neck (2004), three primary categories exist into which self-leadership strategies may be arranged:

- (1) *Behavior-focused strategies*,
- (2) *Natural reward strategies*, and

(3) *Constructive thought pattern strategies*

Behavior-focused strategies include elements of self-observation, self-goal setting, self-reward, self-punishment, and self-cueing. Setting ambitious goals and subsequently rewarding oneself can lead to a significantly higher level of performance (Locke & Latham, 1990; Manz & Neck, 2004; Manz & Sims, 1980). Self-rewarding processes do not necessarily imply materialistic rewards. Here, an imaginary handshake of a supervisor can sometimes be just as satisfying (Neck & Houghton, 2006). Unlike self-reward, self-punishment requires careful handling. Self-punishment could better be compared to the denial of a reward instead of fulfilling an actual punishment which may be unfavorable to performance in some situations. In addition, the simple appearance of positively associated or encouraging visualizations such as motivational images, posters, and cues can help to achieve a desired result (Manz & Sims, 2001; Manz & Neck, 2004).

Natural reward strategies focus on the intrinsic joy someone would experience when solving a task or working on a project. Two strategies may be distinguished: The first approach involves the addition of pleasant elements to the actual, unpleasant activity in order to make a task itself more rewarding. The second strategy contains the shift away from unpleasant features of tasks by concentrating on enjoyable aspects of the activity. According to the authors, natural reward strategies create a sense of self-competence leading to improved performance (Manz & Neck, 2004; Neck & Houghton, 2006).

Constructive thought pattern strategies are the third facet associated with self-leadership in literature. Characteristics of the dimension encourage individuals to become aware of, identify, and replace disruptive thought patterns using mental imagery or positive self-talk to enhance performance (Manz & Neck, 2004). Mental imagery is the cognitive creation of an imaginary scene happening before it actually happens (Driskell, Copper & Moran, 1994). The authors found significant empirical support for the positive relation of mental imagery on individual performance. People building a positive imaginary scene of what will happen are likely to achieve better results (Manz & Neck, 2004).

In the late 1980s, the focus of leadership shifted from leaders to followers when Manz and Sims (1987) found that leaders used different methods to stimulate employee engagement. For instance, leaders began asking questions instead of dictating what needed to be done. Instead of performing direct control, leaders encouraged team members to test through trial and error. At that time, leaders began to execute what the pioneers of self-leadership referred to as “lead[ing] others to lead themselves” (Manz & Sims, 1987, p. 115). The researchers postulate that the exter-

nal function of leaders who are leading others to lead themselves is significantly important, however, differs from the traditional role of leadership. Manz and Sims (1991, p. 18) were the first to suggest that leaders should learn to lead themselves in the first place before they would actually be able to serve as role models to followers.

Self-leadership and work-related outcomes

Enhancing followers' self-leadership is lately regarded as one consequence of modern leadership style. Correspondingly, self-leadership might even serve as the key to creating an organizational setting promoting creative problem solving and innovation (DiLiello & Houghton, 2006). In their conceptual framework, the authors hypothesize that strong self-leaders have more potential for creativity, respectively creative problem-solving, and are more likely to practice innovation than weak self-leaders.

Assessing the relationship between self-management and team outcome a positive correlation was demonstrated by Uhl-Bien and Graen (1998). The authors conducted research in a large public sector organization in the United States investigating functional and cross-functional teams. The research aimed at assessing the effects of team type on the relationship between a team's self-management and teamwork effectiveness, overall job satisfaction, and perceptions of bureaucratic obstacles. Teams' self-management showed strong positive associations with effectiveness in functional units and negative relations with cross-functional teams. The authors further discovered self-management to be positively related to overall job satisfaction regardless of the work unit individuals belonged to. Predictions of self-management, being negatively associated with perceptions of bureaucratic obstacles, could only be confirmed for cross-functional teams, whereas for functional teams the opposite applied (Uhl-Bien & Graen, 1998, pp. 345-346).

Prussia, Anderson and Manz (1998) attempted, as one of the first studies, to empirically investigate the effects of self-leadership skills and self-efficacy perceptions on individual performance. With a sample of 151 students, the researchers used a 20-item measure distinguishing behavior-focused strategies, natural reward strategies, and constructive thought-focused strategies. The outcomes verify that self-leadership predicts self-efficacy and self-efficacy perceptions are significant positively related to individual performance. Findings suggest that self-efficacy entirely mediates the influence of self-leadership on performance.

In 2000, Stewart and Barrick conducted an empirical study with 626 individuals belonging to 45 production teams. The study aimed at assessing the effect of inter-

dependence and team self-leadership on team performance. The authors define team self-leadership as “the extent to which teams have the freedom and authority to lead themselves independent of external supervision” (Stewart & Barrick, 2000, p. 139). The researchers found greater team self-leadership to be related to higher team performance for teams occupied with conceptual tasks. Structural characteristics related to the allocation of tasks, responsibilities and authority further affected team performance. Additionally, intrateam processes were discovered to mediate the relationship between interdependence and performance.

An evaluation of the relationship between self-leadership and psychological, health, and work-related outcomes was pursued by Dolbier, Soderstrom and Steinhardt (2001). The researchers used an instrument adapted from the Core Wellness Scale by Bezner, Adams and Steinhardt (1997) to investigate self-leadership upon the internal family system, which implies that everybody comprises various sub-personalities forming an internal family and functions just like other people. The authors refer to *self* as the *seat of consciousness*. When people are leading with the self, “they feel secure, worthwhile, and are able to effectively deal with situations, which leads to the result that they are effective in what they are doing” (Dolbier et al., 2001, p. 471). Individuals lacking self-leadership express fear and suspicion towards the world. For this reason, the authors suspect self-leadership to be inversely related to distrust. In other words, self-leadership may be interpreted as being rooted in interpersonal trust. Self-leadership was further related to perceived wellbeing and negatively associated with perceived stress and illness. Empirical results lead to the conclusion that self-leadership shows relations to perceptions of a more effective and satisfying work environment (Dolbier et al., 2001).

An empirical analysis by Carmeli, Meitar and Weisberg (2006) aims at studying the relationship between self-leadership skills and innovative behaviors at work. The research finds self-leadership to assume the critical role of enhancing the innovation process and the exhibition of innovative behavior. The research reveals that self-leadership promotes innovative behavior which in turn is a key factor for sustainability in a competitive environment.

Politis (2006) tested for the mediating effect of job satisfaction on the relationship between behavioral-focused strategies of self-leadership and team performance. The author discovered that self-observation, self-goal setting, self-punishment, and self-reward were positively linked to intrinsic as well as extrinsic job satisfaction. Practice could only be related to extrinsic job satisfaction. Additionally, the hypothesis was supported that intrinsic and extrinsic job satisfaction are significantly and positively related to non-financial team performance and overall team perfor-

mance. Finally, the author provided empirical evidence that the relationship between self-leadership behavior-focused strategies and team performance is mediated by job satisfaction.

On an individual level, Konradt, Andressen and Ellwart (2009) tested for the effects of self-leadership on team members' performance, satisfaction, and motivation. A 27-item measure extracted from the Self-Leadership Questionnaire by Houghton and Neck (2002) was used to assess self-leadership. Performance was measured with a single item. Conclusions indicate a positive relation between self-leadership and performance. The authors further tested relationships of the VIST model (Hertel, 2002) to performance and discovered that all elements of VIST (valence, instrumentality, self-efficacy, trust) showed significant positive correlations with performance. Self-efficacy even displayed a mediating character in the self-leadership/performance relationship. Relationship conflict was negatively related to performance and team-task conflicts did negatively predict team performance. Autonomy and task type did not display any moderating effects, as was previously hypothesized by the researchers.

In a series of multiple studies Hauschildt and Konradt (2012a, 2012b) tested for the relationship between follower self-leadership and work-related outcomes. The first study hypothesized team members' self-leadership to be positively related to individual task-proficiency and team member proficiency as well as to task adaptivity and team member adaptivity. Furthermore, self-leadership was projected to result in stronger task and team-member proactivity. Hauschildt and Konradt (2012a) assessed work role performance with a self-rating instrument developed by Griffin, Neil and Parker (2007). Six performance aspects were assessed with three items each (e.g., "I carried out the core parts of my job well"). Self-leadership was assessed with 27 items of the RSLQ (Houghton & Neck, 2002). The researchers found that self-leadership is positively related to task proficiency and team member proficiency. Furthermore, self-leadership indicated positive relationships with adaptivity and proactivity on both individual and team level. The results thus confirmed a positive association between self-leadership and performance-oriented work outcomes. The second study proposed a positive link between self-leadership and individual task performance and provided initial evidence for the relationship between self-leadership and team member behaviors (Hauschildt & Konradt, 2012b). Study outcomes confirm propositions that self-leadership plays a pivotal role in determining the performance behavior of team members.

Self-leadership and personality

The Big Five model is a widely acknowledged concept of personality characteristics and illustrates a broad scope of perspectives of human characteristics (Zhao & Seibert, 2006). It is a distinct theory that is believed - and was found - to correlate with certain aspects of self-leadership (Furtner & Rauthmann, 2010). Assessing the relationship between self-leadership and the Big Five, Houghton, Bonham, Neck and Singh (2004) observed that all three self-leadership dimensions are positively associated with consciousness and extraversion. The linkage between extraversion and behavior-focused strategies and self-goal setting was confirmed by Furtner and Rauthmann (2010). The researchers conclude self-leadership to enhance personal and cognitive growth, mental development and goal orientation. A key contribution to self-leadership research followed by challenging the relation between self-leadership and openness to experience. In particular, the connection to constructive thought patterns was found to be strong. Openness to experience and creativity are assumed to be key characteristics of self-leadership (Furtner & Rauthmann, 2010).

Furtner, Rauthmann and Sachse (2010) tested for the relationship between emotional factors and self-leadership. Results revealed that socioemotional intelligence correlates positively with self-leadership and its sub-dimensions. Emotional sensitivity, which relates to the ability of a person to identify and correctly interpret another person's emotions, was found to be positively linked to all facets of self-leadership. The authors further expected emotional control to be related to self-leadership or its subfacets, but this relationship could not be established empirically (Furtner et al., 2010, p. 1195).

In a subsequent publication the researchers found hope for success, rather than fear of failure, to be a determinant for self-regulation and self-goal setting (Furtner & Rauthmann, 2011). The findings indicate that natural reward strategies and constructive thought patterns are positively related to hope for success. Although both self-leadership and need for achievement encompass goal-focused strategies that can enhance motivation and performance, they should still be considered two distinct constructs. Investigating differences between self-leadership and personality traits, the independence of self-leadership as a distinct concept is confirmed, even if the two are interrelated. Self-leadership is yet more likely to be considered a *behavioral reflection* of personality characteristics. Particularly, extraversion and conscientiousness show links with all three self-leadership strategies, whereas emotional stability is projected to be associated with natural reward strategies (Houghton et al., 2004. p. 436).

An investigation by Furtner, Rauthmann and Sachse (2011) examining the relationship between self-leadership and the dark triad explained that narcissism was positively related with seven subfacets of self-leadership (self-goal setting, constructive thought patterns, natural reward strategies, evaluating beliefs and assumptions, and visualizing successful performance). Machiavellianism presented negative correlations with self-reward and natural reward strategies, whereas psychopathy correlated significantly and negatively only with self-cueing. Evaluating beliefs and assumptions was further found to be positively linked to impulsive thrill seeking, a subfacet of psychopathy, and self-cueing showed a significant negative association with interpersonal manipulation (Furtner et al., 2011).

In their most recent work, Furtner, Rauthmann and Sachse (2015) investigated the distinctiveness of self-leadership from other related constructs, such as need for achievement, self-regulation, and self-efficacy. The researchers tested for discriminant and incremental validity and they confirmed self-leadership to display discriminant validity compared to other scales. In addition, self-leadership scales did predict individual performance regardless of need for achievement, self-regulation, and self-efficacy (Furtner et al., 2015, pp. 116-118).

Researchers have investigated whether self-leadership is adaptable to various cultural contexts (Alves, Lovelace, Manz, Matsypura, Toyasaki & Ke, 2006). As the model of self-leadership was developed in the United States, the concept refers to American cultural values. Alves and colleagues (2006) claim self-leadership to be a universal theory and describe it as “a set of behavioral and constructive strategies aiming the enhancement of personal effectiveness” (p. 356). This work follows the definition of self-leadership outlined as “the process of influencing oneself” (Neck & Manz, 2010, p. 4) by leading one’s thoughts and behaviors (Furtner & Rauthmann, 2010).

