

UNIVERSITY OF LJUBLJANA
FACULTY OF ECONOMICS

MARUŠA PREMUR

**THE RELATIONSHIP BETWEEN LEADER-MEMBER EXCHANGE
AND COUNTERPRODUCTIVE WORK BEHAVIOUR**

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AUTHORSHIP STATEMENT

The undersigned Maruša Premru, a student at the University of Ljubljana, Faculty of Economics (hereafter: FELU), author of this doctoral dissertation with the title The Relationship between Leader-Member Exchange and Counterproductive Work Behaviour, prepared under supervision of Associate Professor Matej Černe, PhD.

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POVEZAVA MED IZMENJAVO VODJA-SLEDILEC IN KONTRAPRODUKTIVNIM VEDENJEM PRI DELU

POVZETEK

Uspešnost organizacij lahko širše umestimo v tri kategorije, in sicer uspešnost opravljanja delovnih nalog, organizacijsko dobronamerno vedenje (angl. *Organizational citizenship behaviour*; OCB) in organizacijsko neprimerno vedenje (angl. *Organizational misbehaviour* (OMB), imenovano tudi kontraproduktivno vedenje pri delu (angl. *Counterproductive work behaviour*; CWB)) (Rotundo & Sackett, 2002; Viswesvaran & Ones, 2000). Kontraproduktivno vedenje pri delu je pritegnilo več pozornosti raziskovalcev, saj gre za aktivnosti, ki odražajo eno skrajnost - to je prizadevanje za spodkopavanje uspešnosti v nasprotju z dobronamernim organizacijskim vedenjem (OCB) in se je izkazalo, da takšno vedenje organizacijam povečuje stroške. V preteklih letih so se razvili različni načini upravljanja in motiviranja zaposlenih, da bi povečali učinkovitost dela. Vodenje kot dinamičen proces zajema značilnosti vodij in zaposlenih (Foti, Knee Jr, & Backert, 2008).

Raznolikost med vodjo in zaposlenimi vpliva na razvoj odnosa in je predpogoj za uspešnost izmenjave zaradi družbeno-psiholoških procesov, ki nastanejo kot posledica zaznanih razlik v skupini in kontekstu, v katerem se odnos med vodjo in zaposlenimi razvija (angl. *Leader-member exchange*; LMX) (Scandura & Lankau, 1996). Poleg tega vplivajo na razvoj odnosov tudi organizacijski, situacijski in psihološki procesi ter drugi dejavniki, vezani na posameznike v organizaciji (Graen & Uhl-Bien, 1995; Ordun & Beyhan Acar, 2014). Glavna predpostavka teorije je, da vodje razlikujejo med sledilci (Van den Broeck et al., 2014) in da se ti odnosi razvijajo sčasoma skozi niz interakcij (Nahrgang, Morgeson, & Ilies, 2009). Čeprav so številni raziskovalci preučevali povezavo LMX z dejavniki uspešnosti (npr. uspešnost in zadovoljstvo pri delu), pa tudi vedenjskimi spremenljivkami (npr. zadovoljstvo z vodjo in zavezanost organizaciji), je potrebna obsežnejša analiza, ki bi vključevala tudi druge vidike povezave med LMX in organizacijskim vedenjem s preučevanjem moderacijskih ali mediacijskih učinkov (Byun, Dai, Lee, & Kang, 2017; Tse, Ashkanasy, & Dasborough, 2012).

V 1. poglavju preučujemo razvoj teorije izmenjave med vodjo in sledilcem (LMX), pri čemer analiziramo obstoječo literaturo, objavljeno od začetka razvoja konstrukta. Prvo poglavje dopolnjuje obstoječe kvalitativne in meta-analitične preglede področja LMX z uporabo kombinacije treh bibliometričnih tehnik - analiza soslčicev, analiza ključnih besed in bibliografska sklopljenost – z uporabo metode odkrivanja nevidnih grozdov (Vogel, 2012). Ta pristop nam omogoča, da prepoznamo najpomembnejše teme, določimo osnovno strukturo področja in odkrivamo potencialna zanimiva področja za nadaljnji razvoj. Kot prvo, smo priča rasti literature o ustvarjalnosti in inovativnosti, kjer raziskovalci vključujejo LMX v model z ustvarjalnostjo (npr. Atwater & Carmeli, 2009; Li, Fu, Sun, & Yang, 2016). Drugič, bibliografska sklopljenost je pokazala povečano zanimanje raziskovalcev na področju negativnih vedenj, žaljivega vodenja (angl. *Abusive leadership*) in etike. Tretjič,

teoretični razvoj LMX kaže, da je ta tema pridobila več pozornosti na področju vodenja v povezavi z različnimi stili vodenja in razkriva, da se je LMX v 2010-ih popolnoma integriral v skupino, ki preučuje vodenje, večinoma v povezavi s transakcijskim, transformacijskim in avtentičnim vodenjem (Avolio & Gardner, 2005; Wang, Law, Hackett, Wang, & Chen, 2005).

V 2. poglavju raziskujemo povezavo med LMX (SLMX in ELMX), motivacijo za vodenje (angl. *Motivation to lead*) in kontraproduktivnim vedenjem pri delu. Natančneje, preučujemo povezavo motivacije vodij za vodenje v odnosu med LMX in kontraproduktivnim vedenjem pri delu zaposlenih. Z uporabo večnivojskega pristopa je bila izvedena študija v treh velikih evropskih podjetjih z vzorcem 217 zaposlenih, ki delujejo v timih z dodeljenimi 31 vodji. Pregled literature kaže, da obstoječi teoretični in empirični dokazi temeljijo na pristopu analize posamezne ravni in zaostaja za drugimi področji vodenja (npr. deljeno vodenje; angl. *Shared leadership*). Rezultati podpirajo hipotezo 1a, da posamezniki z višjo ravno SLMX (angl. *Social leader-member exchange*) kažejo nižje ravni kontraproduktivnega vedenja. Ugotavljamo, da je motivacija za vodenje pomemben mehanizem v razmerju LMX in kontraproduktivnim vedenjem, vendar pa rezultati kažejo, da je to razmerje bolj negativno v primeru nižje motivacije za vodenje, zato ne moremo sprejeti hipoteze 2a. V primeru ELMX rezultati ne kažejo povezave med kontraproduktivnim vedenjem (hipoteza 1b), niti ko gre za moderacijski učinek motivacije za vodenje (hipoteza 2b).

V 3. poglavju preučujemo koncept stilov navezanosti odraslih na delovnem mestu (angl. *Attachment styles*) in njihovo povezavo z LMX in CWB. Poleg tega integriramo psihološko varnost kot posrednika med LMX in kontraproduktivnim vedenjem. Predlagana razmerja so bila preizkušena s študijo, izvedeno v treh velikih evropskih podjetjih s skupno velikostjo vzorca 257 zaposlenih. Študija ponuja vpogled v to, kako različni stili navezanosti preko psihološke varnosti vplivajo na povezavo med LMX in kontraproduktivnim vedenjem. Prvič, rezultati podpirajo naš osnovni mediacijski model, da ima psihološka varnost posreden učinek na povezavo med LMX in kontraproduktivnim vedenjem. Drugič, vključevanje stilov navezanosti kot moderatorja, rezultati kažejo značilen učinek v primerih stila tesnobe in izogibanja, ne pa tudi za varen stil navezanosti.

Ta disertacija ponuja dva glavna prispevka, ki nadgrajujeta naše razumevanje, zakaj se kontraproduktivno vedenje pri delu pojavlja. Prvi prispevek se navezuje na literaturo LMX s predstavitvijo celovitega pregleda literature ter razvoja in evolucije raziskovanja LMX. Drugi prispevek disertacije kaže, da motivacija za vodenje in stili navezanosti spreminjajo vzorce socialnih izmenjav preko psihološke varnosti, kar se odraža v vedenju zaposlenih.

Ključne besede: *izmenjava vodja-sledilec, motivacija za vodenje, kontraproduktivno vedenje pri delu, stili navezanosti odraslih, psihološka varnost.*

THE RELATIONSHIP BETWEEN LEADER-MEMBER EXCHANGE AND COUNTERPRODUCTIVE WORK BEHAVIOUR

SUMMARY

Performance in organizations can be broadly classified in three categories, namely task performance, organizational citizenship behaviour (OCB), and organizational misbehaviour (OMB; also termed counterproductive work behaviour (hereafter: CWB)) (Rotundo & Sackett, 2002; Viswesvaran & Ones, 2000). The CWB has drawn attention as involving activities reflecting one extreme – that is effort to undermine contribution as opposed to OCB and has been deemed extremely costly for organizations. Throughout the years, various ways of managing and motivating employees have been developed to increase work efficiency. Leadership as a dynamic process accounts for leader and follower characteristics (Foti et al., 2008).

The diversity of leaders and followers is associated with the development of a relationship and is a prerequisite for the success of the exchange due to socio-psychological processes that arise as a result of perceived differences in the group and context in which leader-member exchange relationship (hereafter: LMX) is developing (Scandura & Lankau, 1996). In addition, the development of LMX relationships also enables various organizational, situational and psychological processes, and individual factors (Graen & Uhl-Bien, 1995; Ordun & Beyhan Acar, 2014). The main premise of the theory is that leaders differentiate among followers (Van den Broeck et al., 2014) and that these relationships develop over time through a series of interactions (Nahrgang et al., 2009). Although many researchers have studied the LMX link with performance factors (e.g., performance and overall job satisfaction), as well as behavioural variables (e.g., satisfaction with the leader and commitment to the organization), more extensive analysis is needed, which would also include other aspects in the link between LMX and organizational behaviour through studying the moderation or mediation effects (Byun et al., 2017; Tse et al., 2012).

In Chapter 1, we examine the evolution of leader–member exchange (LMX) research, analysing the extant literature published since the beginning of the construct development. We complement existing qualitative and meta-analytic reviews of the LMX field using a combination of three bibliometric techniques—document co-citation analysis, co-word analysis, and bibliographic coupling—applied against the backdrop of the invisible colleges framework (Vogel, 2012). This approach enables us to identify the most influential topics, determine the underlying structure of the field, and detect emerging topics. First, we witness growth of literature on creativity and innovation, in which researchers include LMX in a model with creative performance (e.g., Atwater & Carmeli, 2009; Li et al., 2016). Second, bibliographic coupling revealed increased interest of researchers to examine negative outcomes, abusive leadership, and ethics. Third, theoretical development of LMX indicates that this topic has gained more attention within the leadership field in relation to different

leadership styles and reveals that LMX was incorporated into the general leadership cluster in the 2010s, mostly related to transactional, transformational, and authentic leadership (Avolio & Gardner, 2005; Wang et al., 2005).

In Chapter 2, we investigate the interplay among leader-member exchange (SLMX and ELMX), motivation to lead (hereafter: MTL) and counterproductive work behaviour (CWB). Specifically, we examine cross-level effect of leaders' MTL on the relationship between SLMX/ELMX and CWB of individuals. Using a multilevel approach, a field study was conducted in three large EU companies with a two-source examination of 217 employees nested into teams with assigned 31 unique leaders. Literature overview suggests that the extant theoretical and empirical evidence is rooted in an individual-level approach, lagging behind other leadership domains (e.g. shared leadership). Results support Hypotheses 1a that individuals with higher levels of SLMX exhibit lower levels of CWB. Clearly, MTL is an important mechanism related to outcome behaviour. However, we observe that the relationship is more negative in cases of low MTL, thus Hypothesis 2a was not supported. Also, results do not show support that relationship between ELMX and CWB exists (Hypothesis 1b), neither for moderation effect of MTL in the relationship between ELMY and CWB (Hypothesis 2b).

In Chapter 3, we examine the concept of adult attachment in a workplace setting and how it is associated with the relationship between LMX and CWB. Additionally, we integrate psychological safety as a mediator between LMX and CWB. The proposed relationships were tested through a field study conducted in three large EU companies with a total sample size of 257 employees. The proposed study offers insight into how different attachment styles are associated with the link between LMX and CWB, mediated by psychological safety. First, results support our basic mediation model that psychological safety has an indirect effect on the link between LMX and CWB. Second, including attachment styles in the model as moderators, results show support for insecure attachment (i.e. anxious and avoidant), but not for secure attachment.

This dissertation offers three main contributions that further our understanding of why CWBs occur. The first contribution is to LMX literature, by presenting a comprehensive literature review and the development and evolution of LMX research. The second contribution of the dissertation is showing that MTL and attachment are changing the social exchange patterns through psychological safety, which manifests in outcome behaviour.

Keywords: *leader-member exchange (LMX), motivation to lead (MTL), counterproductive work behaviour (CWB), leadership attachment, psychological safety.*

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LIST OF ABBREVIATIONS

angl. – English

LMX – (sl. Izmenjava vodja-sledilec); Leader-member exchange

SLMX – (sl. Socialna izmenjava vodja-sledilec); Social leader-member exchange

ELMX – (sl. Ekonomska izmenjava vodja-sledilec); Economic leader-member exchange

CWB – (sl. Kontraproduktivno vedenje); Counterproductive work behaviour

MTL – (sl. Motivacija za vodenje); Motivation to lead

INTRODUCTION

Description of the dissertation topic area and the issue it addresses

Over the past few decades, research in leadership has grown exponentially. It has been shown that leadership facets could potentially enhance various organizational outcomes such as task performance and innovation, and lead to higher financial performance (Barling, Weber, & Kelloway, 1996; Jung, Chow, & Wu, 2003). Recent methodological and theoretical advances, such as multilevel and social networks theories and methodologies (Aguinis et al., 2011; Bowler & Brass, 2006), reinvigorated the attention to less explored but still complex leadership sub-themes, such as leader-follower relationships. These are also referred as Leader-member exchange (LMX), defined as the relationships with lower or higher levels of the exchange between the leader and subordinate, where the emphasis is on reciprocity of exchanges in relationships (Dadhich & Bhal, 2008). The basic assumption of the theory is that leaders have differentiated relationships with their subordinates and treat them differently (Graen & Uhl-Bien, 1995).

Historically, first research studies about exchanges between leader and followers started on the basis of studies of socialization at work and vertical links between dyads (Dansereau, Graen, & Haga, 1975; Graen & Uhl-Bien, 1995). Such research examined dyadic outcomes related to accomplishing unstructured tasks (Graen & Scandura, 1987), including individual characteristics (Turban & Jones, 1988), demographic variables (Tsui & O'reilly, 1989), leader behaviour and their power (Yukl, 1989) that are linked to the leader-follower relationship. Most research in leadership theories is based under the assumption that leaders have an impact on individuals through their attitudes and behaviour (Ilies, Nahrgang, & Morgeson, 2007). Based on social exchange theory, followers in dyadic relationship reciprocate the levels of the exchange (Blau, 1964; Gouldner, 1960). Therefore, subordinates in high LMX relationships will reflect discretionary individual behaviour (i.e. organizational citizenship behaviour; Ilies et al., 2007; Settoon, Bennett, & Liden, 1996), but on the other hand in low LMX relationship employees retaliate against perceived injustice by engaging in CWBs (Chernyak-Hai & Tziner, 2014).

CWBs are intentional behaviours that harm organizations or individuals in organizations (Miles, Borman, Spector, & Fox, 2002; Spector, 2011). CWB is negatively associated with performance of the organization and efficiency of employees (Mount, Ilies, & Johnson, 2006). It is therefore necessary for organizations to first identify and discover the reasons why individuals engage in such behaviour and finally, to understand how to prevent such behaviour and identify individuals who are more likely to engage in negative behaviours (Bolton, Becker, & Barber, 2010). From the perspective of reciprocity, individuals in the dyadic exchange respond based on balanced or unbalanced relationship (Chernyak-Hai &

Tziner, 2014). Therefore, the social exchange theory and the norm of reciprocity suggest that dyadic interactions in high LMX are beneficial and increase organizational citizenship behaviour, but on the other hand low LMX relationships are marked by lack of trust and commitment (Dalal, 2005).

The last two decades of research on why individuals engage in CWB brought significant progress, as researchers provided extensive theoretical and empirical analyses of antecedents and outcomes of CWB. However, to a large extent, researchers have mainly addressed only individual-level, person-centred variables and their interactions, such as traits and personality (O'Boyle, Forsyth, & O'Boyle, 2011). From a micro perspective, we are interested in individual differences of leaders that can affect employee behaviours, thus focusing on meaningful differences among individuals (Kozlowski & Klein, 2000).

Values internal to a leader serve as regulatory guide and are more likely to be related to leaders' and followers' motivational, affective, and cognitive processes (Lord & Brown, 2001; Kark & Van Dijk, 2007). Many motivation studies focused their attention on followers, however, later there was a shift in focus toward motivation of a leader (Bower, 1966) that stems from their inner motivation in pursue for good performance in managerial positions (Miner et al., 1994). Motivation to lead (hereafter: MTL) has been conceptualized as an individual differences construct, through which leader behaviour is affected in relation to individuals' personality and values (Chan & Drasgow, 2001). According to theories of interpersonal behaviour, beliefs and attitudes (Triandis, 1979) behavioural intentions are conveyed through MTL (Hong et al., 2011).

The leader-follower relationship is, to great extent, associated with the perception of psychological safety, which refers to employees that are feeling safe for taking interpersonal risk and freely express themselves (Edmondson, 1999). According to Hofmann and Morgeson (1999) social exchange perspective helps to build theoretical foundations for safety climate, which manifests through training processes and perceptions of reciprocal obligation (Hofmann & Morgeson, 1999; Hofmann, Morgeson, & Gerrass, 2003). Moreover, the different patterns of interactions in exchange relationship can help followers to collaborate in psychologically safe environment, which can encourage individuals towards organizational discretionary behaviours and prevent engagement in CWBs. Therefore, psychological safety reflects levels of LMX and how they manifest in outcome behaviour.

