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Leader's Relational Transparency and Team-level Trust and Distrust

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Abstract

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MS, Walden University, 2017

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Dissertation Submitted in Partial Fulfillment

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Abstract

Team trust in teams of collaborative knowledge workers has been identified as one of the main mediators of team effectiveness, and one of the most important outcomes of effective team leadership. The purpose of this quantitative nonexperimental study was to explore the relationships among relational transparency as a component of authentic leader's behavior, and the levels of affect-based trust and distrust, as well as the relationship between both outcomes in context of the process of their emergence in a team setting. A total of 176 knowledge workers from a commercial business contact database participated. The relationships between these variables were evaluated using quantitative methods of analysis. Multiple analysis of covariance was conducted to investigate the association between the levels of relational transparency in team leaders with the team levels of affect-based trust and distrust. Regression analysis was conducted to investigate the relationship between the affect-based trust and distrust on the team level. The study results indicated that there was a positive association between the level of leader's relational transparency and the team levels of affect-based trust and distrust. It suggests that a leader needs to seek optimal levels of openness and transparency to promote collective trust, but concurrently needs to instill conditions allowing for certain levels of distrust to promote nonroutine information processing. The investigation has a potential to contribute to positive social change by showing how effective teams can improve workplace relationships in business enterprises seen as vehicles for the general betterment of individuals, communities, and society.

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Dedication

I dedicate this dissertation to Prof. Edgar Henry Schein, the humble legend of organizational psychology, organizational culture, and leadership, who inspired this study by observing that “it is becoming obvious that keeping pace in this world will require teamwork and collaboration of all sorts based on the higher levels of trust and openness created by more personalized relationships” (Schein & Schein, 2018, p. 5).

Acknowledgments

No words can fully capture the great debt I owe to my family and especially to my wife Lenka for her unfading and unbreakable support on this long journey of academic enlightenment. My family remains to be the source of inspiration, fulfillment, emotional support, and intellectual nourishment. I love you dearly.

I am grateful to my Chair Dr. James Herndon for being the martial arts instructor of the fine art of dissertation writing. He encouraged and inspired me when I needed it the most. He truly makes the PhDs. Thank you.

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Chapter 1: Introduction to the Study

Over the past 5 decades, the advent of new technologies has changed dramatically the modern workplace and that profound transformation has been recognized as the fourth industrial revolution (Schwab, 2016). Major technological innovations lead to progressive digitalization of human work and creation and accumulation of vast amounts of data and knowledge by the new worker category referred to as *a knowledge worker* (Drucker, 1959, 1999). Surawski (2019) defined a knowledge worker as a professional who applies cognitive processes on symbols to gain knowledge and to add value by providing an insight. According to recent estimations, the knowledge worker category represents approximately one third of global workforce and the share is growing fast in context of what is now defined as a knowledge economy (Roth, 2019).

Expanding domains of information and data concurrently drive worker specialization and rising importance of teamwork and of collaborative teams tasked with achieving strategic goals at today's business organizations (Kozlowski, 2006). Because "teams are at the center of how work gets done in modern life" (Kozlowski, 2006, p. 78), the focus of industrial and organizational (I/O) psychology in course of past 3 decades has gradually shifted to the study of human work teams and their effectiveness. Team learning was identified as one of the main antecedents of team performance (Kozlowski & Ilgen, 2006), mediated by team and climate characteristics such as trust, psychological safety, team design and cohesion, group composition and potency. Leadership is critical in driving team development and determining the factors that increase team effectiveness (Kozlowski, 2018; Kozlowski & Ilgen, 2006). Modern societal challenges and global

issues call for “more positive forms of leadership in institutions and organizations to restore confidence in all levels of leadership” (Walumbwa et al, 2008, p. 90). Positive leadership, therefore, is critical for the effectiveness of collaborative teams of knowledge workers in modern organizations.

It is generally agreed that leadership of the formal team leader is crucial for team effectiveness (Hannah et al., 2011; Pratoom, 2018); however, it has long been advocated (for recent reviews see Kozlowski, 2018; Kozlowski et al., 2016) that leadership is shared and emergent in the social context of a work group. Team interaction between leaders and team members characterized by authentic human behavior follows the processes of emergence and team dynamics with a potential to develop into well-functioning and highly cohesive work group collaboration conducive to high levels of effectiveness and performance (Guenter et al., 2017).

The quest for human behavioral authenticity involves a life-long striving for personal self-awareness, self-realization, autonomy, and freedom in context of ever-changing societal environment and in the face of the limitations of human cognitive processes (Yacobi, 2012). When interacting with others, the effort is further complicated by the complexities of human communication, by the roles and identities people assume, by the organizational rules and norms, by its culture, and by the borderlines of freedoms of others (Yacobi, 2012). Notwithstanding the difficulties, people

> Must learn to love honesty and justice for themselves, not just for their effect on personal circumstances, but for their effect on the world, on the whole of human

> experience, on the progress of humanity in which we have played our part (McCain & Salter, 2004, p. 106).

One of the most promising areas of leadership studies is represented by authentic leadership theory introduced in the seminal work by Luthans and Avolio (2003). At work, authentic behavior lies at the heart of the ability of leaders to influence the attitudes, behaviors, and performance of others (Banks et al., 2016). Concurrently, authentic leaders come to the realization that leadership in modern organizations characterized by increasingly flatter and more intertwined organizational structures is not reserved for the formal leaders in the hierarchy, but rather is shared more informally between people bestowed with distributed power and influence (Wang et al., 2014). The attention shifts to development of the overall transformational capacity of leadership and social capital building across the organization, especially in the environments where knowledge workers dominate (Kozlowski et al., 2016).

This chapter starts with the introduction and definition of the concepts of authentic leadership, relational transparency, team trust and distrust as they are operationalized in the domain of the I/O psychology and then moves on to describe the theoretical framework by which the relationship between these characteristics has been conceptualized. The research problem is discussed together with its significance for the discipline and the outline of the approach to the investigation of the relationships among the main variables. Finally, the limitations of the study with respect to the chosen research design are described, as well as the potential contributions of the study to advance the theory together with the implications for positive social change.

Background

Authentic functioning was shown to contribute to individual psychological and interpersonal wellbeing (Lehman et al., 2019). The relational orientation of authenticity involves endorsing the importance of consistency between the leader's internal values and the external behavioral expressions, and the reciprocal relationship of building authenticity between people assumes development of trust and mutual intimacy (Cha et al., 2019). Authentic leadership behavior is a complex multidimensional construct comprising of leader self-awareness, relational transparency, internalized moral perspective, and balanced processing (Avolio et al., 2018). It has been demonstrated (e.g., Zeb et al., 2019) that authentic leadership promotes higher levels of trust on the interpersonal level, but the process of emergence of team trust and distrust on the team level has not yet been sufficiently investigated (Feitosa, 2018). My research therefore focused on the role played by the relational authenticity in leaders on the emergence of emotional team characteristics of trust and distrust.

Authentic Leadership

The concept of authenticity stems, in part, from the learnings of humanistic psychology, made known most famously by Rogers (2004) in his concept of human self-actualization, the positive tendency toward realization of the inner human potential and abilities. Rogers wrote about *facades* that people put on in social situations as safe mechanisms protecting them from letting other people affect them, and potentially change them, which is what people fear. The underlying fear leads to artificial, formalized relationships, which represent an obstacle for eventuality of someone being

influenced by others easily (Rogers, 2004). Authenticity, in this view, is inward-looking, and represents an ability of people to sense their own feelings, thoughts, intentions, and emotions.

Authentic leadership concurrently features an outward-looking component of the relationship between an authentic leader and the authentic followers, in which the artificial facades are replaced by openness and desire to learn in an atmosphere that is brought about by mutual trust (Kernis, 2003). Team-level analyses of authentic leadership effects remain scarce, although there are several recent exceptions (Costa et al., 2018; Kao et al., 2019). Team perceptions of leadership are most salient to team-level outcomes, while the leaders seek to transform individual goals into a joint vision for the entire team (Wang & Howell, 2010). Thus, the leader behavior is crucial for the emergence of a team identity as a trustworthy entity with high cohesion and potential to achieve optimal levels of performance. This is true not only in traditional leader-centered teams, but also in teams with distributed leadership and participative decision making, where leaders are essential for shaping shared norms and to coordinate the team's collective effort (Guenter et al., 2017).

Relational Transparency and Personization

Schein (2013) proposed the concept of person-oriented relationship. Modelled after the Rogerian concept of congruence in humanistic theory of person-centered therapy (Rogers, 2004), Schein proposed that person-oriented consulting is more effective than consulting focusing merely on task. Schein (2016) expanded on the original concept by introducing *level two relationship* defined as a relationship in which people begin to

"treat each other as persons rather than roles" (p. 36). Schein and Schein (2018) introduced the concept of *personization* defined as

> A process of mutually building a working relationship with a fellow employee, teammate, boss, subordinate, or colleague based on trying to see that person as a whole, not just in the role that he or she may occupy at the moment. (p. 24)

The concept of *personization* is built upon the humanistic tradition of authentic leadership and is closely related to one of the components of authentic leader behavior—relational transparency.

Relational transparency is one of the components of authentic leadership, whereby the leaders assert their influence through openness and transparency leading to follower's identification with the leader, to leader's idealized influence, and inspirational motivation (Gardner et al., 2011). Mutual intimacy and trust are identified as mediating factors in the relationship between relational transparency and positive follower outcomes (Gatling et al., 2017), but little is known about the process of emergence of the relational authenticity on the team level and the dynamics of the affective aspects of the process, which is what this dissertation was set to investigate.

Team Trust

Trust plays a fundamental role in the increasingly complex modern world as a powerful form of complexity reduction. Luhmann (1979) discussed how trust during cooperative effort among people reveals possibilities for action, which would be impossible or unattractive without trust. Until recently, trust has been investigated primarily as an interpersonal construct, but the attention has shifted toward team-level

analysis with team trust being defined as “a shared psychological state among team members comprising willingness to accept vulnerability based on positive expectations of a specific other or others” (Fulmer & Gelfand, 2012, p. 1174). One of the first to conceptualize team trust, Costa (2003) observed that trust is a multidimensional construct with perceived trustworthiness and cooperative behaviors to be the two most important components. Grossman and Feitosa (2018) developed a dynamic model of team trust demonstrating the dynamics of mutual relationships between team trust and team performance, and the roles team trust plays during a team performance cycle.

In their recent meta-analysis, De Jong et al. (2016) conclusively demonstrated that team trust is positively related to team performance, especially in environments where authority differentiation and task interdependence are high. Their study attests to the importance of research into the team performance antecedents of team trust and the relationships among the individual components of authentic leadership and team trust. Trust is a multidimensional construct, with the two main components being cognitive- and affect-based trust (as originally conceptualized by McAllister, 1995). Affect-based trust (ABT; also called identification-based trust) is critical for the emergence of synergistic processes in teams, which are based on affective identification of desires and intentions of others. The ABT component of trust in context of affective climate of a team is what this dissertation project is focusing on. Increased identification with the other members of a team leads to collective identity through a process of “second-order” learning and incorporation of individual psyche into a team identity. Hasel and Grover (2017) investigated the relationship between trust and team leadership concluding that the

collective attitudes toward work are socially constructed through the dynamics of the work group, and that team trust is a complex construct with the potential to offer substantial insight into the team learning processes. Grossman and Feitosa (2018) eventually developed a theoretical model of team trust calling for more research to be conducted to increase understanding of the antecedents of team trust, with the aim to develop leadership interventions to support the process.

Team Distrust

Researchers have long believed that distrust was a mere opposite of trust on a single continuum, until it was finally conceptualized as a separate construct (Benamati et al., 2006; Lewicki et al., 2006). While trust focuses on anticipation of positive behavior of others in a future interaction, distrust focuses on anticipation of negative behavior (Costa et al., 2018). Investigation of team distrust is important because distrust represents an emergent state with a potential to impede positive effects of team trust on team effectiveness and to alter the affective climate in a team in ways that are not yet fully understood. It is worth noting that higher levels of team trust do not always have positive effect on the team's effectiveness, and in parallel higher levels of team distrust do not always have negative effect (Costa et al., 2018). No researcher so far has examined potential benefits of some level of distrust in a team environment empirically, although it is known that constructive conflicts have a potential to increase team creativity and effectiveness (van Knippenberg & Mell, 2016). Lewicki and Wiethoff (2006) discussed ways in which affect-based distrust (ABD; also called identification-based distrust) can be alleviated and proposed how trust violations can be practically handled. Paradoxically,

these incidents can be managed more constructively in environments of high team trust where conflicts can be discussed openly and with sincerity (Lewicki & Wiethoff, 2006). Lowry et al. (2015) studied the notion that trust in teams has an inherently positive impact, while distrust has an inherently negative impact on the effectiveness of decision-making in groups, counterintuitively observing that "greater distrust heightens the use of non-routine mental actions that are valuable in solving non-routine problems" (p. 742). Team distrust's relationship to relational transparency has not yet been investigated empirically—Costa et al. (2018) observed that "research on trust in work teams has overlooked the influences of low trust and distrust on team outcomes both in theorization and empirical investigation" (p. 8).

Problem Statement

In the increasingly complex and compartmentalized domain of human work, the study of teams has gradually moved to the forefront of attention of organizational psychologists. Until very recently though, the emergent team characteristics such as trust and distrust have not been studied beyond the individual level (Fulmer & Gelfand, 2012). Kozlowski (2018) observed that although many theoretical frameworks exist describing the relationship between the emergent team processes and their antecedents and outcomes, there are not enough empirical investigations to verify the theory. It has been demonstrated that interpersonal trust between the leader and the team members (trust in leader) leads to positive team outcomes (Costa et al, 2018), but the dynamics of the emergence of intrateam trust has not yet been well described. The roles the individual components of authentic leadership behavior play in the development of interpersonal

trust among the individual team members are not clear, as well as processes through which trust becomes shared among the team members (Grossman & Feitosa, 2018).

One of the key antecedents of team effectiveness, interpersonal trust, is seen as a determining factor of effective collaboration among people in complex social systems of coordinated action (Colquitt et al., 2013). On the team level, however, scholars started to study trust relatively recently (e.g., Fulmer & Gelfand, 2012), and team trust is now believed to contribute to performance by making team processes more efficient and running with less friction (Grossman & Feitosa, 2018). Team trust researchers' focus has shifted to investigations of how trust evolves over time, how it can be developed and maintained by organizations, and through which mechanisms it influences performance and related team variables (Grossman & Feitosa, 2018; Ratasuk & Charoensukmongkol, 2019).

Leaders play an essential role in the development of organizational climate conducive to emergence of team trust and other positive team characteristics such as open and transparent communication, high employee engagement, and commitment (Jiang & Luo, 2018). The theory of authentic leadership (Jiang & Luo, 2018; Walumbwa et al., 2011) identifies four dimensions of leadership behavior: self-awareness, internalized moral perspective, balanced information processing, and relational transparency (RT). The dimension of RT corresponds with Schein's personization discussed previously by prescribing openly shared information, expression of true thoughts, feelings, and ideas in leaders (Avolio et al., 2009).

The general problem that is addressed in this study is the lack of knowledge about the relationships among leader RT behavior on the team level and affective characteristics of team trust and team distrust, as well as about the process of emergence of these affective states in the dynamic interaction process between a leader and the team, to help formulate practical recommendations to leaders on how to shape team development to achieve optimum levels of these team characteristics conducive to positive team-level outcomes.

Purpose of the Study

The purpose of this quantitative nonexperimental dissertation project was to explore the relationships among RT as a component of authentic leader's behavior, and the levels of ABT and ABD, as well as the relationship between both outcomes in context of the process of their emergence in a team setting. This study provides additional insight into the team dynamics of the influence of the authentic leadership behavior's component of RT on the affective and climate characteristics of the work group—team trust and team distrust—hypothesized as mediating factors of team effectiveness in the multiple mediation model (Guenter et al., 2017). The goal is to formulate practical recommendations to leaders on how to shape team development to achieve higher levels of team effectiveness.

Research Questions and Hypotheses

To address the stated problem and meet the purpose of the study the following research questions and hypotheses were presented. Focus is on the relationships among the predictor RT as a component of shared authentic leadership and the dependent

variables represented by team-level characteristics of ABT and ABD, hypothesized as mediators of team effectiveness (see Figure 1).

RQ1: What are the differences in the team-level ABT among teams with distinct levels of RT behavior?

H_a1: There are statistically significant differences among the levels of team ABT in teams with various levels of leader's RT behavior.

H_01: There are no statistically significant differences among the levels of team ABT in teams with various levels of leader's RT behavior.

RQ2: What are the differences in the team-level ABD among teams with distinct levels of RT behavior?

H_a2: There are statistically significant differences among the levels of team ABD in teams with various levels of leader's RT behavior.

H_02: There are no statistically significant differences among the levels of team ABD in teams with various levels of leader's RT behavior.

RQ3: What is the relationship between team ABT and team ABD?

H_a3: There is a statistically significant relationship between team ABT and team ABD.

H_03: There is no statistically significant relationship between team ABT and team ABD.

Theoretical Framework

The framework by which this study has been conceptualized is represented by the combination of social exchange and authentic leadership theories. Social exchange theory

(Cropanzano & Mitchell, 2005; Mitchell et al., 2012) provided relational framework whereby trust represents "an identifying outcome of favorable social exchanges" (Cropanzano & Mitchell, 2005, p. 886). In accordance with the theory, the relationship evolves incrementally through experiences of interpersonal and team exchanges, and trust evolves over time through reinforcing cycles, attesting to the dynamic nature of trust (Costa et al., 2018).