Assessing self-leadership

Self-leadership is a rather new concept in leadership research and only a limited number of instruments have yet been applied in empirical evaluations. Previous research measures all predicate upon a prototype developed by Manz and Sims (1987; 1991). The subsequent catalogue developed by Cox (1993) covered 34 items and set the initial point for the Self-Leadership Questionnaire (SLQ). The instrument was refined by Anderson and Prussia (1997), finally entailing 50 items. Resulting from this measure Houghton and Neck (2002) developed the Revised Self-Leadership Questionnaire (RSLQ) which has been applied in educational and business research recently (e.g., Andressen et al., 2012; Furtner & Rauthmann, 2011;

Furtner et al., 2013; Hauschildt & Konradt, 2012a, 2012b; Houghton et al., 2004). Although the RSLQ represents the most trusted instrument in self-leadership research thus far, some dimensions still seem to lack satisfactory reliability (Furtner & Rauthmann, 2011; Konradt et al., 2009). Furtner and Baldegger (2013) hence suggest the development of an improved self-leadership measurement. Preliminary work has been undertaken by Furtner and Rauthmann (in prep.) who developed the Self-Leadership Skills Inventory, a measure that produced satisfactory reliability scores in a first academic application ($\alpha \geq .79$; $n = 270$). With the present study, the SLSI is applied to a larger organizational audience for the first time.

Previous paragraphs argued that the transition from leaders to followers as field of interest has become viable in the past decades. This shift entailed the evolution of leadership from a hierarchical, leader-centric approach, to concepts including the followers as influencers of the organizational context. The path to follower-centric approaches is still underway and requires not only more conceptual attention, but also a substantial increase in empirical research in that area. With the acknowledgement of research in fields such as self-leadership, present work highlights the potential lying in this and similar concepts. Modern approaches to leadership take the perspective of substituting hierarchical forms of leadership, particularly in distance leadership, an organizational context that promises to become the predominant work mode in the future. The emergence of distance leadership due to globalization and technology applications forms a playground for the discovery of new leadership concepts that can overcome distance. For a better understanding of the value of context and its interaction with leadership, the following paragraphs provide an overview of what is known as context and consequently explicate what is so far understood as distance leadership. Empirical investigations of influences of self-leadership on work-related outcomes have been structured and concisely summarized in Table 1.

Table 1. Effects of Self-Leadership on Work-Related Outcomes

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Uhl-Bien & Graen (1998)	USA n ₁ = 211 (functional team members) n ₂ = 184 (cross-functional team members of the public sector)	IV: Self-management DV: Teamwork effectiveness, overall job satisfaction, perceptions of bureaucratic obstacles	Teams' self-management shows positive associations with effectiveness in functional units Teams' self-management displays negative relations with cross-functional teams Self-management is positively related to overall job satisfaction for both work units Self-management was observed to have negative relations with perceptions of bureaucratic obstacles in cross-functional teams Self-management reveals positive relations with perceptions of bureaucratic obstacles when tested in functional teams
Prussia, Anderson & Manz (1998)	USA n = 151 students Gender: 66% male A: 27 years Work experience: 9.3 years	IV: Self-leadership DV: Individual performance MedV: Self-efficacy	Self-leadership significantly and positively affects self-efficacy Self-efficacy perceptions are significantly positively related to individual performance Self-efficacy mediates the influence of self-leadership on individual performance
Stewart & Barrick (2000)	n = 626 (45 manufacturing teams) G: 56% female A: 42 years Tenure: 15 years Team tenure: 3.47 years	IV: Interdependence, team self-leadership DV: Team performance CV: Task type, team size, tenure MV: Intrateam process	Structural characteristics related to allocation of tasks, responsibilities and authority do influence team performance Intrateam processes mediate the relationship between interdependence and performance Greater team self-leadership results in higher team performance specifically for teams engaging in conceptual tasks
Dolbier, Soderstrom & Steinhart (2001)	USA n ₁ = 270 (students) G: 102 male A: 19.22 years n ₂ = 160 (employees) G: 84 male A: 36.3 years	Study 1 IV: Self-leadership DV: Coping styles, dispositional optimism, hardiness, ineffectiveness, interpersonal trust, perceived stress, perceived wellness, symptoms of illness Study 2 IV: Self-leadership DV: Work stress, work satisfaction, organizational communication, quality management, relationship to leader, team culture	Self-leadership is inversely related to ineffectiveness Self-leadership is linked to perceived wellness and inversely linked to perceived stress and symptoms of illness Self-leadership correlates with a more effective and satisfying work environment Self-leadership is inversely related to distrust towards the world Self-leadership is perceived to be related to a more effective organizational communication, team culture, and relationship to the leader

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Carmeli, Meitar & Weisberg (2006)	Israel n = 175 (6 organizations) G: 118 female A: 36.3 years Job tenure: 6.32 years	IV: Self-leadership DV: Innovative behavior CV: Job tenure, income, gender, education	Self-leadership is significantly and positively correlated with self- and supervisors' ratings of innovative behavior Income and job tenure are significantly related to innovative behaviors at work
Politis (2006)	n = 304 (manufacturing) G: 94.1% male	IV: Self-leadership behavioral focused strategies DV: Job satisfaction, team performance	Self-observation, self-goal setting, self-reward, and self-punishment are significantly positively related to intrinsic job satisfaction Self-observation, self-goal setting, self-reward, self-punishment, and practice are significantly and positively linked to extrinsic job satisfaction The relationship between intrinsic and extrinsic job satisfaction on performance is positive and significant Extrinsic job satisfaction mediates the relation between self-leadership behavioral-focused strategies and team performance
Konradt, Andressen & Ellwart (2009)	n = 310 (40 teams) Team size: 9 members Team tenure: 32 months	IV: Self-leadership DV: Motivation, satisfaction, performance, team identification MV: Intrateam conflicts, task conflict, task type, autonomy MedV: Self-efficacy, instrumentality, valence, trust	A positive relation between self-leadership and performance is detected All elements of VIST (valence, instrumentality, self-efficacy, trust) show significant positive correlations with performance Self-efficacy mediates the influence of self-leadership on performance Intrateam conflict is negatively related to performance Task conflicts predicts team performance negatively Autonomy and task type do not display any moderation effects
Brown & Fields (2011)	USA n ₁ = 75 leaders G: 70 male A: 47.9 years Leadership exp.: 8 years n ₂ = 225 G: 171 male Org. tenure: 7.6 years	IV: Self-leadership DV: Leadership behavior MV: Leader locus of control CV: Leadership experience, team size, follower social desirability	The strongest correlation of self-leadership is detected with role-modeling Behavior-focused strategies may help leaders to emphasize the effect of role modeling Leaders who focus on behavior focused self-leadership strategies encourage subordinates to follow their example Neither natural reward strategies nor constructive thought patterns show correlations with stimulating a shared vision or challenging the process Self-leadership of supervisors has limited effects on leader behavior

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Hauschildt & Konradt (2012a)	Germany n = 81 (44 in permanent teams, 37 in project teams) G: 31 male A: 33.4 years Team tenure: 32 months	IV: Self-leadership DV: Work role performance MV: Collectivism orientation CV: Age, sex	Individual self-leadership is positively linked to task and team member proficiency Self-leadership is positively related to adaptivity and proactivity (towards individual and team) A positive relationship between self-leadership and individual performance is observed Results project self-leadership to show a positive relation to team-oriented behaviors
		Study 1 IV: Self-leadership DV: Individual task behaviors, indiv. behavior CV: Previous work experience, ease of imagining the scenarios	Positive effects of individual self-leadership strategies on individual task performance were found
Hauschildt & Konradt (2012b)	Germany n ₁ = 85 G: 67.1% female A: 34.8 years Work exp.: 12.08 years	Study 2 IV: Self-leadership DV: Individual task behaviors, indiv. behavior MV: Task interdependence, uncertainty CV: Work experience, ease of imagining scenarios	The studies provide first evidence of a relationship between self-leadership and team member behaviors Self-leadership plays a causal role in enhancing team member performance behavior
	n ₂ = 63 G: 55.6% male A: 34.7 years		

Note. IV = independent variable, DV = dependent variable, CV = control variable, MV = moderating variable, MedV = mediating variable; demographic variables reflect averages, G = gender, A = age

2.1.5 Leadership and Context

Beginning in the 1970s, contextual factors slowly gained consideration in leadership studies as they were expected to alter leadership research and impact the leader-follower relationship (Howell, Dorfman & Kerr, 1986; Osborn, Uhl-Bien & Milosevic, 2014). Osborn et al. (2014, pp. 589-590) summarize the evolution of leadership attention along with the interest in contextual matters in three simplistic terms: (1) leadership nested in hierarchy; which describes a leader-centric approach resulting from a hierarchical interaction of a leader with followers, (2) leadership to be pervasive in social processes; including relational components of influence, and (3) hybrid approaches of nested and pervasive views. Hybrid concepts primarily take into account the context in which leadership occurs, shifting with the evolution of leadership (Osborn et al., 2014, p. 590). Hybrid approaches in leadership research link context to influence, or as the researchers describe, they link context to causal mechanisms. Observing the importance of a definition as the starting point

for research, the authors present influential mechanisms of an individual residing in an organization as nested, taking the work unit and organizational context into consideration. Pervasive views reflect moreover social constructs, including the interaction of individuals. Rather than building the foundation of what needs to be studied, in pervasive views leadership emerges as a result of context: Hybrid approaches view leadership as necessarily embedded in social context. Context is co-defined with leadership, and is a trigger for the emergence of specific aspects of leadership as well as the effectiveness of different leadership dimensions. (Osborn et al., 2014, p. 592)

Potentially limiting leadership influence, distance leadership provides a stimulating area of interest. Shamir (1995) and Katz and Kahn (1978) argue that distance may significantly influence certain effects of leadership. While distance opens a wide range of investigative fields, Osborn et al. (2014) disagree on the extent to which context clarification is truly needed in leadership research. In particular, because distance has multiple dimensions, this work assumes the challenge and investigates not only the most commonly used form of distance – physical distance. It further considers the ability of leaders and followers to form relationships and investigates the chance of communication to overcome the obstacles distance brings with it. Osborn et al. (2014) believe leader-member exchange and transformational leadership to be rooted in the leader as individual. Although the authors argue that transformational leaders do not adapt to context, foundations of the present work rest on the knowledge that individuals have to adjust to contextual parameters in order to be effective.

Anything but existing in a vacuum (House & Aditya, 1997, p. 445), the leader-follower relationship requires attention to organizational characteristics, demographic variables, and other environmental factors (Antonakis et al., 2003, p. 270). Liden and Antonakis (2009) define context as the “milieu – the physical and social environment – in which leadership is observed” (p. 1587). The researchers insist that in order to understand context, one must necessarily study its moderating effect, as context might contain references for interpretation (Liden & Antonakis, 2009) or provide alterations to understand leadership under certain circumstances (Abernathy, Bouwens & Van Lent, 2010). Despite the awareness of contextual impact, research thus far has not produced a satisfactory amount of empirical evidence (Hauschildt & Konradt, 2012b; Porter & McLaughlin, 2006).

Scholars are indeed becoming increasingly aware of possible moderating effects of contextual factors when studying leader-follower relationships. Predominantly, forms of distance between leaders and subordinates have progressively retained

researchers' attention, as distance is expected to impact leader effectiveness and work-related outcomes (Antonakis & Atwater, 2002). In particular, the study conducted by Cole et al. (2009) is one of the first to examine different aspects of distance in a moderating role. As work settings may involve contingencies that the supervisor is not able to control (Manz & Sims, 1980) distance dimensions might just be more of those. With real-time information available, this environment requires leaders to form customized relationships (Avolio, Kahai & Dodge, 2001, p. 617). Without explicit consideration of the context, leadership is hard to integrate. Kelley and Kelloway (2012, p. 438) note that, in particular, the distance context needs attention as it differs widely from the proximal context, for instance, in the way communication shifts from face-to-face to virtual.