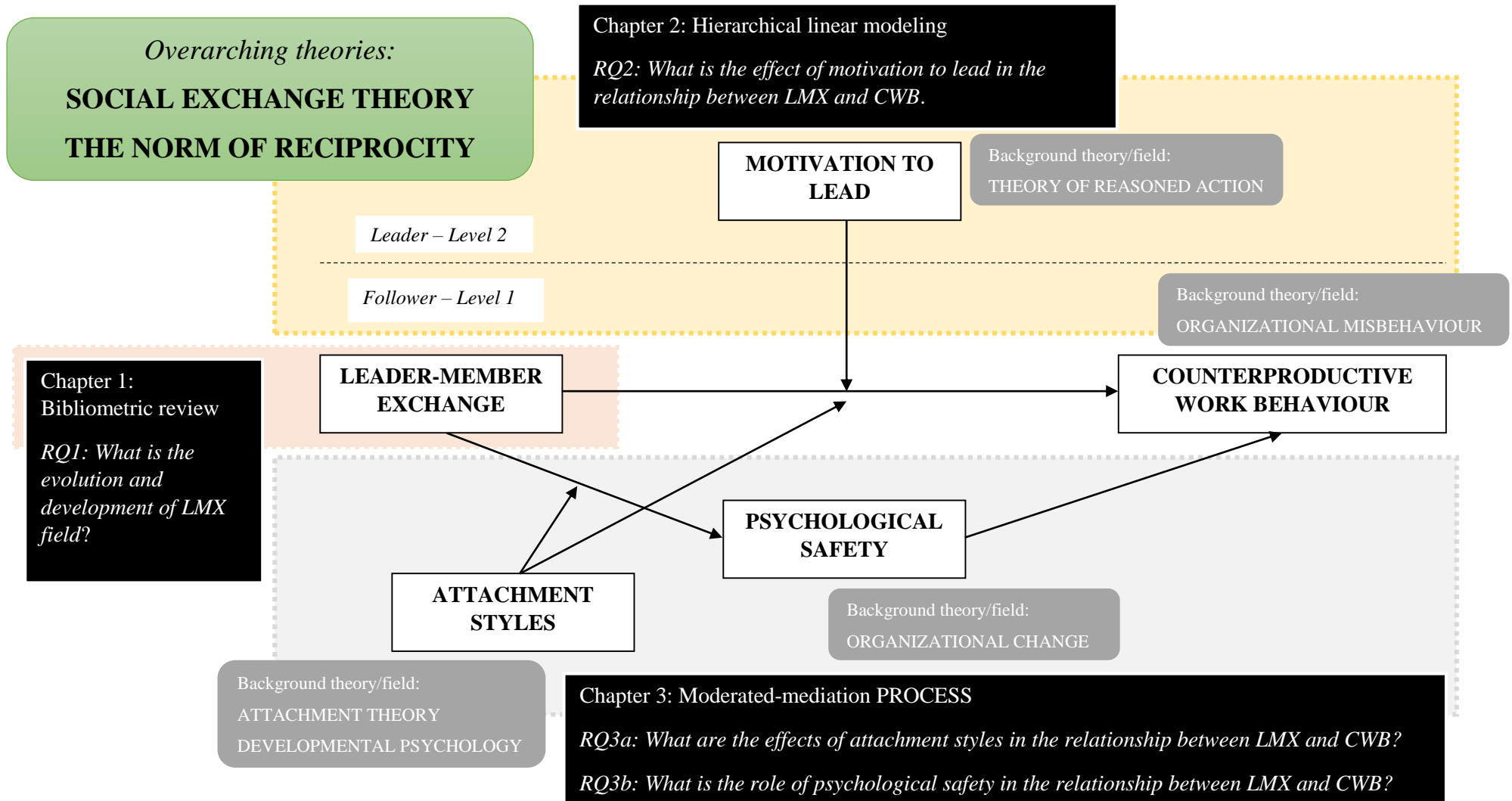
Additionally, in examining social interaction and relations, it is important to consider how different patterns of interaction determine social exchange process. Therefore, attachment theory enables us to understand interpersonal dynamics in a dyadic relationship more in depth (Popper, Mayseless, & Castelnovo, 2000; Troth & Miller, 2000), as individuals develop different representations of themselves and significant others through their experiences in past relationships (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007),

which conveys in a workplace setting. Such approach enables us to explain how leaders are connected with their employees and how employees make sense of these exchange relationships (Černe, Batistič, & Kenda, 2018). Thus, psychological safety transfers the levels of attachment styles in interaction with LMX onto CWB. Figure 1 shows the interplay of examined constructs, research questions, methodological approaches and background theories.

Based on the literature review we can say that social exchange theory is one of the most influential paradigms that explains individual behaviour at work. While social exchange interactions create reciprocal obligations, it is necessary to understand how these patterns of interactions change in interdependent social exchange process. Overall, a special interest of scholars in management research are differences between the actors involved in social exchange process of relationship development (Cropanzano & Mitchell, 2005). According to social exchange theory, incorporating rules and guidelines for social exchange (such as the reciprocity norm and negotiated agreements) helps uncover why individuals form a specific type of exchange relationships (Cropanzano & Mitchell, 2005; Emerson, 1976). Very few studies directly examine exchange processes, therefore additional research is needed to understand the dynamics of relationship development (Liden, Sparrowe, & Wayne, 1997).

This dissertation builds on the theoretical framework of social exchange theory and the norm of reciprocity as one of the most common rules of exchange process used to explain engagement of individuals in certain types of exchange relationships. First, following Kuvaas, Buch, Dysvik, and Haerem (2012) we differentiate between social and economic exchange as relationships of two different qualities to better understand these interdependent exchanges and how they are related to CWB. While social exchange process is two-sided, we examine how LMX relationships are related to CWBs under certain conditions of leaders' MTL. The construct of MTL has some conceptual similarities with theoretical foundations of social exchange theory. Specifically, when individuals weigh costs and benefits for undertaking leadership roles is analogous to reciprocal interdependence in exchange relationship, when employees respond differently based on perceived balanced or unbalanced relationship. Similarly, bridging attachment theory and social exchange theory helps to explain how patterns of interaction change in exchange relationship. Attachment orientations are developed based on reciprocal responses of proximal attachment figures, which is manifested in the development of interpersonal relationships at work. Moreover, depending how LMX relationships are developed, this predicts perceptions of psychological safety. Therefore, exchange patterns enable higher or lower psychological safety, through which outcome behaviour that they positively or negatively value is manifested. Therefore, we examine the two-way interaction of LMX and leadership attachment and how it changes levels of psychological safety.

Figure 1: Representation of conceptual model for respective chapters



Research questions addressed in this dissertation along with contributions

A multi-technique bibliometric analysis of LMX research development

Even though there are several studies that have thus far provided reviews of the LMX theory, offering both qualitative approach (Graen & Uhl-Bien, 1995; Henderson, Liden, Glibkowski, & Chaudhry, 2009; Schriesheim, Castro, & Cogliser, 1999) and quantitative meta-analytical approach (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012; Gerstner & Day, 1997; Ilies et al., 2007; Martin, Guillaume, Thomas, Lee, & Epitropaki, 2016), there is still no clear consensus which background theories informed the development of LMX. Most studies found that the development of LMX started with examining supervisor-subordinate relationships and emphasized the dyadic approach to understanding individual behaviour based on social exchange and the norm of reciprocity (cf., Graen & Scandura, 1987; Yukl, 1989). However, recent research questions these core roots of LMX and calls for examination into additional layers of complexity to its history (Dulebohn, Wu, & Liao, 2017; D Day & Miscenko, 2016). Thus, it follows: *RQ1: What is the evolution and development of LMX field.* Therefore, the first chapter of the dissertation presents an extensive literature review using a combination of bibliometric techniques: co-citation analysis, co-word analysis and bibliographic coupling.

The contributions of this chapter are twofold. First, such a combination of bibliometric techniques complements and extends other qualitative and meta-analytical reviews, offering a more comprehensive, inclusive and objective review study (Zupic & Čater, 2015), capturing a more complex picture of the LMX field (Dulebohn et al., 2017; D Day & Miscenko, 2016) and its role in the broader leadership and management field. Second, building on the conceptual framework of ‘invisible colleges’ (cf., Vogel, 2012), which can be used to explore the scientific communication between scholars in the LMX field, whereas invisible colleges can be defined as communications among scholars (in dyads or groups) who share interest in a particular area (de Solla Price, 1965). Integration of mechanisms that focus on leader-follower dynamics is less researched and thus providing an opportunity to look into other mechanisms that can help explain the relationship between LMX and examined organizational outcomes.

The link between leader-member exchange, motivation to lead and counterproductive work behaviour

Previous studies link MTL mostly with role identity theory, where individuals have a desire to be perceived as leaders (Waldman, Galvin, & Walumbwa, 2013) and leader emergence, where key assumption is that individuals’ MTL is a condition for a leader to evolve individual’s leadership potential (Amit, Lisak, Popper, & Gal, 2007; Hong, Catano, & Liao, 2011). Individual differences of leaders can predict leadership behaviours. MTL is more

likely to shape decisions and behaviours of leaders and is associated with effort and engagement of leaders through leadership training, roles and responsibilities. Individuals' MTL can change with gaining leadership experience and training (Chan & Drasgow, 2001). In high LMX exchange relationship is based on mutual trust and respect. Members in these exchanges transfer their ethical values, beliefs, knowledge and experiences, which enables the relationship to evolve on a higher level. Through gaining experience MTL within an individual can potentially predict outcome behaviour (e.g. CWB) (Kark & Van Dijk, 2007).

However, MTL has insofar gained scant empirical and theoretical attention of researchers, not only in examining its antecedents (Chan & Drasgow, 2001; Hong, 2005) but also in considering its association with organizational outcomes and leader behaviour (Chan & Drasgow, 2001). Leaders in exchange relationship transfer their values and experiences onto their followers, which predicts followers' behaviour. We propose that leaders' high MTL is associated with LMX-CWB relationship, resulting in lower levels of CWB. Therefore, we are interested in interaction effect of MTL of a leader that is associated with the strength of a relationship between LMX (follower) and CWB (follower). Thus, it follows: *RQ2: What is the role of motivation to lead in the relationship between LMX and CWB.*

The second chapter attempts to extend knowledge on MTL and its application to leadership field. LMX as an important aspect of relational leadership has gained a lot of attention of researchers trying to explain workplace behaviour. The role of LMX in explaining CWB has already been well presented, but there is a lack of research in determining mechanisms through which LMX predicts CWB. Although literature suggests that individual differences are important determinants of employee behaviour (Organ & Konovsky, 1989; Spector & Fox, 2002), there is rather scant research on MTL in a workplace setting and especially its role as a mechanism that can help explain outcome behaviour. More importantly, MTL as a construct is relatively under-investigated, thus present study is a further step in gathering empirical evidence (Chan & Drasgow, 2001). Finally, this study contributes to methodological approaches used in leadership domain, related to the multi-level nature of the proposed model with a two-source examination (leader vs. follower perspective). Leadership and its complexity goes beyond leader perspective and it is necessary to employ multi-level approach to ensure the growth of a scientific field across leadership domains (Day & Harrison, 2007).

The interplay among leader-member exchange, leadership attachment styles, psychological safety and counterproductive work behaviour

Adult attachment theory is based on the assumption that individuals create different representations of self and significant others on the basis of their interpersonal relationships that they have experienced in the past (Fraley, 2007). Depending on their experience in the past relationships with other people, they will develop secure or insecure (anxious, avoidant)

representations of themselves and others (Fraley, 2007; Ainsworth, Blehar, & Waters, 1978). Attachment styles were initially associated with research on observing the parental relationship (Hazan & Shaver, 1987). However, the application of attachment theory into leadership field gained more interest of researchers not until recently, when trying to explain individual behaviour in organizations and leader-follower relationships (Boatwright, Lopez, Sauer, Van Der Wege, & Huber, 2010; Richards & Hackett, 2012). The concept of attachment is relevant in examining social-relational behaviour and enables us to look at the dyadic relationship accounting for relational dynamics and individual differences simultaneously (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007; Popper & Amit, 2009; Popper, Mayseless, & Castelnovo, 2000), complementing research on LMX. Several past studies attempted to link attachment styles as antecedent of leader-follower relationship and putting them into organizational context (Bresnahan & Mitroff, 2007; Keller, 2003; Seers, Keller, & Wilkerson, 2003).

Of particular interest of researchers are certain aspects of job performance (Harms, 2011) that are regarded as more interpersonal in nature, such as CWBs (Dalal, 2005). From leader-follower perspective, employees' engagement in CWB is less likely to happen in instances of high LMX (Hackett & Lapierre, 2004; Spector, 2011; Xu et al., 2012). We propose that attachment styles should bring out the nature of LMX, where leader-follower exchange depends on individuals' experience in the past relationships. Therefore, it follows: *RQ3a: What is the role of attachment styles in the relationship between LMX and CWB?*

Leaders that have the ability to create suitable environment for knowledge sharing can increase the level of perceived psychological safety (Nembhard & Edmondson, 2006; Walumbwa & Schaubroeck, 2009). Psychological safety is defined as the ability of an individual to freely express himself without any negative consequences for his or her self-esteem (May, Gilson, & Harter, 2004).

LMX has a buffering role when it comes to lower levels of psychological safety and serves as social support for in-group members (Hu & Zuo, 2007). When employees are not facing psychologically safe environment, they take advantage of high LMX for preventing negative outcomes of such insecurity. On the contrary, low LMX and experiences of psychologically unsafe climate can enhance negative consequences (Probst, Jiang, & Graso, 2016). I am interested in examining the role of psychological safety that underlies the observed relationship between LMX and CWB. Thus, it follows: *RQ3b: What is the role of psychological safety in the relationship between LMX and CWB?* Proposed research models for chapters 2 and 3 are presented in Appendix 1.

Contributions of this study are twofold. First contribution refers to the psychological safety as a key explanatory mechanism for manifestation of CWBs. With high LMX relationships individuals have greater ability for communicating larger spectrum of emotions, are open for

new ideas and information, relationships are more flexible, show appreciation and value toward self and others (Carmeli, Brueller, & Dutton, 2009). Therefore, we expect that higher LMX is an enabler of psychological safety, through which outcome behaviour among organizational members is manifested, resulting in less engagement in CWBs.

Second contribution is to extend the conceptualization of adult attachment to the LMX research. Leaders as attachment figures form emotional relationships with their followers, which is analogous to parental relationship (Popper & Mayseless, 2003). Applying such conceptualization can help us to better understand the dyadic relationships between leaders and followers by accounting for interpersonal conceptions about oneself and others simultaneously (Černe et al., 2018; Popper et al., 2000). In the workplace social interactions psychological safety reflects the relationships among employees, their approach about how they perceive them and the propensity to build and maintain these relationships according to the attachment style of an individual (Leiter et al., 2015). Therefore, the interaction of attachment and LMX is transmitted through perceived psychological safety onto CWB engagement.

Structure of the dissertation

The dissertation is structured in four chapters following the introduction. The first chapter presents an extensive theoretical review of LMX research, applying a combination of bibliometric techniques: a co-word analysis, document co-citation analysis and bibliographic coupling. Additionally, using a framework of invisible colleges (Vogel, 2012) enables us to present the evolutionary path of LMX research development and to detect potential future directions. In Chapter 2 we examine the cross-level effect of leaders' MTL (level 2) in the relationship between LMX and CWB of an individual employee (Level 1). In Chapter 3 we reveal whether high LMX leads to lower CWB through psychological safety as a mediator. In addition, we analyse whether leadership attachment contributes towards strengthening the relationship between LMX and psychological safety, which is in turn reflected on levels of CWBs. The main findings of each study are presented in chapter discussion, respectively. In Chapter 4 we present the general discussion of overall findings of the dissertation, theoretical contributions, practical implications, limitations of the dissertation and future research directions. We end the dissertation with final thoughts in conclusion as the last chapter.

1 A MULTI-TECHNIQUE BIBLIOMETRIC REVIEW AND DEVELOPMENT PROJECTIONS OF THE LEADER-MEMBER EXCHANGE (LMX) RESEARCH

1.1 Introduction

Over the last few decades, research in leadership and its sub themes has grown exponentially, not only showing its importance in the broader management field but also providing practical insights for everyday business. It was shown that leadership facets can potentially enhance various organizational outcomes such as task performance and innovation, and lead to higher financial performance (Jung et al., 2003). However, leadership as a field remains fragmented (Batistic et al., 2017), with most research exploring various leadership styles, such as transformational, transaction, authentic, shared, etc. Recent methodological and theoretical advances, such as multilevel and social network theories and methodologies (Carter, DeChurch, Braun, & Contractor, 2015), have given new attention to less-explored complex leadership sub-themes, such as leader–follower relationships. These are also referred to as leader–member exchange (LMX) and are posited as a key factor in predicting various desired individual, team, and organizational outcomes.

Through developing high-quality relationships, which evolve through role-making activities and series of exchanges between leaders and followers (Carmeli, Brueller, & Dutton, 2009), leaders can achieve higher levels of subordinates' performance and job satisfaction, can enhance a culture of interpersonal trust, and can transfer positive psychological capital to their followers (Byun et al., 2017; Černe, Jaklič, & Škerlavaj, 2013). LMX is regarded as a relational approach to leadership (Graen & Uhl-Bien, 1995). The exchange process describes the relationships that are developed over time and that exist as an exchange of the desired results between a leader and individual followers (Nahrgang et al., 2009).

The aim of this chapter is to provide up-to-date, comprehensive and integrative review of these advances and developments. Specifically, the review a) uses three bibliometric approaches (Zupic & Čater, 2015) to create a graphical representation of the intellectual structure and scientific communication of the LMX research area and its various sub-domains, explores its evolution, and identifies the core theories used to inform the field; and b) makes informed suggestions about possible future avenues of research in a specific area on the foundations of past research trajectories identified by quantitative bibliometric techniques that are more objective than narrative reviews.

To the best of our knowledge, thus far there has not been a study that would show the developmental path of LMX or reveal the intellectual structure of the field, and do so in an objective and all-inclusive manner, examining the development of the field and its current state and making informed prognoses about its future outlook. Of particular relevance is integrating the findings from different bodies of literature, which can add to the

understanding of how LMX theory operates at and across different levels of analysis, and how it captures and conveys meaning originated in different theories.

By taking the bibliometric approaches this study contributes to leadership, LMX, and general management literature in two ways. First, our review attempts to provide the needed clarity of the LMX field. Various review studies, both qualitative (Henderson et al., 2009; Herman, Troth, Ashkanasy, & Collins, 2017; Schriesheim et al., 1999) and quantitative, using meta-analytical approaches (Banks et al., 2014; Dulebohn et al., 2012; Gerstner & Day, 1997; Ilies et al., 2007; Martin et al., 2016), have been done in the past trying to capture the key theories and historical evaluation of the LMX field. However, previous reviews warned against oversimplified understanding of the core roots of LMX, alluding to the need to provide additional layers of complexity to its development and comprehension (Dulebohn et al., 2017; D Day & Miscenko, 2016), such as different properties of LMX relationships (Martin, Thomas, Legood, & Dello Russo, 2017). Using bibliometric methods, a broader picture can be achieved and explored – as inclusion of documents is practically unlimited - effectively trying to tap into research clusters that are smaller and more difficult to detect in classical review or meta-analyses (Batistič, Černe, & Vogel, 2017).

We will achieve this by building on the conceptual framework of ‘invisible colleges’ (cf., de Solla Price, 1965; Vogel, 2012), which can be used to explore the scientific communication between scholars to elucidate the past of the LMX field. Exploring such communication allows us to show the dynamic perspective of evolving colleges of literatures that LMX studies have cited in a specific time period. The key outcome of such an approach is to map the field, discuss similarities and differences with findings offered by existing qualitative and meta-analytic reviews of the LMX literature, and propose most promising developmental areas for the future evolution of the field. Using such an approach has the potential to change predefined conversations within the broader leadership, narrower LMX and general management fields towards improving theorizing and empirical research in the colleges that have not yet fully embraced certain theoretical or methodological perspectives (e.g., multi-level theories/analyses; Henderson et al., 2009).

Second, the extant literature is also not coherent when it comes to proposing future direction and opportunities for the LMX field. To mention just one discrepancy, reviews and other articles on one hand suggest a multi-level approach and encourage researchers to consider the organizational context more often, but on the other hand further urge academics to focus more explicitly on the followers’ perspective, the underlying mechanisms of the development of LMX relationships, and their interactions with psychological traits (Dulebohn et al., 2012; Marstand, Martin, & Epitropaki, 2017; Martin, Thomas, Legood, & Dello Russo, 2018; Matta & Van Dyne, 2018).

This example shows lack of agreement on where LMX research should go and what its role is not only in the leadership field, but also within more general management and organizational behaviour domains. Which theories have objectively been the most prominent to inform the field, and what are the most promising potential opportunities for their further connections in the future, remains in the hands of a subjective interpreter. Bibliometric methods can provide a more objective foundation for the exploration of the future prospect of the LMX field.