Focusing on the affective component of trust, ABT is perceived as the highest stage of the interpersonal trust development (Mitchell et al., 2012) whereby people establish strong affective connection. Upon the creation of a team, there exists a baseline level of trust between the team members called initial trust (Costa et al., 2009), which is determined by social, cultural, and individual factors. From the initial level, the trust evolves over time through development of rules of exchange among the team members providing guidelines to expectations of the behaviors of others (Cropanzano & Mitchell, 2005). These guidelines include reciprocity in situations of interdependence among team members whereby an action of one team member leads to response of the other members (Cropanzano & Mitchell, 2005). Continuous development of rules and norms by team leads to a shared understanding of what establishes desirable behavior and what are the likely consequences when expectations are not reciprocated. Similarly, the level of shared perception of distrust is determined by the analogous mechanisms of action and reaction in context of an interdependent team and its leader (Lambert et al., 2020).

Authentic leadership theorists (Avolio et al., 2004; Braun et al., 2013; Dionne, et al., 2004; Gardner et al., 2011; Meng et al., 2016), studied leaders' impact on team

performance through behavioral components of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration with outcomes of shared vision, team commitment, empowered team environment, and functional team conflict. Team characteristics such as trust and distrust are conceptualized as multilevel mediating factors between authentic leadership and team performance, satisfaction, and creativity. Zeb et al. (2019) investigated the relationship between authentic leadership and the team environment of trust as mediating factor of knowledge sharing and employees' creativity concluding that positive relationship exists between the variables. The study provided further empirical confirmation of positive effects of authentic leadership, although it has not looked at the effect of the individual components of the multidimensional concept of authentic leadership behavior and has not attempted to consider the effects of the cognitive and affective factors in the relationship between the leadership behavior and the shared characteristics of the team. In fact, the authors consider their study to represent "a preliminary exploratory investigation" (Zeb et al., 2019, p. 684). This study has an ambition to complement and to extend it further by focusing on the dynamics of the emergence of the affective shared characteristics of a team in relation with the RT behavioral component of the authentic leadership behavior.

Authentic leadership theory provided a theoretical framework for the description of RT as the relational component of team leadership behavior which is the focus of the present study. RT was the independent variable in the relationship with the emergent affective characteristics of the team, ABT and ABD, which represented dependent variables and mediating factors in positive team development and high effectiveness.

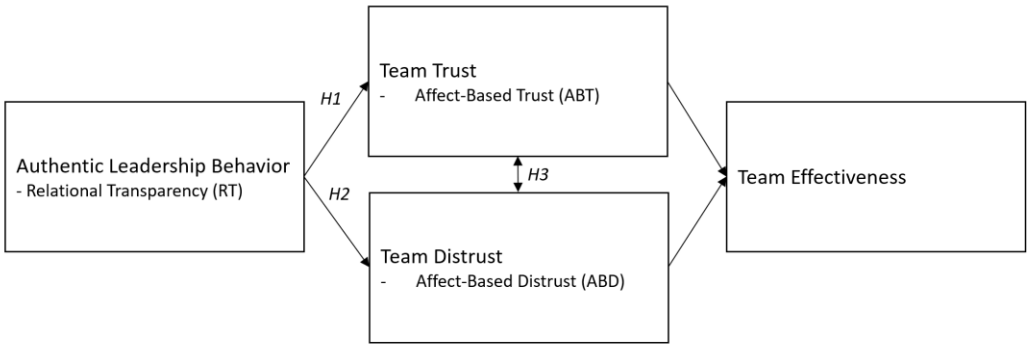
Social exchange theory offered theoretical framework to conceptualize the processes through which these affective characteristics emerge among the team members and become the characteristic of the team. Following the recommendation to advance multilevel research design when investigating the complex systems in organizations (Kozlowski et al., 2013), I conceived the shared team characteristics as multilevel, process oriented, and temporal. The initial affective states represented here by the interpersonal relationships among the team leader and the individual team members, and among the team members themselves, undergo changes over time through interactions among the individual people to emerge and manifest as temporal characteristics on the team level. The team, perceived as a temporal framework (Delice et al., 2019), allows researchers to focus on the stage of the team development to better understand the dynamics of the different characteristics over time. The teams assumed by this study have already been fully formed (tenures of the leaders are longer than 12 months) and their primary goal is to maintain the group as a working unit (see Feitosa et al., 2018; Neufeld & Haggerty, 2001). The focus of this study was on providing insight into the process of emergence of the current levels of shared team affective characteristics of ABT and ABD, in relationship with the RT component of authentic leadership using methods of quantitative analysis.

The combined conceptual model helped me examine how ABD and ABT act as intermediary variables in the leadership influence model between the leader's RT behavior, and the outcome variables of team effectiveness and performance (see Figure 1). Focusing on the emergence and development of ABD and ABT in teams, social

exchange theory provided me the framework to conceptualize the incremental dynamics of these characteristics through the process of emulation of behavior and affective states of the significant others. Similarly, the authentic leadership theory explains how a leader acts as a role model through the behavioral component of idealized influence, and how is the behavior subsequently emulated by the team members (Gardner et al., 2011). Both social exchange theory and authentic leadership theory conceptualize ABD and ABT as team emergent states mediating the team-level outcomes such as team effectiveness and performance and describe the dynamics of the interpersonal exchanges among the individual actors and the dynamics of the emergence of the individual and team characteristics critical for the team functioning.

Figure 1

Theoretical Mediation Model for the Relationships Among RT, ABT, and ABD



As depicted in Figure 1, adapted from Guenter et al. (2017), the first two hypotheses in the integrated theoretical model explore the relationships between RT and affect-based components of team trust (ABT) and team distrust (ABD), conceptualized to be mediators between RT as an affective-motivational component of shared authentic

leadership and team effectiveness. The research focused on the relationship among RT and team characteristics conceptualized as antecedents of team effectiveness; the relationship between those antecedents and team effectiveness was not investigated by this study, but it was theoretically assumed (see Grossman & Feitosa, 2018). The focus is on the process of emergence of these mediators in environments characterized by distinct levels of RT affective component of authentic leadership. I investigated the hypotheses that there are significant differences among the levels of ABT and ABD in teams with various levels of leader's RT behavior. Third hypothesis explored the relationship between the mediating variables of ABT and ABD, anticipating statistically significant relationship between team ABT and ABD in teams with various levels of leader's RT.

Nature of the Study

Given the nature of the inquiry, quantitative correlational methods of inferential statistics were used to test the hypotheses. I focused on the quantifiable variables and not on individual perceptions, which is the main reason why the use of qualitative research methods has been rejected for this investigation. A relatively large sample was required to provide specific details to the existing nomothetic theoretical framework through the process of deductive reasoning. The study involved 176 individual members of small work teams drawn from the target population of collaborating knowledge workers employed in large organizations.

I used a nonexperimental correlational research design to measure observed variables and to use statistical analyses to ascertain in which ways are the variables related. The target population was represented by members of fully formed teams of

collaborating knowledge workers in large business organizations. The level of leader's RT was be ascertained from the team members' assessments of the behavior of the individual identified as a team leader. The team characteristics were assessed by collecting self-reported data provided by the team members, and no data was be collected from the team leaders. The sampling method was represented by a nonprobabilistic sample design, and the purposive sampling strategy was employed (see Frankfort-Nachmias & Nachmias, 2008).

Factorial multivariate analysis of covariance (MANCOVA) was used to analyze the relationship between various levels of independent variable RT, demographic variable covariates, and dependent variables of team trust and distrust; and bivariate regression analysis was used to analyze the relationship between the team-level characteristics of trust and distrust. The relationships between these variables have not yet been empirically investigated on the group level of analysis.

Definitions

Affect-based distrust (ABD): Outcome of an affective evaluation of the relationship with significant others "grounded in perceived incompatibility, dissimilar goals, and negative emotional attachment to each other" (Lewicki & Wiethoff, 2014, p. 113), constituting negative expectations of their beneficial behavior in the future.

Affect-based trust (ABT): Outcome of an affective evaluation of the relationship with significant others "grounded in perceived compatibility, common goals, and positive emotional attachment to each other" (Lewicki & Wiethoff, 2014, p. 112), constituting positive expectations of their beneficial behavior in the future.

Knowledge worker: Knowledge worker is a working professional who applies cognitive processes on symbols to gain knowledge and to add value by providing an insight (Surawski, 2019).

Personization: For leaders, defined as "a process of mutually building a working relationship with a fellow employee, teammate, boss, subordinate, or colleague based on trying to see that person as a whole, not just in the role that he or she may occupy at the moment" (Schein & Schein, 2018, p. 24).

Relational transparency (RT): Relational component of leader's attitude which is "characterized by openness and truthfulness in the relationship with others" (Kernis, 2003, p. 15). This attitudinal component is driven by the belief that being authentic in the relationship with others brings about intimacy and trust conducive to healthy and strong working relationships.

Work group/Team: Work group or team (terms considered to be identical in context of this dissertation) is a collection of interdependent individuals who perceive themselves and are perceived by others as a social entity (Guzzo & Dickson, 1996).

Assumptions

Several assumptions should be clarified in this study. First, I assumed that the respondents answer the survey questions honestly. I also assumed that the detected levels of team trust and distrust reflect the influence of the current team leader on the emergence of these characteristics in the team. Negative effects of violation of these assumptions were mitigated by having the respondents answer the survey anonymously, by not sharing any of the data with the team leaders or other members of the

organizations, and by including teams with leader tenures longer than 1 year to only include mature teams in the research.

It is further assumed that enough respondents would care about the research and are willing to invest time and energy into answering the survey. Having a low response rate would make the team-level research unmanageable because of the relatively large sample required by the method of analysis. The response rate was boosted by informing the respondents clearly about the purpose of the research. To avoid response bias, I was not familiar with the team members invited to participate in the survey and I informed them that the survey was not commissioned by their organizations, by their team leader, or by anyone else in the organization. The participants were also offered access to the research results once available.

Scope and Delimitations

To minimize the risk that causal relationships between the studied variables have alternative explanations, only work groups with leaders exceeding 1-year tenure with the team were included in the research to ensure that the perception of leader's RT on the team's ABT and ABD variables were dominantly associated with the current leader's attitudes and not by the influence of any previous leader (see Feitosa et al., 2018) by the respondents. Because the data were collected at a single point in time to provide a one-time snapshot of the naturally occurring relationships among the individual members of the work groups, I assumed that other intrinsic factors such as team history, maturation, mortality, instrumentation, regression, or sensitization to testing did not invalidate the interpretation of the research findings (see Frankfort-Nachmias & Nachmias, 2008).

In order to minimize the risk that rival extrinsic factors have affected the relationship among the studied variables, I paid special attention to the selection of the participants in the research to avoid potential bias to ensure that all levels of RT (low, medium, high) were equally represented and the data were be collected from a variety of different business organizations to minimize the effect of other higher-level factors such as characteristics of the organizational culture and climate. Acknowledging, however, that the team tenure and size can potentially influence the team climate characteristics (see Carmeli et al., 2011), these demographic data were controlled for during the subsequent data analysis, and the minimal leader and member tenures (12 months) and target team size (three to 10 members) criteria were applied during the data collection. Additional demographic information was collected to control for alternative factors influencing the relationship among the studied variables, namely the nature of the team interaction, primary language used, respondent's age, gender, and location, primary team function, and the highest level of education attained by the participant.

Several researchers recently recommended novel approaches for the investigations of the team dynamics and emergent states over time (e.g., Delice at el., 2019; Kozlowski et al., 2013), including computational modeling and agent-based simulations, to improve validity and reliability of data, specifically because "asking participants to remember certain experiences involving attitude, behavioral, and cognitions over time is detrimental to the validity" (Delice et al., 2019, p. 14), but for the purpose of this dissertation, self-reported survey held several advantages as the intention

was to analyze larger population and to provide insight into team interactions on a general team level at a certain point in time.

This study was designed as an empirical evaluation and further elaboration of the existing theory, not an attempt to build new theoretical models "that can fully encompass variance across all theoretically relevant factors" (Kozlowski et al., 2013, p. 10), so the more traditional methods of theory confirmation were sufficient for this study. The measures to limit the effects of response bias and other threats to internal and external validity of the research were employed and discussed in the Methodology section of the dissertation.

Considering the nonexperimental research design chosen for this study, and the nonprobabilistic purposive sampling method, the results could be generalized to the target population of collaborating work groups of knowledge workers in business organizations. Although the results of the study were not generalizable to wide population and they were not interpretable as evidence of causality, the field research design however has a potential to provide a good external validity by examining events and behaviors naturally occurring in the organizational context (see Frankfort-Nachmias & Nachmias, 2008).

Limitations

A key study limitation was the nonexperimental design that does not allow for determination of causality. The independent variable, RT, in context of a fully formed collaborative team, could not be experimentally manipulated, but the survey method was useful for measuring attitudes and behaviors to establish relationship between variables

(see Cook & Cook, 2008) to be able to present tentative recommendations for leadership practice.

The use of cross-sectional data did not allow for determination of the direction of the relationships identified and the findings also had low validity for any later stages in the development of the work groups because the time and material limitations of the study did not make a longitudinal study feasible. Response bias, social-desirability bias, and low response rates are general limitations of self-reported data in social sciences (Rosenman et al., 2011), but provisions are discussed in the Methodology section regarding how to minimize the threats to the validity of this study.

Significance

The ability of leaders to develop others and to create optimally functioning teams is critical for the potential of the society to tackle complex challenges it is facing today and tomorrow (Kozlowski, 2018). The authentic leadership and social exchange theories helped explain the development of team-level characteristics of trust and distrust in context of authentic leadership. There are additional areas for future research, some of which I attempted to address in this study.

I focused on the process of emergence of the temporal affective team characteristics of team ABT and ABD in relation with the various levels of leader's RT, one of the components of authentic leadership behavior. The study contributes to the understanding of the role played by authenticity in context of team development and seeks to advance our understanding of the role played by distrust in a team characterized by high level of intrateam trust.

The technological advances of the fourth industrial revolution described in the Background section (Schwab, 2016) have been accompanied by the trend in humanization and democratization of the enterprise. Gratton (2004) discussed how democratic organizations offer more opportunities for creation of synergistic effects in an environment of higher fairness, agility, and equality. Shared purpose in these organizations is the impetus for the ability of capitalism to become a force for good in the world with many global challenges. The business enterprises have enormous potential for social change and improvement of lives of the working people (Kinsley, 2009) and the process of transformation of capitalism provides the backdrop to social changes that this research addressed.

My study contributes to the contemporary theory in I/O psychology by investigating RT, an aspect of leader behavior, and its effect on the antecedents of team effectiveness – ABT and ABD. The investigation into the antecedents of team effectiveness has a potential to inspire "creation of successful enterprises [and to] contribute to the betterment of society" (Edmondson, 2012, Loc. 5196). Leader authenticity in nonauthentic environments is destined to deteriorate over time (Bryant & Cox, 2014), and it is therefore crucial to explore the dynamics of development of authentic teams and organizations, the processes of emergence of trust and distrust that would help formulate leadership change management practices to transform business organizations into more authentic and positive organizations.

Relational authenticity of leaders promotes emergence of authenticity in team members and supports growth and empowerment of the individuals in a more open and

transparent collaborative atmosphere in which people can come closer to the realization of their potential and personal goals (Cha et al., 2019). The humanization and democratization of the workplace stems from the desire of humans to become less constricted by the structures of the past and to lead freer and more satisfying lives with no less commitment to the community (Bellah et al., 2008).

Summary and Transition

Modern workplace in the fourth industrial revolution has been characterized by the advent of the knowledge worker as a category and by the increased importance of teamwork attributable to fast expanding domain of information and compartmentalization of knowledge (Kozlowski & Ilgen, 2006; Schwab, 2016). The focus of I/O psychology has gradually shifted to teams and their effectiveness and the importance of leadership as a driving force of innovation and productivity in the environment of fast changing working conditions (Kozlowski, 2018). One of the most prominent recent theories of leadership, authentic leadership theory (Luthans & Avolio, 2003), focuses on authenticity in leaders seen as a driving force of future prosperity and betterment of human condition at work and in general. Being authentic in the relationship with the team members requires that the leader remains true to self, but also demonstrates the relational authenticity, that is the ability to allow the others to become themselves (Avolio & Gardner, 2005).

Trust is a complex multidimensional construct locked in an asymmetrical relationship with the characteristic called distrust, which has been demonstrated to be a separate but closely related construct (Benamati et al., 2006; Saunders et al., 2014; Xiao

& Benbasat, 2010). Researchers have learned a lot during the past decade about the relationships between these concepts and their emergence on the team level, but more remains to be uncovered especially in the areas of multicomponent and multilevel character of the concepts of authentic leadership, trust and distrust, the process emergence of these qualities on the team level, the roles played by the affective components of the respective characteristics during those processes, and the dynamics between the characteristics especially the effect of RT on their emergence on the team level, and the relationship between trust and distrust (Costa et al., 2018; Delice et al., 2019; Gatling et al., 2017; Lambert et al., 2020). The role of distrust, specifically, is not yet sufficiently conceptualized in the theoretical literature and may potentially play more positive role than what is currently assumed.

In this study, I investigated the relationships between leader's RT and ABT and ABD among members of collaborating teams of knowledge workers in technology companies. The aim was to demonstrate that an authentic, transparent, and autonomous leader has a positive impact on the team functioning by reaching optimal levels of team trust and distrust to facilitate team effective functioning. Better understanding of this process contributes to promotion of more humanistic and democratic leadership practices to facilitate growth and development of human capital and to strengthen the capacity of enterprises to serve for the betterment of the society at large.

Chapter 2 discusses the literature search strategy employed by the study and its theoretical foundations. The key variables and concepts are outlined and the evolution of theory in these areas is shown. Chapter 3 talks about the rationale for the selection of the

research design used in this study and the methodological procedures used for collection of data and operationalization of the constructs. Threats to validity and ethical procedures will also be discussed together with the procedures to address the limitations of the study. Chapter 4 outlines the results of the statistical analyses, which are discussed in Chapter 5 together with the limitations of the study, recommendations, and implications for the theory and practice.