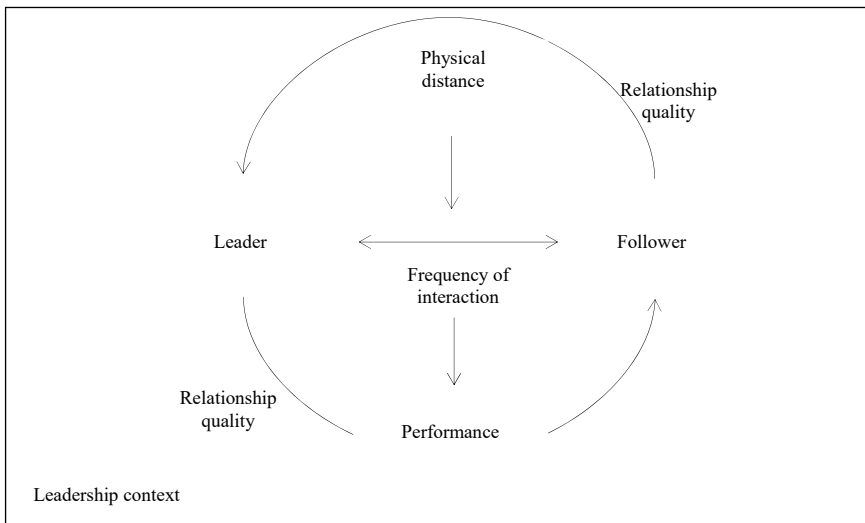
Leadership models have to be adapted to the context of distance leadership to stand a chance of fully functioning. Bridging the gap of trusting relationships in a distance setting might be possible by applying a concept that Hertel, Konradt and Orlikowski (2004) call Management by Interdependence. The underlying assumption of this concept is that by increasing togetherness among team members and leader, physical and temporal distance might be compensated for (Hertel et al., 2004). The concept refers to three levels of interdependency: (1) task interdependency, (2) goal interdependency, and (3) result interdependency. The interpretation of task interdependency allows for the assumption that if team members are all linked by the work they do, they have to work together and, as a result, they become familiar with each other. For goal interdependency, the theory suggests that the higher the individual goal of each team member, the more likely it is for the group to accomplish a favorable group result. Result interdependency is claimed to impact teamwork in a virtual environment as it reinforces identification with the group by setting collective goals (Hertel et al., 2004).

Avolio et al. (2001) suggest that context influences the way information technology emerges and how it is applied. Corporations using social media channels for work may empower followers to engage actively with each other, creating a collective purpose and a common social identity (Eisenbeiss, Blechschmidt, Backhaus & Freund, 2012; Sheldon, Abad & Hinsch, 2011). Motivational factors leading to the use of virtual worlds include the desire to socialize, express creativity, and escape (Eisenbeiss et al., 2012, p. 16). Seeking the needs for relatedness and self-expression (Avolio et al., 2014), social media used by leaders was further found to be related to transformational leadership traits (Sosik, Chun, Blair & Fitzgerald, 2013). Avolio and colleagues (2014) argue that in a technology-driven environment, leaders are likely to encounter greater pressure to act authentically and be transparent. Uhl-Bien, Marion and McKelvey (2007) suggest that the usage of social media

in organizations shifts the locus of leadership to the context. There are many factors influencing the performance of leaders, and determining which leadership style is the most effective in a particular context can be critical to success (Kets de Vries, Vrignaud, Agrawal & Florent-Treacy, 2010). The authors believe that interrelatedness between leaders, followers, and the context is the key to organizational effectiveness as understanding of leadership practices needs to be tailored to the specific situation.

Eichenberg (2007, p. 68) describes the context of distance leadership as dependent on the entire environment within and surrounding the organization, in which leader and followers are embedded (Figure 4). The leadership situation refers to the special characteristics of a leader-follower relation, e.g., leader-follower physical distance, interaction frequency or relationship distance, with regard to the quality of relationship.

Figure 4. Contextual Interactions of Distance Leadership



Source: Eichenberg (2007, p. 68)

2.2 Distance Leadership

Today's leadership faces challenges that have evolved through the process of globalization and the widespread use of technological advancements. Physically proxi-

mate leadership as we have known it for decades is steadily substituted with leadership through digital media as team members are often located around the world. The need for physical proximity is replaced with the need for competences (Weisband, 2008). Leadership from physical distance does not imply that conventional responsibilities become obsolete; nevertheless, traditional elements of leadership may lose relevance.

Leadership at a distance has been the subject of recent investigations, working hand in hand with the application of AIT in organizations. Yet only few empirical studies have since been published (e.g., Andressen et al., 2012; Cole et al., 2009). Most research has been conceptual in nature. The value of insights in distance leadership is undoubtedly increasing as international corporations are forced to collaborate, and with the assistance of AIT this is today possible virtually. With Bass (1990, p. 658) defining leadership as dependent on physical proximity, the premise of leadership is now questioned.

Looking back on the first half of the twentieth century, Bogardus (1927) was the first to conceptualize the subject of distance within leadership research. Notably, until today the topic has received little attention, although the value in assessing contextual factors in leadership is promising (Cole et al., 2009). Limited attempts have been made to examine distance leadership by comparing leadership behavior in proximate and distant settings (e.g., Connaughton & Daly, 2004; Howell & Hall-Merenda, 1999; Howell et al., 2005). According to Remdisch and Utsch (2006, p. 36) distant leadership comprises three dimensions in addition to traditional leadership: (1) distance; i.e., physical, social and cultural distance, (2) media-supported leadership and (3) changed organizational format; i.e., project work and virtual teams. The authors further identify six core elements of distance leadership which they predict to be influential in a physically distant leader-follower relationship: distance and trust, team development, communication, working routines, qualification and development, and culture. Moreover, modern leaders incorporate a new leadership competence which is described as global literacy by Rosen and Digh (2001, p. 74). Global literal leaders inherit all four attributes that are essential for sustainable leadership in a virtual world: personal, social, business, and cultural literacy. The first element refers to understanding and valuing oneself. The second attribute entails engagement and challenging others. The next feature depicts the broader image of an organization by focusing and mobilizing one's business. Finally, the last dimension declares valuing and utilizing cultural differences as a key competence (Rosen & Digh, 2001, p. 74). Alon and Higgins (2005) suggest a three-step approach to developing intercultural leadership competences. First, the potential leaders' skills should be assessed, upon which, in the next step, appropriate ed-

ucation is provided. The third step involves on-the-job experience in a foreign culture. Professional knowledge of the organization's core business processes, managerial competences, including the ability to work in teams and having interpersonal skills, strategic international understanding, frequent exchange of information, and cross-cultural competences are further indispensable for future organizational leaders (Bikson, Treverton, Moini & Lindstrom, 2008, p. 27). Leadership practices are highly sensitive in a distance relationship and require distinctive attention (Hoch, Andressen & Konradt, 2007). The latter suggest contingency-related leadership behavior is favorable for conditions of physical distance. Distant leaders also need to place particular focus on selecting the right people as potential team members need to have not only good technical but also excellent interpersonal skills (Horwitz, Bravington & Silvis, 2006).

A compelling book-length study on distance leadership was published by Eichenberg (2007). The researcher looked at the question, how (1) spatial distance, (2) relationship distance, and (3) cultural distance impact leadership effectiveness. Spatial distance is described as the sum of time units of potential physical proximity and time units of shared time windows on a workday between leader and followers. Relationship distance is viewed as multidimensional, entailing elements of trust, similarity in communication behavior, and congruence of personal attitudes and experiences. Relationship distance, among others, inherits components of leader-member exchange and can therefore be seen as the reciprocal of relationship quality. Eichenberg (2007) views cultural distance as the combination of differences in context orientation of communication and differences in preference for power distance. The author found that spatial distance and cultural distance showed indirect effects on leadership variables only. Main outcomes showed, among other things, that spatial distance had a positive influence on relationship distance which can be interpreted as a negative influence on the quality of relationship between leader and followers. Cultural distance also showed positive influences on relationship distance. Relationship distance presented a strong negative association with leadership effectiveness. Eichenberg (2007) specifies that spatial distance has an ambivalent position in distance leadership. On the one hand, spatial distance significantly influences the relationship between leader and followers, resulting in a negative development, the further both parties are separated. He claims that one reason is that trust is more difficult to establish in a distance setting. Yet, a direct influence of spatial distance on leadership effectiveness could yet not be detected. This finding leads to the impression, that relational quality could be far more essential in a distance setting than originally presumed and spatial distance is ultimately a limiting situational component that can be overcome as such. The researcher confirms as-

sumptions that an established relationship can reduce boundaries of physical distance. Furthermore, Eichenberg (2007) emphasizes implications of relationship distance. The emergence of a trusting relationship plays a far more important role in the leader-follower relation. Relationship distance that is high (and represented by a low quality of relationship) was found to be negatively impacting leadership effectiveness. The strongest negative effect was detected concerning follower orientation. In other words, if the relationship quality is low, people-oriented leadership styles can still not reach their full potential which in other cases would lead to an increase in performance and satisfaction. Eichenberg (2007) concludes that among the three distance components, relationship distance has the strongest effects and relationship quality may thus act as the essential tie in a working distant leader-follower relationship.

This work succeeds earlier considerations by Antonakis and Atwater (2002) as well as Napier and Ferris (1993) and understands distance as a construct defining the physical separation, quality of relationship, and extent of interaction frequency between leader and follower. Distance leadership is understood as a goal-oriented influence executed over physical distance, determined by the quality of relationship, and the extent of interaction frequency between leader and follower.

The following paragraphs discuss recent literature with particular focus on the delineation of different streams in distance leadership. Theory on e-leadership, virtual leadership, and virtual teams is processed.

2.2.1 E-Leadership

Although rather sporadically, theory of distance environments has been covered in academic literature since the end of the last century (e.g., Howell & Hall-Merenda, 1999; Kayworth & Leidner, 2002; Hoyt & Blascovich, 2003) with the first aggregated summary provided by Antonakis and Atwater in 2002. Since then, many definitions of distance leadership have been released providing synonymous terminologies such as e-leadership or virtual leadership. Predictably, a large stake of distance leadership theory was handled under the work stream of virtual teams.

Distance leadership is sometimes referred to as e-leadership (e.g., Avolio & Kahai, 2003; Avolio et al., 2009; Avolio et al., 2014; Pulley & Sessa, 2001). The distinctive feature of this leadership style is based on premises of technology-driven means of communication. E-leadership differs from traditional leadership to the extent that work depends largely on the use of information technology (Avolio & Kahai, 2003). Researchers declare e-leadership to be “a dynamic, robust system

embedded within a larger organizational system” (Avolio & Kahai, 2003, p. 325). The purpose of e-leadership is explained as using relationships among members and enhancing them. The role of the leader becomes more proactive, with the need to establish social structures alongside which AIT is able to evolve (Avolio et al., 2001). Zaccaro and Bader (2003, pp. 381-382) identify the challenge for e-leaders in handling affective processes, such as the management of emotions and expressions, in a much more complex environment. Furthermore, leaders of e-teams must foster team trust and cultivate the team toward a stage of frequent interaction by defining roles, ensuring clear task distribution, and forming a shared understanding within the team. As understanding in a remote environment relies heavily on non-verbal cues, managing team conflict can be difficult for e-leaders. The leader will have to establish team norms and free time whenever social support is needed by a team member (Zaccaro & Bader, 2003).

In the German-speaking region, dispersion of the term e-leadership has mostly occurred due to the influence of Hertel and Lauer, according to whom the main duty of e-leadership is the integration of people with technology. This can only be achieved by influencing attitudes, feelings, behaviors, and performance (Hertel & Lauer, 2012, p. 105). The willingness of subordinates to be led might also be affected by a change in context, because establishing trust in a virtual setting is difficult. Furthermore, the actual physical environment of the workplace of a virtual team member (e.g., noise level within the office, various responsibilities) might be difficult to imagine for others. A frequent issue that arises is caused by overlapping leadership structures. Virtual teamwork is frequently set up as project work, in which the functional project leader is often not the disciplinary leader of the team, which may result in hierarchy issues (Hertel & Lauer, 2012).

The formerly stated definition declares e-leadership to be “a social influence process mediated by AIT to produce a change in attitudes, feelings, thinking, behavior, and performance with individuals, groups, and/or organizations” (Avolio et al., 2001, p. 617). In their review Avolio et al. (2014) publish a refined definition stating “E-leadership is defined as a social influence process embedded in both proximal and distal contexts mediated by AIT that can produce a change in attitudes, feelings, thinking, behavior, and performance” (p. 107). AIT not only changes the way organizations interact with customers, it also empowers customers through the use of rating sites, blogs, and social media.