As an extension to our contributions to the LMX research area, our review also helps positioning this sub-field within the broader leadership and general management fields, offering integrative directions for future research with promising avenues for future development. Providing broader future direction for the LMX field and looking at the potential intersection with leadership and management literature holds important promise for the field under examination, and represents a step beyond previously published LMX review studies.

1.2 Theoretical background of leader-member exchange theory

Leader–member exchange theory emphasize the level of exchange between the leader and their subordinates, and it focuses on building trust between leader and followers, with emphasis on the reciprocity of exchanges in relationships (Dadhich & Bhal, 2008). The basic assumption of the theory is that leaders have differentiated relationships with their subordinates and treat them differently (Martin et al., 2017), and will therefore develop high LMX relationships only with a few followers. A high LMX relationship is characterized by member having high levels of responsibility, decision influence, and access to resources. This kind of relationship is often also referred to as being part of the group or being in-group, whereas a low LMX relationship shows the opposite—low levels of support to the member, and member having low levels of responsibility and decision influence—and reflects in not being part of a group (Hooper & Martin, 2008). As a consequence, it has been argued that the relationship in the leader–follower exchange, which is marked by the high or low level of exchange relationship, depending on demanding tasks, decision-making, and emotional support, strengthens perceived safety and increases interest of employees in fulfilling their work demands (Van den Broeck et al., 2014).

There is no clear consensus on what background theories informed the development of LMX theory or how the LMX debate evolved over time. Some authors (Dulebohn et al., 2017; Seers, Keller, & Wilkerson, 2003) suggest that leader-follower relationship is based on trust and respect, and therefore low or high LMX is marked by social exchange, building on social exchange theory. On the other hand, others claim that LMX has foundations in role-making processes (Bauer & Erdogan, 2015). These inconsistencies also tap into perceptions of how the research domain developed and evolved.

Historically, the first research studies about exchanges between leader and followers were based on studies of socialization at work and vertical links between dyads (Dansereau et al., 1975; Graen & Uhl-Bien, 1995). Such research examined dyadic outcomes related to accomplishing unstructured tasks (Graen & Scandura, 1987), including individual characteristics (Turban & Jones, 1988), demographic variables (Pelled & Xin, 2000), and leader behaviour and power (Yukl, 1989). Leadership models at that time did not lead to development of organizations to a higher level. These models include assumptions that members of the organizational units are sufficiently homogeneous and that superiors behave equally toward each subordinate (Dansereau et al., 1975). Research at this stage deals with issues such as the impact of combined high- and low-quality relationships within one working group on processes and the results at a group level; it includes exploring patterns of differentiated dyads (Martin et al., 2017) within the management structure, taking into account the diversity of relationships (Bauer & Erdogan, 2015).

Although leaders may distinguish between high and low LMX, the theory assumes that the level of interaction develops in a certain time frame. The level of LMX increases by learning about one another and having leaders and followers that possess different experiences (Nahrgang et al., 2009). The positive relationship between leader and follower increases the likelihood that the follower will tend to serve the organization and reduces the likelihood of engaging in negative behaviour (Huang, Shi, Xie, & Wang, 2015).

This segmentation of views not only reflects on what we know about LMX, how it developed, and from which key theories, but can also lead to confusion about the position of LMX in the leadership field and more generally in the management field. This fragmentation can be the result of communication among scholars who share an interest in a particular area of LMX research. However, such communication could potentially lead to new and fruitful connections within and beyond the LMX research domain to advance our knowledge. We can explore the scholarly communication in terms of both “who” and “how.” As noted by Crane (1972), the usage of key theories and methods in a specific field is driven by a small cluster of prominent scholars (the “who”).

However, looking at only a few key scholars is problematic, and a thorough examination of a field needs to incorporate more peripheral members more indirectly linked to each other through their teachers. Given the importance of formal publications (the “how”) for the dissemination of knowledge, allocation of resources and professional recognition seems to be important for tracking and exploring scholarly communication. Bibliometric methods are a useful approach for exploring such issues (Vogel, 2012; Zupic & Čater, 2015).

1.3 Methods

Bibliometric methods, although not new (Small, 1973), started to attract more-widespread attention in recent years with easy accessible online databases with citation data and the development of new software and tools for conducting bibliometric analyses (Zupic & Čater, 2015). Bibliometric mapping offers a number of opportunities because clusters revealed from the map relate to meaningful cognitive structures (Van Raan, 2005). These techniques, as a function of time, have foresight potential and can be used to observe scientific advancement (Van Raan, 1996). Applying such a methodology can improve the quality of reviews because we can employ a quantitative approach, which is less subject to bias by the researcher (Zupic & Čater, 2015), suggesting that the use of these techniques complements traditional narrative reviews.

The use of three different bibliometric techniques in this chapter allows us to trace three important aspects and aims of our research: a) document co-citation, which explores relationships and interactions between different researchers and can propagate beyond a field of research, thus revealing the intellectual traditions within a field, and can trace a field's evolution over time (Vogel, 2012); b) co-word analysis, which allows us to identify key clusters of content and how they are connected to each other (He, 1999); and c) bibliographic coupling, which enables us to identify emergent topics and potential future avenues of the development of the literature (Van Raan, 2005).

1.3.1 Document co-citation

Document co-citation is a measure of the semantic similarity of primary documents that cite the same secondary references. The higher their co-citation strength, more likely they are semantically related with each other (Small, 1973). In this analysis the underlying assumption is that when two secondary papers are co-cited (i.e., referred to in the same document), they share content similarities, and when they are frequently cited together by studies in the field, this indicates that they represent key concepts or methods from which the development of a certain field has drawn (Small, 1973).

Document co-citation is a dynamic measure that changes through time as older documents accumulate more citations (Batistič et al., 2017). This suggests that co-citation frequencies can shape a certain intellectual field and are helpful in detecting shifts in certain schools of thought (Pasadeos, Phelps, & Kim, 1998). Document co-citation analysis can also reveal the intellectual roots of a certain scientific domain by identifying its core works.

1.3.1.1 Data and analysis

To identify our sample of primary papers, we used a keyword search for “leader member exchange” in the database Web of Science, identified as the most reliable database (Batistič & Kaše, 2015; Zupic & Čater, 2015). Then we refined our search and defined research fields and categories including business, management, economics, psychology, and multidisciplinary sciences, which revealed 2,011 primary documents. Because of the large number of unique secondary documents, a cut-off point, or a citation threshold, which refers to a minimum number of citations of a cited reference, was applied to the reference list. We applied different thresholds in each period to provide an insightful representation of the field and its origins in each period (Batistič & Kaše, 2015). The reason for choosing a different cut-off point for secondary documents is to limit the analysis set to a manageable size (due to computer power limitations) while still providing as broad representation of the intellectual structure as possible (Zupic & Čater, 2015). Less-cited documents carry less information for co-citation analysis, which increases the probability for spurious co-citation connections.

To aid interpretation, we divided the database of published primary papers into segments. Because defining timeframes is not yet a widely agreed step of the co-citation methodology (Zupic & Čater, 2015), we selected three time frames: until 1999, 2000–2009, and 2010–2017. We used the first interval (until 1999) to effectively capture a sufficiently large sample size of primary papers, because there was a relatively small amount of papers published in that period. Of the 4,208 secondary documents, 52 met the threshold of a minimum of 10 citations of a cited reference. In the following years the number of publications grew exponentially, and thus we separated the remaining time frame into two intervals: 2000–2009 (of the 20,571 documents, 255 met the threshold of a minimum of 15 citations of a cited reference) and 2010–2017 (of the 50,265 documents, 326 met the threshold of a minimum of 30 citations of a cited reference).

Once imported, that database was normalized by VOSviewer (van Eck & Waltman, 2014) to acknowledge that some nodes (secondary papers) are more popular and thus have more connections than their less-popular counterparts. VOSviewer by default applies association-strength normalization (van Eck & Waltman, 2014). In the next steps, the program arranges the primary papers in two-dimensional space in such a way that strongly related nodes are located close to each other whereas weakly related nodes are located far from each other. Lastly, the program tries to assign the papers to exactly one cluster. A cluster is a set of closely related nodes. The number of clusters is determined by a resolution parameter. The higher the value of this parameter, the larger the number of clusters. In the visualization of a bibliometric network, VOSviewer uses colours to indicate the cluster to which a secondary paper has been assigned. The clustering technique requires an algorithm for solving an optimization problem (Waltman & van Eck, 2013).

1.3.1.2 Results

The identified clusters reflect the community structure of the field and suggest that the field of LMX research is not strictly segmented into well-defined and long-lasting research schools, but involves an interrelated, nested, and active socio-cognitive structure that consists of dynamic informal colleges. Each period (until 1999, 2000–2009, and 2010–2017) provided a different number of colleges. We focus on and describe in greater detail only the most important (in terms of size) colleges for each period. As the aim is to detect colleges and their evolution over time rather than to elaborate on them, the rough outline of the core groups that were derived from the analyses based on the respective cut-offs serves to provide an interpretation of the extracted factors. Each factor naturally has a richer tradition and is far more complex than its brief description suggests. Table 1 provides a short description of research subjects and colleges.

Table 1: Results of document co-citation analysis for LMX

Time interval		Cluster	Brief description	Key cited authors	No. of docs	Evolution of the college
Until 1999	1	LMX – leadership as an exchange relationship; social exchange	Examining exchange relationships.	(Dansereau et al., 1975; Dienesch & Liden, 1986; Graen & Scandura, 1987)	24	(College appearance)
	2	OCB; commitment and support	Understanding of social structure and processes, and employees' attitudes and behaviour.	(Blau, 1994; Graen & Uhl-Bien, 1995; Settoon et al., 1996)	14	(College appearance)
	3	The development of LMX; examining dyadic relationships	First studies about exchanges in dyadic relationships.	(Graen & Scandura, 1987; Liden, Wayne, & Stilwell, 1993; Wayne & Ferris, 1990)	11	(College appearance)
	4	Methodological approaches	Applying multiple regression in behavioural sciences.	(Cohen & Cohen, 1983; Schriesheim, Neider, Scandura, & Tepper, 1992)	3	(College appearance)
2000–2009	1	Core LMX foundations and reviews	Defining and developing LMX based on existing literature.	(Dansereau et al., 1975; Graen & Uhl-Bien, 1995; Liden et al., 1997; Sparrowe & Liden, 1997)	94	Leadership styles and approaches (College fusion)

Time interval	Cluster		Brief description	Key cited authors	No. of docs	Evolution of the college
	2	Perceived organizational support	Examining employees' attitudes and behaviour.	(Blau, 1994; Gouldner, 1960; Settoon et al., 1996; Wayne, Shore, & Liden, 1997)	80	OCB; commitment, support, and trust (College differentiation)
	3	OCB; fairness and justice	Extending research on OCB.	(Organ, 1988; Williams & Anderson, 1991)	41	OCB; commitment, support, and trust (College differentiation)
	4	Mechanisms and boundary conditions of LMX	Moderating and mediating effects that are associated with LMX.	(Baron & Kenny, 1986; Hofmann, Morgeson, & Gerrass, 2003)	25	Methodological approaches (College drift)
	5	Trust	The nature of relationships of interpersonal trust in leader–follower relationship.	(Mayer, Davis, & Schoorman, 1995; McAllister, 1995)	15	OCB; commitment, support, and trust (College appearance)
2010–2017	1	Methodological approaches	To address mediation–moderation models and the use of different statistical methods.	(Baron & Kenny, 1986; Podsakoff, Lee, & Podsakoff, 2003)	93	Mechanisms and outcomes of LMX (College drift)
	2	OCB; commitment, support, and trust	Building from social exchange and the norm of reciprocity.	(Blau, 1994; Gouldner, 1960; Wayne et al., 1997)	87	OCB, fairness and justice, trust, POS (College fusion)
	3	Review of LMX	Theoretical reviews of LMX, providing orientations and implications for further research.	(Gerstner & Day, 1997; Graen & Uhl-Bien, 1995)	85	Core LMX foundations, mechanisms, and outcomes of LMX (College differentiation, college drift)
	4	Leadership styles and approaches	LMX from leadership perspective.	(Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Wang et al., 2005)	61	Core LMX foundations (College transformation)

First interval (until 1999)

Analysis of the first co-citation network (Figure 2) reveals the theoretical foundations for the development of LMX theory. The works of Graen, Novak, and Sommerkamp (1982), Dienesch and Liden (1986) and Dansereau et al. (1975) represent the first identified cluster

and apparently the most important authors for the development of LMX in the first examined period, building on social exchange theory and approach to leadership as an exchange relationship. We labelled this cluster *LMX – leadership as an exchange relationship; social exchange*. The first longitudinal study of vertical dyad approach to leadership was by Dansereau et al. (1975), who suggested that supervisors develop leadership exchanges (influence without authority) and with others only supervision relationships. Most research in this interval examined the quality of the leader-follower relationships (Graen & Schiemann, 1978).

The second cluster was labelled *Organizational citizenship behaviour (OCB); organizational commitment and support*. The majority of the literature in this cluster still stems from social exchange theory, addressing understanding of social structure and underlying social processes that characterize interpersonal relations (Blau, 1994). Settoon et al. (1996) further built on social exchange and the norm of reciprocity to explain the relationship of perceived organizational support and leader–member exchange with employee attitudes and behaviour.

Research by Graen and Scandura (1987); Liden et al. (1993); Wayne and Ferris (1990) marked the third cluster, referring to the early development of LMX, which began with examining supervisor–subordinate relationships. Research was focused on understanding of individual behaviour for accomplishing unstructured tasks through role-making and role-routinization processes (Graen & Scandura, 1987) and on how impression-management behaviours are associated with supervisor–subordinate exchange quality (Wayne & Ferris, 1990).

Taken together, predominant background theories informing LMX research in the first interval derive from organizational psychology and social exchange, which relate to examining the underlying mechanisms of human behaviour at work and dyadic interactions based on reciprocity.

Second interval (2000–2009)

An overview of co-citation analysis results for the second interval reveals two major clusters: *Perceived organizational support* and *Core LMX foundations and reviews*. Core LMX foundations and reviews covers an extensive body of research building on social exchange (Blau, 1994) and focusing on LMX theory review, using levels and domain perspective to trace the development of LMX through four evolutionary stages (Graen & Uhl-Bien, 1995), reviewing and categorizing antecedents and consequences of LMX (Liden et al., 1997), and introducing a framework for understanding relationship quality based on reciprocity (Sparrowe & Liden, 1997).

The second cluster, *Perceived organizational support*, builds on works of Wayne et al. (1997), Blau (1994), and Settoon et al. (1996). Drawing from social exchange (Blau, 1994) and the norm of reciprocity (Gouldner, 1960), researchers tried to explain the relationship of perceived organizational support and LMX with employee attitudes and behaviour (Settoon et al., 1996). Despite conceptual similarities between perceived organizational support and LMX, theoretical development and research continued independently. In an attempt to integrate these literatures, based on social exchange theory, Wayne et al. (1997) developed and tested a model of the antecedents and consequences of perceived organizational support and LMX, which indicates that perceived organizational support and LMX have unique antecedents and are differentially related to outcome variables, accentuating the importance of both types of exchanges.

Concurrently, *Organizational citizenship behaviour (OCB)* was becoming an important aspect of human behaviour at work and represents the third cluster in the second time interval. Organ (1988) examined the nature of OCB and described how to promote OCB, as well as how to encourage employees to become or remain “good citizens.” His work represents a major advance in extending knowledge of OCB theory. Complementing the theory on OCB, scholars extended their research by including mechanisms such as organizational commitment (Williams & Anderson, 1991) and perceptions of fairness and justice (Robert H. Moorman, 1991).

Thus in the second interval we observe a large influx deriving from organizational psychology and organizational behaviour, focusing on examining human behaviour in the organizational setting and its key outcomes beneficial for either individuals or organizations.

Third interval (2010–2017)

As the number of studies of LMX and organizational behaviour increased, the most cited authors in the third interval are Graen and Uhl-Bien (1995), with a total of 578 citations. In this interval, authors gave considerable attention to theoretical reviews of LMX, providing orientations and implications for further research. We labelled this cluster *Review of LMX*. The most recent meta-analytic study offered a comprehensive empirical examination of antecedents and consequences of LMX, indicating that leader variables explained most of the variance in LMX quality, and also considered other variables such as follower characteristics, interpersonal relationship characteristics, and contextual variables (Dulebohn et al., 2012).

With increasing examination of mechanisms that are associated with LMX, researchers have considered different *Methodological approaches* to address mediation–moderation models and the use of different statistical methods (Baron & Kenny, 1986). Another identified cluster refers to *OCB; organizational commitment, support, and trust*. Deriving from social

exchange theory, the most cited author in this cluster is Blau (1994), followed by Wayne et al. (1997) with a model of the antecedents and consequences of perceived organizational support and LMX. We also observed a high number of citations of the work of Gouldner (1960) and his norm of reciprocity.

We observed a large influx of works based on organizational psychology, organizational behaviour and leadership. This is the period in which LMX was effectively incorporated into the leadership field. From these observations, we conclude that studies of social exchange and organizational behaviour became a predominant research stream for the development of LMX from a leadership perspective.

Patterns of the evolution of invisible colleges within the LMX literature

The results of the network analysis presented in the previous section revealed the nested socio-cognitive structure of LMX development, in which 13 clusters were identified. This section presents the evolutionary patterns of dynamic change in LMX research over three intervals. We use an evolutionary framework proposed by Vogel (2012) and used in other fields such as leadership (Batistič et al., 2017). Vogel proposed seven patterns by which invisible colleges can evolve: college appearance, college transformation, college drift, college differentiation, college fusion, college implosion, and college revival. The evolution of the main path of LMX shows that two different colleges, *LMX – leadership as an exchange relationship; social exchange* and *Development of LMX; examining dyadic relationships*, led to *Core LMX foundations and reviews* in the second interval (2000–2009), which evolved and was incorporated in *Leadership styles and approaches* after 2010. Figure 2 presents comprehensive summary results.

The emergence of a new college is called college appearance, in which there is no predecessor in the same field, even though its foundations may be long-standing. While examining the development of LMX theory, we observe the emergence of a college *Trust* after 2000. This diversification may be enhanced by the growing popularity of research focused on the nature of the relationships in organizations. Batistič et al. (2017), in their research on multi-level leadership, introduced an example of an evolutionary path in the leader–member exchange process, in which they observed that the predominant leadership conceptualization of LMX from the 1980s changed focus and started to explore trust (*Trust*).

College transformation is a slow or sudden change of an existing college, which can result in the formation of a new college (Vogel, 2012). For example, we observe college transformation of LMX; it started in the 2000s with *Core LMX foundations and reviews*, and the cluster underwent thematic changes which culminated in the 2010s in a transformation to *Leadership styles and approaches*. This showed an increasing interest in applying LMX to the leadership field.

College drift is the process by which parts of a college become incorporated into another, pre-existing college (Vogel, 2012). One example of such drift is seen in the *Methodological approaches* college in the first interval (until 1999) as it became incorporated into the *Mechanisms and outcomes of LMX* college. Most of the research in the *Mechanisms and outcomes of LMX* college deals with moderator–mediator variables that are associated with the LMX relationship (Hofmann et al., 2003) and the use of different methodological techniques in social psychological research (Baron & Kenny, 1986). In the 2010s, we observe another college drift of *Mechanisms and outcomes of LMX* into two different colleges: *Review of LMX* and *Methodological approaches*. Interestingly, the *Methodological approaches* college became incorporated in another college during the second interval (2000–2009), and later gained more attention from researchers to become a college of its own again.