Chapter 2: Literature Review

Team leaders' attitudinal behavior is critical for the development in business organizations of climate conducive to optimal team functioning and desirable team outcomes of continuous team learning and high team performance (Hannah et al., 2011). Organizational trust has been identified as the main outcome of authentic leadership and transparent organizational communication (Jiang & Luo, 2018); however, it my intention to provide insight into the dynamics of the emergence of the multicomponent team characteristics of intrateam trust and distrust on the team level of analysis to formulate tentative practical recommendations to leaders on how to shape team development to achieve higher levels of team learning and team effectiveness (see Costa et al., 2018; Delice et al., 2019; Gatling et al., 2017; Lambert et al., 2020). The purpose of this study was to explore the relationships between RT as a component of authentic leader's behavior, and the levels of ABT and ABD. The relationships between RT and these shared team characteristics have not yet been empirically tested on the team level of analysis as has been discussed previously in the Significance section and as will be further demonstrated.

Team-level investigation of the antecedents of optimal team functioning and team effectiveness is a recent phenomenon. Typically, the aggregate one-factor effect of authentic leadership behaviors on the followers' outcomes is studied in the literature, despite recommendations to investigate the effects of the individual components of the leader's behavior separately (e.g., Neider & Schriesheim, 2011b). On the individual level, Norman et al. (2010) investigated the relationship between leader's RT and positivity and

the follower's trust in leader, concluding that leaders, superior in positive psychological capacity and transparency, were also seen as more effective. Gatling at al. (2017) represents a second example of a study focusing on one component of authentic leadership, leaders' RT, and its relationship with team trust and deviance behaviors, finding significant negative correlation between RT and deviance behavior thus documenting the importance of open communication to the optimal team functioning. I found no other studies that investigated the effect of RT on the team-level organizational outcomes could be found through the literature search described next.

Costa (2003) made a first attempt to conceptualize trust as a team-level concept and demonstrated the impact the leader's behavioral characteristics of perceived trustworthiness and cooperative behavior have on the emergence of team trust measured simply by aggregating the individual team members' scores. Fulmer and Gelfand (2012) set out to investigate trust on different levels of analysis in context of organizations perceived to be multilevel systems and described team trust as being shared collectively among the team members. They concluded that research on the team level is scarce, and that insight is especially needed into how trust emerges on the team level and through which mechanisms leaders influence the process.

Feitosa (2015) studied team trust as a mediating factor between team diversity and team performance using meta-analytical method, concluding as well that the construct of team trust justifies further explorations on the team level. The latest team trust research Feitosa participated in (Grossman & Feitosa, 2018) conceptualized team trust as a dynamic concept and therefore the understanding of its development and evolution over

the lifespan of a team has become critical for the future investigation of the concept. Thus, the relationship between team trust and the positive team outcomes has been relatively well established, but the research into the antecedents of trust has been lacking (Feitosa et al., 2020).

For a long time, distrust had been considered to represent mere opposite end of a single trust continuum, until Lewicki et al. (1998) postulated that trust and distrust are two separate (albeit interconnected) constructs. If trust is defined as "a willingness to become vulnerable to a trustee" (Benamati et al., 2006, p. 2), then distrust can be seen simply as unwillingness to become vulnerable to a trustee, but the antecedents and outcomes vary greatly. While trust is characterized by positive emotions of hope, faith, confidence, and assurance, distrust is characterized by negative emotions of fear, skepticism, cynicism, wariness, watchfulness, and vigilance (Benamati et al., 2006). Moody et al. (2017) verified empirically that trust and distrust are separate constructs with related continua. On the team level, intrateam distrust has not yet been empirically studied in the framework of authentic leadership theory.

First to identify team trust as an outcome of authentic leadership, Meng et al. (2016) investigated the mechanisms by which authentic leadership affects creativity. Hasel and Grover (2017) developed an integrative model of trust and authentic leadership on the interpersonal level but observed that from the perspective of group level theory, the investigation of trust as a group characteristic would contribute greatly to the theory of trust. Embedded in the concept of shared authentic leadership (Guenter et al., 2017; Hmieleski et al., 2012), this dynamic model provides a framework for understanding of

the relationship between the behavior of a leader and the team outcomes through the effects of cognitive, affective-motivational, and behavioral functions (see also Hoch & Kozlowski, 2012), mediated by team trust and respect. Guenter et al. (2017) hypothesized multiple mediation model of shared authentic leadership and identified RT as one of two main factors—together with self-awareness—leading to trust and team coordination, which are the most important antecedents of team effectiveness. In this model, team trust represents an affective-motivational mediator of RT on team performance (see Figure 1).

Schein and Schein (2018), in their concept of humble leadership, explored the power of relationships, openness, and trust, arguing that by making the relationships between collaborators more personal, the team becomes better functioning and more effective. Schein and Schein (2018) identified the process of personization to represent a key leader behavior component aimed at building cooperative trusting relationships in effective teams. The process of personization is analogous to the RT component of authentic leadership behavior (Guenter et al., 2017), and it is the effect of RT on the emergence of critical team-level affective characteristics that this dissertation submitted for investigation.

The next section starts with the discussion of the literature search strategy, followed by the discussion of theoretical foundation of the study. It is important to delimit the scope of the investigation clearly because team-level analysis of effects of leader behavior extends across multiple theories and conceptual frameworks. The literature search focused on the relevant concepts and variables for the conceptual framework and the current state of the theory to emerge manifestly.

Literature Search Strategy

I used Google Scholar linked to Walden University Library for the majority of my literature searches. Sometimes, it provided direct access to the articles, but typically it helped to locate the source within the Walden Library. Google Scholar was also helpful to search for articles related to those already found and articles whose author(s) cited them. Finally, Google Scholar proved to be very useful in tracking versions of the articles and in providing APA citation references.

For advanced keyword searches, I accessed the Walden Library and the Thoreau multidatabase search tool In Walden University Library, Thoreau advanced search was used to focus on the literature relevant to the intended research topic.

I also searched for literature on the current state of I/O psychology literature on key theoretical concepts used in this research. The key search terms used individually and in various combinations for this purpose have been:

- Authenticity/transparency
- (Shared) Authentic leadership
- Relational transparency
- (Team) trust/distrust (or mistrust)
- (Team) learning/performance/development/effectiveness

Lack of team-level analysis of the relationship between components of authentic leadership and team trust and the lack of focus on the affective components of these characteristics were identified as the main gap areas explored by this dissertation. The team-level analyses of authentic leadership effects remain scarce, but the findings at the

individual level of analysis can provide an important insight into the interpersonal dynamics in a team setting and can help with building the team-level behavioral concepts used to interpret the team outcomes (see Wang & Howell, 2010).

Ultimately, I identified and reviewed almost 300 relevant articles in frame of the literature search for this dissertation. Walden Library's ProQuest Dissertations & Theses Global database proved to be a rich source of theoretical approaches discussed in recent dissertations, providing access to results of related literature reviews which have not yet been featured in the peer reviewed academic journals. To gain wider perspective of the state of the knowledge in this domain, Google Search engine was also used to locate articles in general media, business journals, academic and professional blogs, and similar, although these materials would normally not be cited in this dissertation. Social networking site ResearchGate (www.researchgate.net) was indispensable for finding researchers, projects, and publications dealing with topics relevant to this dissertation.

Recent meta-analyses reviewing the state of theory on the key topics helped to identify the gaps in the literature and to understand the evolution and the direction of the theory development (e.g., Banks et al., 2016 on authentic leadership; Breuer et al., 2016 on trust; Cha et al., 2019 on authenticity; Costa et al., 2018 on team trust; De Jong et al., 2016 on trust and performance; Feitosa, 2015 on mutual trust; Feitosa et al., 2020 on measuring trust; Harms & Crédé, 2010 on emotional intelligence in leaders; Wang et al., 2014 on shared leadership). These meta-analyses list seminal authors whose publications were followed to discover research they have worked on recently to better understand the state of the theory in the literature, to identify potential gaps and to arrive at research

problem with the potential to complement the theory, and concurrently to contribute to positive social change.

Theoretical Foundation

The underlying theory anchoring the theoretical framework and the research design of this study is represented by self-determination theory (Deci & Ryan, 1980), which explores the factors affecting the levels of autonomous self-control of human behavior (Pyszczynski et al., 2010). The self-determination theory represents the foundation for the social exchange theory used to explain the interpersonal dynamics of the leader-member exchange and the emergence of the affective team characteristics of ABT and ABD discussed further. The self-determination theory stipulates that the satisfaction of needs for relatedness, competence, and autonomy in humans leads to optimal subjective well-being, as well as to the highest levels of self-determination, functioning, and performance. In the existentialist philosophical tradition of Kirkegaard, Nietzsche, Heidegger, and Sartre, the individuals take responsibility for their choices through the innate processes of integrating or actualizing tendencies (Ryan, 1995). These concepts were further elaborated by early psychoanalysts Freud and Jung, humanistic psychologists Maslow and Rogers, and developmental psychologist Piaget (King, 2001; Taylor, 2001). In this tradition, authenticity finds its roots in being autonomous, that is, self-governing and self-regulated (Ryan & Deci, 2004).

Authenticity is a multicomponent concept comprising of the internal processes such as self-awareness, unbiased processing, and behavior, but also having a relational component focusing on interaction with other people (Gardner et al., 2011). Relational

authenticity describes the ability to be genuine rather than informal and studied, and it is a prerequisite of having healthier and more satisfying relationships (Kernis & Goldman, 2006). In relation with others, an authentic person is focused on revealing differences for them to be constructively resolved. Although authentic functioning comes at a cost in many social situations, becoming more authentic leads to more satisfaction and high self-esteem in life and better and more rewarding interpersonal relationships (Kernis & Goldman, 2006).

At work, employees who express themselves authentically act in accordance with their values, preferences, and needs and are open to share personal information and perspective (Emmerich et al., 2020). The investigations of external effects of authenticity focus on how authenticity of one employee influences authenticity of other employees. Emmerich et al. (2020) studied authenticity in the interpersonal domain of a work team concluding that being around authentic coworkers increases teammate's work engagement and decreases emotional exhaustion. In the present study, the focus was on the relationship between an authentic leader and the effect this leader has on emergence of positive shared team characteristic of team trust.

The concept of authentic leadership describes a relationship between authentic leaders, who remain true to their personal values and convictions and whose behavior is consistent with their words (Avolio & Gardner, 2005), and their followers. The concept of authentic leadership gradually became central among the variety of positive leadership approaches including transformational, ethical, and charismatic leadership theories (Ilies et al., 2005). Traditionally, authentic leadership has been studied on the individual level

(desirable leader characteristics and how they can be developed) and on the interpersonal level (leader-member exchange), but on the shared team-level authentic leadership has so far received little research attention (for exception see concept of shared authentic leadership in Guenter et al., 2017). Avolio et al. (2004), with the authentic leadership theory, described how authentic leadership behavior can enhance follower work attitudes and ultimately the collective job performance. RT as one of four key components of authentic leadership, refers to leader behaviors such as sharing information openly and expressing one's true thoughts and feelings in interpersonal interactions (Peus et al., 2012). The authentic behavior leads to behavioral predictability, which was identified as the main antecedent of followers' trust in leader, partially mediating team performance (Peus et al., 2012).

On the team level, it is the role of the leader to facilitate team problem solving through cognitive processes (Burke et al., 2006), but also to maintain positive team climate to fulfill the employee psychological contract and to increase the team members' affective commitment (Lambert et al., 2020). The dynamics of the interaction between the leader and the members of the team are framed by the social exchange theory postulating that "employees respond to inducements by increasing their trust in and emotional attachment to the organization" (Lambert et al., 2020, p. 294). Although the authentic leadership theory has been generally accepted by the I/O psychology as one of the most influential leadership theories to provide insight into the humanistic development of individuals and teams in context of modern organization, it could not avoid criticism from several fronts.

Ford and Harding (2011) used object relations theory to demonstrate that the ideal of relational authentic transparency in context of work is impossible. They argued that the leaders are totally absorbed by the organization to a point when they lack subjectivity, which is true also for the followers. Any desire to know themselves better, according to Ford and Harding (2011), would inevitably be disappointed as they would merely learn their "collective organizational self, one devoid of agency or freedom of thought" (p. 476).

Lawler and Ashman (2012) attacked authentic leadership theory from the Marxist position, arguing that "following external prescriptions and expectations is an inauthentic way of living" (p. 337), and instead of focusing on the individual with formal leadership role, it is more beneficial to look at the dynamics of how the leadership is shared in the organization and how it can become more authentic. Similarly, Bryant and Cox (2014) agreed that the leader is socially determined by the organization, and they rejected the universal ethics to be applied to the realities of business organizations, calling for replacing it with descriptive of everyday ethics that would be more flexible.

Kempster et al. (2019) used a qualitative method of analytic co-constructed autoethnography to contrast the tenets of the RT in the tradition of authentic leadership with the leadership roles with significant demand for emotional labor. They concluded that in these contexts, RT as a dimension of authentic leadership is problematic and that its application on role performance is "misplaced and potentially harmful" (p. 333). The authors proposed to replace the concept of RT with a concept of *fidelity to purpose* determining actions that are professional and desirable from the perspective of the

organizational goals, that is “in the real world”, in order to remove from the leaders “the burden of unrealistic expectations of romanticized notions of authenticity” (p. 334).

Employees in modern organizations are free agents, although they are naturally bound by the norms and rules of the organizations which employ them (Yanow & Tsoukas, 2009). Knowledge workers are characterized by high mobility (Sutherland & Jordaan, 2004) and their loyalty and commitment to organizations with low potential to offer high autonomy and empowerment would be difficult to secure. Although the cited critiques of the authentic leadership theory are largely misplaced—the reproaches often seem to stem from incomprehension of the underlying theoretical concepts of authenticity and authentic leadership theory—they, however, illuminate the limitations of positive psychology, which borrowed concept of authentic human functioning from humanistic psychology and discouraged discourse of anything that is not seen as objectively positive (Miller, 2008; Seligman & Csikszentmihalyi, 2000; Taylor, 2001).

Investigations of negative contextual aspects of conflicts between the demand to “be yourself” and the realities of the organizational contexts, organizational rules and norms, interpersonal conflicts, power, distrust, and many other contextual factors remain scarce in the authentic leadership literature. The ideal of humanization of the workplace requires that researchers concentrate also on the organizational “dark side” to reveal problematic areas promising opportunities to advance the theory through constructive action. From this perspective, this dissertation project aimed at deepening the theoretical understanding of the optimal level of team trust, the actual role played by the team distrust, and the borderline conditions in which high RT may be counterproductive to the

goal of increasing effectiveness of organizations while concurrently improving the well-being of the collaborating human actors.

It was the goal of this dissertation to study how the RT component of leader's authenticity relates to emergence of shared affective team characteristics of team ABT and team ABD as a result of rewarding exchanges between social actors and the climate in a team established through social interactions between them (Cropanzano & Mitchell, 2005). These interactions form social norms providing a frame for future reciprocal exchanges and determining the general nature of the interactions in a work group. The social exchange theory helps to examine the processes by which the team-level emergent states develop through interactions among the authentic leader and the authentic team members. The emergent affective climate of team trust facilitates the positive expectations of trustworthiness and the willingness to accept vulnerability (Costa et al., 2018) to facilitate the interactions among the collaborating actors.

The role played by the emergent state of team distrust remains to be unclear. Benamati et al. (2006) confirmed that trust and distrust are two separate constructs, and that a certain level of distrust has a potential to play a positive role by compensating the disadvantages of "blind" trust following the requirement to "trust but verify" (p. 3). These notions relate closely to the earlier observations of Lewicki et al. (1998), who proposed that trust always exists along with distrust in all social systems locked in a mutual interaction. Asymmetry of trust and distrust has been confirmed by a functional neuroimaging study by Dimoka (2010) who demonstrated that trust and distrust activate different regions of the brain. The relationship between trust and distrust is highly

multifaceted and compartmentalized (Lewicki et al., 1998), meaning that the actors have positive expectations in some contexts but are ambivalent or have negative expectations in other contexts or situations.

Luhmann (1979), in the seminal work on trust and distrust, observed that "a system of higher complexity, which needs more trust, also needs at the same time more distrust" (p. 89) as a prerequisite of constraining and binding individual rationality to identify growth and learning opportunities. Discussions of positive effects of distrust on team effectiveness are almost impossible to find with a very few exceptions—e.g., Donovan (2019) investigated critical role that distrust plays in organizational survival of Further education organizations in the UK; and Lowry et al. (2015) showed how distrust in virtual teams leads to higher performance in nonroutine decision-making tasks. Costa et al. (2018) observed that "research on trust in work teams has overlooked the influences of low trust and distrust on team outcomes both in theorization and empirical investigation" (p. 8). It was the goal of this study to evaluate whether leader's RT leads to emergence of certain level of distrust on the team level, which is potentially beneficial for the team functioning.

By focusing on the affective emergent team-level states in relation with the leader's RT, it can be demonstrated how followers' attributions of leader's behaviors change their attitudes toward them (Gatling et al., 2017). This study points to the importance of emotional factors demonstrating in the everyday life of an organization and the process by which the followers interpret and categorize the actions of their leaders

and build their perceptions of them and form emotional connection to their teams and organizations (Lambert et al., 2020).

Positive emotional responses to impulses represented by leader's behavior have a potential to transform into persistent patterns of employee behavior in a group setting (Lambert et al., 2020). Hmieleski et al. (2012) showed how leader's attitudes transform into a collective experience shared by the team members contributing positively or negatively to the development of the team shared characteristics as antecedents of the general team effectiveness. In this framework, challenging problem scenarios presented to the team members in a positive environment have a potential to shift the shared perception and contribute to positive change in the organization.