E-leadership is projected to have certain advantages over face-to-face leadership, such as greater flexibility, fewer costs for organizations and an easier way of documenting processes as the nature of electronic collaboration inherits the need for

documentation itself (Hertel & Lauer, 2012). With a major part of leadership executed with the help of AIT, leadership will change into the direction of a participative approach where particularly self-managing employees become the focus of attention. Autonomy of followers needs to be promoted and, although e-leadership is still in its beginning, the interferences made by studies on flexible leadership styles need to be incorporated in trainings quickly in order to adapt to the new situation (Hertel & Lauer, 2012). Still, leadership and technology might not always co-evolve efficiently. Kahai (2013) admits that outcomes of e-leadership might be positive or negative and therefore leadership styles beyond transformational and transactional behaviors should be considered. Information technology has the chance to either enhance or weaken the effects of e-leadership, meanwhile increasing transparency at all levels (Kahai, 2013).

Research covering transformational and transactional leadership in a distance leader-follower relationship has not been attempted to a substantial extent (Hertel & Lauer, 2012). The recent publication by Avolio et al. (2014) confirms that the understanding of the effects of technology advances on organizational leadership remains vague. Avolio et al. (2014) adjusted their definition to declare e-leaders to be “affected by time, distance, and cultural considerations in how they actively shape their followers’, customers’ and society’s views and use of AIT, and potentially the context that embeds them” (p. 106). The authors further claim that e-leadership reflects how advanced information technology mediates leadership influence processes. Avolio et al. (2001) declare AIT to consist of “tools, techniques, and knowledge [...] that can help leaders [to] scan, plan, decide, disseminate, and control information” (p. 616). By its name, e-leadership takes the emerging context within a technology-driven environment into account. However, not only communication channels affect the way leaders and followers interact. Avolio et al. (2014) emphasize the necessity of forming high quality relationships between leaders and followers. With this, the researchers incorporate LMX theory as a critical element into distance leadership research just as previously academic work has done (e.g., Golden & Veiga, 2008; Napier & Ferris, 1993).

2.2.2 Virtual Leadership

Virtual leadership usually involves the presence of a virtual team. Thus, it is difficult to delimit virtual leadership from those of virtual teams. Research on virtual teams however often examines team perspective on collaboration, whereas virtual leadership predominantly addresses the challenges from the leader’s point of view. Virtual leadership warrants reference in this work, as the critical factor differentiat-

ing ineffective from effective virtual teams is inherently placed with the leaders, who claim a special position in developing and leading virtual teams (Caulat, 2006, p. 2). Virtual leadership is often used synonymous with distributed leadership (Gronn, 2002) which describes the goal of influencing the attitude and behavior of team members (Hoch et al., 2007, p. 52).

The success of virtual leadership largely depends on leaders' capability of engaging in the leadership role. A survey of 129 organizational leaders revealed that more than 80% identified virtual leadership as a requirement for today's leaders (Criswell & Martin, 2007, p. 7). Even a higher percentage (92%) specified that virtual leadership involves different skills than face-to-face leadership. Leadership is probably the most critical element in virtual work (Hambley, O'Neill & Kline, 2007a; Carte et al., 2006) and can be seen as a core competency of team leaders of today (Horwitz et al., 2006).

Leaders that are more flexible in roles may affect greater cohesion among team members and are more likely to perform better (Wakefield, Leidner & Garrison, 2008). The study suggests that the understanding of different roles of leaders is positively correlated with the output of the team. Leaders that can assume different roles in a virtual task or project are more likely to achieve greater team unity and cohesion than those that only assume one leadership role. Furthermore, if leaders inhibit and expose traits, such as mentoring, facilitating, monitoring and coordinating to the virtual team, fewer conflicts arise and performance will most likely improve. Building a personalized relationship between team leaders and followers is considered a crucial element in virtual leadership. Leaders further require distinctive communication skills to integrate distant team members and foster group cohesion (Hambley, O'Neill & Kline, 2007a). They also need to keep the big picture in mind (Bell & Kozlowski, 2002). Virtual leaders have to provide a common direction for the group and set the vision (Hambley et al., 2007a). Further obligations include getting every team member on the same level of information. Leaders often function as initiator, scheduler or integrator (Yoo & Alavi, 2004) and urgently need to detect conflicts while initiating counter-actions (Hertel et al., 2005). Leaders often need to manage tensions within the group that might appear due to dependencies on technology and relationships (Caulat, 2006). Here, standard operating procedures might be able to facilitate tasks (Bell & Kozlowski, 2002).

Face-to-face teams are inherently more likely to support the emergence of leadership. They develop a more constructive work style, whereas virtual teams might come up with a more defensive style of collaboration (Balthazard, Waldman & Atwater, 2008). Thus, it is not surprising that empirical evidence varies by context.

Results indicate that effective leadership is related to team members' perception of effective communication, communication satisfaction, and the capability of leaders to establish role clarity among virtual team members (Kayworth & Leidner, 2002). Furthermore, leadership effectiveness is mostly related to the mentoring capabilities of leaders. Efficient virtual leaders strengthen team members' appreciation of goal accomplishment and value others' contribution which in turn increases identification within the team (Kark & Shamir, 2002). Particularly, inspirational leaders seem to be of higher significance in distributed work environments (Joshi et al., 2009). The researchers postulate that working in distant contexts might result in reduced team identity due to physical dispersion and lack of community. In that case, inspirational leaders would have the potential to occupy the role of a substitute by establishing a collective mission and vision for the team.

In a study conducted by Kahai, Sosik and Avolio (2004) on electronically led teams, empirical results showed no evidence of participative leadership enhancing team satisfaction. Yet, participants had a more positive attitude towards participative leaders compared to directive leaders. Whereas in a less structured task a participative leadership approach is recommended, the authors propose that a directive leadership style is more effective when facing a more structured problem (Kahai, Sosik & Avolio, 1997, pp. 141-142). Weisband (2008) observed that in early stages of virtual leader-follower interaction, goal-driven aspects and directive styles are more promising, whereas in the emergence of the relationship, e-leaders may shift to more transformational behaviors. A positive relation between transformational leadership and organizational commitment among subordinates was established (Avolio et al., 2004). Furthermore, there might be value in the application of transformational and transactional leadership behavior to enhance virtual team performance (Huang, Kahai & Jestic, 2010).

The question whether external leadership truly adds value to virtual group work has not been answered sufficiently and opinions by researchers diverge. Some explain external leadership to be indispensable for virtual teams, since external leaders provide objectives and assist in establishing relationships among team members (Manz & Sims, 2001). Others claim that virtual teams fulfill their tasks self-managing and envision them as completely self-organizing systems, as control is difficult to exercise and might shift to the group members (Hertel et al., 2005, p. 82). As distributed teams are more task-focused than face-to-face teams (Zigurs, 2003) they might be more autonomous and act analogously to self-managed teams (DeRosa, Hantula, Kock & D'Arcy, 2004). The authors state that there is a possibility that self-managed work teams do not even require external leadership as they might benefit from rotational or shared leadership. Nonetheless, there are situations when a top-

down leadership approach might be appropriate although transfer to group-internal leadership is important as team members need the ability to make decisions in the absence of a physical external leader (DiLiello & Houghton, 2006).

2.2.3 Virtual Teams

Due to change in the contexts in which organizations operate, corporations today need to be present in almost every corner of the world in order to survive in an increasingly competitive market. Virtual teams have emerged as a modern way of organizational collaboration due to AIT and possibilities provided by internet networking. Particularly, in the case of virtual teams, numerous publications have shown that this field of research is steadily becoming more valuable to academics. The majority of publications discusses challenges faced by virtual teams (e.g., Hertel et al., 2005; Martins, Gilson & Maynard, 2004; Powell, Piccoli & Ives, 2004). The papers argue that virtual teams are composed of geographically dispersed workgroups who communicate predominantly through electronic means.

Alongside the evolution of virtual leadership, virtual teams have progressed and have become a vital object of research over the last two decades. Distributed teams differ from face-to-face teams in the sense that operational work occurs predominantly in physically distributed contexts. Social cues, facial expressions, and body language might disappear (Townsend, DeMarie & Hendrickson, 1996). The number of virtual teams within international corporations is rising due to composition of teams according to competences rather than proximity (Weisband, 2008). As such, distant teams are expected to meet performance expectations (or even perform better). The attribute virtual is used as a synonym for geographical distribution between team members themselves or team members and leaders (Weisband, 2008, p. 5)

Virtual teams are characterized as groups of individuals working while geographically distributed from each other (Hoch et al., 2007; Townsend et al., 1998). Horwitz and colleagues (2006) add the technological component and conceptualize virtual teams as “groups of people working on interdependent tasks, geographically distributed, conduct[ing] their core work mainly through an electronic medium” (p. 474). According to this definition, virtual team members communicate with each other primarily through technology (Hertel et al., 2005; Lipnack & Stamps, 2000). Using terms similar to previously stated definitions, the authors describe virtual teams as consisting of two or more people collaborating in order to achieve a common goal in which at least one team member works at a different location, organi-

zation or timing so that communication is conducted predominantly via electronic media (Hertel et al., 2005, p. 71). Virtual teams by definition have no option but to make use of technology in order to stay informed (Zakaria et al., 2004). These teams are known for their dynamic membership, which implies that membership changes readily according to different needs and stages of the project (DeSanctis & Poole, 1997). In addition to their large virtual component, most virtual teams, whether project based or permanent, practice at least some face-to-face contact between team members and leaders. The degree of virtuality can then be assessed using the number of face-to-face meetings or the number of different work locations (Hertel et al., 2005).

Global virtual teams have and will become one of the predominant methods of team collaboration in international corporations (Zakaria et al., 2004). Global virtual teams form an alteration of traditional virtual teams in which members usually acquire different functions. Zakaria and colleagues (2004) refer to global virtual teams as geographically distributed, of diverse national and cultural background, and occupying various functions (p. 17). Particularly, in human resources (HR) functions, managers are eligible for virtual teaming before other departments, as HR supports so many different functions within an organization (Townsend et al., 1996). Yet, only one third of virtual teams are seen as effective (Goodbody, 2005). This may be because traditional teamwork differs from virtual collaboration and teams are often not well prepared. Long decision-making processes and preliminary misunderstandings in communication make problems more complex (Dube & Pare, 2001). Searching for the catalyst of virtual team failure in literature, a prevalent theme is that obstacles often arise due to the lack of face-to-face communication and the complexity of technology. Distributed team members might therefore have to invest greater effort to communicate and share information with their team members and consequently might keep information to themselves (Bradner & Mark, 2008). Virtualization not only promotes complexity, it also inhibits the sharing of sensitive knowledge between team members (Breu & Hemingway, 2004). Furthermore, the need to raise cultural competences might be especially integral to global virtual teams (Weisband, 2008).

Teams often consist of individuals with diverse backgrounds. Diverse team members may support each other and teams can benefit from synergies that result from members' differing expertise and perspectives. Particularly in product development and electronically based learning environments, virtual teams might be feasible, whereas it poses a limitation in certain contexts (Cohen & Gibson, 2003). Hertel and colleagues (2005) similarly claim that virtual teams are particularly suitable for tasks based on information rather than physical work, such as research and devel-

opment or project management. What happens early in the establishment of virtual teamwork might be critical to success, performance, satisfaction, and trust (Avolio & Kahai, 2003). Early face-to-face meetings, ideally prior to virtual collaboration, are vital for the development of group work. Moreover, face-to-face meetings can enhance task accomplishment significantly (Kirkman, Rosen, Tesluk & Gibson, 2004). However, others argue that meeting face-to-face early in the process might not be as relevant (Caulat, 2006; Staples & Zhao, 2006).

In order for effective teamwork to evolve, some basic principles must be considered. First of all, every group should learn how to become a group (Schein, 2010). Agreement on a common language among team members is vital. Consensus on who is a member and who is not should be clarified upfront and roles need to be assigned. Standard operating procedures should be based on rules, and criteria need to be set for rewarding or punishing members. The role of leaders comes into place, as leaders serve a purpose similar to an initiator, and are generally the ones who start discussions (Schein, 2010). Particularly the latter may be difficult as virtual teams are more anonymous than face-to-face teams (Avolio & Kahai, 2003). Team members' commitment can be increased by assigning higher degrees of responsibility to the individuals (Horwitz et al., 2006). Furthermore, cognitive and interpersonal skills as well as oral language skills are regarded as essential in an international organizational context (Bikson et al., 2008). Spontaneity and informal conversations are also considered positive for virtual teamwork. Thus, it is clear that setting targets and deadlines alone does not contribute to enhancing working relationships among team members as informal exchange is missing (Caulat, 2006). Non-work related conversations might enhance personal relationships and in turn lead to greater trust and commitment (Hertel et al., 2005).