College differentiation describes a process by which a broadly defined college splits into several new colleges, each with a more specialized focus, and indicates a pattern of divergent evolution (Vogel, 2012). This most obviously applies to, in the first interval, the differentiation of the *OCB; commitment and support* cluster into two distinct yet interrelated colleges: *Perceived organizational support* and *OCB; fairness and justice*. Sharing similar theoretical foundations deriving from organizational behaviour and social exchange, we observe differentiation of *The development of LMX; dyadic relationships* into the *Core LMX foundations and reviews* college and *Mechanisms and outcomes of LMX* college. Furthermore, in the third interval, *Core LMX foundations and reviews* differentiated into the *Review of LMX* college, with considerable attention to discovering new opportunities of research of LMX. This example suggests that the differentiation of a college is accompanied by growth in the number of publications. On the other hand, despite the growth of the college, differentiation may not occur; instead, it may maintain the coherence of specific college (Vogel, 2012).

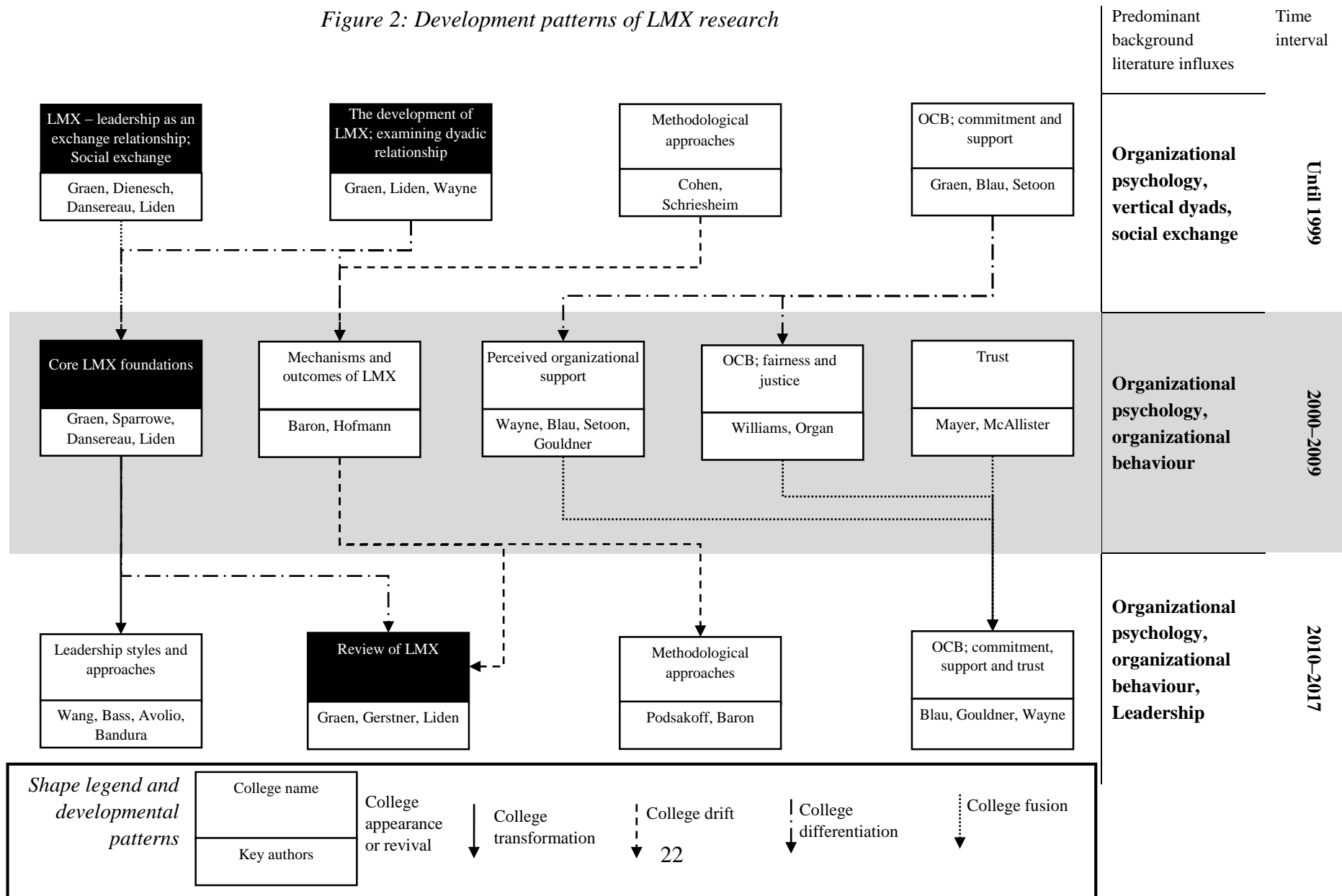
College fusion happens when two or more previously independent colleges merge into a single college (Vogel, 2012). An example of this pattern of convergent evolution is the integration of *Perceived organizational support*, *OCB; fairness and justice*, and *Trust* from the 2000s into a new college, *OCB; commitment, support, and trust*, in the 2010s. As a consequence, the college that was formed from the merger focused on interpersonal relationships, whether individual or collective, and thus extended the research area of OCB with the addition of intra-organizational relations such as LMX, work relationships, teamwork, and trust within organizations. This suggests that fusion is likely to be successful if the merging colleges are, to a certain extent, related and predisposed towards each other's theories (and methods) (Vogel, 2012). Our results suggest that this applies to the present case

because *OCB; commitment, support, and trust* has a long tradition in the literature on social exchange and organizational behaviour.

College implosion is when a college disappears without successor. The disappearance of present colleges is a common phenomenon in the evolution of a field (Batistič & Kaše, 2015; Vogel, 2012). It was suggested that only a few colleges survive longer than a decade; this mortality is particularly high among more peripheral colleges, and in some cases even core colleges are not immune (Batistič et al., 2017; Vogel, 2012). In the present case, results show no such implosion, instead showing an intertwining network of dynamic change of colleges over time.

College revival refers to the reappearance of a certain college that temporarily disappeared. The *Methodological approaches* college is an example: it appeared in the first interval, but disappeared in the 2000s because its elements were incorporated in *Mechanisms and outcomes of LMX*. However, we observe its revival in the 2010s as it drifted out from the *Mechanisms and outcomes of LMX* college to become the third biggest cluster in that interval, in comparison with its first appearance in the first period, where it had just a marginal role.

Figure 2: Development patterns of LMX research



1.3.2 Co-word analysis

Co-word analysis uses the most important words or keyword terms of the documents to establish relationships and consequently to reveal a conceptual structure, a semantic map, of a research field (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011). The larger the number of publications in which two terms occur, the stronger is their relation to each other, because the concepts described by those terms are closely related (Van Raan, 2014). This provides an insight into the relatedness of research fields with a specific set of subject-related research problems and their attention of certain researchers (Braam, Moed, & Van Raan, 1991). Co-word analysis is the only method that uses the actual content of the documents to construct a similarity measure, whereas the other methods connect documents indirectly through citations or co-authorships (Zupic & Čater, 2015). The output of co-word analysis is a “network” of different themes and their relationships that show the conceptual space of a field.

1.3.2.1 Data and analysis

The same dataset was used for co-word analysis as for the document co-citation analysis, and we similarly defined three successive periods of observation: until 1999, 2000–2009, and 2010–2017. This allowed us to identify dynamic changes. We applied the co-word analysis to primary documents, using keywords assigned by the authors or journal of a publication as the unit of analysis, in order to analyse the concept rather than the document.

Because of the large number of unique primary documents, a citation threshold—a minimum number of occurrences of a keyword—was applied to the reference list. This threshold was applied for the same reasons mentioned in the previous section regarding document co-citation analysis. For the first interval (until 1999), we applied as the threshold a minimum of five occurrences of a keyword and excluded the keyword “model” because it does not represent a meaningful contribution to any of appeared clusters. We obtained 38 keywords that met the threshold, out of the total 2,194 keywords, and identified three clusters. For the second interval (2000–2009), we chose a cut-off point of a minimum of 10 occurrences of a keyword and obtained 89 keywords out of the total 2,194. Four clusters appeared. The last interval (2010–2017) offered 143 keywords that met the threshold of a minimum of 15 occurrences of a keyword. Four significant clusters were identified.

We created three separate data files and facilitated visualizations in VOSViewer for each of the analysed periods. The VOSViewer algorithm extracts pairs of keywords from the primary articles and explores the frequency with which they appear together in the same document. This approach is conducted on all word sequences that consist exclusively of nouns and adjectives and that end with a noun (e.g., “paper,” “visualization,” “interesting

result,” and “text mining,” but not “degrees of freedom” or “highly cited publication”; Van Eck & Waltman, 2011).

Finally, the program also converts plural noun phrases to the singular. VOSViewer can produce two types of graphs/maps. One is lab view, which is also referred as a network visualization, in which the size of the circles in the figure is proportional to the frequency of a keyword’s occurrence. The more often the keywords appeared together, the larger are their respective circles and text and the smaller is the distance between the circles. The second type of visualisation is a density/heat map. These maps use warmer colours and larger fonts to emphasize concepts that are frequently used, whereas words that are used only sporadically are shown in colder colours and smaller fonts.

1.3.2.2 Results

Figure 3 presents the co-word visualisation. The top row shows network visualization, whereas the bottom row of the Figure 3 shows the density/heat map.

First interval (until 1999)

Analysis of the first interval shows 38 keywords divided into three clusters. Because of the small number of existing publications in the first period, the three clusters include a small number of items. The first cluster consists of 18 items and includes keywords such as “leadership,” “management,” and “behaviour.” We labelled this cluster *Management and leadership*. Not surprisingly, considering the development of LMX, its early stages started with examining supervisor–subordinate relationships (Dansereau et al., 1975) and continued to approach leadership as an exchange relationship (Graen & Uhl-Bien, 1995).

The second cluster consists of 10 items referring OCB, antecedents and outcomes of LMX, organizational commitment, and justice. Based on social exchange we named this cluster *LMX and justice*. The third cluster shows the highest occurrence of keywords “organizations,” “performance,” and “vertical dyad linkage.” We labelled this cluster *Exchange and performance*.

Second interval (2000–2009)

In the second interval, the results show an appearance of two major clusters: *Outcomes and performance* and *LMX*. We observe that in addition to LMX research, a major research stream on mechanisms that are associated with organizational outcomes gained attention. The visualization shows two peripheral clusters. More research started to connect softer constructs that are linked to LMX relationship, such as organizational climate, motivation, and job satisfaction. Another distinct peripheral cluster was *Trust, organizational support,*

and commitment. As noted in the document co-citation analysis, the *Trust* college imploded in the second interval, exploring the relationship between interpersonal trust and behaviour and performance (McAllister, 1995).

Third interval (2010–2017)

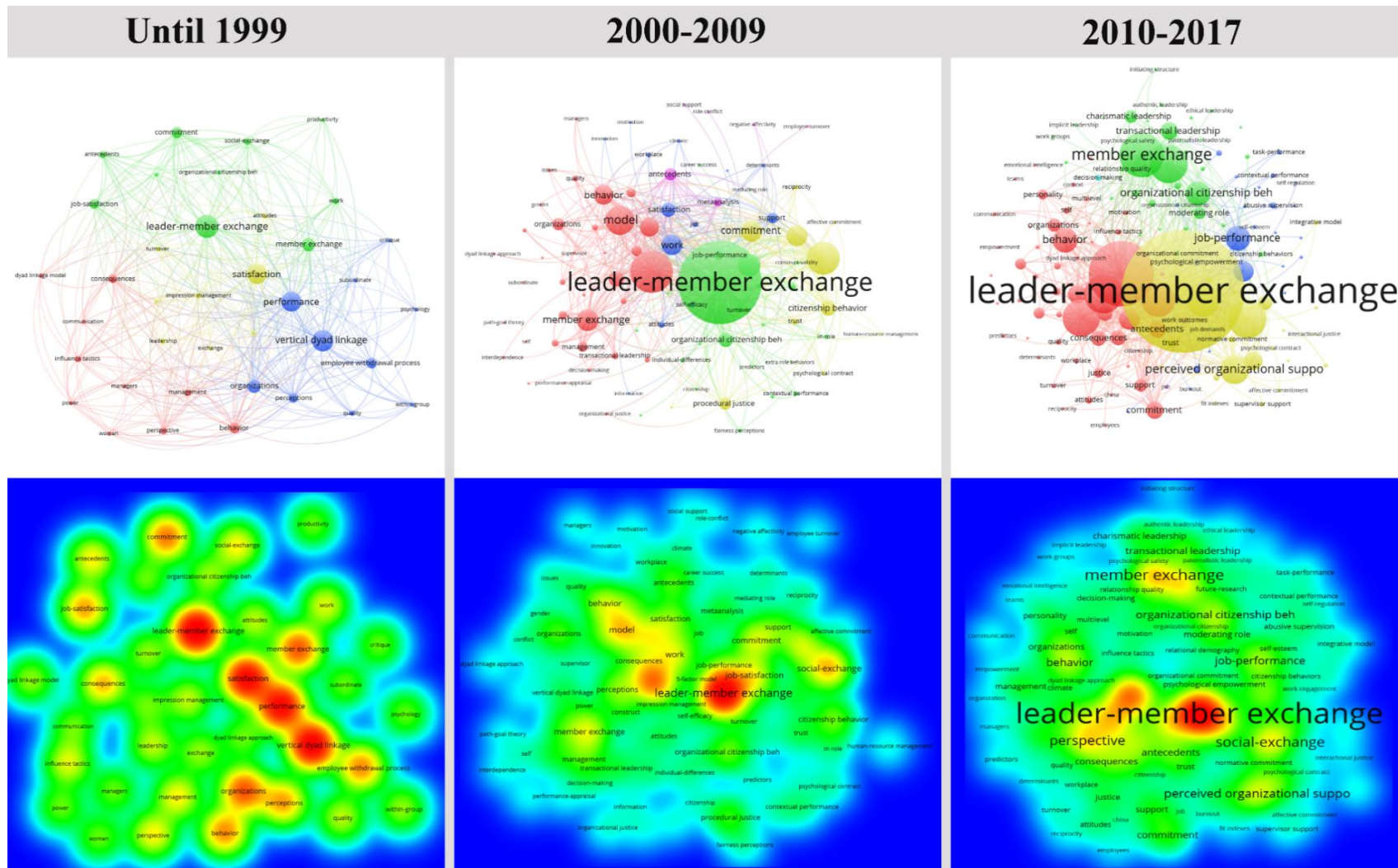
Analysis and visualization shows four significant clusters in third interval. The major cluster includes 54 items and deals with *Facets and mechanisms that are associated organizational outcomes*. In comparison with the previous period, a great deal of publications continues to research organizational outcomes and performance.

The second cluster reveals that researchers are increasing focus on leadership styles and OCB. This indicates that LMX research was successfully incorporated into the leadership field. Results are consistent with the findings of co-citation analysis in the previous section, in which we observed transformation of the LMX college from *Core LMX foundations and reviews* in the 2000s to *Leadership styles and approaches* in the 2010s.

Although LMX was applied more to the leadership field in this period, it was still significantly distinct from the main leadership cluster. LMX maintained its position as a very important research field with a specific set of subject-related research problems. It defines the third cluster *LMX and social exchange*.

A peripheral, emerging cluster shows the increasing interest of researchers in negative outcomes as a consequence of LMX. Other keywords connected to this cluster are job performance, abusive supervision, burnout, conflict, and work engagement.

Figure 3: Co-word visualization for each time interval



Note: Larger circles and text represent more-important keywords. The line between the circles of keywords represent the co-occurrence of the pair. Density maps use darker shades and larger fonts to emphasize concepts that are frequently used, whereas words that are used only sporadically are shown in lighter colours and smaller fonts.

1.3.3 Bibliographic coupling

The major difference between bibliographic coupling and document co-citation analysis is that the focus of the first is to explore two primary documents that have at least one reference (secondary document) in common (Kessler, 1963). Documents are thus coupled if their bibliographies overlap, suggesting that the focus of this analysis is the citing document (primary documents) rather than the cited documents (secondary documents) (Vogel & Güttel, 2013). The more the bibliographies of two articles overlap, the stronger their connection. This distinction leads to a few important implications regarding the analytical scope of this method. First, rather than a dynamic view, it provides a static view of the field because the coupling is established through references made by the authors of the documents involved and is thus intrinsic to those documents. The results are therefore independent of the time at which the analysis was conducted. Second, precisely for the previous reason, coupling is more suitable for detecting current trends and future priorities as they are reflected in the most recent publications (documents that include citations are de facto more recent than those cited papers). This key mechanism for detecting potential future developments makes this approach very usable in research domains characterized by exponential publication activity such as LMX. Lastly, general assumptions of bibliometrics suggest that citation counts reflect the importance of a paper in the scholarly community (Verbeek, Debackere, Luwel, & Zimmermann, 2002). Bibliographic coupling considers documents independently of the number of citations, specifically looking at the production rather than consumption of scientific publications. This counters the effect of mainstream publications being overemphasized and over-representing works that might be insignificant in the course of the field's intellectual development.

1.3.3.1 Data and analysis

For the bibliographic coupling the same dataset was used as for the document co-citation analysis. We analysed the period 2010–2017 and exported the database of target articles into VOSviewer. This was done to further emphasize the most recent period of research of the LMX fields, which potentially could give the best basis for exploring future directions of research in this field. Because of the large number of unique documents, a cut-off point, which refers to a minimum number of citations of a document, was applied to the reference list (Černe et al., 2016). We applied a cut-off point of a minimum of 20 citations of a primary document; of the 1,332 primary documents, 167 met the threshold. The same procedure as described in the co-citation section was applied by the VOSviewer program. Visualization was created in VOSviewer and revealed six different clusters (Figure 4). As with Figure 3, we show the network map and the density/heat map of the given period.

1.3.3.2 Results

Analysis shows two major clusters: *Organizational justice, support, and commitment* and *Leadership styles and approaches*. In particular, the period after the 2000s is marked by the rise of social exchange theory for examining reactions to justice. Complementing previous meta-analyses, Colquitt et al. (2013) discovered that the significance of the relationships between justice and both task performance and citizenship behaviour was mediated by indicators of social exchange quality (trust, organizational commitment, perceived organizational support, and LMX). Drawing from social exchange, researchers in the first cluster examine the relationship between LMX and employees' affective organizational commitment (Eisenberger et al., 2010), the quality of workplace relationships that are associated with OCB (Anand, Vidyarthi, Liden, & Rousseau, 2010) and antecedents and behavioural outcomes of employees' perceptions of organizational support (Kraimer, Seibert, Wayne, Liden, & Bravo, 2011).