Authentic leadership theory provided the main conceptual framework for the present study investigating the relationship between positive leadership behavior and the team outcomes, with the complementary social exchange theory explaining the dynamics of the mediating variables of affective characteristics of trust and distrust in the team-level analysis. The combination of authentic leadership theory and the social exchange theory represents theoretical framework for investigation of the key variables in the relationships captured by the respective research questions: RT (as a component of authentic leadership behavior), ABT (as a component of team trust), and ABD (as a component of team distrust). The evolution of theory from the perspectives of the individual relationships between variables is discussed next.

Interpersonal dyadic-level investigation of the relationship between authentic leader's behavior and the follower's characteristics of trust dominated the I/O psychology

literature until recently. Kozlowski and Klein (2010) presented the multilevel theory proposing that the interpersonal constructs are also studied on the meso- (group or team) level of analysis to better understand the team processes and the effects played by emergent team characteristics on team effectiveness, stating that "we wish both to understand the whole and keep an eye on the parts" (p. 54). This process-oriented multilevel investigation needs to consider the temporal character of the phenomena and the process-oriented dynamics of the emergence of the team-level characteristics (Kozlowski et al., 2013). Although the research concentrated on team dynamics increased, Delice et al. (2019) recently observed that "teams research has not given enough consideration to temporal issues that often arise" (p. 2). The relationship between authentic leadership and trust has been studied on the interpersonal level of analysis, but not enough attention has been paid to the team dynamics of these variables on the team level of analysis, specifically from the perspective of the process of their emergence (Delice et al., 2019).

Authentic leadership is typically studied as a one-factor construct, antecedent in the relationship with the individual and team characteristics. Kernis and Goldman (2006) identified four components of authentic leadership: self-awareness, balanced processing, RT, and internalized moral perspective. These components are now considered to be independent, and the recommendations are made to investigate the individual effects of these components to better understand the relationships among the phenomena and their dynamics through a more granular analysis (Neider & Schriesheim, 2011b; Walumbwa et al., 2008). The effect of leader's RT is very rarely investigated separately from the

overall concept of authentic leadership (for exception see Gatling et al., 2017), and it was therefore proposed by the present study to investigate the effect of leader's RT on the team-level characteristics of ABT and ABD to help answer the question as to what is the relational effect of authenticity on these emergent team climate characteristics?

Cognitive effects of leadership were traditionally considered to be more significant than the affective effects (Judge et al., 2002), but the focus has recently moved to the investigations of leader's affective states (Harms & Credé, 2010) and affect-based characteristics of leader-follower exchange relationships (e.g., concept of psychological contract in Lambert et al., 2020) based on social exchange theory. Hoch and Kozlowski (2012) proposed a framework of hierarchical leadership with three levels of leadership influence: cognitive, affective, and behavioral, with all of them receiving comparable attention. Emotions are central to charismatic and transformational leadership theories (Dasborough & Ashkanasy, 2002), and also play an important role in the authentic leadership theory. The present research focuses on RT as the affective characteristic of leader's behavior and its effect on the emerging affective team characteristics of ABT and ABD to help answer the question as to what specific roles are played by the affective components of the studied phenomena whilst they emerge in the emotional framework of a collaborative work group.

Trust received considerable attention in the I/O psychology literature throughout the past two decades (for overview see Costa et al., 2018; De Jong et al., 2016), while the concept of distrust has been barely mentioned in the literature (Costa et al., 2018). Despite representing an integral part of the original conceptualizations of trust (Kramer,

1999; Luhmann, 1979; McAllister, 1995), the role of distrust in team dynamics remains under-investigated and not well understood, and it was therefore the goal of this study to provide an insight into the relationships between leader's RT and ABD to help answer the question of what is the effect of RT on the emergence of team distrust and what role does it play in relation with the ABT in context of the collaborative team's dynamics.

Key Variables and Concepts

The independent variable represented by a component of authentic leadership, RT, is predictive of the individual and team outcomes in the work setting. RT was shown to represent a conceptually distinct construct from other behavioral components of authentic leadership behavior (Kernis & Goldman, 2006). The dependent variables, components of team trust and team distrust, ABT and ABD, represent mediating variables between authentic leadership and team performance.

RT was operationalized by Walumbwa et al. (2008) as a component of authentic leadership defined as

> a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development. (p. 94)

Heavily influenced by the conceptualizations of authenticity, RT refers to presentation of oneself (Kernis, 2003). It is theorized that RT promotes trust in the dyadic relationship with the followers, which mediates the effect of leadership behavior on the

team-level outcomes of effectiveness and performance. Guenter et al. (2017) tested the relationship between shared authentic leadership dimensions of self-awareness, balanced processing, RT, and internalized moral perspective, perceived team effectiveness and team satisfaction, concluding that all four dimensions positively affected team satisfaction, but only RT had positive impact on perceived team effectiveness. The authors concluded that high level of team trust has positive mediating effect on team performance in contexts where high team cohesion and aligned decision-making are instrumental to success. If studied as a unidimensional construct, none of the relationships between components of authentic leadership behavior could have been identified.

Leader's Relational Transparency and Affect-based Team Trust

Perceived RT shared by team members in relationship with the ABT was submitted for investigation. In trying to understand the impact of leader's RT defined as attitudinal behavior focusing on "valuing and achieving openness and truthfulness in one's close relationships" (Kernis, 2003, p. 15), it has previously been shown that RT affects multiple leader-follower characteristics such as behavioral integrity, trust in leader, commitment, and engagement (see discussion in Gatling et al., 2017), but the impact of RT on ABT has not been previously empirically investigated. Based on social exchange theory it was proposed in the present study that leader's RT indirectly affects followers' attitudes represented by team ABT defined as a shared willingness to be vulnerable based on the believe that the leader is emotionally invested and cares for the teammates (Feitosa et al., 2020). Cognitive and affective components of trust have

similar but separate antecedents (De Jong et al., 2016). It was theoretically assumed that "behavior recognized as personally chosen rather than role-prescribed, serving to meet legitimate needs, and demonstrating interpersonal care and concern … may be critical for the development of ABT" (McAllister, 1995, p. 29). The interpersonal trust between members develops over time into a higher-level construct of team trust emerging dynamically through processes of composition and compilation (Kozlowski & Klein, 2000). It was therefore one of the goals of this study to expand on the findings of Gatling et al. (2017) by investigating whether leader's RT correlates with the emergence of ABT on the team level, as this would represent a significant insight into the dynamics of the development of team trust.

Leader's Relational Transparency and Affect-based Team Distrust

In parallel, perceived RT shared by team members in relationship with the ABD was submitted for investigation for the following reasons. According to Benamati et al. (2006) distrust is a separate construct from trust and can potentially play a positive role in challenging team members to verify an information. Team distrust works in lockstep with team trust because openly challenging a leader or a team member can only be possible in environments characterized by sufficient levels of team trust (Lewicki & Wiethoff, 2006; Lowry et al., 2015). The effect of leader's RT on team ABD has not yet been empirically investigated (Costa et al., 2018), but has long been theoretically assumed (Luhmann, 1979). Investigating what levels of team ABD are present in teams led by leaders with various levels of RT represented one of the goals of the present study. This study aimed

to contribute to the understanding of the process of emergence of ABD on the team level and the role it plays in the team interaction.

Affect-based Trust and Distrust

On the interpersonal level, distrust has been conceptualized as an asymmetrical construct to trust with distinct set of antecedents (Benamati et al., 2006; Lewicki et al., 1998; Lewicki et al., 2006; Saunders et al., 2014; Simon, 2016). Although distinct, both trust and distrust are always present in a relationship as they are understood to represent multicomponent and interconnected characteristics of any social relationship (Kramer, 1999). The function of trust and distrust is to "simplify the complexity … help a decision maker reduce uncertainty and vulnerability" (Cho, 2006, p. 26), while anticipating competence in case of trust, and benevolence in case of distrust. Both trust and distrust have cognitive and affective components—it was demonstrated that in order for the affective trust to develop, some level of cognitive trust needs to be in place first (McAllister, 1995). Affective-based components of trust and distrust are therefore considered to be higher-order components of their respective constructs. The dynamics of coexistence of trust and distrust is however not yet fully understood (Cho, 2006; Lowry et al., 2015; Massari et al., 2019).

On the team level, trust has been first conceptualized by Costa (2003), who identified perceived trustworthiness in significant others to represent a key component of team-level trust. Costa and Anderson (2011) designed a measure of intrateam trust, but the authors remained silent on distrust until recently when they acknowledged that team distrust represents a distinct concept from team distrust. They suggested that there is a

qualitative difference between low trust and distrust, which has yet to be examined systematically (Costa et al., 2018). Similarly, in the recent explorations into the domain of team trust (Feitosa, 2015; Feitosa et al., 2020; Grossman & Feitosa, 2016), there is no discussion to be found of the relationship between team trust and team distrust, nor there is an attempt made on conceptualization of team distrust. The only exception is the research by Massari et al. (2019), who investigated the influence of distrust on the collective decision-making concluding that "for high strength (density) of social relationships a moderate scope of distrust is beneficial for group performance" (p. 351). It was therefore the goal of the present research to investigate the relationship between the affective components of trust and distrust on a team level of analysis to verify a hypothesis that in the interconnected interaction of trust and distrust, a certain level of distrust in an environment of high trust is beneficial to the general team effectiveness.

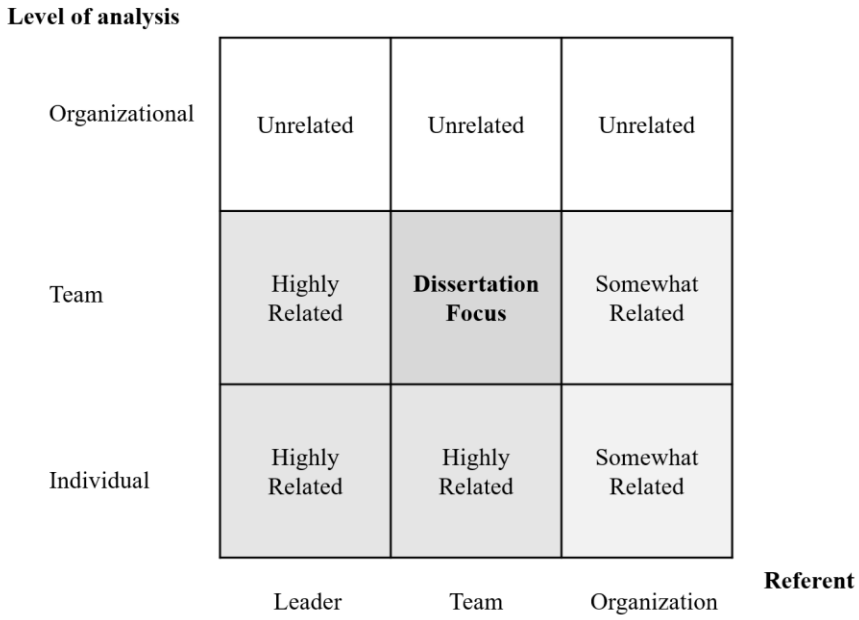
As stated previously, most of the studies identified during the literature search investigate the relationships between the concepts on an individual level of analysis, and there is a scarcity of studies conducted on the group level of analysis. Edmondson and Lei (2014) pointed out convincingly that single level of analysis does not provide full understanding of the complex concepts, which advocates for the combination of individual level and team-level approaches in a multilevel study. The investigation of the dyadic relationship between a leader and a follower provides an initial insight into the dynamics of how the team-level affective characteristics of ABT and ABD emerge in social context of a collaborating team. The investigation also assists with better

understanding of the role played by the boundary conditions such as characteristics of the team (size, tenure), and the context (the nature of the team collaborative task).

Apart from the level of analysis, it is also important to correctly determine the variable referent. In case of trust, for instance, the individual members can trust a leader, a colleague, a group they belong to or another group, own organization, or another organization. Figure 2 shows that the relevance of a literature source had to be assessed in relation with the focus of the dissertation—that is intrateam trust, the trust among the members of the team, or team trust as it is conceptualized by the present study. However, because literature sources focusing on the interpersonal relationships between a leader and a follower, as well as team trust in leader, provide important insights into the multicomponent and multilevel concept of trust, they were also highly relevant to the dissertation topic, and therefore included in the literature search.

Figure 2

Literature Source Relevance Based on Level of Analysis and Trust Referent



Methodologically, the referenced studies mostly used observation, interview, and survey methods of data collection. The related concepts were typically measured using Likert scale-based questionnaires with established reliability and validity properties. For instance, one of the most relevant studies, the study investigating relationship between leaders' RT and followers' trust and deviance behaviors (Gatling et al., 2017) framed the investigation in the authentic leadership theory and used survey method to infer statistically the relationships between the variables to conclude that RT has an indirect impact on follower's attitudes (trust in leader) mediated by changing perceptions of leaders' behavioral integrity.

One of the major limitations of most of the studies has been the cross-sectional research design with data collected in a single step, which does not allow for raising

causal claims and assertions on the dynamics of the individual concepts over time. For example, Gatling et al. (2017) stated that "our study design does not provide strong evidence on the cause relationship among [variables] ... future research should replicate our findings with field quasi experiment" (p. 19). Although experimental and longitudinal designs would offer more dynamic perspective on these characteristics, it has largely been beyond the bounds of possibility for most of the researchers. Majority of the studies also concentrated on the context of Western business organizations, which represents a significant limitation in generalizability of the results to the global population. In today's globalized business environment, team diversity and management of geographically dispersed (virtual) teams have become an important contextual factor significantly affecting team learning and performance (Jackson et al., 2003). Including cross-cultural comparisons into the investigation of the antecedents of team performance has become critical for the practical implications of the related theoretical research.

Summary and Transition

Leader's behavior is critical for the effectiveness and performance of the collaborative teams of knowledge workers (Hannah et al., 2011; Lim & Ployhart, 2004; Schaubroeck et al., 2007). Authenticity in leaders generally demonstrates positive effect on team functioning (Avolio & Gartner, 2005; Emmerich et al., 2020; Kernis & Goldman, 2006), but the dynamics of the emergence of shared team characteristics has not yet been fully understood (Costa et al., 2018; Delice et al., 2019; Gatling et al., 2017; Lambert et al., 2020). Authentic leadership represents a multicomponent construct with cognitive and affective components whose individual component effects on the team

functioning have not yet been rigorously studied (Neider & Schriesheim, 2011b; Walumbwa et al., 2008). RT, a component of authentic leadership, is critical for the development of open and reliable communication in a team setting. It was therefore the goal of the present dissertation to study the effect of RT on ABT and ABD to contribute to the understanding of underlying processes determining the team-level outcomes in business organizations.

Leadership literature is vast, but studies into the effects of RT on affective team climate remain surprisingly scarce (as evidenced by recent meta-analyses, e.g., Banks et al., 2016; Breuer et al., 2016; Cha et al., 2019; Costa et al., 2018; Feitosa et al., 2020). Conceptualized using the theoretical concepts based on the underlying self-determination theory, the theoretical framework used in this dissertation research is represented by the combination of social exchange and authentic leadership theories, which together describe the theoretically assumed relationships between the emergent team characteristics tested empirically in this study. These relationships have not yet been empirically studied on the team level of diagnosis, and the preset study aimed at addressing several gaps in the current theory, specifically by investigating the following areas: the effect of leader's RT on the emergence of ABT and ABD on the team level and the nature of the interaction between these emergent states in team climate development.

Several critics have noted that insufficient attention has been paid in the authentic leadership literature to contextual factors and organizational determinants, as well as roles played by negative organizational characteristics such as politics, power, conflicts, and also distrust (Bryant & Cox, 2014; Ford & Harding, 2011; Lawler & Ashman, 2012).

The critique would seem to be partially justified especially when considering that trust is generally presented as being always positive, while distrust seems to be always undesirable. In one of the few exceptions, Lowry et al. (2015) demonstrated that "an increase in distrust can improve … decision accuracy for certain types of problems" (p. 743). It was therefore one of the goals of this dissertation to provide additional insight into the dynamics of team distrust and the role it plays in relationship with climate characteristics of team trust to offer recommendations to leaders applicable to the actual context of a business organization. The study has several limitations mostly related to the choice and nature of the research design, but in general it has a good potential to demonstrate sufficient levels of reliability and validity and to represent an important contribution to the authentic leadership literature.

The following Chapter 3 discusses the choice of research design and methodology with which the study was conducted. Target population and the sampling process are discussed, together with the procedures for recruitment and participation. The instruments used to operationalize the studied concepts are then introduced as well as the processes of data collection and the subsequent statistical analyses. Finally, threats to research validity and the procedures to address the limitations of the study are outlined together with the employed ethical procedures. Chapter 4 outlines the results of the statistical analyses, which are discussed in Chapter 5 together with the limitations of the study, recommendations, and implications for the theory and practice.

Chapter 3: Research Method

The purpose of this quantitative nonexperimental dissertation project was to explore the relationships among RT as a component of authentic leader behavior, and the levels of ABT and ABD, as well as the relationship between ABT and ABD in context of the process of their emergence in a team setting. This purpose had been accomplished by a quantitative methodology using survey method in the context of the authentic leadership and social exchange theories. The study required minimum of 100 individual members of small work teams drawn from the target population of collaborating knowledge workers employed in large organizations. MANCOVA was used to analyze the relationship between various levels of independent variable RT, demographic variable covariates, and dependent variables of team trust and distrust; and bivariate regression analysis was used to analyze the relationship between the team-level characteristics of ABT and ABD. The relationships among these variables have not yet been empirically investigated on the group level of analysis in context of the chosen theoretical framework.

This chapter starts with an outline of the applied research design, the rationale for its selection and its potential limitations. It then offers description of the target population and the sampling strategies, followed by the procedure to determine the required sample size. Data selection processes are discussed next along with the instruments used and their operationalization. The chapter closes with the description of the internal and external threats to research validity and the ethical procedures that were applied during the research.