In a case study analysis conducted by Fairfield-Sonn (1999) the author identified key determinants of problem solving teams which help the groups to perform better in a distributed setting. First and foremost, the researcher mentions the time needed to request and receive support in case help is needed. The second challenge is the degree of responsibility as the teams have to truly make their own decisions. The third critical factor is the extent to which the teams receive internal or external expert advice. The last factor is the sensitivity among leaders toward providing appropriate rewards and recognition to the team members. During virtual teamwork, transactional leadership may help to provide course corrections; however, leaders should promote the attitude that team members should preferably correct themselves or each other instead of simply accepting corrections from the leading person (Davis, 2004).

Zander, Zetting and Mäkelä (2013, p. 229) summarize critical challenges of global virtual teams as (1) goal alignment, (2) knowledge transfer, and (3) motivation. The researchers differentiate operational and mutual team goals. Operational team goals are clear to team members, whereas mutual goals are usually assumed to be known by everyone. Both types of goals influence team effectiveness. Knowledge transfer or knowledge sharing are by-products of communication. For them to occur, members need to establish trust which usually develops through shared experiences. The scholars further describe leadership style as a potential influencing factor for demotivation. The authors associate this with cultural and personal complexity. Yet, adaptation to individual cultural preferences of team members has been found to create a negative impact on team culture. The researchers delineate the virtual teamwork process in three phases (Zander et al., 2013, pp. 230ff.):

- (1) Welcoming phase
- (2) Working phase
- (3) Wrapping-up phase

The welcoming phase is defined by the alignment of goals, building of relationships, and definition of tasks. Here, leaders need to clarify the goal of the virtual collaboration, as overall goals might be interpreted differently by individuals. A real environment needs to be established and a social setting must be defined, which may include language and priorities. In creating a mutual understanding of each other and developing trust within the group, relationship building might be the most essential part in the welcoming phase. It serves as an introduction and sets the social context in which each individual is acting by making this context visible to others. Knowing individual circumstances is vital to understanding team members and it helps if group members disclose their personal backgrounds as this facilitates team socialization. The welcoming phase closes with the delineation of the task itself. Leaders have ownership of the project; they have to clarify and align the understanding of expected outcomes among team members.

During the working phase, processes actually come into place and team members start working to-gether. This phase contains three main activities: (1) assigning roles and processes, (2) coordinating means, and (3) operations. It is vital to establish the means of collaboration. Not only communication media but also decision-making processes need to be defined. Particularly, team leaders are ascribed an essential role in this phase as they must define the roles and responsibilities of each individual in the group. It must be clear to all members, where specific expertise

and resources lie within the group. At the same time, rules of collaboration are set up mutually. Coordinating the tools with which the work is done later should be a mixture of rich and less rich media. It must be appropriate to the situation and capabilities of all participants. With operations, the authors refer to the process of supervision of teamwork by leaders, stating “the leader needs to shift roles between being a facilitator of processes, guiding members, connecting people, creating common context and following progress closely” (Zander et al., 2013, p. 234).

Finally, the wrapping-up phase entails the finalization of the project and debriefing of the group. During finalization, the group should discuss common achievements together with a group reflection coordinated and directed by the leaders. The debriefing session should then broaden the group’s understanding of how tasks have been approached, how processes progressed, and which conflicts arose. Debriefing represents an essential last step in (virtual) teamwork as it encourages open feedback and serves as basis for continuous improvement. (Zander et al., 2013).

Conversely, virtual teaming also might present competitive advantages. In fact, cultural boundaries, once overcome, might be used to create cultural synergies instead and to uncover innovative solutions (Zakaria et al., 2004). Furthermore, creativity increases with the diversity of the team and new ideas are usually accepted faster as teams can work 24 hours on a project taking advantage of time zone differences (Horwitz et al., 2006). Resources utilization can be improved through more flexibility with team members (Symons & Stenzel, 2007); employees might perceive greater empowerment (Hertel et al. 2005), and operating costs might be reduced (Jarvenpaa & Leidner, 1999). Predominantly, in regions suffering from low infrastructural development, virtual teamwork can integrate people with reduced mobility (Hertel et al., 2005).

2.2.4 Physical Distance

Definition

Physical distance is defined as how close or how far leaders and subordinates are located from each other (Antonakis & Atwater, 2002, p. 684). The dimension implies only little face-to-face interaction between the two parties and is expected to create challenges which may result in a severe decrease in performance of the distant team. A physically distant setting might make it more difficult for transformational leaders to establish individualized relationships (Howell et al., 2005; Kerr & Jermier, 1978). Furthermore, physical distance may cause difficulties for leaders to monitor and rate followers’ performance. The more opportunities leaders

have to observe their subordinates, the higher they rate their performance (Judge & Ferris, 1993). Particularly, active influence on subordinate performance becomes challenging (Kerr & Jermier, 1978). Being physically close, leaders have the chance to role model and influence subordinates directly which is certainly hindered over long distance (Yagil, 1998). Investigating behaviors of distance leaders shows they are more frequently reported to possess strong rhetorical skills as a characteristic of charisma (Shamir, 1995). Indeed, particularly in distant follower-leader relationships, charismatic leadership is regarded as highly efficient (Katz & Kahn, 1978). It is assumed that high physical distance may lead to a reduction of social interaction which will further weaken the relationship between leaders and followers (Bass, 1990). Subordinates also tend to place stronger emphasis on leaders' behaviors if they are distant as specific actions are more dominating (Howell et al., 2005).

A longitudinal analysis by Howell and Hall-Merenda (1999) surveying banking managers and their team members in a Canadian institution evaluated effects of transformational and transactional leadership behaviors on follower performance under physically close and distant conditions. The authors hypothesized transformational leadership to be directly and positively related to follower performance, yet the assumption could not be confirmed. Also for contingent reward leadership, no statistically significant direct positive relation could be detected. On the contrary, MBEa was found to be positively related to follower performance, whereas MBEP did not reveal negative significant results as projected. The authors expected contingent reward leadership to predict follower performance in close leader-follower conditions. However, empirical evidence was found for the opposite; contingent reward produced significantly better follower performance under distant conditions. MBEa showed lower follower performance when followers were distant. On the other hand, MBEP led to lower performance when followers were close. LMX ratings by followers revealed significant correlations with follower performance. Assessing effects of LMX on perceptions of leadership behavior the authors found LMX to be positively associated with transformational and contingent reward leadership. LMX further displayed significant negative effects on MBEa and MBEP leadership behavior. No evidence was found for moderating effects of physical distance on the relationship between LMX and follower performance. Summarizing the outcomes, the authors discovered that transformational leadership is significantly more effective in predicting follower performance under close leader-follower relationships. Perhaps the most significant finding of this study is that relationships between leadership behavior (transformational, contingent reward, MBEa, and MBEP) and follower performance were moderated by physical distance.

In addition, Kirkman and colleagues (2004) assume empowerment to be a critical factor for learning in virtual team environments as virtual teams that lack empowerment might become passive. The researchers test the hypothesis that virtual teams high in team empowerment are presumed to take more corrective actions in order to improve team processes than those showing a low degree of team empowerment. The scholars finally reveal that team empowerment is significantly related to positive work-related outcomes as empowerment is found to be predicting process improvement in a virtual setting. For teams meeting face-to-face frequently the effect of empowerment on process improvement was not significant. Furthermore, empowerment was found to positively impact leader performance, innovation, and job satisfaction. The authors even argue that team empowerment could be a substitute for leadership in virtual teams. As virtual teams lack external motivation, intrinsic motivation might be a critical factor improving their performance (Kirkman et al., 2004).

Howell and team (2005) assessed effects of physical distance on business unit performance in the Canadian banking sector. The authors found transformational leadership to predict business unit performance under close conditions and physical distance to have moderating effects. These findings concur with previous empirical evidence (Howell & Hall-Merenda, 1999). In a dispersed context, transformational leadership no longer predicted unit performance. Contrasting findings were retrieved for contingent reward leadership. While leaders and followers were close, contingent reward leadership was not linked to business unit performance. However, when distant from each other, business unit performance increased. These outcomes suggest that while transformational leadership was more effective in a close environment, contingent reward leadership might enhance performance in a distant setting. The scholars interpret this finding as contingent reward leaders granting their followers autonomy to perform tasks in a way that works best for distantly self-managed subordinates – as long as targets are met.

Aiming to identify the role of inspirational leadership (Bass, 1985) on virtual team performance, Joshi et al. (2009) observed that by cultivating socialized relationships with followers, inspirational leaders are able to foster attitudes directed at the collective team entity. Providing inspiration and vision, setting collective goals and inspiring group unity involves exceptional attention when developing leadership behavior. In other words, inspirational leaders are important in all contexts but are more important in highly dispersed contexts. Since inspirational leadership was discovered to facilitate positive outcomes, developing critical leadership behaviors that may be considered inspirational is clearly an imperative when working globally. Although the importance of self-management in teams is often emphasized, the

results of the study imply that certain aspects of active leadership may have a pivotal role for influencing important work-related outcomes (Joshi et al., 2009).

Physical distance seemed not to impact either leadership performance or communication effectiveness, according to Neufeld et al. (2010). A positive link was found between transformational leadership and perceived leadership performance, however physical distance showed no significant correlations. Being physically close might be an advantage as leaders have the opportunity to role model and influence followers directly, which is surely more difficult to exercise over a long distance (Yagil, 1998). Establishing individualized relationships might also work better when leaders and followers are close. The researchers conclude that physical distance does not necessarily need to negatively affect leadership or communication. The key to leadership effectiveness rather lies in communication, as this was found to have mediating effects on the influence of transformational and contingent reward leadership on leader performance. Since both leader archetypes are perceived as good communicators, the combination of both behaviors might positively influence follower performance. Assumptions by the authors conclude that without effective communication, leadership becomes irrelevant, particularly under conditions of physical distance (Neufeld et al., 2010).

A recent empirical assessment of 681 employees in 129 teams and 116 team leaders conducted by Andressen et al. (2012) examined the relationship of self-leadership to transformational leadership, motivation, job performance, and affective commitment. Self-leadership was assessed using the RSLQ (Houghton & Neck, 2002). Furthermore, the researchers investigated the role of virtuality in this relation. To wit, Andressen and colleagues are the first to investigate this influence in a virtual context. First, it was discovered that follower self-leadership acted as a process factor for the influence of transformational leadership determining motivation. Results demonstrate that team leader virtuality moderated the relationship between transformational leadership and self-leadership of followers, indicating that transformational leadership is less predictive of self-leadership in high-distance settings. Moreover, self-leadership predicted motivation more strongly when working in a virtual setting.

Assessing physical distance

The most comprehensive article thus far on different forms of distance was published by Antonakis and Atwater in 2002. Since then, authors have directed their interest in leader-follower relations stronger to the impact of physical distance. Acknowledging the differences in measurement tools, a wide variance of outcomes

exist. Andressen et al. (2012) declare virtuality to be moderating the effect between transformational leadership and self-leadership. The researchers measure virtuality as the combination of physical distance and communication frequency. In their study, computer-mediated interaction frequency was assessed in relation to the overall interaction frequency between followers and team leader while an index by O'Leary and Cummings (2007) represented physical distance. Study outcomes revealed that virtuality moderated the influence of transformational leadership on follower self-leadership. In addition, virtuality was discovered to moderate the relation between team empowerment and process improvement (Kirkman et al., 2004). The impact of transformational, contingent reward, active and passive management-by-exception on follower performance was found to be moderated by physical distance in a study by Howell and Hall-Merenda (1999). Research by Howell and colleagues (2005) suggests that physical distance moderates the effect of transformational and contingent reward leadership on business unit performance.

O'Leary and Cummings (2007, p. 434) view geographical dispersion as a composition not of two elements, but of three: (1) spatial; the average spatial distance, (2) temporal; the extent to which working hours overlap in different time zones, and (3) configurational distance; the number of sites at which individuals are located, their isolation from each other, and the balance between subgroups. The single dimensions however are not mutually exclusive and overlap in many cases. In contrast, absence of temporal dispersion can still pose challenges to leader-subordinate or intra-team collaboration as geographical distance might still be high (e.g., one party in Germany and the other in South Africa). Howell and Hall-Merenda (1999) and Howell and colleagues (2005) measure physical distance adapting an instrument by Klauss and Bass (1982). Respondents are asked to indicate how close to or how distant they work from their leaders. Neufeld and colleagues (2010) assess physical distance with three items used by Kerr and Jermier (1978). Golden and Veiga (2008) used a method by Wiesenfeld, Raghuram and Garud (1999) to determine the degree of virtual work by asking respondents to indicate their average amount of a work week spent working in virtual mode. Antonakis and Atwater (2002) suggest to measure physical distance as per objective geographical distance between leader and follower.