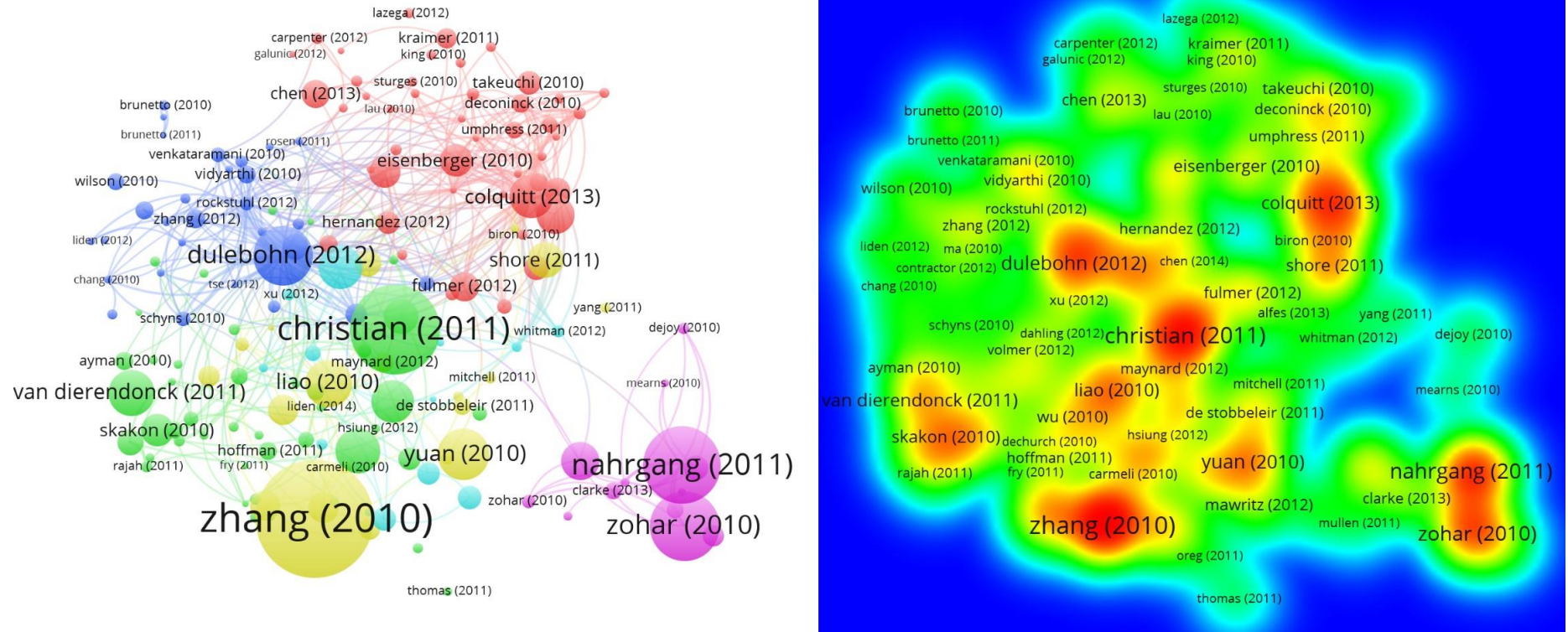
The second cluster, *Leadership styles and approaches*, includes mostly literature and research about the link between different leadership styles and approaches, employees' work engagement (Christian, Garza, & Slaughter, 2011), organizational behaviour (Van Dierendonck, 2011) and job performance (Piccolo, Greenbaum, Hartog, & Folger, 2010).

LMX manifestations and outcomes represents a third cluster. Despite the fact that LMX has been incorporated into the leadership field, it still maintains a significant role as an independent research stream, including LMX as mediator/moderator in various models (Dulebohn et al., 2012) and the relationship between LMX and organizational outcomes (Dulebohn et al., 2012), examining LMX differentiation (Erdogan & Bauer, 2010), and mechanisms that are associated with different levels of LMX (Zhang, Wang, & Shi, 2012).

For the first time, *Creativity and Innovation* (Cluster 4) gained more attention from researchers in this field, focusing on how the leader–follower relationship are associated with employees' creative behaviour (Aarons & Sommerfeld, 2012).

Results reveal two peripheral clusters: *Safety climate* and *Negative outcomes, abusive leadership, and ethics*. Research on investment in employee health received more attention after the 2000s (Mearns, Hope, Ford, & Tetrick, 2010), considering the importance of leadership promoting a safe climate (Nahrgang, Morgeson, & Hofmann, 2011). Increasingly, researchers are devoting considerable attention to investigating negative aspects of leadership (Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012) and promoting ethical leadership and behaviour (Hannah et al., 2013).

Figure 4: Bibliographic coupling for time interval 2010-2017 with density representation



Note: Larger circles and text represent more-important keywords. The line between the circles of keywords represent the co-occurrence of the pair. Density maps use darker shades and larger fonts to emphasize concepts that are frequently used, whereas words that are used only sporadically are shown in lighter colors and smaller fonts.

1.4 Discussion

This study provides a comprehensive literature review using three different bibliometric methods: document co-citation analysis, co-word analysis, and bibliographic coupling. Taken together, the results of this three-technique bibliometric analysis form the basis for our study's contributions and provide foundations for our discussion vis-à-vis the extant reviews of the field.

1.4.1 Theoretical contributions

The contributions of this study are twofold. First, we complement existing qualitative (e.g., Henderson et al., 2009; Herman et al., 2017; Schriesheim et al., 1999) and meta-analytic (e.g., Banks et al., 2014; Dulebohn et al., 2012; Martin et al., 2016; Martin et al., 2018) reviews of the LMX field. To date, meta-analyses have examined the relationship of LMX and OCB (El Akremi, Vandenberghe, & Camerman, 2010; Hackett & Lapierre, 2004; Ilies et al., 2007), culture (Rockstuhl, Dulebohn, Ang, & Shore, 2012), job performance and satisfaction (Gerstner & Day, 1997; Martin et al., 2016), and antecedents and outcomes (Dulebohn et al., 2012). On the other hand, qualitative reviews have studied LMX through four evolutionary stages (Graen & Uhl-Bien, 1995), level of analysis (Schriesheim et al., 1999) and a multilevel review of its antecedents and outcomes (Henderson et al., 2009).

The use of bibliometrics as a quantitative approach offers an objective and non-predetermined examination (Zupic & Čater, 2015) of the evolution of the LMX field. Bibliometric techniques are more data-grounded and thus less biased regarding various subjective thresholds than are meta-analyses and comprehensive reviews, because such techniques allow us to include a large number of textual resources and potentially elucidate small research clusters that could not be tapped by others review approaches (Batistič et al., 2017). Compared with structured literature review, science mapping has more of a macro focus and also presents the reader with a graphical description of a research field, which makes comparisons easier (Zupic & Čater, 2015). Our cumulative approach thus provides a more comprehensive view of the LMX fields and its position in the broader leadership and management field.

A larger sample of research articles allow us to examine the evolution of the LMX field, which shows that theoretical connections propagate well beyond the inclusiveness of home-grown theories (e.g., social exchange), touching also upon various external theories (e.g., ethics and value systems). This shows the breadth and segmentation of the LMX research field, which was already captured by previous review studies. In that sense, there seems to be some convergent validity—different methods being applied in review studies—leading to similar conclusions, yet with some key differences, that have not been discovered/mentioned in previous studies. For example, one of the more surprising findings

is that self-determination theory is not very well linked with LMX. Few studies tap into this theory to find significant results linking LMX to performance (Martin et al., 2016), yet it could suggest that other theories might have been more appropriate (especially social exchange theory, for instance). Furthermore, trust, fairness, justice, commitment, and support research have all recently been merged with LMX-related research, signalling that underlying mechanisms in the LMX relationships could be more complex than expected (D Day & Miscenko, 2016; Dulebohn et al., 2017; Tse, Lam, Gu, & Lin, 2018).

Second, this study adds to previous reviews by presenting the evolutionary development of LMX using a framework of invisible colleges (Vogel, 2012). This enabled us to identify and describe clusters of colleges of the intellectual foundations, i.e., studies that the LMX field has cited. Based on this methodology, we identified influxes that are in line with previous LMX reviews as well as previously discussed more-surprising findings. This suggests that LMX is extending due to its complexity and starting to look beyond its original theories and trying to incorporate various new views and theories (from leadership, HR, organizational behaviour, and general management literature) that could potentially provide a sounder perception of how LMX is associated with various organizational outcomes. Overall, this could show that the LMX field, by looking beyond its core theories, has reached a degree of maturity (Ramos-Rodríguez & Ruíz-Navarro, 2004) and also provides opportunities, and it can challenge which leadership and management theories might provide new frameworks to broaden our knowledge. As a manifestation of the second contribution of this study we provide some suggestions in the following section.

1.4.2 Limitations and future research directions

Bibliometric approaches have certain limitations, which further suggests that such studies should be complemented with other review methods, such as meta-analyses and narrative/qualitative reviews. First, although the division of our observation period into three intervals allowed us to see significant changes in the socio-cognitive structure of LMX, other choices (e.g., different keyword selection) might have led to the detection of colleges that have remained invisible and unrevealed.

Second, the quantitative approaches used in bibliometric techniques do not consider the context and the intent in which authors refer to other works (Glänzel, Debackere, Thijs, & Schubert, 2006).

Third, the resolution of the applied bibliometric method depends on thresholds defined in the course of data reduction (Zupic & Čater, 2015). Furthermore, based solely on bibliometric data we cannot determine why a certain publication was cited, and citation-based bibliometrics could be biased due to self-citation of the authors (Wallin, 2005). For example, a high citation rate could be seen as a critique rather than an affirmation.

Nevertheless, our multi-technique review study of LMX research mapped the social structure presenting the development, current state and future evolution of the research area.

This dynamic analysis using different bibliometric techniques and the evolutionary framework of invisible colleges reveals promising avenues for the future development of LMX research. Based on our results, we offer the following possible future avenues of research for extending LMX research or connecting its main themes or sub-themes with leadership and management research in order to provide four possible theoretical and/or methodological advances.

First, we witness growth of literature on creativity and innovation, in which researchers include LMX in a model with creative performance (e.g., Atwater & Carmeli, 2009; Li et al., 2016). Although important progress has been made in the field of leadership and creativity, more studies are needed (Škerlavaj, Černe, & Dysvik, 2014) to add to the understanding of the underlying attributes of how leaders can increase and encourage creative behaviour. For example, the application of role-modelling, i.e. the probability that leaders' creativity/innovation is associated with behaviour exhibited by the followers, its mechanisms, and boundary conditions deserve additional attention. This can be further extended beyond the leadership field by examining how the dyadic relationship could potentially be associated with by the context in place (Černe, Batistič, & Kenda, 2018; Johns, 2006). For example, not much is known about how work relationships are linked to HR systems or climates (Mossholder, Richardson, & Settoon, 2011).

Second, another domain, in which we follow increased interest of researchers and which was revealed through bibliographic coupling, relates to examining negative outcomes, abusive leadership, and ethics. Studies regarding this topic discuss the relationship between abusive supervision and employee behaviour (Hannah et al., 2013). An interesting avenue for extending this line of research would be to investigate the dynamics of the reciprocal exchanges. Considering reciprocity in exchange relationships, abusive supervision might induce employees to withhold helping behaviours, resulting in engagement of employees in CWB (An & Wang, 2016). LMX thus represents an effective leadership approach in predicting CWBs, and further empirical investigation is likely to provide fruitful avenues for extending leadership research (Ilies et al., 2007; Martin et al., 2016). A promising field of inquiry thus includes business ethics, the investigation of the role of ethical climates, and ethical human resource management practices (Greenwood, 2013).

Third, theoretical development of LMX indicates that this topic has gained more attention within the leadership field in relation to different leadership styles. Our study also reveals that LMX was incorporated into the general leadership cluster in the 2010s, mostly related to transactional, transformational, and authentic leadership (Avolio & Gardner, 2005; Wang et al., 2005). Concurrent with the growth of literature on virtual leadership (Hoch &

Kozlowski, 2014), virtual (team) work in organizations (Gilson, Maynard, Jones Young, Vartiainen, & Hakonen, 2015), and distributed leadership (Fitzsimons, James, & Denyer, 2011), we propose that more research is needed examining the development of high LMX relationships, because there is a lack of face-to-face communication due to the increased use of electronic tools of communication (Gajendran & Joshi, 2012; Hoch & Kozlowski, 2014). This stream of research can be extended to other management fields by the inclusion of context. This could be done, for example, by examining how LMX relationships can be enhanced or hindered in virtual teams by early organizational socialization (Ashforth, Sluss, & Harrison, 2007), or by including new research methods, which can effectively tap the communication in virtual environments, such as social network analysis (Carter et al., 2015).

Fourth, previous qualitative and quantitative analyses also discovered a lack of longitudinal studies that examine the dynamic aspect of relationship development which would add to understanding of the process of LMX development (Dulebohn et al., 2012; Martin et al., 2016). It has been found that the strongest relationship with LMX levels derives from leader perspective, which could be because items in LMX measures focus heavily on the leader and are thus perceived by leaders as a self-rating of their own performance (Dulebohn et al., 2012; Martin et al., 2016).

Our research supports previous studies with suggested future directions, since we observed in the co-citation analysis with invisible colleges that the clusters focused on methodological approaches are consistently strong among the key influxes into the field, but have mostly alluded to the examination of more complex models (e.g., moderated mediation; Tse et al., 2012) rather than fully embracing a multilevel or a longitudinal perspective. We concur with previous review studies and suggest that a longitudinal and especially a social network approach would increase our understanding of the LMX development process and its contingencies. Social network analysis (Carter et al., 2015) is especially powerful for exploring dyadic relationships because “LMX should be viewed as systems of interdependent dyadic relationships, or network assemblies” (Graen & Uhl-Bien, 1995).

2 THE LINK BETWEEN LMX, MOTIVATION TO LEAD AND COUNTERPRODUCTIVE WORK BEHAVIOUR

2.1 Introduction

The last two decades of research on why individuals engage in CWB brought significant progress, as researchers provided an extensive theoretical and empirical analyses of antecedents and outcomes of CWB. However, to a large extent, researchers mainly addressed only individual-level, person-centred variables and their interactions, such as traits and personality (O'Boyle et al., 2011). However, although extant empirical findings on the relationship between LMX and CWB exist and are rooted in a single-level analysis, we still do not know much about how other possible mechanisms are associated with LMX and CWB relationships and especially their combined cross-level effects with CWB engagement. From a micro perspective, we are interested in individual differences of leaders that are related to employee behaviours, thus focusing on meaningful differences among individuals (Kozlowski & Klein, 2000).

According to the leader-member exchange theory (LMX), leaders develop differentiated exchange relationships with individual followers. LMX increasingly relies on social exchange theory, which distinguishes between social and economic relationships. Following Kuvaas et al. (2012) we propose that LMX relationships can be considered of different qualities such as social leader-member exchange (SLMX) and economic leader-member exchange (ELMX) rather than different levels of quality (high vs. low LMX). In line with social exchange theory, the employment relationship literature has departed from the either/or distinction of categories of the relationship types, social or economic, since they may be operating concurrently. Specifically, when trying to explain individual sense making of the nature of a work relationship it is also important to consider the degree to which social and economic exchanges are reflected in these relationships (Shore, Tetrick, Lynch, & Barksdale, 2006).

Social exchange relationships evolve through mutual support and care of employees, fairness and trust (Cropanzano & Mitchell, 2005). Accordingly, in social exchange relationships employees are motivated to exert effort due to obligation to reciprocate (Blau, 1964) and emphasize socio-emotional aspect, such as trust and mutual respect (Kuvaas et al., 2012), therefore they should be positively related to organizational citizenship behaviours (Ilies et al., 2007; Walumbwa et al., 2011).

On the other hand, ELMX relationships are more short-term oriented, transactional and lay on formal agreements (Kuvaas et al., 2012). Furthermore, ELMX relationships should encourage behaviour that meets organizational expectations in accordance to contractual

requirements (Shore et al., 2006), but on the other hand, empirical research on organizational exchange perceptions has observed negative relationships between economic exchange perception and both work performance and OCB (Jiwen Song, Tsui, & Law, 2009; Kuvaas & Dysvik, 2009, 2010).

Recent reviews of the leadership literature suggest that individual traits and personality are related to CWB (Grijalva & Newman, 2015; Spain, Harms, & LeBreton, 2014) and LMX (Yoon & Bono, 2016). Motivation to lead (MTL) has been conceptualized as an individual differences construct, through which leader behaviour is affected in relation to individuals' personality and values (Chan & Drasgow, 2001). Values internal to a leader serve as a regulatory guide and are linked to leaders' and followers' motivational, affective, and cognitive processes (Lord & Brown, 2001; Kark & Van Dijk, 2007). Previous studies link MTL mostly with role identity theory, where individuals have a desire to be perceived as leaders (Waldman, Galvin, & Walumbwa, 2013) and leader emergence, where key assumption is that individuals' MTL is a condition for a leader to evolve individual's leadership potential (Amit, Lisak, Popper, & Gal, 2007; Hong, Catano, & Liao, 2011).

Thus far there has been an immense amount of effort invested in theorizing about the importance of using levels perspective in the field of management and organization. Particularly in the field of leadership we witness a substantial effort of researchers with an aim to understand how leadership and its outcomes unfold across and within levels in an organization (Batistič et al., 2017; Kozlowski & Klein, 2000).

The intended contributions of this study are twofold. The first is to extend knowledge on MTL and its application to leadership field, which complements existing literature by providing empirical support for the link between MTL, LMX and CWB. The aim is to understand how individuals' differences are associated with leaders' MTL and subsequent behaviour of followers (i.e. CWB). Much research was done trying to explain individual behaviour. Specifically, most of the research in the field of leadership is related to dominant leadership styles such as transformational and authentic leadership (Batistič, Černe & Vogel, 2017). However, it is important for organizations to recognize the potential for leader development within the company and exploit its assets effectively (Kark & Van Dijk, 2007). Furthermore, employees respond differently to higher or lower levels of relationship, depending on their intrinsic motivation or interest in certain job tasks.

Finally, in line with social exchange theory, this study enables us to better understand differences in types of exchange relationships (i. e. social and economic) and how they are associated to CWB accounting for leaders' motivation to lead. Specifically, we provide alternative view on LMX relationship by distinguishing between SLMX and ELMX, where both can represent LMX relationship, since they might occur simultaneously (Kuvaas et al., 2012). Also, most of LMX researchers focus on social aspects of exchange relationship

(Bernerth, Armenakis, Feild, Giles, & Walker, 2007; Walumbwa et al., 2011), but on the other hand neglecting the importance of economic transactions, which can also exist during relationship development (Goodwin, Bowler, & Whittington, 2009).

Second contribution is connected to the multi-level nature of the proposed model with a two-source examination (leader vs. follower perspective). The broader understanding of complexity and multidimensionality of leadership goes beyond an individual leader or follower perspective and it is necessary to employ multi-level approach to ensure the growth of a scientific field across leadership domains (Day & Harrison, 2007). Individuals in a dyadic relationship can have a different view on the same examined construct even on a different level of research, therefore beside the within-group variance, there is also the between group variance present (Kidwell, Mossholder, & Bennett, 1997). Due to variations in individual behaviour it is necessary to look from micro perspective (i.e. leader vs. follower) and focus on variations among individual characteristics that are related to individual reactions (Kozlowski & Klein, 2000).

2.2 Theoretical background

2.2.1 Counterproductive work behaviour (CWB)

Counterproductive behaviour at work is not a novelty. In recent years, researchers have acknowledged that various forms of inappropriate organizational behaviour, which appear in less serious forms, such as lower ability to work, offensive behaviour, vandalism and sabotage, and the consequences of such behaviours of employees, are significant and costly for organizations (Vardi & Weitz, 2004). In order to limit the consequences of such behaviour, it is necessary to understand the factors that are associated with its occurrence.