Research Design and Rationale

First, I investigated the relationships among independent variable represented by one of the components of shared authentic leadership behavior, RT, and the dependent variables of ABT and ABD. Team-level characteristics of ABT and ABD are hypothesized as mediators between RT and team effectiveness (see Figure 1). Second, the focus was on the relationship between the dependent variables of ABT and ABD. RT is the independent variable (predictor) in this study, with ABT and ABD being the dependent variables (responses) and the mediators between RT and team effectiveness. The relationship between ABT and ABD is asymmetrical, the variables do not represent the opposite poles of a single continuum (Moody et al., 2017; Saunders et al., 2014).

RQ1: What are the differences in the team-level ABT among teams as measured by affect-based trust measure (McAllister, 1995) with distinct levels of RT behavior as measured by a subset of authentic leadership inventory (Neider & Schriesheim, 2011a)?

H_a1: There are statistically significant differences among the levels of team ABT in teams with various levels of leader's RT behavior.

H_01: There are no statistically significant differences among the levels of team ABT in teams with various levels of leader's RT behavior.

RQ2: What are the differences in the team-level ABD among teams as measured by a subset of trust and distrust measure (Liu & Wang, 2010b) with distinct levels of RT behavior as measured by a subset of authentic leadership inventory (Neider & Schriesheim, 2011a)?

H_a2: There are statistically significant differences among the levels of team ABD in teams with various levels of leader's RT behavior.

$H_0 2$: There are no statistically significant differences among the levels of team ABD in teams with various levels of leader's RT behavior.

RQ3: What is the relationship between team ABT as measured by affect-based trust measure (McAllister, 1995) and team ABD as measured by a subset of trust and distrust measure (Liu & Wang, 2010b)?

$H_a 3$: There is a statistically significant relationship between team ABT and team ABD.

$H_0 3$: There is no statistically significant relationship between team ABT and team ABD.

I used quantitative methods of inferential statistics to describe the relationships among the variables. The focal team-level variables represent emergent characteristics in a work group perceived as an adaptive, dynamic, and temporal system (Delice et al., 2019). I focused on the quantifiable variables describing objective team characteristics, which is the reason why the qualitative methods were rejected for application in this study.

Salas et al. (2008) developed an attitudes, behaviors, and cognitions or "A-B-C" methodological framework for the investigation of antecedents of team performance in dynamic team systems. This framework discussed the dimensions of A-B-C to propose specific approaches to the investigation of the dimensions with distinct character and dynamics (Salas et al., 2008). In the present study, the relationship between leader's RT,

and the emergent states of ABT and ABD falls under the dimension of attitudes and it therefore needed to be conceptualized in the attitudinal framework.

Bradley and Lang (1994) proposed three methods of measuring affective states—affective reports, physiological reactivity, and overall behavioral acts. Because of the practical limitations of a dissertation project, the only method available to the researcher was represented by self-reported surveys. Therefore, the chosen research design was nonexperimental and cross-sectional, and the method of data collection was survey-based. The intention was to study the relationships between the variables in context of actual work teams as they exist in real life through assessment of their state in the actual moment trying to capture the pattern of association between them. Leaders were put into three categories based on the level of RT assessed by the team members (low, medium, high), and these levels were then correlated with the with team levels of ABT and ABD.

This research design required getting access to members of many different work teams and collecting data from their members to correctly observe the levels of the variables studied. Time and resource constraints of a dissertation study did not allow for repeated collections of data to provide insight into the dynamics of the relationships between the variables. Although control over rival explanations for the observed relationships was lacking, with the sufficiently large data sample, inference of the direction of causation was attempted during the analysis and interpretation of data.

Methodology

The focus of this empirical study was on contributing to the theoretical body of knowledge in the I/O psychology domain concerning the leader qualities and emergence

of positive team characteristics. Specifically, the theory has a character of a set of causal processes (Reynolds, 2007) taking the form of deterministic or probabilistic statements with a potential to inform practice through formulation of tentative recommendations. Acknowledging the limitations of cross-section research design chosen for this dissertation project, the focus was on increasing reliability and validity of the research findings by designing a sampling strategy that would provide a conceptual basis to make estimates of the relationship between the studied variables as accurate as possible (Frankfort-Nachmias & Nachmias, 2008). To this end, the effort was to design a sampling strategy making the sample as representative as possible of the target population. The sampling strategy and the data collection and manipulation strategies is discussed in the following paragraphs.

Population

The target population of the study was the working population of collaborating knowledge workers organized in small work teams of three to 10 people employed in large organizations globally. The organizations from which the data were collected are large to very large multinational organizations (employing at least 20,000 employees) conducting business globally. According to recent estimations, the knowledge worker category represents approximately one third of global workforce (that is, one billion people), and the share is growing fast in context of what is now defined as a knowledge economy (Roth, 2019). Most of the knowledge workers work in collaborative teams (Kozlowski & Ilgen, 2006) and these workers represent a sampling frame for which a complete list of all items is not available.

Sampling and Sampling Procedures

Nonprobabilistic sampling method, one of the purposive sampling strategies recommended for the use with cross-sectional research designs, was used. Purposive sampling, although subjective, has a higher validity than mere convenience samples, and the data was collected from organizations with which the author is not affiliated directly (citation). The nonprobability sample design was complemented with elements of simple random sampling strategies to increase the representativeness of the sample. Inclusion criteria for the sampling units (respondents) were as follows: employed as a knowledge worker in a large business organization (above 20,000 employees globally) and worked in a team of three to 10 workers with a single formal team leader. Members and leaders need to have team tenures longer than 1 year with the respective teams to be eligible for inclusion in the study. Data were collected from the team members only; team leaders were not surveyed.

MANCOVA was used to assess how changes in the predictor RT and demographic variable covariates relate to the responses ABT and ABD (RQ1 and RQ2). The individual team member responses were organized into three groups according with the level of the leader's RT—low RT, medium RT, and high RT. The means of these groups were then compared to evaluate patterns of means of several outcome variables for naturally occurring groups in a nonexperimental situation (Warner, 2013). MANCOVA assumes that the observations are independent, normally distributed, linear, homogenous, and there is no significant correlation between the outcome variables.

Regarding the demographic variable covariates, I conducted correlation analyses to assess if a statistical relationship existed between the covariates and the dependent variables. G*Power was used to determine the required sample size for the standard .05 alpha level, and the .80 power level chosen as sufficient for this study. Regarding the determination of effect size, based on the recommendation of Cunningham and McCrum-Gardner (2007), the estimated effect size for this type of test is medium to high (0.30). Based on the G*Power calculation, the required sample size in this case was $N = 81$. Assuming the average response rate with this type of survey to be below 5%, it was planned to invite approximately 2,000 knowledge workers to participate in the study. A proportionate number of cases in each group based on the level of the leader's RT needs to be ensured for the correct calculation of the results.

Bivariate regression analysis was used to assess the association between variables ABT and ABD (RQ3) to establish the direction and strength of covariation of these variables. Bivariate regression assumes that the observations are independent, the relationship between variables is linear, and their values are normally distributed (citation). The required sample size calculated for the MANCOVA analysis was sufficient for the bivariate regression as well ($N = 67$ required using G*Power calculation with the same parameters for bivariate correlations). The sample size described previously was therefore sufficient for the test of the third hypothesis.

Procedures for Recruitment, Participation, and Data Collection

I identified research participants using Zoom Info (www.zoominfo.com), which is a commercial database of global business contacts containing full contact details for

knowledge workers employed by international companies located around the world. In the first step, I randomly selected 20 large organizations from the sampling frame of multinational companies conducting business globally. These companies were selected randomly from the Forbes Fortune 2,000 list of companies (www.forbes.com) meeting the following criteria: minimum 20,000 employees globally, with large percentage of knowledge workers, conducting business in all major geographies, that is North and South Americas (NASA), Europe, Middle East, & Africa (EMEA), and Asia & Pacific (APAC).

As a second step, I selected random samples of knowledge workers located evenly in North and South Americas (NASA), Europe, Middle East, & Africa (EMEA), and Asia & Pacific (APAC), to obtain a target list of approximately 100 contacts per company. Systematic sampling method was used to select every *K*th sampling unit based on the number of contacts available in Zoom Info for a given company (N) as follows:

$K = N/100$

The total target list of potential respondents (20 x 100 = 2,000) was invited to participate in the survey by email containing an explanation of the purpose of the study (Appendix A) and a link to the actual survey (Appendix B) hosted on online survey management platform Survey Monkey (www.surveymonkey.com). Employees working in organizations affiliated with the organization the author is employed with and contacts familiar with the researcher had not been targeted. The respondents received an email (Appendix A) with a link to an online survey used to collect the data. The expected response rate for the contacts invited using the Zoom Info database of professional

contacts was expected to be approximately 5%. The intention was to collect data from enough respondents to meet the minimum required sample size of $N = 81$ and to be able to form three groups with comparable sizes based on the leader's RT level. The survey was developed using the services of online survey management platform Survey Monkey (www.surveymonkey.com).

In case that insufficient number of valid responses would be obtained using this strategy, I planned to randomly select additional companies from the original list of multinational companies, and additional knowledge workers would be invited to participate in the study. The fallback strategy in situation when the response rate of the Zoom Info contacts would not be sufficient to obtain required number of valid responses was to use paid SurveyMonkey Audience market research service to get access to wider target audience and to collect data faster and with greater efficiency.

The responses were anonymous. I collected demographic information with be the leader's and team member's team tenures (measured in number of years), and team size (number of team members) as inclusion/exclusion criteria. Information on the nature of the team interaction, primary language used, respondent's age, gender, and location (NASA, EMEA, or APAC), primary team function, and the highest level of education completed by the participant were collected to control for alternative factors influencing the relationship among the studied variables. Team leaders were not invited to participate, and no attempt was made to contact them.

Prior to the administration of the survey, the respondents were presented with the purpose of the study, a description of potential risks and benefits of the study, an offer to

answer any inquiries concerning the study, and the contact to the researcher. An explanation that the participation is entirely voluntary followed, with the assertion that the information will be treated confidentially and will not be shared with the team leader or anyone else in the organization. The respondents were informed that they can withdraw from the study at any point and exit the survey for whatever reason. No debriefing or any other follow-up procedures were planned after the data were collected.

The data were collected using an online survey located on the SurveyMonkey website. After all data were collected, they were downloaded from the server and imported into SPSS Statistics version 25 for subsequent statistical analyses. Data not meeting the inclusion criteria were removed from the dataset.

The data were collected during the month of March 2021. The total of 16,353 knowledge workers selected randomly from commercial business contact database ZoomInfo (www.zoominfo.com) were invited by email to participate in the research. The survey hosted on SurveyMonkey (www.surveymonkey.com) was accessed by 614 participants (3.8% of the invitees), 176 of them met the selection criteria and complete responses to the survey questions (1.1% of the invitees). Although the response rates were behind the expectation, the sample is more than double of the minimum size required by the chosen statistical methods. Significantly more people were invited to participate in the study than originally anticipated and SurveyMonkey Audience service had to be used to ensure enough responses were obtained.

Carmeli et al. (2011) confirmed that team size has a significant effect on the characteristics of the team, and the target population was therefore limited to teams of

three to 10 members only. This inclusion criterion eliminated 51.2% of responses from participants who agreed to respond to the survey. The study also focused on teams which have already been fully formed. The emergence of team characteristics requires time and therefore only teams past their formation phase were included in the study (see Feitosa et al., 2018; Neufeld & Haggerty, 2001). The tenure requirement eliminated further 20.1% of the potential participant responses. Overall, only 28.7% of the participants who agreed to respond to the survey met all inclusion criteria (176 out of 614).

To limit the possibility that the observed relationships among the variables are influenced by other factors, the demographic data were collected, and the analyses of covariance were conducted for the following variables: nature of the team interaction (face-to-face versus virtual), language used to communicate with the leader (native versus non-native), primary function of the team, participant's age, gender, geographic location (continent), and the highest level of education attained.

Instrumentation and Operationalization of Constructs

Measuring Relational Transparency

Leader's RT was assessed using a subset (3 items) of the authentic leadership inventory (ALI) developed by Neider and Schriesheim (2011a) on a seven-point Likert scale (1 = Disagree strongly ... 7 = Agree strongly). Items were modified to replace the referent "others" with "the team" using the referent-shift composition logic (Chan, 1998), which was necessary to ensure that only members of the team are referred. The individual follower's ratings were aggregated to form a team-level measure of team leader's RT. The measure can be "used for non-commercial research and educational purposes without

seeking written permission" (Appendix C). RT, subset of the authentic leadership inventory measure, has a reliability of Cronbach's alpha of $.77 < \alpha < .81$ and established content validity (Neider & Schriesheim, 2011b). ALI was developed by reviewing the authentic leadership questionnaire (ALQ); (Avolio et al., 2007) with the proposition that authentic leadership should not be treated as a one-factor construct but as a four-factor construct allowing for assessments of its individual components separately (Neider & Schriesheim, 2011b). The measure was validated in Nigeria (Balogun et al., 2020) and in Brazil (Novaes et al., 2019), showing that the measure has sufficient reliability coefficient. For the subsets of ALI, the reliability coefficient for the RT was moderate on the level of Cronbach's alpha slightly below the .70 threshold. Gatling et al. (2017) used ALQ measure to investigate the relationship between RT and followers' trust and deviance behaviors, no other instances of separate use of RT subset could be found because of the scarcity of research focusing on the separate RT component of authentic leadership. Given that ALQ is available only on commercial basis (from http://www.mindgarden.com/) and there are no other instruments available to measure RT, moderate reliability of the RT subset of ALI had to be sufficient for the purpose of this study.

Measuring Affect-Based Trust

For the measurement of team ABT, Cheung et al. (2016) used the original affect-based trust measure (see McAllister, 1995) to measure team trust in their investigation of the moderation role of team trust in the relationship between functional diversity and team innovation. Because the original measure is an interpersonal measure with the trust

referent being the leader, the authors decided to change the referent to “my team,” instead of “my leader.” Changing referent in measures is an established practice in the literature. In accordance with the referent-shift consensus model (Chan, 1998), the within-group agreement toward a new referent justifies validity of the aggregated team scores. Feitosa et al. (2018) observed that “the best performing scales were those that utilize a mixture of referents … rather than referent-shift items” (p. 489), and it therefore seemed advantageous to use measure Feitosa et al. (2018) recommended, a measure adapted by Jarvenpaa and Leidner (1999), which was itself an adaptation of the original measure by Schoorman et al. (1996). The adapted measure shifted the referent from “my organization” to “my team”. However, the measure was not a multicomponent measure with affective-based trust being measured by a subset measure. The adapted original measure (McAllister, 1995) by Cheung et al. (2016) was therefore used to assess ABT on a seven-point Likert scale (1 = Disagree strongly ... 7 = Agree strongly). Items were modified to replace the referent “this person” with “this team” using the referent-shift composition logic (Chan, 1998), which was necessary to ensure that the team is referred. The individual follower’s ratings were aggregated to form a team-level measure of ABT. The ABT measure has a reliability of Cronbach’s alpha $\alpha = .93$ and established content validity (Cheung, 2016; McAllister, 1995). The ABT subset is used separately regularly in the literature (e.g., Cheung, 2016; De Jong et al., 2016). The measure is commonly used in the literature, but the requirement to seek permissions of the corresponding author is listed in the PsycTest database for this measure. The permission of the measure’s author was obtained in writing prior to use for this study (Appendix C).

Measuring Affect-Based Distrust

Team ABD was assessed using adapted distrust in leader measure (four items) developed by Liu and Wang (2010b) on a seven-point Likert scale (1 = Not at all ... 7 = Very much). Items were modified to replace the referent "Mr. Hale" with "members of your team" to ensure that the corresponding team members are referred using the referent-shift composition logic (Chan, 1998). The individual follower's ratings were aggregated to form a team-level measure of ABD. The measure can be "used for non-commercial research and educational purposes without seeking written permission" (Appendix C). The distrust measure has a reliability of Cronbach's alpha of $\alpha = .77$ and acceptable content validity (Liu & Wang, 2010a). All 22 items used to collect data in this study are listed in Appendix B. The survey items were reordered before administration to eliminate item response association bias.

Threats to Validity

One of the biggest threats to external validity of the study was represented by the selection bias. The objective was to identify diverse teams with as few connections to the researcher as possible because the researcher and close business contacts likely hold similar leadership values. The participating organizations and individual knowledge workers were therefore selected randomly from the sampling frame available in Zoom Info commercial business contact database. In a nonexperimental study, participants cannot be assigned randomly to groups, and it was therefore important to make sure that the team members within the organizations are selected as randomly as possible. A related threat lay in the fact that the participation needed to be voluntary. The risk that

this would lead to a volunteer bias when majority of the participants share a characteristic compelling them to participate (such as being happy in their team, enjoying open and honest communication, or trusting their team leader) was addressed by having all three levels (low, medium, and high) of leader's RT equally represented.

Survey items with established validity and reliability were employed, but to avoid the risk that the respondents would answer the subsets of the survey in a similar fashion (that is, answering in similar fashion questions on RT, team trust, and distrust), the sequence of questions was randomized. Regarding the risk of having a confounding variable (e.g., the effects of other leaders on the team, corporate culture, environment) or historical effects (e.g., from previous team leaders) influence the dependent variables, the exclusion criteria of minimal team membership tenure of one year was introduced to minimize the risk. According to Carmeli et al. (2011), the team size has a significant effect on the characteristics of the team, and the size of the targeted team has therefore been limited to three to 10 employees.

Threats to internal validity were minimal because of the cross-sectional nature of the research. The respondents answered the survey items only once, providing a snapshot view of their relationship with the team leader and the climate in their teams. Therefore, the effects of history or maturation are avoided.