2.2.5 Leader-Follower Interaction Frequency

Interaction and communication

To understand the impact of communication on the leader-follower relationship it is important to briefly look into communication theory. Early literature on communication already highlights the distinction between communication and information flow. Ruben (1992) defines communication as “an interactive process involving the transformation of information” (p. 22). The major difference lies within the construction of meaning which is particularly present in communication, whereas information is not transmitted as such. Conveying meaning through human interaction is often the constraint as interaction is perceived as complex and difficult to predict and control (Ruben, 1984).

Communication and virtuality become subject to study since technologies have facilitated interaction over space and time. Yet communication is often regarded as the major obstacle to be surmounted in virtual team leadership (Zakaria et al., 2004). Problems could arise in intercultural teams as some cultures are able to establish relationships and trust more easily, therefore causing issues for other team members. Consequently, the communication medium must be individualized to the recipient in order to exchange information effectively.

Modifications in the workplace have occurred mainly due to decentralization and the resulting need for advances in technology. Recent technologies are seen as advantageous to global entities, enabling them “to rapidly form teams that are not restricted by geography, time, or organizational boundaries” (Avolio et al., 2001, p. 337). Distances can be overcome by equipping distributed groups with technological communication media such as e-mail, telephone conferencing, and videoconferencing (McGrath & Hollingshead, 1994). Leaders and followers must communicate in order for the work to function (Gibson et al., 2009). Additionally, their responsibility includes creating a comfortable environment for group members to communicate and it is the leaders’ responsibility to ensure frequent and open communication (Cummings, 2008). In distant leader-follower conditions the task of group work stays the same, yet means and modes of communication change (Herrmann, Hüneke & Rohrberg, 2012, p. 86). Indeed, frequent communication within the group as well as with the leaders was found to be positively related to group performance in a study by Cummings (2008) indicating that leader-follower communication is viable in a distant work environment. Outcomes of the research further suggest that leaders of high-performing teams use informal face-to-face meetings more frequently while leaders of rather low-performing groups use more scheduled virtual communication media. As face-to-face communication occurs less frequent-

ly in virtual collaboration, leaders of virtual teams need to know how they can influence distant team members to achieve expected results. Communication frequency among the team members decreases drastically with distance (Cummings, 2008, p. 46). It is hence not surprising that team effectiveness is a matter of frequent interaction between team members. Interaction should also be scheduled in a temporal rhythm. This rhythm might be composed of “regular, intense face-to-face meetings, followed by less intensive shorter interaction incidents using various media” (Maznevski & Chudoba, 2000, p. 489).

Avolio et al. (2001) illustrate the advantages of recent technologies as enablers for organizations “to rapidly form teams that are not restricted by geography, time, or organizational boundaries” (Avolio et al., 2001, p. 337). Communicating over long distances can pose problems for leaders when it comes to showing transformational behavior, such as being inspirational, unless followers can see or hear them (Antonakis & Atwater, 2002, p. 698). Yet Kahai, Huang and Jestice (2012) found that transmitting limited characteristics in a virtual world can still be advantageous. Leaders engaging in transformational behaviors were particularly found to be successful and encouraged group interaction.

According to Balthazard and colleagues (2009) the most common way to evaluate emergent or trans-formational leadership is simply to ask team members which individual they perceive to be the group leader. In a virtual setting, however, the authors found that – unlike in face-to-face teams – personality traits do not encourage the emergence of transformational leadership perceptions. This might be due to the fact that the individuals do not usually meet in person. Instead, communication is used as a substitute to drive the relationship between personality characteristics and perceptions of transformational leadership (Balthazard et al., 2009). How and how often individuals communicate could therefore impact the emergence of transformational leadership. Researchers thus agree that virtual team leaders require different leadership skills than traditional leaders (Caulat, 2006; Hambley et al., 2007a).

In a study on global virtual teams in Europe, Mexico and the United States by Kayworth and Leidner (2002), leadership effectiveness was found to be mostly related to mentoring abilities of leaders when acting in a virtual environment. Outcomes indicate effective leadership to be related to team members’ perception of effective communication, communication satisfaction, and the capability of leaders to establish role clarity among the virtual team members. Effective leaders communicated frequently with team members, provided detailed information, and answered rapidly. Particularly, motivational and mentoring activities affecting the value-oriented side of the subordinate can be used to alter perceptions.

Hoyt and Blascovich (2003) discovered differences in quantitative and qualitative performance when collaborating in a virtual environment. Groups performed better quantitatively under transactional leaders in both, face-to-face and virtual teams. However, under transformational leadership the opposite was found. Here both, face-to-face and virtual teams showed better qualitative performance. For tasks that depend on qualitative outcomes, findings suggest transformational leadership is more effective, whereas for repetitive tasks where output counts, transactional behaviors might be more effective.

In an academic study by Kelloway, Barling, Comtois and Gatién (2003) students were found to differentiate between different leadership styles when e-mail messages were exchanged. Until then, it has not been clear whether receivers of messages could detect different leadership styles simply by reading e-mails. The study shows that individuals can distinguish and respond to different leadership styles even when communication is solely electronic. The findings from the previous paragraph suggest that it is valid to predict physical distance to have a moderating effect on the relationship between leadership behavior and follower performance.

Hambley, O'Neill and Kline (2007b) explored effects of transformational and transactional leadership styles, and means of communication on team outcomes. The researchers found that the impact of leadership style on constructive team interaction did not significantly depend on the types of media employed. Teams did not interact more defensively using less rich media either. Team cohesion was also not predicted by the usage of less or more rich means of communication. Finally, tests revealed that communication media did not have a significant impact on task performance; yet, richer media seemed to have some positive influence on team interaction. Summarizing the study, findings indicate that leadership behavior has only limited impact on predicting team outcomes, considering communication through rich or less rich media. Outcomes suggest that teams do interact differently or more defensively through less rich media and declare videoconferencing and chat to be a possible alternative to face-to-face interaction.

Subsequent findings supported the assumption that leadership effects rely on communication media (Kahai et al., 2012, p. 743). Results of one study indicate that the effect of leadership behavior on work-related outcomes is moderated by media richness (Huang et al., 2010). The decision whether rich or lean media should be used is the responsibility of leaders in the coordination function (Cascio, 2000). In order to differentiate between rich and lean media it is required to check which type of media is appropriate for which situation. Media richness is determined as "capacity to process rich information" (Daft & Lengel, 1986, p. 560); thus denoted by

its capacity for language variety, multiple cues, immediate feedback, and personalization. Rich media (e.g., telephone, videoconferencing, face-to-face meetings) is more suitable for situations in which complex communication is required, whereas lean media (e.g., mail, e-mail, fax, chat) channels are suited to standardized routines. In situations in which lean media is used, transactional leadership encourages task cohesion and transformational leadership develops a cooperative environment (Huang et al., 2010). When media is utterly rich, these effects diminish. E-mail is mainly used to facilitate the organization of collaboration and to improve communication, whereas teleconferencing (and nowadays videoconferencing) is used to replace face-to-face meetings and progress reports. Team leaders use telephone conferences multiple times per day to receive status updates. Specific information is often distributed through online document sharing software (Bradner & Mark, 2008, p. 57).

Research confirms that a high level of information exchange results in a better team performance (Weisband, 2002). However, this is true only to a certain extent. Patrashkova and McComb (2004) found that performance increased with the degree of communication until a mid-level frequency is reached but then remains stable and does not improve further. Specifically, text-only usage was found to result in better performance than audio-only communication (Baker, 2002, p. 88). The addition of video to text-only showed lower output, whereas the addition of video to audio-only caused slightly higher output. A study by Hambley et al. (2007b) found team interaction scores were almost equal for videoconference and chat teams and equally cohesive. Videoconferencing as such is therefore not regarded as a substantial improvement over chat. However, when teams used videoconferencing it cost them less time to fulfill a task compared to when using chat media. Results indicate that in situations where teams cannot meet face-to-face, using functionalities of videoconferencing may be a feasible alternative (Baker, 2002; Hambley et al., 2007b).

Kelley and Kelloway (2012) investigated effects of contextual factors on perceptions of leadership style. Four predominant contextual aspects, namely perceived control, regularly scheduled communication, unplanned communication, and prior knowledge (of the history between group members) were evaluated in predicting perceptions of transformational leadership (p. 444). For the remote sample, transformational leadership predicted job satisfaction, organizational commitment, and manager trust. Transformational leadership was further predicted by perceived control, regularly scheduled communication, unplanned communication, and prior knowledge. For the proximal group, perceived control and unplanned communication predicted perceptions of transformational leadership. Correlations in the prox-

imal and distant sample vary in strength, indicating that the four selected contextual factors are not as important in a close setting.

Hoch and Kozlowski (2014) studied effects of hierarchical leadership, structural supports, and shared leadership on team performance, controlling for influences of team virtuality. The researchers found influences of hierarchical leadership to be destabilized when teamwork is conducted predominantly virtually. Diminished leadership behaviors should thus be replaced. Under increasing levels of virtuality, structural supports, such as reward systems and communication and information, were more strongly related to team performance than hierarchical leadership. Shared team leadership predicted team performance positively, regardless of the level of virtuality.

Assessing interaction-frequency

Interaction frequency describes a repetitive communication behavior in a specific situation or an environment that a dyadic relationship is based on. Yet, a clear distinction is required from LMX theory, as interaction does not directly imply a well-established leader-follower relationship (Antonakis & Atwater, 2002, p. 687). Applied as a situational variable (Yukl, 1999), frequency of communication between leader and followers was found to influence the leader-follower relationship. The variable was repeatedly linked to moderation effects of (virtual) dyadic relationships and performance (e.g., Kacmar et al., 2003; Napier & Ferris, 1993). As the focus of the present study lies on the relationship quality between leaders and direct reports when working at great physical distance from one another, interaction frequency might be even more relevant in this context. It is assumed that most long-distance interaction is conducted via digital media and software. Antonakis and Atwater (2002) even argue to treat perceived interaction frequency as determinant of leader-follower distance, being defined as the “degree to which leaders interact with their followers” (p. 686).

Interaction frequency can be assessed by different items. Kirkman and colleagues (2004) suggest taking frequency of face-to-face meetings into account when studying virtual team leadership. The researchers assessed the number of face-to-face meetings with the question “How many times did your entire team meet face-to-face in the past year?” Using a sample of 254 distribution service employees, Kacmar et al. (2003) applied a four-item scale developed by McAllister (1995) allowing for responses on a seven-point Likert scale by asking questions such as “How often do you and your manager talk about work?” (pp. 765-766). Although

the scale showed proper reliability ($\alpha = .85$) it is still regarded as unsuitable for this research as the type of media channel is completely ignored.

Table 2 below summarizes the outcomes of the literature review systematically and supports a thorough overview of previous academic findings. Up to this point the main differences of distance leadership, e-leadership, and virtual leadership (with additional attention given to virtual teams) have been outlined. Furthermore, two key variables causing a context to be noted as distant (according to state-of-the-art work by Antonakis and Atwater, 2002) have been explained, namely physical distance and interaction frequency. Yet, distance, due to its multidimensional nature, is more than simply geographical distribution or the extent of communication. For this particular reason, and, considering that without explaining other dimensions of distance, this work would simply be incomplete, the sequences following the table briefly discuss other relevant forms of distance that have recently been considered in academic research.