It is assumed that employees are active observers in the organization and have an insight into the division of prizes and penalties. Whether they perceive a division as fair or unfair, depends on who is the recipient and whether has earned it (i.e. distributive justice), whether the process of a division is fair (i.e. procedural justice) and whether there is a respectful attitude towards an individual (i.e. interactional justice) (Robert H Moorman, Blakely, & Niehoff, 1998; Tse et al., 2018). The occurrence of unwanted behaviour in the organization is related to leaders as they form organizational values and norms and control the distribution of resources in an organization (Dular & Markič, 2012).

There were several attempts of researchers to classify CWB, as it would consist of different types (Gruys & Sackett, 2003; Sackett, 2002; Spector et al., 2006; Vardi & Weitz, 2004). For example, according to Vardi and Weitz (2004), these behaviours fall into three basic categories, depending on the purpose of an individual. The first category represents misbehaviour for individuals' own benefit (OMB type S). These behaviours mostly occur

within an organization and which are detrimental to an organization or members of the organization. Such behaviours may target three different goals within an organization: a) work (e.g. a distortion of information or data), b) assets of an organization or regulations (e.g. theft or displaying confidential information related to production), c) other members (e.g. harassment of colleagues). The second category refers to misbehaviour in order to achieve the benefit of an organization as a whole (OMB type O), for example falsification of documents in order to increase the possibility of maintaining the contract or orders for the organization. Such behaviours are usually targeted outside the organization, such as other organizations, social institutions, public agencies or clients. The third category presents misbehaviour with the purpose of causing damage and is destructive (OMB type D). Targets of such behaviours may be internal or external. While for type S and O it is important whether the purpose of behaviour is aimed at gaining one's own benefit or benefit for the organization, for type D, the purpose is to harm others or the organization (e.g. sabotage of equipment of the organization). Such behaviours can be committed by members on their own initiative, revenge or response to perceived or actual misbehaviour or on the initiative of others.

Following Spector & Fox, 2005, CWBs differ from common negative behaviours since they are not caused accidentally, but instead are intended, specifically to purposefully engage in activities that harm organization, the people in organization or both. These behaviours can be driven by organizational factors (Fox, Spector, & Miles, 2001; O'Boyle et al., 2011; Sackett & DeVore, 2001)), as well as from personality characteristics (Bolton et al., 2010; Dalal, 2005; Grijalva & Newman, 2015). More recently, Spector et al. (2006) categorized CWBs into five dimensions, including abuse, production deviance, sabotage, theft, and withdrawal.

2.2.2 LMX and counterproductive work behaviour (CWB)

Growing concern about misbehaviour in the workplace has prompted an eruption of scholarly and practitioners interest. Although there is ample evidence about the phenomenon of CWB, many of employees, throughout their employment, engage in some form of CWB, albeit in varying degrees of frequency and intensity (Vardi & Weitz, 2016; Vardi & Wiener, 1996). CWB appear to range the full spectrum from relatively minor to very serious, for example: workplace incivility, insulting behaviours, social undermining, theft of company assets, acts of destructiveness, vandalism and sabotage, substance abuse, and misconduct perpetrated against fellow employees, toward the employer or towards other organizations (Spector et al., 2006; Vardi & Weitz, 2004). It is therefore necessary for organizations to identify and discover the reasons why individuals engage in such behaviours and finally, to understand how to prevent such behaviour and identify individuals who are more likely to engage in such negative behaviours (Bolton et al., 2010).

As one of the broad performance domains, the concept of CWB was defined as an intentional behaviour that harms an organization or members of an organization (Fox et al., 2001; Sackett & DeVore, 2001). Past research examined various factors that may predict CWB, which include individual differences among employees such as personal traits and abilities (e.g., Bolton et al., 2010; Spector, 2011) and work stressors (e.g., Berry, Ones, & Sackett, 2007). The increased interest in examining negative aspects of organizational behaviour has produced an immense amount of empirical studies testing the relationships between CWB and personality, attitudes, and workplace perceptions, providing support for the relationship between many of personality constructs and CWB (Berry et al., 2007; Mount et al., 2006; Salgado, 2002).

Going beyond studies on personality, researchers have also successfully linked CWB to individual differences in attitudes, perceptions, intentions, and values (O'Boyle et al., 2011). For example, Dalal (2005) in his meta-analysis identified moderating relationships between CWB and many attitudinal variables (e.g. job satisfaction and organizational commitment), while others have shown that also more general attitudinal constructs, such as differences in moral philosophy (Henle, Giacalone, & Jurkiewicz, 2005), perceived organizational constraints (Fox et al., 2001), the role of justice (Cohen-Charash & Spector, 2001) and job burnout (Cropanzano, Howes, Grandey, & Toth, 1997) have moderate relationships to CWB. Increasingly, social exchange theory (Blau, 1964) is used in explaining why people engage in CWB. While the focus is still on the individual, the interest is in their inclination to the norm of reciprocity (Coyle-Shapiro, Kessler, & Purcell, 2004). Deriving from social exchange theory, employees respond positively on fair interactions and satisfying work conditions, but on the other hand, retaliate against perceived injustice by engaging in CWBs (Dalal, 2005).

Various factors are associated with individual behaviour in organizations, including CWB, among them different leader behaviours and leadership styles (Antonakis & Day, 2017; Effelsberg, Solga, & Gurt, 2014; S.-m. Liu, Liao, & Wei, 2015). In the process of leadership leaders transfer expectations on group members in order to meet organizational goals. They are perceived as individuals with certain qualities or attributes to achieve shared organizational norms and values among members, establish desired outcome behaviour, create work environment that diminishes undesired behaviour and has a position of authority possessing the power to put in place rewards and sanctions (Kanungo, 2001; Miller, 2001).

LMX theory is posited as relational approach to leadership, which is based on a concept that social behaviour is a consequence of exchange process between two sides, whereas this process of interactions results in desired outcomes (Brower, Schoorman, & Tan, 2000; Notgrass, 2014; Uhl-Bien, 2006). This kind of relational approach brings focus towards collective through a combination of interactive connections and contexts, and sets the relationship, not individuals, as a basic unit (Uhl-Bien, 2006).

From the perspective of reciprocity, individuals in the exchange respond differently based on their perceptions of balanced or imbalanced relationship (Chernyak-Hai & Tziner, 2014). Therefore, the social exchange theory and the norm of reciprocity predict that exchange interactions in high LMX relationships are beneficial and increase organizational citizenship behaviour, but on the other hand low LMX relationships are marked by lack of trust and commitment (Dalal, 2005). Lower levels of LMX can have different consequences, considering personality traits as a possible cause of tendency towards CWB (Penney, Hunter, & Perry, 2011).

LMX focuses on level of the exchange in the relationships between leaders and followers, bringing numerous benefits such as better understanding of mission, vision and values of organization, implementation of changes, above average outcomes and performance, empowerment of employees, and emphasizes open communication for more effective leadership (Mapolisa & Kurasha, 2013; Ordun & Beyhan Acar, 2014). It is defined as the level of the exchange between leader and follower, where all efforts all revolving around interrelations and reciprocity (Gouldner, 1960; Shore, Bommer, Rao, & Seo, 2009).

Leaders in social exchanges rely on their followers to work on their account and encourage them to undertake more demanding and responsible job tasks. Followers in these relationships have frequent interactions with their leaders, experience their support and trust, take extra tasks and efforts to achieve objectives of a working group (Kang & Stewart, 2007). Relationships marked with higher LMX, demanding tasks, decision-making and emotional support enhances perceived safety and increases interest of employees in work performance (Van den Broeck et al., 2014). Moreover, high LMX relationships are related to positive interactions between leaders and followers, increasing job satisfaction and work engagement (S. Liu, Lin, & Hu, 2013).

Early work on LMX focused on relationships between dyads (Vertical Dyad Linkage) drawing from the role theory (Bernerth et al., 2007), but now increasingly rely on social exchange theory (Blau, 1968), where leaders distinct among followers, so they consequently respond differently to their behaviour (Jiwen Song et al., 2009). These distinct reactions toward received treatment can on one hand create social exchange relationship (characterized by mutual trust and respect) or economic exchange relationship (transactional, does not exceed contractual requirements) (Blau, 1964; Jiwen Song et al., 2009; Shore et al., 2006).

In a social exchange (i.e. SLMX), focus is on long-term relationships, socio-emotional aspects, high level of trust, extensive investment in employees and empowerment (Scandura & Pellegrini, 2008; Shore et al., 2009; Shore et al., 2006). On the other hand, economic exchanges (i.e. ELMX) are short-term oriented, level of trust is low and have well-defined

demand and tasks through employment contract (Shore et al., 2006; Tsui, Pearce, Porter, & Tripoli, 1997). Economic exchanges are also often referred to as negotiated exchanges (Cropanzano & Mitchell, 2005), where there is a minimum level of emotional dedication to the organization. Followers in economic relationships perform only tasks defined in their employment contract, without additional interest in contributing to the organization beyond basic contractual requirements (Jiwen Song et al., 2009).

In the LMX literature we often find very similar conceptualizations of social LMX relationship with those of high-quality LMX relationships. On the other hand, economic LMX, by contrast, is different from low-quality LMX (Berg, Grimstad, Škerlavaj, & Černe, 2017). Specifically, by definition ELMX is not a complete opposite to SLMX, as it is in case of low vs. high quality LMX. The nature of ELMX is limited to the performance of assigned job requirements in accordance to employment contract. Invested emotional effort is minimal in reciprocal exchanges and is less likely that employees will foster commitment and trust (Buch & Kuvaas, 2016; Kuvaas et al., 2012). Furthermore, social exchange theory includes socio-emotional as well as economic reasons, and employees might engage in both types of exchange relationships simultaneously.

Literature on social exchange theory has extensively examined perceived organizational support and conceptualized as the quality of leader-follower exchange/interaction. Specifically, implications and benefits of high organizational support result in higher job performance (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001; Hochwarter, Witt, Treadway, & Ferris, 2006) and increases the possibility of engagement in organizational citizenship behaviour (OCB; Ferris, Brown, & Heller, 2009). On the other hand, CWB represents discretionary behaviour that is conscious in choices with an intent to violate organizational norms and rules of conduct (Mount et al., 2006). According to social exchange theory framework, understanding CWB enactment lies in the reasoning of any exchange relationship, that individuals weigh costs and benefits in forming human relationships (Mount et al., 2006). In a social exchange process, leaders' can propose positive (e.g., providing organizational support) or negative initial actions (e.g., abusive supervision), where employees then choose to respond in positive or negative reciprocation (Cropanzano, Anthony, Daniels, & Hall, 2016).

According to social exchange theory, individuals will react beneficially on positive actions, resulting in positive reciprocating responses, which may encourage employees towards higher levels of organizational commitment (Cropanzano et al., 2016) and potentially diminish negative behaviour such as CWB. Thus it follows:

H1a: The relationship between SLMX and CWB will be negative.

On the other hand, economic exchange is characterized with lower levels of trust and relationships are more short-term oriented. Furthermore, employees respond according to perceived nature of the exchange relationship (Jiwen Song et al., 2009). Therefore, the perception of an economic exchange with short-term focus and no mutual interests will invoke minimum performance effort of employees, while they are also concerned with the equivalence of returns, calculating potential rewards, are impatient about future returns, and pursue self-interest without caring about collective goals (Jiwen Song et al., 2009, p. 63).

These exchanges reflect basic expectations of an employee from an organization (Coyle-Shapiro & Shore, 2007), while they also avoid obligations towards other members (Loi, Mao, & Ngo, 2009). Employees receive standard benefits as long as they deliver tasks defined in their employment contract. Only basic supervision is implemented and little effort of leaders is invested in developing such relationships, with no additional support or resources available for those employees involved in economic exchanges (Loi et al., 2009).

As a result, employees are psychologically distant from the organization and unwilling to contribute beyond basic contractual requirements. They may feel neglected, ignored or isolated, focusing and narrowing their interest on immediate and tangible returns (Loi et al., 2009; Wong, Wong, Ngo, & Lui, 2005). They might also feel that their work is not appreciated enough or that organizations does not recognize employees' contribution, thus an individual is inclined toward economic exchange. This suggests that when economic exchange is high, employees may display higher levels of CWB (Shore et al., 2006).

H1b: The relationship between ELMX and CWB will be positive.

Research has also found that CWBs have important implications for the well-being of organizations and their members (Ariani, 2013; Sackett & DeVore, 2001). With the awareness of costs and other negative consequences comes a growing consciousness of CWB. It is therefore of great importance for organizations to identify CWB and examine the underlying reasons why individuals engage in such behaviour and finally, to understand how to prevent such behaviour and to develop effective ways to address OMB.

2.2.3 Motivation to lead

MTL is related to decisions and behaviours of leaders and increases effort and engagement of leaders through leadership training, roles and responsibilities. Individuals' MTL can change with gaining leadership experience and training (Chan & Drasgow, 2001). In social exchanges, where the relationship is based on mutual trust and respect, members transfer their ethical values, beliefs, knowledge and experiences, which enables the relationship to evolve on a higher level. Through gaining experience MTL within an individual can potentially predict outcome behaviour (e.g. CWB; Kark & Van Dijk, 2007).

However, MTL has insofar gained scant empirical and theoretical attention of researchers, not only in examining its antecedents (Chan & Drasgow, 2001; Hong, 2005) but also in considering its association with organizational outcomes and leader behaviour (Chan & Drasgow, 2001). Literature overview shows that MTL has its core roots in social cognitive theory (Bandura, 1986), assuming that leader brings in a situation certain personal characteristics (e.g. knowledge and skills) and individual differences (e.g. cognitive ability and personality) (Chan & Drasgow, 2001). Table in the Appendix 2 shows main works that MTL has been drawn from: social cognitive theory (Bandura, 1986), leadership and leader-follower relationships (Bass, 1985). This stream of research on leadership, exchange relationship, efficacy and performance started to question the underlying motives to achieve better performance (Garg & Rastogi, 2006; Van Iddekinge, Ferris, & Heffner, 2009).

Personality and values as non-cognitive ability constructs are related to leader behaviour through MTL (Chan & Drasgow, 2001). Individuals' MTL is associated with their engagement and development of different leadership roles and activities as well as their potential for gaining different skills and knowledge, and also leadership style (Chan & Drasgow, 2001).

Past researchers gave considerable amount of attention to examine the link between individual differences and outcome behaviour (Judge, Bono, Ilies, & Gerhardt, 2002; Lord, De Vader, & Alliger, 1986). Until recently, research on MTL was largely theoretical and lacked empirical support. First standard model was developed and conceptualized by Chan and Drasgow (2001), measured with three correlated dimension: Affective-Identity, Social-Normative and Non-calculative MTL (Chan, Rounds, & Drasgow, 2000), which have common conceptual grounds with theory of reasoned action (Fishbein & Ajzen, 1975) and theory of interpersonal behaviour (Triandis, 1979).

The first motivational dimension, high Affective-Identity MTL refers to people who have internal motivation or prefer to lead and see themselves as leaders. They tend to be outgoing and sociable (i.e., are extraverts), value competition and achievement (i.e., are vertical collectivists), have more past leadership experience than their peers, are confident in their own leadership abilities (i.e., have high self-efficacy) (Chan et al., 2000), and are often driven to lead out of need to satisfy their own leadership standards (Kark & Van Dijk, 2007). This dimension reflects leadership self-efficacy and experience, and represents an individual's natural tendency and enjoyment to lead others (Hong, Catano, & Liao, 2011).

Second, individuals high on the Social-Normative MTL dimension are motivated by a sense of social duty and responsibility and are also accepting of social hierarchies yet rejecting of social equality. These individuals also tend to have more past leadership experience and confidence in their leadership abilities (Chan et al., 2000).

Third, individuals with high on Noncalculative MTL are not calculative (about the costs and benefits) about leading. Sociocultural values, such as collectivistic (i.e., group- or other-oriented) play a more important role in Noncalculative MTL (Chan et al., 2000). Individuals are motivated to lead despite considerations of expediency (Amit, Lisak, Popper, & Gal, 2007), this dimension is also associated with individual's level of altruism (Hong et al., 2011).

Employee engagement to take on a leadership role within an organization may yield positive outcomes in relation to organizational performance (Miner, Crane, & Vandenberg, 1994; Ng, Eby, Sorensen, & Feldman, 2005). MTL has been theoretically operationalized and validated as a construct of workplace motivation focused on a specific type of organizational role (Chan & Drasgow, 2001). Motivation of this specific category may encourage employee's decisions to undertake leadership roles (Chan & Drasgow, 2001; Porter, Riesenmy, & Fields, 2016) as well as predict leader emergence within work groups (Chan & Drasgow, 2001; Hong et al., 2011).

2.2.4 The interaction between LMX, motivation to lead and counterproductive work behaviour

Many motivation studies focused their attention on followers, but later there was a shift in focus to leader motivation (Bower, 1966) that stems from their inner motivation in pursue of good performance in managerial positions (Miner et al., 1994). According to theories of interpersonal behaviour, beliefs and attitudes (Triandis, 1979), behavioural intentions are conveyed through MTL (Hong et al., 2011).

MTL has been so far explored in relation to transformational leadership, participants reported higher levels of MTL when they were exposed to transformational leaders (Waldman, Galvin, & Walumbwa, 2013). Leaders with high MTL will probably identify more with their role as leaders, strengthen their exchange relationship, and as a consequence lower the probability of engagement in CWBs. Associated with previous studies (Chan & Drasgow, 2001; Hong et al., 2011; Kark & Van Dijk, 2007; Waldman et al., 2013), findings so far suggest that the negative relationship between LMX and CWB should be stronger when leaders possess higher levels of MTL.

So far, extensive research has supported the negative link between LMX and CWB (Martin et al., 2016; Martin et al., 2017; Townsend, Phillips, & Elkins, 2000), where there is less CWB in dyads with perceived higher levels of LMX. Additionally, MTL of a leader as an intrinsic factor that encourages their engagement in leader roles and predicts followers' behaviour should reinforce the relationship between LMX and CWB, reducing the occurrence of CWB.

These variations of intrinsic motivation of individuals also trigger different levels of work effort and are not related to different LMX relationships in the same way (Buch, Kuvaas, Dysvik, & Schyns, 2014). Consequently, outcome behaviour is determined by their interest in the activity itself as a primary motivator, which means that contextual factors are less influential. Therefore, the level of LMX has less impact on outcome behaviour (e.g. preventing burnout or influencing work performance; Dysvik, Kuvaas, & Buch, 2010; Fernet, Gagné, & Austin, 2010) than higher levels of intrinsic motivation, such as MTL (Buch et al., 2014; Dysvik, Kuvaas, & Gagné, 2013), which means that their interest in task itself prevails and conveys to higher levels of work performance (Buch et al., 2014) and discretionary behaviour.

In a social exchange relationship (i.e. SLMX) employees feel safe to perform the required work, discuss errors and mistakes, share knowledge (Van den Broeck et al., 2014) and exhibit discretionary behaviour (Hackett & Lapierre, 2004; Jiao, Richards, & Zhang, 2011). Furthermore, SLMX as a manifest of reciprocal obligations increases commitment to their leaders and is related to higher self-efficacy (Kuvaas et al., 2012). Leaders in exchange relationships transfer their values and experiences on their followers, which is related followers' behaviour. For example, social exchanges encourage discretionary behaviours, but the extent to which followers will be engaged in these behaviours depends on a leaders' motivation to develop these relationships and predict outcome behaviour.