Ethical Procedures

Ethical principles of psychologists and code of conduct (American Psychological Association, 2017) guide the ethical procedures applied in this dissertation. The data were collected in a way that preserved privacy and confidentiality of the information. The

participation was voluntary, and the identity of the participants was not disclosed to the organizations they are part of nor to the leaders with whom they work. The data had been stored securely and no information that could be used to identify the individuals had been part of the dataset. The information on the nature of the team collaboration task was kept in the dataset to allow for subsequent control of this contextual characteristic during the analysis of the data. Institutional permissions were not requested because the information collected pertains to the relationship with the team leader and among the team members, and not to the actual organizational activity. The participation in the study was strictly voluntary and the participants were invited to participate directly, without the formal help of the organizations or their leaders. The participants were presented with the purpose of the study, expected duration, and the procedures, their right to decline to participate or to withdraw from the research at any point in time, potential risks or adverse effects, prospect research benefits, limits of confidentiality, and the contact information for the research in case that they need assistance or an information (APA, 2017).

Summary and Transition

This cross-sectional nonexperimental study examined the relationships between team leader's RT behavior and the team-level characteristics of ABT and ABD. The actual levels of the variables were observed in work teams naturally occurring in selected business organizations. Respondents were recruited using nonprobabilistic purposive sampling method with the elements of random systematic sampling used to identify target organizations and individuals, and the data were collected using an online survey. One-way MANCOVA was used to assess the relationships between the predictor (RT),

covariates of tenure and team size, nature of team interaction, primary language of communication with the leader, gender, age, geographic location, primary team function, and highest level of education attained, and the responses (ABT and ABD), and bivariate regression analysis was used to assess the direction and strength of the relationships between the responses (ABT-ABD). Data were collected using three measures with established validity and reliability—RT was assessed using authentic leadership inventory (Neider & Schriesheim, 2011a), ABT using the adapted affect-based trust measure (McAllister, 1995), and ABD using the adapted trust and distrust measure (Liu and Wang, 2010b). Procedures were used to minimize the risk of selection and volunteer biases during the data selection. Ethical procedures were observed to ensure that this study complies with the general principles of research conduct: beneficence and nonmaleficence; fidelity and responsibility; integrity; justice; and respect for people's rights and dignity (American Psychological Association, 2017). Chapter 4 outlines the results of the statistical analyses, which are discussed in Chapter 5 together with the limitations of the study, recommendations, and implications for the theory and practice.

Chapter 4: Results

Investigating the relationship among leader's RT and the team-level characteristics of ABT and ABD is critical for the understanding of the dynamics of RT as the key component of leader's authenticity and the emergence of ABT and ABD as the two of the most important team climate antecedents of team effectiveness. This chapter presents the results of the statistical analyses of the data collected in frame of the research approved by IRB under approval number 02-26-21-0260675.

The purpose of this quantitative nonexperimental dissertation project was to explore the relationships among RT as a component of authentic leader's behavior, and the levels of ABT and ABD, as well as the relationship between ABT and ABD in context of the process of their emergence in a team setting. To address the stated problem and meet the purpose of the study the following research questions were raised.

RQ1: What are the differences in the team-level ABT among teams with distinct levels of RT behavior?

RQ2: What are the differences in the team-level ABD among teams with distinct levels of RT behavior?

RQ3: What is the relationship between team ABT and team ABD?

This chapter starts with the description of procedures of data collection and selection of the sample from the population of interest, the overview of the demographic breakouts of the sample, followed by overview of the assumptions and the results of the statistical analyses, and summary of the answers to the research questions investigated in this dissertation.

Demographic Breakouts

All 176 respondents whose responses met the selection criteria (team size of three to 10 people, team member tenure longer than 12 months, leader team tenure longer than 12 months) provided responses to all 22 survey questions (10 demographic and 12 survey questions). The demographic breakout of the sample is presented in Tables 1 to 7.

Table 1

Sample Breakout by Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	98	55,7	55,7	55,7
	Female	78	44,3	44,3	100,0
	Total	176	100,0	100,0	

Table 2

Sample Breakout by Age Category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	31-40	52	29,5	29,5	29,5
	41-50	43	24,4	24,4	53,9
	18-30	35	19,9	19,9	73,8
	51-60	30	17,0	17,0	90,8
	>60	16	9,1	9,1	100,0
	Total	176	100,0	100,0	

Table 3

Sample Breakout by Geographic Location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	North & South Americas (NASA)	119	67,6	67,6	67,6
	Asia & Pacific (APAC)	37	21,0	21,0	88,6
	Europe, Middle East, & Africa (EMEA)	20	11,4	11,4	100,0
	Total	176	100,0	100,0	

Table 4

Sample Breakout by Team Function

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Information Technology	30	17,0	17,0	17,0
	Operations	29	16,5	16,5	33,5
	Sales	21	11,9	11,9	45,4
	Finance	21	11,9	11,9	57,3
	Engineering & Technical	19	10,8	10,8	68,1
	Other	56	31,9	31,9	100,0
	Total	176	100,0	100,0	

Table 5

Sample Breakout by Education Attained

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degree	75	42,6	42,6	42,6
	Master's degree	54	30,7	30,7	73,3
	Some colleague (no degree)	15	8,5	8,5	81,8
	High school graduate	13	7,4	7,4	89,2
	Trade/technical/vocational training	9	5,1	5,1	94,3
	Professional degree	6	3,4	3,4	97,7
	Doctorate	4	2,3	2,3	100,0
	Total	176	100,0	100,0	

Table 6

Sample Breakout by Team Interaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mostly face-to-face	68	38,6	38,6	38,6
	Mostly virtually	58	33,0	33,0	71,6
	It is a combination of the two	50	28,4	28,4	100,0
	Total	176	100,0	100,0	

Table 7

Sample Breakout by Team Language

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	151	85,8	85,8	85,8
	No	25	14,2	14,2	100,0
	Total	176	100,0	100,0	

Descriptive Statistics

RT, measured by a subscale of Authentic Leadership Inventory (ALI) designed by Neider and Schriesheim (2011b), returned individual scores ranging from the minimum of 3 points to the maximum of 21 points (Figure 3). Mean was M = 11.24, median Mdn = 11.0, and standard deviation s = 5.35 (Table 8). Cumulative RT score of 47 participants (27% of all responses) equaled 18 points, which is the main factor explaining the slight negative skewness (-0.033) of the RT distribution curve. The kurtosis of the distribution is highly negative (-1.266), which means that both tails in this distribution are heavy.

Figure 3

Simple Histogram of RT With the Distribution Curve

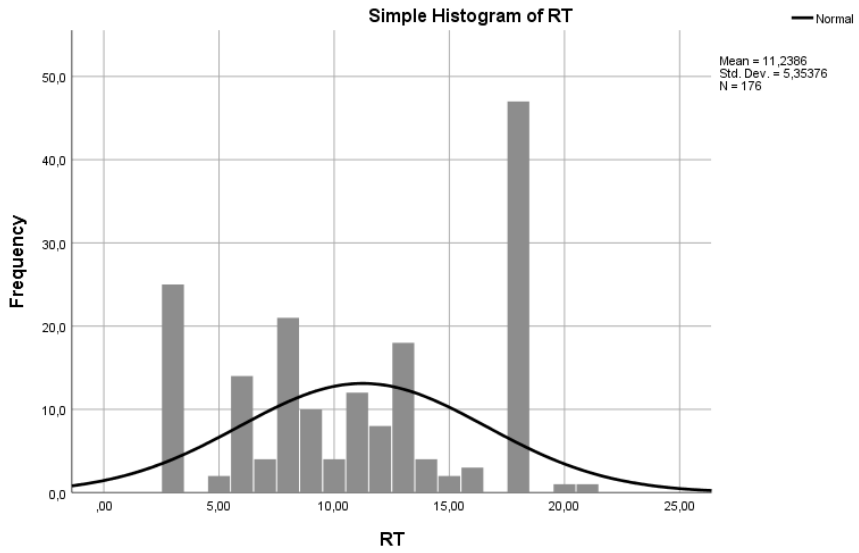


Table 8

Descriptive Statistics for the Factor Variable RT

	N	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
RT	176	18,00	3,00	21,00	11,2386	,40355	5,35376
Valid *N* (listwise)	176						

Three groups of comparable sizes were created using the median and standard deviation to include low RT responses (3 to 8 points, 66 responses), medium RT responses (9 to 14 points, 56 responses), and high RT responses (15 to 21 points, 54 responses; Table 9).

Table 9

Frequencies of the RT Level Groups

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	66	37,5	37,5	37,5
	Medium	56	31,8	31,8	69,3
	High	54	30,7	30,7	100,0
	Total	176	100,0	100,0	

Tests of Assumptions

First two hypotheses (RQ1 and RQ2) were tested using a 2x3 MANCOVA analysis used to ascertain whether the DVs ABT and ABD can be predicted from the various levels of the factor variable RT. There are five assumptions which needed to be met for this test to be valid and have sufficient statistical power: (a) scores of outcome variables are independent, (b) they are quantitative and reasonably normally distributed,

(c) associations between pairs of variances and covariances are linear, (d) the variances and covariances are homogenous across the groups of factor variable, and (e) there is no significant correlation between the outcome variables (Warner, 2013).

Shapiro-Wilk Test of Normality

The observations of the outcome variables ABT and ABD were collected using two distinct sets of survey items and are therefore independent of each other, which satisfies the first test assumption. The assumption of normal distribution was tested by the Shapiro-Wilk test of normality (Table 10) confirming that both DVs ABT and ABD are normally distributed ($p < 0.001$).

Table 10

Test of Normality of Distributions of the Outcome Variables ABT and ABD

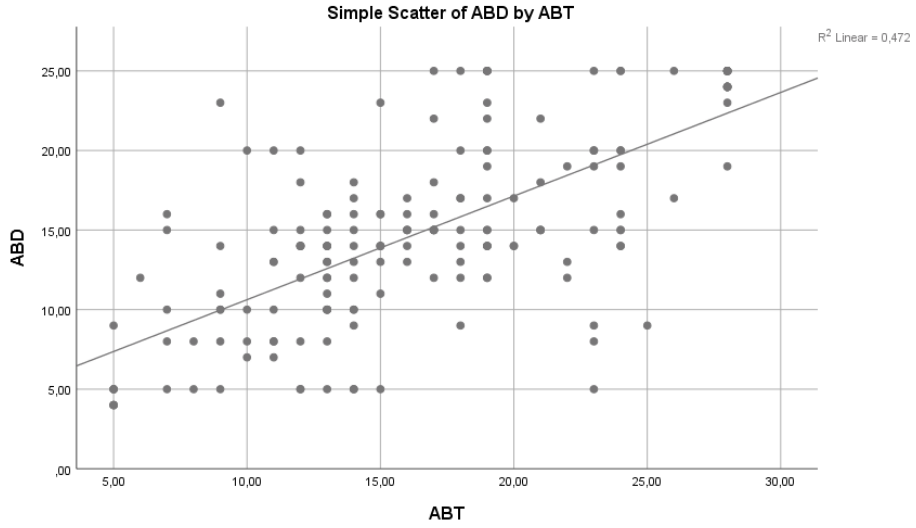
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	*df*	Sig.	Statistic	*df*	Sig.
ABT	,089	176	,002	,963	176	,000
ABD	,111	176	,000	,951	176	,000

a. Lilliefors Significance Correction

Association between the pair of outcome variables ABT and ABD is linear (Figure 4). Observing the scatter plots for the associations between all pairs of the variances and covariances across all three RT groups indicates linear relationships with no extreme scores or outliers. The assumption of linearity for the intended MANCOVA test is therefore met.

Figure 4

Scatter Plot of ABD by ABT with Fitted Regression Line



Box's M Test of Homogeneity

The assumption of homogeneity of variances and covariances across the groups of factor variable was tested using the Box's *M* test of homogeneity of variances and covariances across groups (Table 11). Although the assumption of homogeneity was violated at the standard $p < 0.05$ level, due to the relatively large size of the sample and the fact that the three RT groups have roughly equal sizes, $p < 0.01$ was used following the recommendation of Warner (2013). The result of the Box *M* test $p = 0.01$ is therefore considered acceptable but calls for replacing the Wilk's lambda (λ) with Pillai's trace as the overall test statistic, because it is more robust to violations of homogeneity of variances and covariances.

Table 11

Multivariate Test of Between-Subjects Effects for the Covariances

Box's M	17,117
F	2,805
df1	6
df2	625678,593
Sig.	,010

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + RT_Level

The statistical power of the test and its relationship with the effect size and the sample size were also assessed when interpreting the findings related to RQ1 and RQ2 hypotheses.

Test of Absence of Multicollinearity

Finally, the output variables were tested for the absence of multicollinearity. According to Dormann et al. (2013) no correlation should be higher than $r = 0.90$. Pearson's correlation between ABT and ABD scores was $r = 0.69$, which satisfies the assumption of the absence of multicollinearity (Table 12).

Regression Analysis Assumptions

Third hypothesis (RQ3) was tested using bivariate regression analysis to assess the relationship between the team-level characteristics of ABT and ABD, specifically to evaluate whether the levels of ABD can be predicted from the observed levels of ABT. In a nonexperimental study, the selection of factor variable is often arbitrary, but in this specific case ABT was chosen as it is assumed that a certain level of trust needs to be

developed first before distrust can emerge during the team formation phase affected by the degree of leader's RT (see Grossman & Feitosa, 2018).

Table 12

Pearson's Correlation Between ABT and ABD

		ABT	ABD
ABT	Pearson Correlation	1	,687**
	Sig. (2-tailed)		,000
	N	176	176
ABD	Pearson Correlation	,687**	1
	Sig. (2-tailed)	,000	
	N	176	176

**. Correlation is significant at the 0.01 level (2-tailed).

Evaluating the histograms of ABT and ABD scores and the scatter plot showing the relationship between ABT and ABD, it can be concluded that the distributions are reasonably linear. A scatter plot of the data with a 95% CI around the fitted regression line appears in Figure 4. There are no significant outlier scores, and the variance of *Y* scores is fairly uniform across levels of *X*, the observations are independent, and normally distributed, which means that the assumptions for the bivariate regression analysis have been met.

Statistical Analyses

A 2x3 MANCOVA was performed on the leader's RT data using scales of ABT and ABD, and seven covariant variables, namely nature of team interaction, primary language of communication with the leader, primary team function, and respondent's gender, age, geographic location, and highest level of education attained. The covariates of member and leader tenures and team size were controlled for by including only

responses from members with tenures longer than 12 months, with their leaders' tenures longer than 12 months, and from teams of three to 10 members. Although the *n*s of responses in the three RT groups varied slightly (n_{RT_Low} = 66, n_{RT_Medium} = 56, and n_{RT_High} = 54), no adjustments to the data had been done because no improvement to the homogeneity scores were observed comparing type III sums of squares between the original data sample and an adjusted sample with equal *n* = 54 across all three groups. Similarly, no improvements could be found by removing outliers (cases number 31, 75, 110, 120, and 121) from the data sample (plot distributions in Figures 5 and 6), and therefore the complete dataset was used.

Figure 5

Stem-and-Leaf Plot Distribution of ABT Across RT Scores

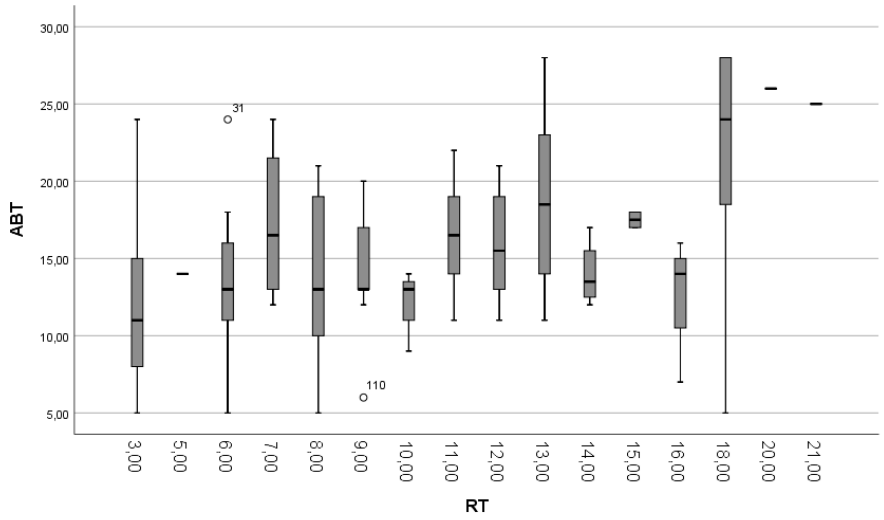
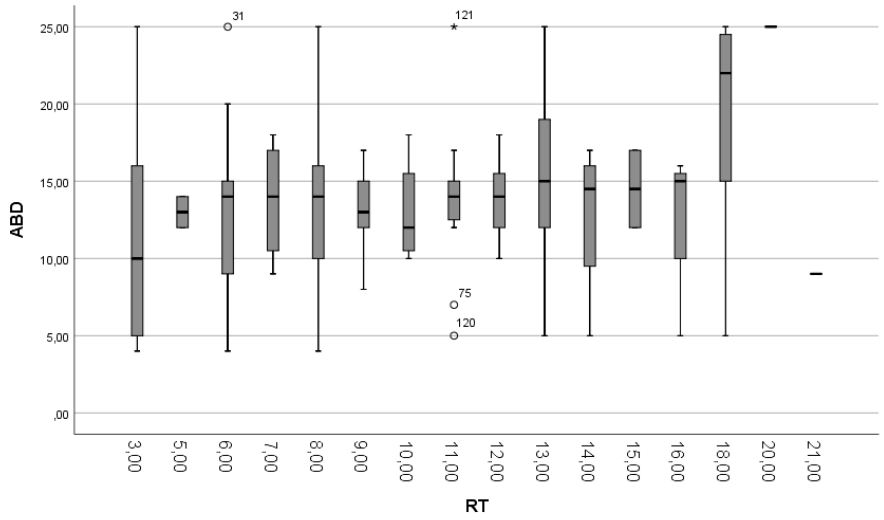


Figure 6

Stem-and-Leaf plot Distribution of ABD Across RT Scores



RQ1: What are the differences in the team-level ABT among teams with distinct levels of RT behavior?