Table 2. Leadership Behavior and Work-Related Outcomes: Effects of Physical Distance, Relationship Quality, and Interaction Frequency

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Howell & Hall-Merenda (1999)	Canada n ₁ = 109 (bank managers) Gender: 95% male A: 48 years Tenure: 25 years n ₂ = 317 (employees) G: 52% male A: 44 years Tenure: 20 years	IV: Transformational and transactional leadership, LMX DV: Follower performance CV: Length of time direct reports reported to a specific leader MV: Physical distance	LMX and active management-by-exception directly and positively predict follower performance Transformational leadership is more effective in predicting follower performance under close conditions Relationships between transformational, contingent reward, active and passive management-by-exception and follower performance are moderated by physical distance
Kayworth & Leidner (2002)	Europe, Mexico & USA n = 13 (student teams)	IV: Leadership roles, perceived role clarity, communication effectiveness, communication satisfaction, extent of communication technology use, team effectiveness DV: Leader effectiveness	Leadership effectiveness is mostly related to mentoring abilities of leaders when acting in a virtual environment Results indicate effective leadership to be related to team members' perceptions of effective communication, communication satisfaction, and the capability of leaders to establish role clarity among virtual team members

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Hoyt & Blascovich (2003)	USA n = 144 (students) G: 58% male A: 19.26 years	IV: Transformational and transactional leadership DV: Qualitative performance, self-efficacy, collective efficacy, trust in leaders, value congruence, leadership satisfaction, cohesiveness	Groups perform better quantitatively under transactional leaders (in both face-to-face and virtual teams) Groups perform better qualitatively under transformational leadership (in both face-to-face and virtual teams) Relationship between leadership style and group cohesiveness and leadership satisfaction are moderated by trust in leaders Followers express more trust in transformational leaders than in transactional leaders
Kelloway, Barling, Comtois & Gatién (2003)	Canada n = 105 (students)	IV: Charisma, intellectual stimulation DV: Individual performance, group performance, motivation CV: Charisma, intellectual stimulation	Individuals are able to differentiate between different leadership styles when e-mails are exchanged Aspects of transformational leadership can have an influence on task or attitude outcomes when electronic communication is applied Individuals can detect and respond to different leadership styles even if only electronic communication is exercised
Kacmar, Zivnuska, Witt & Gully (2003)	n ₁ = 188 (distribution services industry) Gender: 77% female n ₂ = 59 (managers of a tax collection agency) G: 37% female A: 42 years n ₃ = 203 G: 47% female A: 46 years	IV: LMX DV: Job-performance ratings by managers CV: Gender, age, minority status differences, organizational tenure, tenure with supervisor MV: Communication frequency	LMX is positively related to performance ratings by supervisors Frequency of communication moderates the relationship between LMX and job-performance ratings In high LMX relationships, the more frequently supervisor and subordinates communicate with each other, the higher are job performance ratings In low LMX quality relationships, the more frequently the two parties communicate, the more the job performance ratings decrease
Kirkman, Rosen, Tesluk & Gibson (2004)	n = 280 (35 teams in the travel industry) G: 31% male A: 4% less than 25 years, 17% 26–35 years, 45% 36–45 years, 28% 46–55 years, 6% over 55 years Team tenure: 2.4 years	IV: Team empowerment DV: Process improvement, customer satisfaction CV: Team size, task interdependence MV: Number of face-to-face meetings	At the individual level of analysis empowerment is positively linked to managerial performance, innovation, job satisfaction, and organizational commitment and negatively linked to turnover intentions To enhance virtual team process improvement and customer satisfaction managers should increase team empowerment Virtuality moderates the relationship between team empowerment and process improvement

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Howell, Neufeld & Avolio (2005)	Canada n ₁ = 101 (senior community-bank managers) A: 48 years G: 97% male Tenure: 24 years n ₂ = 308 branch managers G: 52% male A: 44 years Tenure: 24 years	IV: Transformational leadership, contingent reward leadership DV: Business unit performance CV: Leader-follower interaction, length of leader-follower relationship, leaders' job tenure MV: Physical distance	Transformational leadership positively predicts business unit performance Contingent reward leadership is not related to business unit performance Physical distance negatively moderates the effect of transformational leadership on business unit performance -under close conditions transformational leadership predicts business unit performance -under distant conditions, transformational leadership does not predict business unit performance Physical distance positively moderates the effect of contingent reward leadership on business unit performance
Wang, Law, Hackett, Wang & Chen (2005)	China n ₁ = 81 (leaders) G: 74% male A: 36 years Tenure: 10 years n ₂ = 162 (followers) Gender: 50% male A: 32 years Tenure: 8 years	IV: Transformational leadership DV: Organizational citizenship behavior (OCB), task performance MedV: Leader-member exchange	Transformational leadership correlates positively with task performance and organizational citizenship behavior LMX shows similar results correlating with task performance and organizational citizenship behavior LMX fully mediates the effects of transformational leadership on performance (for both task performance and organizational citizenship behavior)
Liden, Erdogan, Wayne & Sparrowe (2006)	USA n = 834 (120 teams and leaders) Leaders G: 65.8% male Tenure: 13 years Position tenure: 3.34 years Group members G: 56.1% male Tenure: 9.37 years Position tenure: 3.38 years	IV: Individual LMX, LMX differentiation DV: Individual performance, group performance CV: Employee organizational tenure, leaders' organizational tenure, organization, group size, average individual performance MV: Individual LMX, LMX median, task interdependence	LMX differentiation does neither predict individual performance nor group performance Individual LMX does positively predict individual performance Individual LMX moderates the relationship between LMX differentiation and individual performance For teams with high task interdependence, LMX differentiation positively predicts group performance LMX median moderates the relation between LMX differentiation and group performance For groups with a low median, LMX differentiation is positively and significantly related to team performance

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Hambley, O'Neill & Kline (2007b)	Canada n = 228 (undergraduate students) G: 87% female A: 23.8 years	IV: Transformational leadership, transactional leadership, communication media DV: Team constructive interaction, task performance, team cohesion	The impact of leadership style on constructive team interaction is not significantly dependent on the type of communication media Interaction between leadership style and communication medium on team cohesion does not result in significant outcomes Richer media has positive influence on constructive team interaction Face-to-face teams show higher constructive interaction than chat teams Teams do not interact defensively by using less rich media Face-to-face and videoconferencing result in higher team cohesion than communication through less rich media Task performance is not predicted by the use of different communication media
Eichenberg (2007)	International n = 100 G: 76% male A: 36 years Tenure: 7 years Tenure with leader: 25.05 months Tenure with distant leader: 18.33 months	IV: Spatial distance, relationship distance, cultural distance DV: Leadership effectiveness MedV: Task orientation, team member orientation, use of incentivized compensation, usage of rich communication media	Spatial distance and cultural distance show indirect effects on leadership variables Spatial distance influences relationship distance positively Cultural distance reveals positive effects on relationship distance Relationship distance reports a strong negative association with leadership effectiveness Among the three distance components, relationship has the strongest effects and to act as essential tie in a working distant leader-follower relationship
Golden & Veiga (2008)	n = 375 (spend 25% of their work virtually) G: 55% male A: 42 years Virtual work exp.: 20 months	IV: LMX DV: Organizational commitment, job satisfaction, job performance CV: Gender, dyad tenure, tenure as virtual worker MV: Degree of virtual work	Team members with high LMX relationships show higher organizational commitment when working frequently in virtual mode compared to those whose virtual work is limited Members with low quality LMX relationships display less commitment when working frequently virtually compared to those with less virtual work Virtuality moderates the influence of LMX on job satisfaction For high LMX members, job satisfaction is highest when working frequently virtually For team members with low LMX relationships, job satisfaction is lower when working more virtually Degree of virtuality moderates the link between LMX and job performance Job performance is higher when working at a high degree of virtuality, irrespective of LMX quality

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Mayer, Keller, Leslie & Hanges (2008)	USA n ₁ = 185 employees (38 groups) n ₂ = 904 employees (195 departments)	IV: Individual LMX DV: Job satisfaction, organizational commitment, competence perceptions, group identification, organizational citizenship behavior, deviance, performance MV: Coworkers' LMX	Coworkers' LMX moderates the relationship between individual LMX and job satisfaction, organizational commitment, and perceptions of competence Relationships are stronger when coworkers' LMX is high Outcomes are more promising when individual and coworkers' LMX are constant
Joshi, Lazarova & Liao (2009)	USA, France, Germany, UK, The Netherlands, Italy, Japan, Korea, Australia n = 171 (41 teams of service employees of a <i>Fortune 500</i> multinational company) G: 73% male Tenure: 5 years Team tenure: 2 years	IV: Inspirational leadership, team dispersion DV: Commitment to the team, trust in team members, team performance CV: Employee tenure in the organization, tenure in the team, employee age, gender, overall team size, level of face-to-face interaction	By cultivating socialized relationships with team members, inspirational leaders are able to foster attitudes directed at the collective team entity Inspirational leaders are important in all contexts but are more important in highly dispersed contexts In highly dispersed settings, leaders can be the critical link for facilitating commitment and trust Trust and commitment may be key mechanisms by which individuals can overcome physical distance and enhance team effectiveness Inspirational leadership is found to be facilitating in dispersed work settings The importance of self-management in teams is often emphasized, yet the results of this study imply certain aspects of leadership to have a pivotal role for influencing important outcomes in dispersed settings
Carter, Jones-Farmer, Armenakis, Field & Syvante (2009)	United States n = 228 (alumni)	IV: Transformational leadership DV: Organizational citizenship, task performance CV: Dyad tenure, unit size, supervisor tenure, follower tenure MedV: Interactional justice, LMX	LMX and interactional justice are found to be distinct concepts reflecting elements of leader-follower relationships LMX and interactional justice form mutual relations LMX and interactional justice explain variances of each other accounting for being aspects of the leader-follower relationship Transformational leadership stimulates leader-follower dyadic relationships Followers are able to interpret relationships and the quality of their leader-follower relationship does impact job performance

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Davis & Bryant (2010)	USA n ₁ = 52 (university administrators) n ₂ = 96 (directors of Industry/University Cooperative Research Centers)	IV: LMX, Trust DV: Satisfaction, commitment to research center MedV: Research center performance	Research center performance fully mediates the relationship between LMX and satisfaction with the research center Research center performance fully mediates the relation between trust and satisfaction with the research center Research center performance fully mediates the relationship between trust and satisfaction with the research center Research center performance predicts satisfaction and commitment to the research center LMX and trust do not mediate any relationship
Neufeld, Wan & Fang (2010)	Canada n ₁ = 41 leaders G: 85% male A: 35.9 years Tenure: 89.9 months n ₂ = 138 followers G: 55% male A: 35.8 years Tenure: 86.8 months Tenure with leader: 23.6 months	IV: Transformational leadership, transactional contingent reward leadership, physical distance DV: Leadership performance CV: Length of leader–follower relationship, follower job tenure, leader–follower interaction frequency MedV: Communication effectiveness	Results confirm a significant positive link between transformational leadership behavior and perceived leadership performance The relationship between transactional contingent reward leadership and performance is not supported Physical distance has neither influence on leadership performance nor communication effectiveness Physical distance doesn't have to be a barrier to effective leadership Leadership is positively linked to communication effectiveness for both transformational and transactional contingent reward leadership Communication effectiveness is linked to perceived leadership performance Communication effectiveness is a significant mediator of transformational and transactional contingent reward on leadership performance
Andressen, Konradt & Neck (2012)	International n ₁ = 116 team leaders n ₂ = 681 employees (129 teams) G: 59% male A: 36 years	IV: Transformational leadership DV: Self-leadership, motivation, affective commitment items, job performance MV: Virtuality (frequency of computer-mediated communication and physical distance)	Results suggest that self-leadership acts as a process factor that determines motivation Team leader virtuality has moderating effects on the relation between transformational leadership and self-leadership Transformational leadership has a lower influence on self-leadership in virtual team settings, where the team leader works physically distant from the team members Self-leadership has a higher influence on motivation in virtual work structures than in co-located work structures

<i>Author(s)</i>	<i>Sample</i>	<i>Variables and Operationalization</i>	<i>Results</i>
Kelley & Kelloway (2012)	n = 402 G: 48.8% male A: 67% between 30 and 50 years	IV: Perceived control, regularly scheduled communication, unplanned communication, prior knowledge DV: Job satisfaction, organizational commitment, manager trust CV: Age, gender MedV: Transformational leadership	For the remote sample transformational leadership predicts job satisfaction, organizational commitment, and manager trust Transformational leadership is predicted by perceived control, regularly scheduled communication, unplanned communication, and prior knowledge For the proximal group perceived control and unplanned communication are associated with perceptions of transformational leadership Correlations in the proximal and distant sample vary in strength indicating that contextual factors are not as important in a close setting
Hoch & Kozlowski (2014)	International n = 565 team members (101 virtual R&D teams) Followers G 77.1% male A: 37 years Team tenure: 4.18 years Leaders G: 89.1% male Tenure: 4.23 years	IV: Hierarchical leadership (transformational leadership, LMX, career mentoring), structural support (reward systems, communication and information), shared team leadership (cognitive team learning, affective team support, behavioral member-member exchange) DV: Team performance CV: Gender, age, task interdependence, number of projects a team member was working on MV: Team virtuality (geographic distribution, electronic communication, cultural background)	Influences of hierarchical leadership diminish when teamwork is conducted predominantly virtual At increasing levels of virtuality, structural supports such as reward systems and communication and information are more strongly related to team performance than hierarchical leadership Shared team leadership predicts positive team performance, regardless of the level of virtuality

Note. IV = independent variable, DV = dependent variable, CV = control variable, MV = moderating variable, MedV = mediating variable; demographic variables reflect averages, G = gender, A = age

2.2.6 Distance Dimensions: Potential Influencers of the Leader-Follower Relation

Potential dimensions of leader-follower distance employed in leadership literature have been the subject of this investigation. Napier and Ferris (1993) were among the first to observe leader-follower distance to be “a multidimensional construct that describes the psychological, structural, and functional separation, disparity, or discord between a supervisor and a subordinate” (Napier & Ferris, 1993, p. 326). In the early 1990s, the authors identified three elements influencing the overall construct: (1) psychological distance, (2) structural distance, and (3) functional distance. In their conceptual work, Antonakis and Atwater (2002) underline the multi-

dimensional layout of the construct by encompassing (4) perceived social (or psychological) distance, (5) physical distance, and (6) perceived frequency of leader-follower interaction. The scholars establish the hypothesis that distances can coexist and are not mutually exclusive. Wilson, O'Leary, Metiu and Jett (2008) discuss (7) perceived proximity as a factor that might influence the dyadic relationship between leaders and followers. Liberman and Trope (2008) assert distance to be more than the contextual factor that it was once applied as. For them, distance comprises a feature of circumstances, such as (8) dissimilarities between leaders and followers. The following section aims to clarify distance dimensions recently applied in organizational leadership research.