According to the dimensionality of MTL, those who score high on affective MTL are motivated to lead because they have a desire to lead others, enjoy leading and perceive themselves as leaders. The second, social normative MTL, suggests that leaders scoring high on this component undertake leadership roles out of sense of duty or responsibility and obligation. Finally, the third component is noncalculative MTL, which implies that leaders do not consider certain costs of leading opposed to benefits. Those who score low on noncalculative MTL enjoy leading others and are less likely to avoid leadership role (Chan & Drasgow, 2001; Kark & Van Dijk, 2007). Thus, we propose:

H2a: The relationship between SLMX and CWB will be more negative at higher levels of MTL.

Existing theoretical and empirical evidence suggest that ELMX relationships have a clear transactional character and are a significant predictor of several leadership criteria (Judge & Piccolo, 2004). However, past researchers did not explicitly hypothesize the relationship between ELMX and OCB (Eisenberger et al., 2001; Shore et al., 2006).

Theoretically, ELMX relationships, regarded as purely transactional and short-term oriented, should encourage behaviour consistent with organizational expectations (Shore et al., 2006).

Nevertheless, empirical research on organizational exchange perceptions has discerned negative relationships between economic exchange and OCB (Kuvaas et al., 2012; Kuvaas & Dysvik, 2010, where employees are concerned about the equivalence of returns, calculate for rewards, are impatient for future returns, and in pursue of self-interest (Jiwen Song et al., 2009).

In addition, organizational commitment literature provides indirect evidence for a negative relationship between ELMX and work performance (Kuvaas et al., 2012). Consequently, with lower levels of MTL, leaders in economic exchanges would exhibit less interest in long-term oriented outcomes and focus mostly on transactional demands (Buch et al., 2014; Buch, Martinsen, & Kuvaas, 2015). Lower MTL could also be related to individuals' expectations of reciprocity and not being as demanding as one that is highly motivated to lead. This diminishes extra effort of employees (Buch et al., 2014; Maslyn & Uhl-Bien, 2001) and can enhance the likelihood of engagement in CWB. Those who score low on affective MTL are less motivated to lead and do not enjoy in undertaking leadership roles. Similarly, those who score low on social normative MTL do not feel obligation to lead, are less accepting toward social hierarchy and are advocating more equality. On the other hand, high scoring on noncalculative MTL implies that individuals are more calculative about the costs and benefits, therefore their MTL depends on their cost-benefit analysis and increases the likelihood to avoid leadership roles (Chan & Drasgow, 2001; Kark & Van Dijk, 2007).

H2b: The relationship between ELMX and CWB will be less negative at lower levels of MTL.

2.3 Methods

Literature review offers relatively scarce extent of research in the area of MTL (Web of Science Core Collection shows only 58 results) and its link to leadership field. To provide more comprehensive and interrelated view, we use methodological approach of document co-citation analysis. Moreover, such science mapping attempts to build bibliometric maps in order to find intellectual connections within scientific disciplines and enables us to describe the structure of specific disciplines or research fields (Cobo et al., 2011).

In the second step, a multilevel analysis via HLM was performed to test suggested model and hypotheses. HLM is efficient at accounting for variance among variables at different levels and investigates relationships within and between hierarchical levels of grouped data simultaneously (Woltman, Feldstain, MacKay, & Rocchi, 2012).

2.3.1 Sample and procedure

First, we applied co-citation analysis to identify most influential works for construct development. We used only single time interval (1990-2018) to effectively capture a

sufficiently large sample size of primary papers, because there was a relatively small amount of papers published in the field of MTL. Of the 2,913 secondary documents, 30 met the threshold of a minimum of 5 citations of a cited reference. Once imported, that database was normalized by VOSviewer (van Eck & Waltman, 2014) and visualization of a bibliometric network was performed. The results are presented in Appendix 2.

Second, the proposed relationships were tested through a field study that was taken among three large international technological organizations with a total sample size of 217 employees, nested into teams with assigned unique leaders. All employees were informed in advance about the purpose of the study and its confidentiality. HR managers encouraged their employees to participate in the survey in a certain time period.

The first company is the leading system integrator for industrial and building automation and provider of IT solutions for production management and analysis. Their services and solutions are highly acknowledged in pharmaceutical industry, food and beverage industry, aeronautics, defense and security. The majority of employees are male gender (90 %), mostly with university degree (44 %) with age average of 42 years. The second company is one of the leading European home appliance manufacturers that aims for technological perfection, superior design and to raise the quality of living for the users with energy-efficient home appliances. The majority of employees are male gender (72 %), mostly with university degree (38 %) with age average of 41 years. The third company offers products for efficient energy use, communication systems, data management software and supportive services. The gender structure is more balanced (39,1 % female and 47,8 % male), mostly with high school degree (31 %) with age average of 40 years. Table 2 shows the structure of the sample.

Table 2: Sample structure

Company	1	2	3
<i>Gender (in %)</i>			
Female	10	28	39,1
Male	90	72	47,8
<i>Education (in %)</i>			
Doctorate Degree	6	4	0
Master's Degree	10	16	5
Bachelor's Degree	44	38	15
Higher school education /Professional Degree	25	32	15
High School Diploma/Secondary education	13	10	31
Primary Education	2	0	28
<i>Age average</i>	42	41	40
<i>Employment tenure average</i>	15	8	13

Table 3 shows descriptive statistics for each of the company for age, employment tenure and tenure with a leader.

Table 3: Sample descriptives

	<i>Company</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>Age</i>	1	25.00	62.00	42.17	7.96
	2	24.00	80.00	40.47	10.62
	3	24.00	62.00	39.93	9.91
<i>Employment tenure</i>	1	0.00	34.00	14.54	11.61
	2	0.00	22.00	7.67	6.76
	3	0.90	40.00	12.77	11.33
<i>Tenure with a leader</i>	1	0.00	25.00	3.76	4.73
	2	0.00	22.00	5.74	6.15
	3	0.00	15.00	4.83	3.83

2.3.2 Measures

LMX was measured by SLMX and ELMX 8-item scale, adopted from Kuvaas et al. (2012) ($\alpha = .70$). Respondents were asked to reply to what extent they agree with individual statements (1-strongly disagree, 7-strongly agree). Respondents were asked to reply to what extent they agree with individual statements (1-strongly disagree, 7-strongly agree). Sample items include: » I do what my supervisor demands of me, mainly because he or she is my formal boss« and » My relationship with my supervisor is based on mutual trust«.

Counterproductive work behaviour was measured by 10-item scale developed by Spector, Bauer, and Fox (2010) ($\alpha = .89$). Respondents were asked based on 7-point Likert-type scale (1-never to 7-every day) to indicate how often they perform each behaviour at work. Sample items include: »Told people outside the job what a lousy place you work for« and »Insulted someone about their job performance«.

Motivation to lead was measured using shortened version of 27-item original scale (Chan & Drasgow, 2001) ($\alpha = .67$). We adopted 3 items for each of the one of three dimensions and treated these as one MTL scale. Those were selected with the highest factor loadings from the study of Chan and Drasgow (2001). Sample items include: »I usually want to be the leader in the groups that I work in«, »I never expect to get more privileges if I agree to lead a group« and »I was taught to believe in the value of leading others«.

We controlled for age, gender, education and employment tenure in the current company. We might expect that age and levels of education bring more awareness about CWBs, which

would in turn result in different forms of organizational citizenship behaviour, rather than counterproductive (Cordery & Sevastos, 1993; Gruys & Sackett, 2003). Also, we did not find any relationship between gender and CWB (Gallagher, Harris, & Valle, 2008), where we could expect that females are the ones more likely to take care of the organization and other co-workers, instead of men. We controlled for employment tenure, which may influence followers' ratings of LMX (Schyns, Paul, Mohr, & Blank, 2005).

2.4 Results

We used hierarchical linear modeling (HLM) approach to test the following aspects: 1) the existence of a multilevel structure, 2) the cross-level effect of MTL at the leader level on SLMX/ELMX at the individual level, and 3) the moderation effects of MTL on the relationship between SLMX/ELMX and CWB. The dataset consisted of two hierarchically nested levels: 217 employees (level-1) nested within 31 groups (level-2).

Confirmatory factor analysis (CFA) with STATA was used to test how well measures relate to observed constructs. The three-factor structure for constructs measured at the individual level (SLMX, ELMX and CWB) displayed a rather poor fit (Chi-square = 840.98, CFI = 0.92, TLI = 0.91, RMSEA = 0.12, SRMR = 0.34). The residuals were not allowed to correlate.

Although rigid cutoffs of fit indices suggest that model could be modified or improved, we believe that multiple-perspectives should be taken into account, such as parsimony and theoretical meaningfulness. We attempt to find an interpretable model that explains the information in the data taken into account a suitable level of approximation (Barrett, 2007).

A common problem for research in individual's differences are deviations from normal distribution, which might produce unstable factor structures. Additionally, taken into consideration the length of our questionnaire and number of parameters to be estimated, it might be difficult to expect satisfactory solutions when the individual items are submitted to confirmatory factor analysis (Floyd & Widaman, 1995).

Additionally, composite reliability indices and average variance extracted were calculated (CRI = 0.29, AVE = 0.60) and indicate that latent construct (MTL) accounts for 60 % of the variance in the observed variables, on average. Composite reliability is low, however, we should take into consideration that the MTL measure is relatively new and under-researched. Also, this might be affected by the use of shortened version of scale, where we selected 3 items with highest factor loadings for each of the dimension.

Means, standard deviations and correlations are presented in Table 4. Results of hierarchical linear regression are presented in Table 5.

To examine whether there is an interaction effect, we developed a multilevel model, for which the fixed effects with robust standard errors are presented in Table 5. We started with the intercept-only model with CWB as the dependent variable (Model 1). Then, we added the general level-1 control variables (age, gender, education and tenure of employment) and found that their connection with CWB is non-significant ($p < .01$), except for education ($r = -.234, p < 0.01$).

Additionally, we added the SLMX/ELMX (Model 2) to examine the direct link, where results support the Hypothesis 1a that there is a direct relationship between SLMX and CWB ($\gamma = -.068; p = .019$), but on the other hand results show that there is no direct link between ELMX and CWB ($\gamma = -.002; p = .904$), thus not providing support for Hypothesis 1b.

In the third step we included MTL of leaders for level-2 analysis (Model 3). Main effect of MTL is not statistically significant ($\gamma = .015; p = .798$). Results also show that the interaction effect of MTL and ELMX in predicting CWB is not statistically significant ($\gamma = -.019; p = .297$), not providing support for Hypothesis 2b. However, results show support that there is an interaction effect of MTL and SLMX in predicting CWB ($\gamma = .095; p < .001$), however there is a stronger negative relationship between SLMX and CWB in cases of low MTL, thus not providing support to the proposed Hypothesis 2a.

Table 4: Means, standard deviations, and correlations

Variable	Mean	S.D.	1	2	3	4	5	6	7	8
1. Age	41.080	9.741	-							
2. Gender	1.190	.397	.200*	-						
3. Education	3.460	1.057	-.328**	-.264**	-					
4. Tenure of employment	13.535	11.847	.795**	.321**	-.461**	-				
5. MTL	4.030	.740	-.095	-.189*	-.132	-.086	(.674)			
6. ELMX	2.946	1.520	-.056	-.009	-.085	.007	.039	(.661)		
7. SLMX	4.137	1.243	-.103	-.037	.033	-.130	-.021	-.127	(.768)	
8. CWB	1.465	.476	-.058	.136	-.234**	.133	.099	.083	-.181*	(.892)

*. Correlation is significant at the 0.05 level (2-tailed).

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

N (listwise) = 144. Coefficient alphas are given on the diagonal in parentheses.

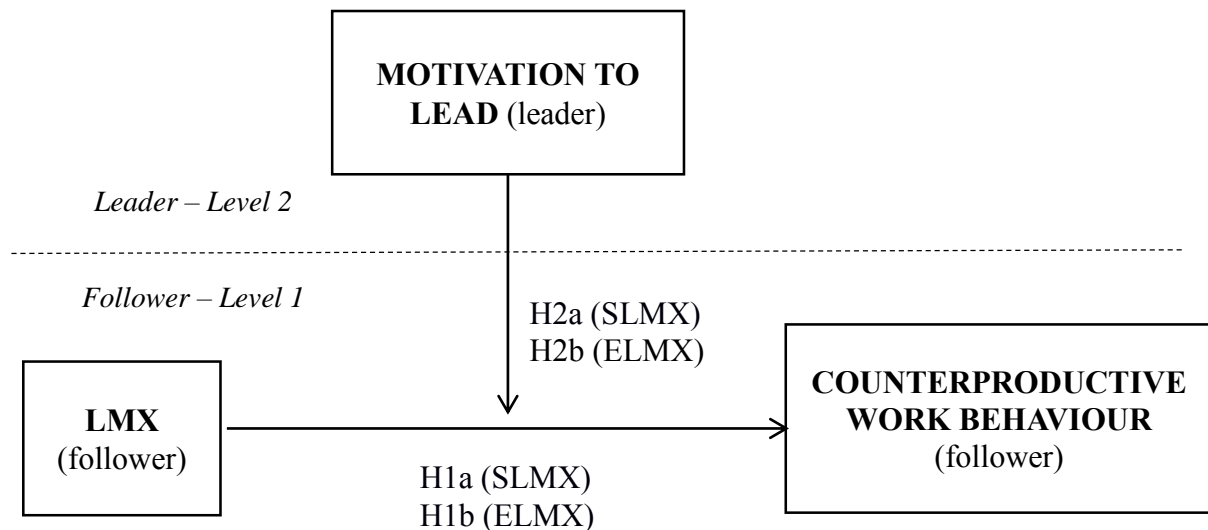
Table 5: Results of the multilevel analysis with HLM

Dependent variable: Counterproductive Work Behaviour	Model 1		Model 2 (LMX direct)		Model 3 (MTL direct and interaction)	
	Fixed effects (SE)	<i>p</i>	Fixed effects (SE)	<i>p</i>	Fixed effects (SE)	<i>p</i>
Intercept	1.484 (.059)	< .001	2.042 (.556)	.001	2.177 (.585)	.001
Age			.025 (.018)	.180	.022 (.018)	.250
Gender			.033 (.124)	.791	.018 (.126)	.886
Education			-.105 (.050)	.047	-.107 (.049)	.041
Tenure of employment			-.034 (.019)	.091	-.032 (.019)	.113
ELMX			-.002 (.018)	.904	-.005 (.016)	.773
SLMX			-.068 (.028)	.019	-.077 (.028)	.007
MTL					.015 (.056)	.798
SLMX × MTL					.095 (.026)	< .001
ELMX × MTL					-.019 (.018)	.297
Pseudo R^2			.352		.345	
Deviance	264.865		211.431		221.195	

Note. N = 217 (individual level), 31 (leader level). We report overall pseudo R^2 , estimates are based on proportional reduction of Level 1 and Level 2 errors owed to predictions in the model (Snijders & Bosker, 1999).

The conceptual model with proposed hypotheses is presented in Figure 5. Two-way interaction presented in Figure 6 shows that there is more CWB under conditions of low MTL and SLMX. On the contrary, high MTL and SLMX also exhibit higher levels of CWB, which we would expect otherwise.

Figure 5: The relationship between LMX, motivation to lead and counterproductive work behaviour



2.5 Discussion

In general, there is a quite clear consensus in extant accumulated literature on examining the link between LMX and CWB (Ariani, 2013; Chernyak-Hai & Tziner, 2014; Martin et al., 2016). In particular, high LMX indicate positive association with followers' outcomes, but on the other hand, low LMX or more economic exchanges have less beneficial consequences (Cogliser, Schriesheim, Scandura, & Gardner, 2009). Apparently, some leadership theories such as LMX are more effective in predicting organizational behaviour and performance (i.e. counterproductive behaviour) (Dunegan, Uhl-Bien, & Duchon, 2002; Ilies et al., 2007; Martin et al., 2016).

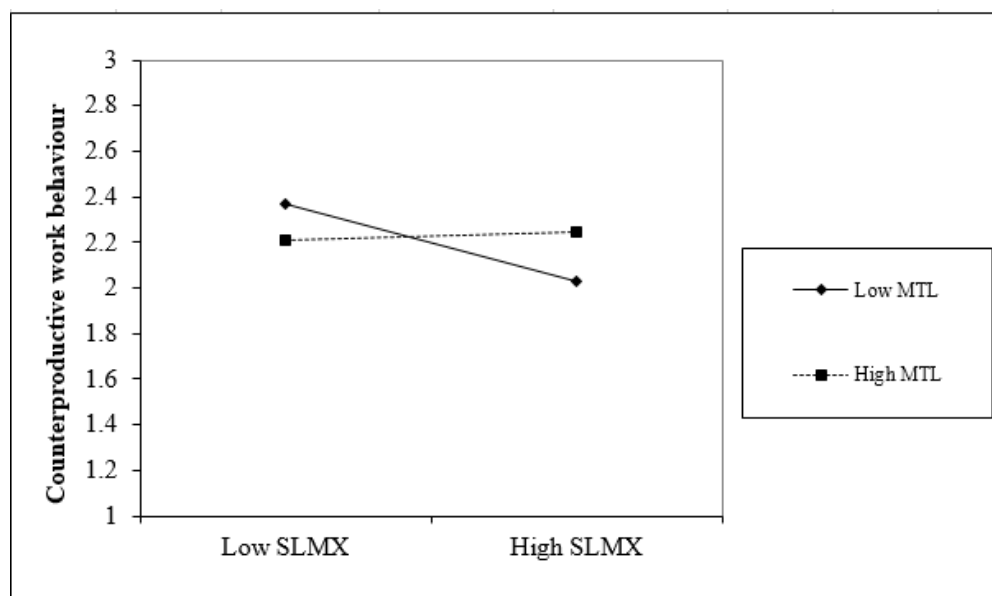
As there exists a difference in individual behaviour and personality (Cullen & Sackett, 2003; Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007; Ilies, Fulmer, Spitzmuller, & Johnson, 2009), question arises how other factors are associated with the relationship between the levels of LMX and outcome behaviour. MTL as a central focus of individuals' interest of engagement in certain activities that yield beneficial outcomes has not been yet explored from the perspective of leaders' MTL and their link to the relationship between

LMX and CWB of followers. Although we did not observe any relationship between ELMX and CWB (hypothesis 1b) in the present study, we found that there is a negative relationship between SLMX and CWB (hypothesis 1a). Exchanges that go beyond economical and transactional relationships (i.e. SLMX) are related to higher levels of invested effort, satisfaction with a leader, mutual trust and respect (Ahmed, 2015; Aryee, Budhwar, & Chen, 2002). The moderation effect of MTL on the link between SLMX and CWB shows that clearly MTL is an important mechanism related to outcome behaviour. However, our suggestion that there will be a stronger negative relationship between SLMX and CWB with higher levels of MTL, was not supported (Hypothesis 2a).

Furthermore, we did not observe any interactions of MTL and ELMX on CWB, thus not providing support for Hypothesis 2b. Obviously, ELMX does not explicitly increase engagement in CWB, very likely this could be consistent with theorizing that contractual nature of economic exchange should be unrelated to the added value of organizational citizenship behaviour (OCB) (Organ, 1990).

The absence of interactions between leaders and followers does not encourage individuals to engage beyond their contractual requirements. These kind of exchanges, often referred as economic (i.e. ELMX), do not manifest at discretionary behaviour. Consequently, employees are left to their own justice judgements and perceptions (Colquitt, Conlon, Wesson, Porter, & Ng, 2001), unconsciously increasing likelihood of engagement in CWB.