The main effect for RT_level was statistically significant for $\alpha = 0.05$: Pillai's trace = 0.302, $F(4, 346) = 15.41$, partial $\eta^2 = 0.151$ (Table 13). This result suggested that at least one pair of groups differs significantly on one outcome variable or on some combination of outcome variables. An effect size of $\eta^2 = 0.151$ could be regarded large considering the desired level of statistical power of 0.9 and the group sizes significantly exceeding the required number of 31 scores using Cohen's *d* (as cited in Warner, 2013, p. 208).

Table 13

One-way MANCOVA: Multivariate Tests for Main Effect on RT Level

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	,919	970,634[b]	2,000	172,000	,000
	Wilks' Lambda	,081	970,634[b]	2,000	172,000	,000
	Hotelling's Trace	11,286	970,634[b]	2,000	172,000	,000
	Roy's Largest Root	11,286	970,634[b]	2,000	172,000	,000
RT_Level	Pillai's Trace	,302	15,409	4,000	346,000	,000
	Wilks' Lambda	,701	16,741[b]	4,000	344,000	,000
	Hotelling's Trace	,423	18,075	4,000	342,000	,000
	Roy's Largest Root	,412	35,652[c]	2,000	173,000	,000

a. Design: Intercept + RT_Level

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

When controlling for the effects of the covariates (Table 14), the group effect of RT_level remained statistically significant for $\alpha = 0.05$ at adjusted Pillai's trace = 0.297, $F(4, 332) = 14.49$, partial $\eta^2 = 0.149$.

None of the covariates were statistically significant, the highest effect seemed to be that of the geographic location, $\eta^2 = 0.013$. Test of between-subjects effects did not show any significant interactions among the covariates and the DVs, with location again showing the highest interaction levels (Table 15). Follow-up analyses were performed to evaluate nature of the interaction among the RT groups and the outcome DVs. First, one-way between-S ANOVA was conducted to compare the mean scores on the ABT scale for teams with distinct RT levels (1 = low RT, 2 = medium RT, 3 = high RT).

Table 14

One-way MANCOVA: Multivariate Tests for Covariate Effects

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	,240	26,051[b]	2,000	165,000	,000
	Wilks' Lambda	,760	26,051[b]	2,000	165,000	,000
	Hotelling's Trace	,316	26,051[b]	2,000	165,000	,000
NativaLanguage	Pillai's Trace	,005	,423[b]	2,000	165,000	,656
	Wilks' Lambda	,995	,423[b]	2,000	165,000	,656
	Hotelling's Trace	,005	,423[b]	2,000	165,000	,656
Gender	Pillai's Trace	,003	,222[b]	2,000	165,000	,801
	Wilks' Lambda	,997	,222[b]	2,000	165,000	,801
	Hotelling's Trace	,003	,222[b]	2,000	165,000	,801
Age	Pillai's Trace	,002	,148[b]	2,000	165,000	,862
	Wilks' Lambda	,998	,148[b]	2,000	165,000	,862
	Hotelling's Trace	,002	,148[b]	2,000	165,000	,862
Location	Pillai's Trace	,013	1,121[b]	2,000	165,000	,328
	Wilks' Lambda	,987	1,121[b]	2,000	165,000	,328
	Hotelling's Trace	,014	1,121[b]	2,000	165,000	,328
TeamFunction	Pillai's Trace	,003	,282[b]	2,000	165,000	,755
	Wilks' Lambda	,997	,282[b]	2,000	165,000	,755
	Hotelling's Trace	,003	,282[b]	2,000	165,000	,755
Education	Pillai's Trace	,007	,564[b]	2,000	165,000	,570
	Wilks' Lambda	,993	,564[b]	2,000	165,000	,570
	Hotelling's Trace	,007	,564[b]	2,000	165,000	,570
Interaction	Pillai's Trace	,004	,323[b]	2,000	165,000	,725
	Wilks' Lambda	,996	,323[b]	2,000	165,000	,725
	Hotelling's Trace	,004	,323[b]	2,000	165,000	,725
RT_Level	Pillai's Trace	,297	14,492	4,000	332,000	,000
	Wilks' Lambda	,706	15,654[b]	4,000	330,000	,000
	Hotelling's Trace	,410	16,817	4,000	328,000	,000

a. Design: Intercept + NativaLanguage_Code + Gender_Code + Age_Code + Location_Code + TeamFunction_Code + Education_Code + Interaction_Code + RT_Level

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Table 15

One-way MANCOVA: Tests of Between-Subjects Effects

Source	DV	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	ABT	2111,146[a]	9	234,572	7,991	,000
	ABD	1410,602[b]	9	156,734	5,348	,000
Intercept	ABT	1154,793	1	1154,793	39,338	,000
	ABD	1286,821	1	1286,821	43,908	,000
NativaLanguage	ABT	,003	1	,003	,000	,991
	ABD	16,501	1	16,501	,563	,454
Gender	ABT	12,743	1	12,743	,434	,511
	ABD	6,815	1	6,815	,233	,630
Age	ABT	8,125	1	8,125	,277	,600
	ABD	5,398	1	5,398	,184	,668
Location	ABT	38,853	1	38,853	1,324	,252
	ABD	62,402	1	62,402	2,129	,146
TeamFunction	ABT	11,764	1	11,764	,401	,528
	ABD	14,477	1	14,477	,494	,483
Education	ABT	23,444	1	23,444	,799	,373
	ABD	,108	1	,108	,004	,952
Interaction	ABT	2,809	1	2,809	,096	,757
	ABD	17,964	1	17,964	,613	,435
RT_Level	ABT	1845,544	2	922,772	31,434	,000
	ABD	1120,838	2	560,419	19,122	,000
Error	ABT	4873,013	166	29,356		
	ABD	4865,034	166	29,307		
Total	ABT	55762,000	176			
	ABD	45636,000	176			
Corrected Total	ABT	6984,159	175			
	ABD	6275,636	175			

a. R Squared = ,302 (Adjusted R Squared = ,264)

b. R Squared = ,225 (Adjusted R Squared = ,183)

The overall *F* for the one-way ANOVA was statistically significant, $F(2, 175) = 33.98$, $p < 0.001$ (Table 16). This suggested that there was a difference in mean ratings of ABT based on the level of the leader's RT.

Table 16

One-way ANOVA: Overall Effect for ABT Outcome

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	1969,866	2	984,933	33,982	,000
Within Groups	5014,293	173	28,984		
Total	6984,159	175			

A Tukey post hoc test revealed that there were statistically significant differences in ABT levels among all three RT groups (Table 17). There are significant differences among low, medium, and high RT levels using $\alpha = .95$ as the confidence criterion.

Table 17

Tukey Post Hoc Test: Multiple Comparisons for DV ABT

		Mean Difference			95% Confidence Interval	
(I) R_Group	(J) R_Group	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
1,00	2,00	-2,84957*	,97813	,011	-5,1619	-,5372
	3,00	-8,09428*	,98788	,000	-10,4297	-5,7589
2,00	1,00	2,84957*	,97813	,011	,5372	5,1619
	3,00	-5,24471*	1,02680	,000	-7,6721	-2,8173
3,00	1,00	8,09428*	,98788	,000	5,7589	10,4297
	2,00	5,24471*	1,02680	,000	2,8173	7,6721

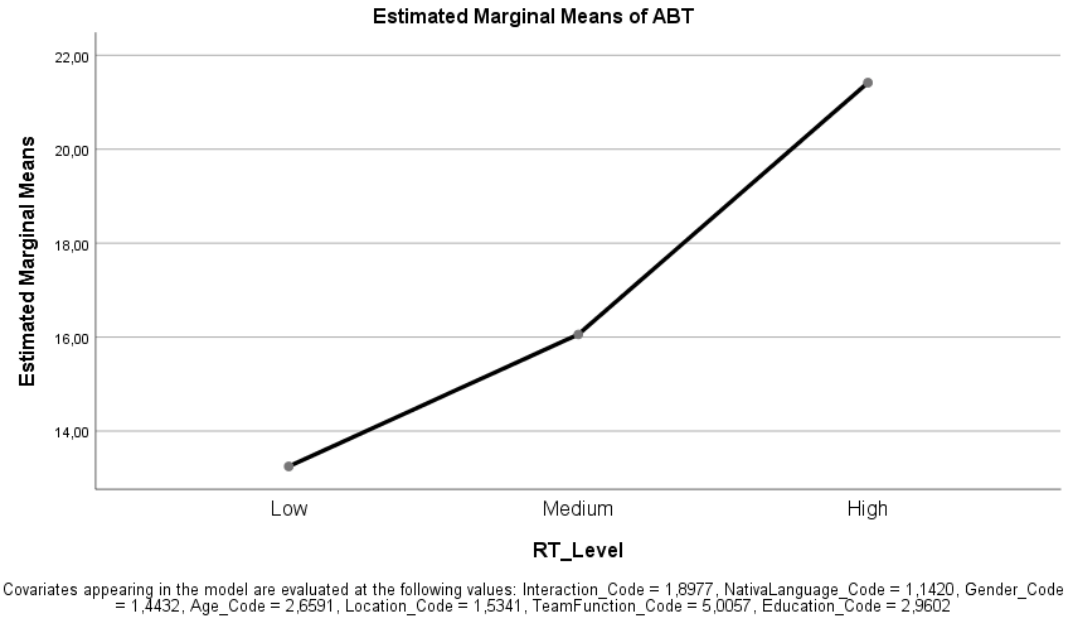
*. The mean difference is significant at the 0.05 level.

Low levels of RT were associated with low levels of ABT, which increased significantly for the medium RT group, and comparatively more for the high RT level. This corresponded to an effect size of $\eta^2 = 0.27$ for ABT, which can be categorized as

very large considering the desired level of statistical power of 0.9 and the group sizes significantly exceeding the required number of 31 scores using Cohen's *d*. The effect size indicates that 27% of the variance in the ABT level was accounted for by the level of the leader's RT. The nature of the statistically significant association between the leader's RT level and the level of ABT in the team was linear with relatively greater increase of the ABT level in the high RT group compared with the medium RT group (Figure 7).

Figure 7

Distribution of ABT Scores Across the Distinct RT Levels



It could, therefore, be concluded that—after controlling for the covariates—there were statistically significant differences among the levels of team ABT in groups with various levels of leader's RT behavior, and the RQ1 null hypothesis could therefore be rejected. The follow-up tests revealed that there are statistically significant differences in

the levels of ABT among all RT groups. Faster effect trend beyond medium RT level indicated that there is a threshold level of RT above which the ABT in the teams show significantly higher levels.

RQ2: What are the differences in the team-level ABD among teams with distinct levels of RT behavior?

The main effect for RT_level for both ABT and ABD outcomes was statistically significant for $\alpha = 0.05$: Pillai's trace = 0.302, $F(4, 346) = 15.41$, partial $\eta^2 = 0.151$ (Table 13). This result suggested that at least one pair of groups differs significantly on one outcome variable or on some combination of outcome variables. When controlling for the effects of the covariates (Table 14), the group effect of RT_level remained statistically significant for $\alpha = 0.05$ at adjusted Pillai's trace = 0.297, $F(4, 332) = 14.49$, partial $\eta^2 = 0.149$. Follow-up analyses were performed to evaluate nature of the interaction among the RT groups and the outcome DVs. After the one-way between-S ANOVA was conducted to compare the mean ABT scores for teams with distinct RT levels (1 = low RT, 2 = medium RT, 3 = high RT), it was conducted also for the mean ABD scores. The overall F for the one-way ANOVA for the association between RT and ABD was statistically significant, $F(2, 175) = 21.01$, $p < 0.001$ (Table 18). This suggested that there was a difference in mean ratings of ABD based on the level of the leader's RT.

Table 18

One-way ANOVA: Overall Effect for ABD Outcome

	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	1226,378	2	613,189	21,009	,000
Within Groups	5049,258	173	29,186		
Total	6275,636	175			

A Tukey post hoc test showed that there were statistically significant differences between the low and high RT groups, and the medium and high RT groups (Table 19). The difference between the low and medium RT groups was not statistically significant using $\alpha = .95$ as the confidence criterion. This indicated that while the difference in ABD scores between the low and medium RT were not significant, the level of ABD increased significantly for high RT level upon reaching a certain threshold level.

Table 19

Tukey Post Hoc Test: Multiple Comparisons for DV ABD

		Mean Difference			95% Confidence Interval	
(I) R_Group	(J) R_Group	(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
1,00	2,00	-1,19318	,98153	,446	-3,5136	1,1272
	3,00	-6,17003*	,99132	,000	-8,5136	-3,8265
2,00	1,00	1,19318	,98153	,446	-1,1272	3,5136
	3,00	-4,97685*	1,03038	,000	-7,4127	-2,5410
3,00	1,00	6,17003*	,99132	,000	3,8265	8,5136
	2,00	4,97685*	1,03038	,000	2,5410	7,4127

*. The mean difference is significant at the 0.05 level.

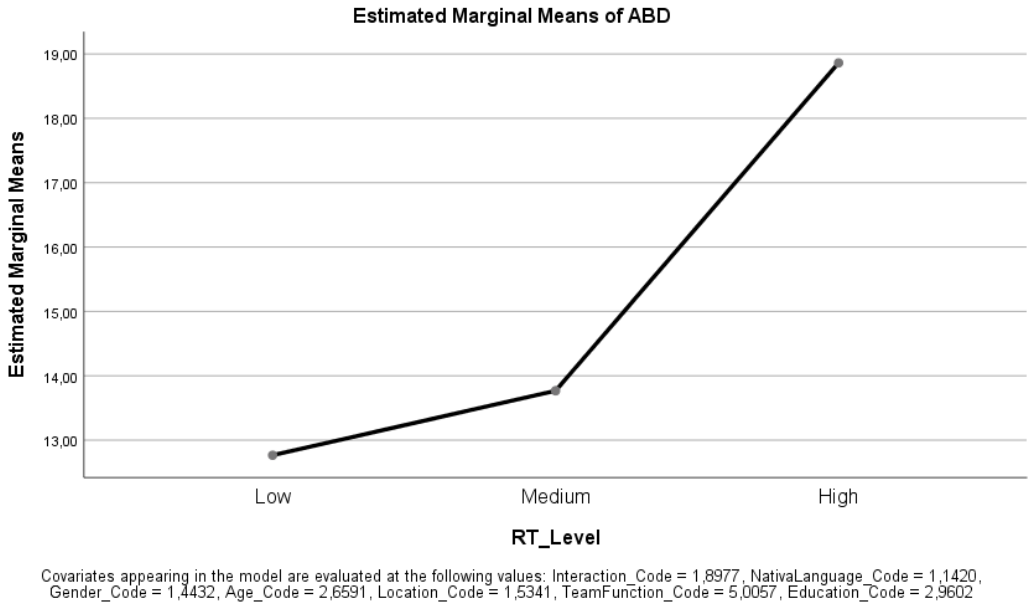
This corresponded to an effect size of $\eta^2 = 0.20$ for ABD, which can be categorized as very large considering the desired level of statistical power of 0.9 and the group sizes significantly exceeding the required number of 31 scores using Cohen's *d*.

The effect size indicates that 20% of the variance in the ABT level was accounted for by the level of the leader's RT. The trend of the effect was linear with significant increase in ABD level for high RT group (Figure 8).

It could be concluded that—after controlling for the covariates—there were statistically significant differences among the levels of team ABD in groups with various levels of leader's RT behavior, and the RQ2 null hypothesis could therefore be rejected. The follow-up tests revealed that there were statistically significant differences in the levels of ABD between low and medium RT groups and high RT group. Faster effect trend beyond medium RT level indicated that there was a threshold level of RT above which the ABD in the teams show significantly higher levels.

Figure 8

Distribution of ABD Scores Across the Distinct RT Levels



RQ3: What is the relationship between team ABT and team ABD?

In relation to the third hypothesis, bivariate regression analysis was performed to evaluate how well ABD could be predicted from the levels of ABT. The correlation between the variables was statistically significant, $r(176) = 0.687$, $p < 0.001$. The r^2 for this equation was 0.472; which means that approximately 47% of the variance in ABD was predictable from the levels of ABT (Table 20).

Table 20

Model Summary for Regression Analysis of the ABT/ABD Relationship

Model	*R*	R Square	Adjusted R Square	Std. Error of the Estimate
1	,687[a]	,472	,469	4,36404

a. Predictors: (Constant), ABT

b. Dependent Variable, ABD

This result indicated strong relationship, increases in ABT were associated with increases in ABD, and the RQ3 null hypothesis was therefore rejected. The 95% CI for the slope to predict ABT from ABT ranged from 0.548 to 0.754, so the one-point increase in ABT was associated with and average increase of 0.651 of the ABD score.

Summary and Transition

After having explored the relationships among RT as a component of authentic leader's behavior and the levels of team ABT and ABD, it could be concluded that there were statistical differences in the team-level ABT among teams with distinct levels of RT behavior, and that RT above a certain threshold showed significantly higher levels of team ABT. In a similar fashion, low and medium RT were associated with low levels of

ABD, while RT above a certain threshold showed significantly higher levels of team ABD. Focusing on the relationship between the outcome variables of ABT and ABD, significant relationship was found indicating that higher levels of team ABT were associated with higher levels of ABD. The effect size of the relationship between the RT and the outcome variables of ABT and ABD was categorized as large, while the relationship between ABT and ABD was categorized as very large.

In Chapter 5, these findings will be interpreted and placed into the context of the chosen theoretical framework, limitations of the study will be discussed as well as the recommendations for further research, and the implications for the leadership practice and the positive social change in business organizations.