Psychological distance

Napier and Ferris (1993) build a broad foundation for subsequent research on leader-follower distance with a conceptual publication. The scientists refer to psychological distance as differences or similarities in characteristics such as age, race, socio-demographic variables, and perceived power distance. Research in all fields has shown that these are rather applied as control variables. Measuring socio-demographic differences is especially restricted as instrumental indicators of race or perceived power distance are missing. In addition, differences in age do not necessarily need to be associated with leader-subordinate distance (Avolio et al., 2004; Joshi et al., 2009). Popper (2013) claims that psychological distance is a subjective construct in which refers more to leaders' traits than to their behavior. Followers allocate organizational successes and failures largely to their leaders simply according to the information they have (Jaquart & Antonakis, under rev.).

Structural distance

Structural distance refers to the actual physical distance between work spaces of leaders and followers as well as to organizational characteristics (Napier & Ferris, 1993). The dimension further encompasses elements of hierarchical distance and implies features of perceived frequency of leader-follower interaction (Antonakis & Atwater, 2002). The dimension is characterized by little face-to-face interaction and is known to create challenges that can severely affect the performance of distant teams. Quality of exchange is negatively affected by structural distance (Bass, 1990). Avolio and colleagues (2004) define structural distance as the variance in direct and indirect contact between the parties.

Functional distance

Napier and Ferris (1993) express functional distance to be “the degree of closeness and quality of the functional working relationship between the supervisor and subordinate; [...] whether the subordinate is a member of the in-group or the out-group of the supervisor” (p. 337). Comprising the four dimensions of affect, perceptual congruence, latitude, and relationship quality, functional distance is rooted in LMX theory (Graen, 1976). One popular influence on the leader-follower relationship is trust, which the affect dimension entails. Today numerous independent studies are concentrating on the development of trust in close and distant contexts (DeRosa et al., 2004; Kanawattanachai & Yoo, 2002; Schaubroeck et al., 2011). Napier and Ferris (1993) explain that single dimensions of functional distance are congruent with similarity. Similarity, however, is associated with intrinsic values and might therefore not refer to externalities, such as context (Shamir, 2013). This dimension overlaps with Antonakis and Atwater’s (2002) perceived leader-follower interaction frequency. According to these researchers, close leaders interact more frequently with their subordinates than distant leaders do. High structural distance further is expected to have negative effects on subordinate performance (Napier & Ferris, 1993). Conversely, higher interaction frequency showed increased performance and greater satisfaction of subordinates. Still, a high quantity of interaction is not necessarily related to a high quality of communication (Antonakis & Atwater, 2002, p. 687).

Social distance

Human interaction refers to how people act and react with others surrounding them within a specific environment (Wassenaar & Pearce, 2012, p. 363). The organizational context can be seen as dependent on continuous interaction between parties establishing social bonds. Social roles further appear as a matter of identity that team members need to determine by defining their role in the organization and relationships they wish to engage in (Schein, 2010). Social interaction is often a matter of subjectivity, which makes universal definitions particularly difficult. Early considerations by Park (1924) describe social distance as “the degree of understanding and intimacy, which characterize personal and social relations” (p. 339). Shamir (1995) refers to social distance as the degree of direct relationship between two parties. Antonakis and Atwater (2002) characterize social distance as “perceived differences in status, rank authority, social standing, and power, which affect the degree of intimacy and social contact that develop between followers and their leader” (p. 682), following early approaches by Napier and Ferris’s (1993) definition of psychological distance and Bass’s (1990) portrayal of psychosocial distance. Prag-

matically, social distance is outlined as perceived closeness between individuals by Dufwenberg and Muren (2006).

Distinctions between socially close and distant leaders have long been subject to vague assumptions. Shamir (1995) was one of the first researchers to incorporate social distance in empirical investigations. The researcher proposed socially-close charismatic leaders to differ from socially-distant charismatic leaders. From an effectiveness point of view, socially distant leaders are often viewed as authoritarian leaders, whereas the relationship between socially close leaders and followers is too intimate to achieve that condition (Katz & Kahn, 1978). Being socially distant is therefore assumed to be highly feasible, since greater respect between leaders and followers is established (Antonakis & Atwater, 2002). Socially close leaders engage in interpersonal interactions and discussions about their personal life, whereas socially distant supervisors lay the focus on role-modeling and communication. Empirical results by Gibson, Cooper and Conger (2009) counter this postulation. Their findings reveal that for goal accomplishment and constructive conflict, team performance is higher when leader and team have similar perceptions and operate in an environment of little social distance. Social closeness is perceived as positive by followers since it allows for custom-made building of confidence between the parties (Yagil, 1998). Highlighting interpersonal interactions and examples from personal life socially close leaders lay the focus on role modeling and might identify themselves more strongly with their followers (Antonakis & Atwater, 2002). Social closeness is experienced as positive by followers as it allows for custom-made building relationships and strengthening confidence between the parties (Yagil, 1998, p. 172).

Research further suggests that social distance moderates the way trust is developed between leaders and followers. Shamir (1995) observed that socially close leaders are capable of engaging in transactional behavior. This was found to be beneficial in establishing trusting relationships. Shared social values which focus on the mission and goal of teamwork might further lead to collective team unity (Bass, 1985; Joshi et al., 2009). For goal accomplishment and constructive conflict, team performance was found to be higher if leaders and team members have similar perceptions (Gibson et al., 2009). As transactional leadership focuses on goal-setting activities where deadlines need to be met, social distance might turn out to be favorable for the accomplishment of goals or achieving a set degree of performance (Antonakis & Atwater, 2002, p. 685).

Despite theoretical abstractions on the existence and impact of social distance on the leader-follower relationship, only few empirical investigations have been exe-

cuted to date. This might be due to the variety of definitions of social distance as well as lacking methods of operationalization. Emphasizing the potential of social distance as an impact factor on leader-subordinate relationships, the first study to confirm this postulation was conducted by Cole et al. (2009), investigating the effects of transformational leadership on follower outcomes by controlling for moderating effects of social distance. Adapting Antonakis and Atwater's (2002) suggestion, the researchers operationalized social distance as the difference in hierarchy level between top managers and respective followers using a hierarchy score. In their investigation, transformational leaders were discovered to empower subordinates by enhancing their sense of belonging and reinforcing positive beliefs (Cole et al., 2009). Results show that social distance might function as reducer, neutralizer and/or enhancer of follower outcomes. Concretely, for the influence of transformational leadership on followers' outcomes, social distance acted as reducer or neutralizer, whereas for positive emotional climate and collective efficacy beliefs, it enhanced effects (Cole et al., 2009, p. 1720).

Psychic distance

Psychic distance encompasses the factors determining the flow of information between organization and market (Johanson & Wiedersheim-Paul, 1975). This exchange of information might be influenced by home and foreign culture or language (Evans, Treadgold & Mavondo, 2000). Sousa and Lages (2011) define psychic distance as "the individual's perceived differences between the home and the foreign country" (p. 203). Used equivalently to cultural distance, psychic distance is measured according to Hofstede's (2001) cultural dimensions in a research instrument developed by Kogut and Singh (1988). Sousa and Lages (2011) however, differentiate between distance referring to country and people characteristics in the Psychic Distance Scale. Country characteristics refer to differences such as infrastructure, development and competitiveness, whereas people characteristics categorize income, lifestyle, purchasing power, and language, among others.

Perceived proximity

Perceived proximity is "a dyadic and asymmetric construct which defines one person's perception of how close or how far another person is" (Wilson et al., 2008, p. 981). Perceived proximity differs from objective proximity since perceived proximity is only apparent to the individuals involved. It consists of a cognitive and an affective element. Whereas the cognitive component is assessed in terms of the rational state of the focal person, the affective component takes emotional elements into account.

Wilson and colleagues (2008) claim that working at a high level of distance does not necessarily lead teams to a sensation of perceived distance by any of the involved individuals. The researchers suggest physical proximity and perceived proximity at best to be mediated, with communication and identification having even bigger effects on perceived proximity. Communication as well as identification is expected to lower the perceived distance between leaders and subordinates. The more detail in which one is able to imagine the other, the less distant they perceive themselves from their counterpart, due to a declining feeling of uncertainty. Common identities (Wilson et al., 2008, p. 986) can be established through creating a common ground of understanding and stimulating a positive image of one another. Social proximity may result in robust norms and intensified learning. Communication may thus reduce perceived distance and, conversely, amplify perceived proximity. Gibson et al. (2009) investigate a similar construct which they refer to as leader-follower perceptual distance. The authors define distance as “the degree to which there are significant variations in perceptions of the same social stimulus” (Gibson et al., 2009, p. 63). Perceived proximity and perceived distance both focus on the individual’s mental state. Earlier work by Murphy and Ensher (1999) found that followers with a high degree of self-efficacy were better liked and perceived as more similar by supervisors. Those subordinates also received higher performance ratings. Leaders also liked subordinates better, the more extensive job experience they had.

Perceived similarity / dissimilarity

Perceived similarity was also a component of Napier and Ferris’s investigation (1993). Comparable to Shamir’s (2013) findings, Napier and Ferris’s research assumes that perceived similarity reinforces psychological distance, demographic similarity, and value similarity simultaneously. The authors describe perceived similarity as “the degree to which an individual believes that (s)he is similar to a target individual” (Napier & Ferris, 1993, p. 331). Demographic similarity refers to differences in socio-demographic variables (e.g., age, gender), whereas values similarity is associated with similarities in values, beliefs, and attitudes between two parties (Napier & Ferris, 1993, pp. 329-332). A longitudinal investigation revealed that perceived similarity is essentially important in the dyadic leader-follower relationship for the emergence of LMX (Liden, Wayne & Stilwell, 1993). Bauer and Green (1996, p. 1560) noted that similarity in affectivity is important in early stages of a leader-member dyad, whereas, in later stages, it is followers’ performance that matters.

Lieberman and Trope (2008) agree that dissimilarity is an important aspect of distance although it might not be a dimension of leadership context (Shamir, 2013). The findings suggest refraining from treating dissimilarity as a dimension of distance and rather applying its elements as control variables. For Shamir (2013) dissimilarity however goes beyond perceived differences in age, gender, race, ethnicity or culture, including socially manifested constructs. This becomes obvious when observing leaders who try to lower the perceived social distance between themselves and their followers by deliberately emphasizing similarities.

Chapter summary

This chapter has reviewed modern theories of leadership, discussing and outlining various definitions of leadership. The results of the literature review indicate that traditional leadership behaviors that work in a proximate environment may encounter challenges in a virtual setting. Followers exposed to little face-to-face contact require empowerment by supervisors and subsequently a higher degree of self-leadership. Reviewing theory on distance leadership it became clear that no grounded definition of distance leadership existed. In addition to a vague understanding, distance leadership links disciplines of leadership theory with communication theory and vertical dyad-linkage theory. In the course of the review, Full Range Leadership has been identified as the most prominent theory in current leadership research. According to the work of many researchers, three distance dimensions have shown to be the potentially main influencers of the leader-follower relationship: physical distance, relationship quality, and interaction frequency. These parameters serve as subjects of interest to the following hypotheses.

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