Chapter 5: Discussion, Conclusions, and Recommendations

Authentic leader's RT influences the ways in which a team of collaborative knowledge workers manages complexity, ambiguity, and risk—in other words, it determines the choice of trust and distrust as collective strategies of complexity reduction. Authentic leadership has a positive impact on emergence of trust in teams (Zeb et al., 2019), but more insight was needed into the dynamics of team-level ABT and ABD. It has long been theoretically assumed that trust and distrust are distinct phenomena with related continua (Luhmann, 1979), the fact that has been since repeatedly confirmed empirically (Benamati et al., 2006; Saunders et al., 2014; Xiao & Benbasat, 2010). The relationship between trust and distrust, however, has not yet been fully explained and remains to be complicated (Moody et al., 2017). To provide insight into this complex relationship the present study focused on the emergence of ABT and ABD in context of authentic leader's RT attitudinal influence on members of teams of collaborative knowledge workers.

The purpose of this quantitative nonexperimental dissertation research was to explore the relationships among RT as a component of authentic leader's behavior, and the levels of ABT and ABD, as well as the relationship between these response variables in context of the process of their emergence in a team setting. This study provides additional insight into team dynamics of the influence of the authentic leadership behavior's component of RT on the affective and climate characteristics of the work group—team ABT and ABD—hypothesized as mediating factors of team effectiveness in the multiple mediation model (see Guenter et al., 2017). The goal was to formulate

practical recommendations to leaders on how to shape team development to achieve higher levels of team effectiveness.

Three research questions were considered:

RQ1: What are the differences in the team-level ABT among teams with distinct levels of RT behavior?

RQ2: What are the differences in the team-level ABD among teams with distinct levels of RT behavior?

RQ3: What is the relationship between team ABT and team ABD?

The results of the statistical evaluations of data collected from 176 study participants confirmed that there are significant differences in the levels of team ABT among the low, medium, and high RT groups. Similarly, there are significant differences in the levels of team ABD between the low and high RT group, and medium and high RT groups; there was no statistical difference in the levels of ABD between the low RT and medium RT groups. Finally, there is a significant relationship between team ABT and team ABD, which means that the levels of ABD were predictable from the levels of ABT.

Interpretation of the Findings

The previously discussed results indicated that there is a threshold level of RT in leaders that was associated with significantly higher levels of team ABT and ABD when exceeded. More RT in leader's behavior defined as "openness and truthfulness in the relationship with others" (Kernis, 2003, p. 15) brings more complexity, ambiguity, and uncertainty into the team climate environment which calls for deployment of trust and

distrust used as two alternative strategies in reducing uncertainty and risk in social situations (Luhmann, 1979). These results expand on the work of Zeb et al. (2019), who found positive relationship between authentic leadership and the team environment of trust but had not explored the effects of RT or the role played by distrust.

Extremely high levels of leader's RT were associated with very high levels of both ABT and ABD, which seems to indicate that excessive levels of authenticity have a potential to overly complicate the team collaborative processes. These results correspond with the findings of Gatling et al. (2017) who asserted that "too much authenticity hurts" (p. 19). The same linkage was observed by Langfred (2004) who suggested that teams with high levels of autonomy "will perform better when trust is lower than when trust is high" (p. 385). These findings suggest that optimal levels of both ABT and ABD should be sought leading to higher team effectiveness and avoidance of negative effects of overcommunication (Gatling et al., 2017), or what Burt and Knez (1996) called third-party gossip. In this context, trust is interpersonal, but not private. The communication involves other parties, and needs to remain truthful, transparent, open, and publicly shared.

Schein and Schein (2018) discussed Level 1 relationships between the leader and the team members being characterized as formal, transactional, and bureaucratic, as opposed to Level 2 relationships in which the increased transparency and informality leads to acknowledgement of the other as a whole person "with whom we can develop a more personal relationship around shared goals and experiences" (p. 33). The highest level of openness and trustfulness, Level 3 relationship, is then associated with higher

emotional attachment, strong dependence and intensity which usually occur in relationships described as friendship and love. Level 3 relationships are “more emotionally charged” (Schein & Schein, 2018, p. 36) and would be counterproductive as part of the leader’s communication behaviors (Gatling et al., 2017). From this perspective, the results of the present study confirmed the notion that although higher levels of RT are associated with higher levels of ABT, they are concurrently associated with higher levels of ABD which introduce potentially excessive levels of controlling mechanisms into the team relationships. While low levels of ABD in high ABT contexts may lead to insufficient levels of monitoring behavior in teams and tendencies to ignore undesirable behavior, groupthink, and process loss (Langfred, 2004), excessive levels of ABD may lead to development of undue protective and control mechanisms with detrimental effect on the team collaboration and effectiveness especially in the routine tasks’ domain (Lowry et al., 2014). In this connection, Massari et al. (2019) observed that “a moderate scope of distrust is beneficial for group performance” (p. 351) through the mechanism of lowered level of consensus and higher exploration of boundary conditions. Excessive levels of ABD, on the other hand, can lead to complete dissolution of the team consensus, which would have a potential to hamper processes of team collaboration entirely.

It is, therefore, not enough to be more authentic and transparent in relation with the team members—the leader needs to reflect objective features of a situation to promote collective trust, but concurrently needs to instill conditions allowing for certain levels of distrust to promote non-routine processing of the shared attitudinal contents.

The leader needs to learn to understand the utility of trust and distrust and apply these strategies when necessary and based on the context and situation. Sufficient levels of trust need to exist as part of team climate to allow for the distrust to emerge and be sustained. Trust enables distrust in the concatenation of antithetical opposites, defined as inconvertible polarity by Thomson (1963). The increased levels of leader's RT are associated with higher complexity which calls for more advanced communication and collaborative strategies as prerequisites of higher team effectiveness. Distrust is a functional equivalent of trust as a mechanism of uncertainty and complexity reduction (Luhmann, 1979), but leads to negative expectations of actions and potentially to more emotionally charged situations which need to be managed collectively in the atmosphere of high team trust and cohesion (Lewicki & Wiethoff, 2006). A team member then trusts that when a distrust strategy is used in each situation, it will lower the exposure of the team as a whole to risk by reaching the optimal levels of performance and effectiveness and by avoiding the unfavorable team outcomes. The leader and the team are therefore engaged in a complicated balancing act of trying to achieve the optimal levels of openness and authenticity (degree of personization as defined by Schein) and the team levels of trust and distrust in each situation conducive to the highest possible levels of team effectiveness and performance.

Limitations of the Study

The nonexperimental design I chose for this study represents the key limitation, because it does not allow for determination of causality. The study's theoretical framework assumes that the team-level characteristics of ABT and ABD emerge under

the influence of the team leader's behavior and attitude, but other potential variables such as the organizational culture and climate, the individual predispositions to trust or distrust, and other factors had not been considered. It is also possible that the preexisting levels of team ABT and ABD influenced the behavior and attitude of the new team leader who had to adjust to the established climate and culture in the team and the organization. A nonexperimental single measure research design offered a limited unidirectional view of the association between the team leader's RT and the team characteristics of ABT and ABD, although it was acknowledged that there are many other factors potentially influencing the emergence of these characteristics in the complex context of the team evolution.

For these reasons, the results cannot be generalized to the target population of collaborating work groups of knowledge workers in large business organizations and they cannot be interpretable as evidence of causality, the field research design however has a potential to provide a good external validity by having examined behaviors naturally occurring in the organizational context.

Recommendations

My study offers a static view on the relationship between one aspect of authentic leader's attitude, RT, and two characteristics of the team climate, ABT and ABD. A longitudinal study with repeated measures is recommended to provide additional insight into the dynamics of the emergence of these leader and team characteristics. It would also allow for estimation of the size of the effect of the leader's RT on the team-level characteristics of ABT and ABD by measuring the baseline level of these variables and

comparing them with the levels measured during the various stages of the team lifecycle. That way, it would be possible to estimate the effect of the leader's authentic behavior in contrast with the effects of the other organizational factors.

Another potential direction to pursue is to focus on the mediation effect of these team-level attitudinal characteristics on the team effectiveness. It is known that trust has a generally positive effect, but it would be useful to be able to estimate its optimal level. Similarly, distrust seems to play potentially a positive role in driving the effectiveness of the team as well, but the dynamics of its interplay with trust are not yet fully understood. It seems that being open and transparent brings benefits for the functioning of the team, but there is a threshold beyond which additional information becomes counterproductive. Additional research has a potential to contribute to a better understanding of the optimal communication strategies of an authentic leader and presenting clearer contours of what represents an effective leadership in professional business organizations.

Implications

The theory in I/O psychology in the second half of the last century established that employees need autonomy, responsibility, and challenge to satisfy their higher-level needs (Khatri, 2003), which makes demands on the leader's ability to empower and to promote commitment of the employees. That effort clearly requires that the leaders treat employees with respect, to communicate openly and truthfully, and to make space for their independent and self-initiated activity (Gratton, 2004). However, the shifting of power in modern organizations creates more tension and challenges to "de-stabilize the taken-for-granted" (Bryant & Cox, 2014), which need to be resolved through

development of environments—or "moral communities" as denoted by Watson (1998)—where both trust and distrust strategies can be employed based on the context of everyday ethics. The results of this study confirm the assumption that trust and distrust are separate but interconnected constructs and indicate, maybe counterintuitively, that these variables are not inversely correlated. They are also in conflict with some of the previous findings such as by Burt and Knez (1996), who found that closer relations between a leader and a team member led to more trust but did not have significant effect on distrust. The present study confirmed the theoretical assumptions of Luhmann (1979) who proclaimed that a system of higher complexity will require both more trust and more distrust to bound individual rationality to identify growth and learning opportunities.

The practical implications for the team leaders include the requirement to establish a sufficient level of transparency in communication with the individual team members and with the team as a unit. Work in modern organizations is a collaborative effort and the knowledge workers need open access to information and ample opportunities to process them in an atmosphere of transparent and constructive communication. A transparent leader not only contributes to the emergence of higher levels of trust and distrust and to the growth of the team effectiveness, but also facilitates the process of self-determination (Pyszczynski et al., 2010) associated with an increase in individual worker satisfaction and psychological well-being (Braun et al., 2013). The leader, however, needs to concurrently understand that transparency in communication increases complexity, ambiguity, and uncertainty which lead to higher levels of team trust and distrust as collective strategies to reduce complexity. Beyond a certain point,

additional content can lead to excessive team trust accompanied by phenomena such as groupthink whereby the team's desire for harmony or conformity may lead to distorted or dysfunctional information processing and decision-making (Langfred, 2004). Concurrently, the elevated levels of team distrust may contribute to increase in protective and control mechanisms with a potential to hamper the team collaborative processes and consequently its effectiveness (Lowry et al., 2014). The leader needs to balance the need for authentic transparency with the organizational demands for efficiency, precision, and austerity especially in the area of task-related communication. A healthy level of leader's RT needs to be maintained in context of a team with complex individual and collective characteristics, and also considering the wider organizational and cultural environment.

Positive Social Change

The trend toward humanization and democratization of the workplace imposes requirements on practitioners to achieve "experienced authenticity" (Cha et al., 2019), which promotes healthy psychological functioning and increases life satisfaction (see Braun et al., 2013; Kifer et al., 2013; Lehmann et al., 2019). The present study compliments these findings by drawing attention to the importance of openness and transparency in leaders, which contributes to the development of optimal levels of trust and distrust in collaborative teams, the "affective-motivational mediators" (see Guenter et al., 2017) of the team effectiveness. The creation of authentic workplaces has a potential to improve lives of the working people (see Kinsley, 2009) and to leverage the ability of capitalism to become a force for good in the world, in which people have an opportunity to live authentic lives. This requires that the leaders learn to balance the conflicting

requirements of being transparent, open, and honest with people, but concurrently challenging them to learn, develop, and remain committed to continuous improvements of their daily practice. Authentic transparent leaders represent an auspicuous opportunity to contribute to creation of healthy collaborative teams and highly effective organizations with a potential to improve the lives of people and to increase the general ability of the business organizations to create wealth and deal more effectivelly with the global societal and environmental challenges.

Conclusion

The study results indicate that a leader needs to seek optimal levels of openness and transparency to promote collective trust, but concurrently needs to instill conditions allowing for certain levels of distrust to promote non-routine processing of the objective features of the work context. The leader needs to learn to understand the utility of trust and distrust and apply them when necessary and based on the context and situation. Sufficient levels of trust need to exist as part of team climate to allow for the distrust to emerge and be sustained. An optimal level of leader's RT needs to be found to avoid negative consequences of having both insufficient or excessive levels of trust and distrust in the team of collaborative knowledge workers, with the potential to contribute to the individual, collective, and organizational well-being, and the general betterment of the society.

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Appendix A: Recruitment Letter

Dear [*insert name*],

My name is Jiri Krejci and I am a graduate student of Organizational Psychology at Walden University. I am writing to invite you to participate in my research study investigating the relationship between team leader's transparency in relationship with the members of the team and the levels of intrateam trust and distrust. You have been selected to participate in the study randomly from a large pool of knowledge workers employed by large global organizations. If you are a member of a business team ranging between three to 10 members in size, with a formal team leader who has worked with the team for more than one year, and if you are on the team for more than one year, you are eligible to participate in the survey. The survey has 22 questions, and your response will not take you more than 10 minutes of your time.

If you decide to participate in this study, you will help to improve our understanding of the role played by transparency in the development of positive work relationship among team members. Approximately 100 respondents are expected to participate in the study. If you wish to receive a copy of my dissertation, I will be happy to share it with you after the completion of the study.

Remember, your participation is completely voluntary, and your response is anonymous. No information is shared with anyone in your organization or any other third-party organization. To participate in the study, please click on the following link, which will take you to the SurveyMonkey portal hosting the survey. If you have any questions about the study, please email or contact me using the contact information below.

Thank you very much.

Sincerely,

Jiri Krejci

Appendix B: List of all Survey Items

Instructions for the participation in the survey

Hello, thank you for participating in my survey. The survey includes 10 general questions about your team (size of the team, your team tenure, team tenure of your team leader, nature of the team interaction, language of communication with leader, team primary function, your age category, gender, education, and location), and 12 survey questions. Your response should take you less than 10 minutes. The responses to the questions are measured using a seven-point Likert scale (1 = Disagree strongly ... 7 = Agree strongly). Please choose the degree to which you agree with the statement describing the behavior of your team leader or the relationships that you have in your team. Your response is completely anonymous, and no information is shared with anyone in your organization or any other third-party organization.

Team characteristics

1. How many colleagues do you have in the team you are member of?
2. How long have you been member of the team?
3. For how long has the team leader been leading the team?
4. Do you interact with the team primarily face-to-face or virtually?
5. Do you communicate with your leader in your native language?
6. What is your gender?
7. What is your age category?
8. Where are you located?
9. What is the primary function of the team?

10. What is the highest degree or level of education you have completed?

Relational transparency

11. My leader clearly states what he/she means.
12. My leader openly shares information with the team.
13. My leader expresses his/her ideas and thoughts clearly to the team.

Affect-based trust

14. We have a sharing relationship in this team. We can share our ideas, feelings, and hopes freely.
15. I can talk freely to member of this team about difficulties I am having at work and know that they will want to listen.
16. We would feel a sense of loss if one of our team members was transferred and we could no longer work together.
17. If I shared my problems with the team, I know they would respond constructively and caringly.
18. I would have to say that in this team we all made considerable emotional investment in our working relationships.

Affect-based distrust

19. I believe that the members of my team would never do anything to harm me.
20. I believe that the colleagues in my team would never take advantage of me if they had the opportunity.
21. I do not feel that I need to protect myself from my colleagues in the team.
22. I believe that I need to stay away from the other members of my team.

Appendix C: Permissions to Use Study Instruments

Permission to Use Authentic Leadership Inventory

PsycTESTS®

Authentic Leadership Inventory
Version Attached: Full Test

PsycTESTS Citation:
Neider, L. L., & Schriesheim, C. A. (2011). Authentic Leadership Inventory [Database record]. Retrieved from PsycTESTS. doi: http://dx.doi.org/10.1037/t11763-000

Instrument Type:
Inventory/Questionnaire

Test Format:
The ALI consists of 14 items rated on a 5-point response scale: (1) Disagree strongly; (2) Disagree; (3) Neither Agree nor Disagree; (4) Agree; and (5) Agree strongly.

Source:
Neider, Linda L., & Schriesheim, Chester A. (2011). The authentic leadership inventory (ALI): Development and empirical tests. The Leadership Quarterly, Vol 22(6), 1146-1164. doi: 10.1016/j.leaqua.2011.09.008, © 2011 by Elsevier. Reproduced by Permission of Elsevier.

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Permission to Use Trust and Distrust Measures

PsycTESTS®

Trust and Distrust Measures
Version Attached: Full Test

PsycTESTS Citation:
Liu, M., & Wang, C. (2010). Trust and Distrust Measures [Database record]. Retrieved from PsycTESTS. doi: http://dx.doi.org/10.1037/t29895-000

Instrument Type:
Test

Test Format:
All 8 items on the Trust and Distrust Measures were measured on 7-point Likert-type scales (1 = not at all, 7 = very much).

Source:
Liu, Meina, & Wang, Chongwei. (2010). Explaining the influence of anger and compassion on negotiators' interaction goals: An assessment of trust and distrust as two distinct mediators. Communication Research, Vol 37(4), 443-472. doi: 10.1177/0093650210362681, © 2010 by SAGE Publications. Reproduced by Permission of SAGE Publications.

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Permission to Use Affect-based Trust Measure

Jiri Krejci on July 13, 2020 through ResearchGate

Dear Dr. McAllister,

I seek permission to use your ABT scale to measure intrateam trust in frame of my dissertation to investigate the effect of leader's relational transparency on team-level trust and distrust (I am changing the trust referent in the scale). My university requests that I provide scale author's permission for scales that are not publicly available.

Thank you very much and all the best

Jiri Krejci

Daniel J. McAllister on July 13, 2020

Hello Jiri,

Thanks for your message. As my measures are publicly available, there is no issue. I expect that you will be prudent in the way you revise the measure anchors. Truth told, you should have no difficulty finding a well published source that includes these revised items.

All the best with your research,

Dan