Figure 6: Two-way interaction effect of MTL and SLMX on counterproductive work behaviour



On the contrary, higher levels of MTL and SLMX should exhibit lower levels of CWB. Social exchanges between leaders and followers are developed through series of interactions over time (Nahrgang et al., 2009), setting enough opportunities for building mutual trust and respect. In these reciprocal relationships (Gouldner, 1960) both sides recognize positive benefits of cooperation and most likely do not have other hidden harmful intentions, which increases the likelihood of engaging in discretionary behaviour rather than counterproductive.

However, in our case simple slopes plot shows that for followers with a leader with a strong MTL, the social exchange relationship between the two is of less importance with respect to reducing counterproductive work behaviour. One explanation could be that individuals in social exchange relationships have higher levels of trust, which brings to lower levels of control and supervision, even if they possess higher levels of MTL, thus allowing employees to engage in some kind of CWB (e.g. extended lunch break).

On the other hand, higher SLMX might encourage employees to undertake leadership role, thus engaging in CWBs in order to overthrow leader from its current position. Since MTL conveys behavioural intentions based on subjected attitudes towards leadership, it could be a predictor of leader emergence (Hong, 2005; Hong et al., 2011).

Additionally, past research has found that intrinsic motivation moderates the relationship between SLMX and work effort, which suggests that SLMX reciprocates with extra work effort and manifestations of MTL towards followers (Buch et al., 2014). But not all individuals react to the quality of exchanges at work in the same way (Fernet et al., 2010). This might be due to the substitutive effect, which suggests that the others might reduce the ability of a leader to predict employee behaviour and is replaced with follower's own behaviour (Jiang, Chuang, & Chiao, 2015; Kerr & Jermier, 1978; Podsakoff, MacKenzie, & Bommer, 1996).

2.5.1 Theoretical contributions

This study attempted to extend knowledge on MTL and its application to leadership field. LMX as an important aspect of relational leadership has gained a lot of attention of researchers trying to explain workplace behaviour. Our study complements previous research that found support of the negative relationship between LMX and CWB (Ariani, 2013; Chernyak-Hai & Tziner, 2014; Hackett & Lapierre, 2004; Sackett & DeVore, 2001). The role of LMX in explaining CWB is already well represented, but there is a lack of research in determining mechanisms through which LMX predicts CWB.

Although meta analyses demonstrate that transactional LMX relationships are negatively related to most outcomes under the assumption that high LMX represent social exchange

relationships, whereas low LMX represent economic exchange relationships (Howell & Hall-Merenda, 1999; Wang et al., 2005), our study actually demonstrates that economic exchange relationships do not necessarily result in bad outcomes. This aligns well with the transactional leadership literature (Bass, Avolio, Jung, & Berson, 2003; Judge & Piccolo, 2004).

However, in light of research demonstrating negative relationships between ELMX and productive employee motivation and outcomes (e.g., Buch et al., 2014), we would not recommend developing ELMX relationships with followers. Therefore, our study contributes to existing body of literature on LMX and CWB as well as providing an alternative view on the LMX relationship between leaders and followers, where we focus on two relationships with different qualities such as ELMX and SLMX rather than consider LMX as a relationship that falls on a continuum from low to high quality (Kuvaas et al., 2012).

Although literature suggests that individual differences are important determinants of employee behaviour (Organ & Konovsky, 1989; Spector & Fox, 2002), research on MTL in a workplace setting and especially its role as a mechanism that can help explain outcome behaviour is rather scant. For instance, studies so far had examined MTL in a relation to leaders emergence (Hong et al., 2011), vocational interests (Chan et al., 2000), work environment, self-identity and values (Guillén, Mayo, & Korotov, 2015; Porter et al., 2016). More importantly, MTL as a construct is relatively under-investigated, thus present study is one step further in gathering empirical evidence (Chan & Drasgow, 2001).

Finally, this study contributes to methodological approaches used leadership domain, related to the multi-level nature of the proposed model with a two-source examination (leader vs. follower perspective). Leadership and its complexity goes beyond leader perspective and it is necessary to employ multi-level approach to ensure the growth of a scientific field across leadership domains (Day & Harrison, 2007). However, most of leadership domains still continue to conduct studies at the individual level of analysis, only a few started to embrace multi-level approach (e.g. transformational and authentic leadership; Batistič et al., 2017; Yammarino, Dionne, Schriesheim, & Dansereau, 2008).

2.5.2 Practical Implications

Findings of this study conform to previous examinations of the relationship between LMX and CWB. However, past studies still fail to provide practical recommendations, which activities in fact can help develop higher LMX, making its understanding more valuable to organizations. Furthermore, as already empirically supported, the level of an exchange relationship is an important predictor of outcome behaviour.

Second, we proposed that moderating effect of MTL would strengthen the relationship between SLMX and CWB. Although results show that moderation exists, the two-way interaction plot revealed unexpected levels of CWB, suggesting that followers engage in pretty much the same levels of CWB as a result of SLMX when they have a leader that is motivated to lead. This suggests that there may be two alternative routes to dealing with CWB in organizations, either develop SLMX relationships or recruit leaders motivated to lead. In this case we can take into account that there is a wide variety of organizational, individual and task characteristics that can work as substitutes to enhance or diminish leader's influence on employee behaviour (Kerr & Jermier, 1978). Since followers react differently on the levels of LMX in interpersonal relationships (Fernet et al., 2010), they might substitute leader's MTL and their intentions to influence employee behaviour with their own. Therefore, organizations should consider individuals' MTL and their fit or misfit within assigned job roles, create environment and adapt HR systems and practices that enable development through informal events.

2.5.3 Limitations and future research directions

First limitation is that our study is based on cross-sectional and self-reported data. Relying on self-perceptions might cause more biased results, however, such an approach is necessary for understanding peoples' emotions, actions and beliefs (Wood, Linley, Maltby, Kashdan, & Hurling, 2011). In addition, we adopted well validated measures established in extant literature. Future research should try to complement cross-sectional studies with additional experimental data, to rely on more objective indicators workplace behaviour.

The second important limitation are low alpha and composite reliability scores, which are internal consistency reliability measures as evidence of convergent validity. This might be due to multidimensionality of MTL scale and the fact that the measure of MTL is relatively new. We encourage future researchers to further examine MTL measure, as it was attempted by Bobbio and Rattazzi (2006), where the results of their study indicate that "*the MTL Scale can be considered a useful research instrument in social, personality and organizational psychology*" and that "*correlations with the Social Desirability and McClelland Scales should be taken into consideration in order to improve and apply the MTL Scale.*"

Another limitation is associated with the fact that all participating organizations in this study work in technological and IT industry. They are constantly under pressure of changing environment with the need to continuously innovate and adapt market demands. Therefore, certain variations might exist among different industries. For example, in organizations where focus is more customer oriented we might expect that social exchange relationships are more important in attempts to achieve higher organizational performance. Employees are more engaged in social interactions with their colleagues, suppliers and customers. On the other hand, in specific environments, where companies rely and are dependent on

accomplishing certain job tasks that are part of a certain broader processes, for example production or manufacturing industry, the need for social exchange might be of less importance.

Future studies should attempt to extend research on MTL and how they are related to leader-follower relationship and focus on possible boundary conditions that can be associated with LMX and CWB relationship (Davidovitz et al., 2007). For example, MTL is associated with predicting leader emergence (Hong, 2005; Hong et al., 2011), which might be due to negative perceptions of their existing leaders, therefore, employees would engage in leader roles on their own initiative, which might be related to certain types of CWB enactment in order to overthrow their current leader.

Applying a multi-level approach offers a great potential for advancement and development of a scientific field (Mathieu & Chen, 2011). In this study, the level of measurement of constructs was the individual-level and were assessed with the individual-level data. Proposed cross-level moderator model describes top-down impact of leaders' MTL on the relationship between followers' LMX and CWB. It would be interested to also consider bottom-up emergent processes, how characteristics of individuals manifest at higher-level (Kozlowski & Klein, 2000).

3 THE ROLE OF LEADERSHIP ATTACHMENT AND PSYCHOLOGICAL SAFETY IN THE RELATIONSHIP BETWEEN LEADER-MEMBER EXCHANGE AND COUNTERPRODUCTIVE WORK BEHAVIOUR

3.1 Introduction

Research in organizational behaviour has extensively focused on interpersonal relationships that determine functioning of individuals, teams and organizations. These examinations mostly investigate the relationships between characteristics of an individual and their behaviour at work. To date, research on interpersonal relationships in a workplace setting tended to focus on broad personality traits (e.g., the Big Five) that have been shown to be associated with various outcomes, such as performance (Barrick & Mount, 1991; Hurtz & Donovan, 2000) and counterproductive work behaviour (Bolton et al., 2010; Salgado, 2002).

Counterproductive work behaviour (CWB) refers to deliberate voluntary behaviour that is oriented toward organization (e.g. destroying firm's assets) or a member of an organization (e.g. aggression; Sackett & DeVore, 2001). Many studies examined the possible antecedents of CWBs, mainly focusing on interpersonal conflict (Germeys & De Gieter, 2017; Spector & Fox, 2005), job satisfaction (Gottfredson & Holland, 1990) and personality attributes (Bolton et al., 2010; Grijalva & Newman, 2015; Salgado, 2002). According to Spector and Fox (2002) environmental and personal factors lead to behaviour through mediating processes of perception and emotion, which act as a stimuli that can induce positive or negative reactions and consequently produce intentions to act.

Contingent on social exchange theory, a basic assumption of fair exchange relationship provides a framework for conceptualizing the impact of these relationships on CWB and how these relationships are formed and developed (Forsyth, Banks, & McDaniel, 2012). Followers in a dyadic relationship reciprocate perceived levels of the exchange (Blau, 1964; Gouldner, 1960). Therefore, employees in exchanges with higher levels of LMX will reflect discretionary individual behaviour (Ilies et al., 2007; Settoon et al., 1996), but on the other hand, when followers do not positively reciprocate in the exchange relationship, this can lead to different forms of CWB enactment (Chernyak-Hai & Tziner, 2014).

So far, extensive research has shown that leader-follower exchanges such as LMX have a significant association with individuals and organizations' performance (Gerstner & Day, 1997; Judge & Piccolo, 2004; Martin et al., 2016), where employees with a higher levels of LMX should perform better and take extra effort beyond formal requirements than those with lower levels of LMX (H. J. Klein & Kim, 1998; Martin et al., 2016; Vecchio & Gobdel, 1984). Recently, there has been more emphasis on individual's needs and how they manifest in the workplace, which turned the focus of organizations investing effort to detect and prevent CWBs.

The leader-follower relationship is associated with the perceptions of psychological safety. Psychological safety in the workplace refers to feeling safe in terms of preserving employment relationship (e.g., tenure of employment contract), open communication and performing tasks with the permissibility of errors (Van den Broeck et al., 2014).

According to Hofmann and Morgeson (1999) social exchange perspective helps build theoretical foundations for safety climate, which manifests through training processes and perceptions of reciprocal obligation (Hofmann & Morgeson, 1999; Hofmann et al., 2003). In addition, group members are more likely to better interact in organizational context that is perceived as safe for taking interpersonal risk and freely express themselves (Edmondson, 1999). These interpersonal relationships are associated with perceptions of safety, such as meaningfulness, support and availability, and results in more dedication and engagement at work with a positive orientation towards accomplishing organizational goals (Ariani, 2013). Moreover, the different patterns of interactions in exchange relationship can help followers collaborate in psychological safe environment, which can encourage individuals towards organizational discretionary behaviours and prevent engagement in CWBs.

With increased interest in examining relational aspects in organizations, more researchers also considered individual differences, such as personal attributes and characteristics of individuals. From a relational perspective, attachment theory provides a deeper understanding of interpersonal dynamics in a dyadic relationship (Popper, Mayseless, & Castelnovo, 2000; Troth & Miller, 2000), as individuals develop different representations of themselves and significant others through their experiences in past relationships (Davidovitz et al., 2007), which conveys in a workplace setting. Such an approach enables us to explain how leaders are connected with their employees and how employees make sense of these exchange relationships (Černe et al., 2018).

Contributions of this study are twofold. First contribution refers to the psychological safety as a key explanatory mechanism for manifestation of CWBs. With high LMX relationships individuals have greater ability for communicating larger spectrum of emotions, are open for new ideas and information, relationships are more flexible, show appreciation and value toward self and others (Carmeli et al., 2009). These relationships enable employees to perform tasks without fear of failure and take advantage of learning from their mistakes, share open communication and have common goals. High LMX relationships encourage positive social context, where people respond in positive ways, are acknowledged and appreciated, and more likely engage in process of task performance (Carmeli & Gittel, 2009; Edmondson, 1999). Therefore, we expect that higher LMX is an enabler of psychological safety, through which outcome behaviour among organizational members is manifested, resulting in less engagement in CWBs.

Second contribution is to extend the conceptualization of adult attachment to the LMX research. Leaders as attachment figures form emotional relationships with their followers, which is analogous to parental relationship (Popper & Mayseless, 2003). Applying such conceptualization can help us to better understand the dyadic relationships between leaders and followers by accounting for interpersonal conceptions about oneself and others simultaneously (Černe et al., 2018; Popper et al., 2000). Furthermore, it can reveal how leaders can manipulate representations of attachment to achieve desired outcomes (Shaver & Mikulincer, 2010).

Moreover, attachment as a possible mechanism that is associated with relational leadership behaviours and negative outcomes such as CWB, provides an opportunity to examine interpersonal dynamics, since these outcomes were shown to be related to leader's and follower's personal characteristics (Černe et al., 2018; Škerlavaj et al., 2014). Furthermore, it extends our understanding in explaining how individual differences are associated with dyadic leaders-follower relationships (Berson, Dan, & Yammarino, 2006), as mental representation of attachment in their early experiences predict later behaviour and relationship development (Crowell & Treboux, 1995; Richards & Schat, 2011).

Following Harms (2011), individuals with secure or anxious attachment are more inclined toward closeness than avoidantly attached. In relationship building securely attached individuals have the ability to grow trust and are emotionally more stable, whereas in insecure attachment they might be more likely to perceive incivility and feel more distressed (Cortina, Magley, Williams, & Langhout, 2001; Leiter, Day, & Price, 2015).

In workplace social interactions psychological safety reflects the relationships among employees, their approach about how they perceive them and the propensity to build and maintain these relationships according to the attachment style of an individual (Leiter et al., 2015). Therefore, the interaction of attachment and LMX is transmitted through perceived psychological safety onto CWB engagement.

3.2 The interplay among LMX, leadership attachment styles, psychological safety and counterproductive work behaviour (CWB)

Leaders that have the ability to create suitable environment for knowledge sharing, can increase or decrease levels of perceived psychological safety (Nembhard & Edmondson, 2006; Walumbwa & Schaubroeck, 2009). Psychological safety is defined as the ability of an individual to freely express himself without any negative consequences for his or her self-esteem (May, Gilson, & Harter, 2004) and is a shared belief that the team environment is safe for interpersonal risk taking (Edmondson, 1999). Psychologically meaningful and safe work environment encourage employees' engagement, which means that they are more dedicated to task performance (Ariani, 2013). Higher level of psychological safety is marked by mutual trust and respect so that negative retaliation by others is less likely to happen (S.-m. Liu et al., 2015).

Moreover, it alleviates excessive concern about what others' reactions will be towards individuals' actions that can be potentially embarrassing or might decrease chances to make or deal with subsequent changes that would help team to adapt (Edmondson, 1999; Nahrgang et al., 2011). If team members perceive that it is safe to disclose errors and discuss them, if they respect and feel respected by other team members, then such environment will most likely bring benefits for organizational outcomes. Furthermore, research on distributive justice shows that people consider more relational than instrumental aspects when it comes to allocation decisions made by leaders as authority figures (Carmeli, Reiter-Palmon, & Ziv, 2010; Edmondson, 1999). Additionally, psychological safety is linked to increased engagement at work and higher discretionary effort of employees (Ariani, 2013). Therefore, we suggest that higher levels of psychological safety would make social exchanges even more solid, where these interactions include high levels of mutual trust and respect, resulting in lower likelihood of engagement in CWB.

LMX has a buffering role when it comes to lower levels of psychological safety and serves as social support for in-group members (Hu & Zuo, 2007). In relationships with higher levels of LMX individuals receive more emotional support and time from their leaders than those with lower levels of LMX. These followers gain many advantages, as their social relationship with their leaders can enable them to extend their social network and easily access to key individuals and more resources (Sparrowe & Liden, 1997). In strong social exchange relationship employees experience higher levels of psychological safety and are more inclined to take interpersonal risks (Halbesleben, 2010). When employees are not facing a psychological safe environment, they take advantage of social exchanges for preventing negative outcomes of such insecurity (Probst, Jiang, & Graso, 2016).

Employees are more engaged in psychologically meaningful and safe environment (Ariani, 2013). On the contrary, lower levels of LMX and experiences of psychologically unsafe

climate can enhance negative consequences (Probst et al., 2016), such as enactment of counterproductive behaviour at work. Theoretical foundations of social exchange theory help us explain engagement of an individual in discretionary or counterproductive behaviours. When individuals invest extra effort in performing tasks, this increases their tendency toward behaving in ways that encourage and foster social and psychologically safe environment (Ariani, 2013; Borman & Motowidlo, 1997).

Therefore, we suggest that higher levels of LMX enable higher levels of psychological safety, which is in turn related to outcome behaviour. Psychological safety transmits the levels of LMX to CWB, where higher LMX relationships marked by mutual trust and respect will be associated with behaviour of employees depending on the levels of psychological safety. Higher levels of psychological safety will transfer higher LMX and in turn encourage employees to engage in discretionary behaviour. Lower levels of psychological safety will diminish the effect of higher LMX, increasing the probability for the engagement in CWBs.

H3: Psychological safety mediates the relationship between LMX and CWB.

Drawing from social perspective on work relationships, there exists interrelatedness among intra and interpersonal characteristics of individuals in relation to behaviour (Crosby, Evans, & Cowles, 1990). Leadership attachment styles include both intra and interpersonal features and considers also for personal characteristics of the followers and the perception of the dyadic relationship they have with their supervisors (Černe et al., 2018).

Adult attachment theory is based under the assumption that individuals create different representations of self and significant others on the basis of their interpersonal relationships that they have experienced in the past (Fraley, 2007). Attachment styles were initially associated with research on observing the parental relationship (Hazan & Shaver, 1987). Basically, the development of an attachment style is shaped in the childhood, reflecting the attachment that a child builds with primary caregivers (i.e. parents; M. D. S. Ainsworth, 2006) and it later shifts toward other people (M. S. Ainsworth & Bowlby, 1991). However, the application of attachment theory into leadership field hasn't gained more interest of researchers until recently, trying to explain individual behaviour in organizations and leader-follower relationships (Černe et al., 2018; Richards & Hackett, 2012). Moreover, this unique array of work relationships provides (Davidovitz et al., 2007) an understanding how followers make sense of these dyadic interactions and how they perceive their relationship with the leader (D Day & Harrison, 2007). The concept of attachment is relevant in examining social-relational behaviour and enables us to look at the dyadic relationship accounting for relational dynamics and individual differences simultaneously (Davidovitz et al., 2007; Popper & Amit, 2009; Popper et al., 2000). Several past studies attempted to link attachment styles as antecedent of leader-follower relationship and putting them into organizational context (Keller, 2003).

Of particular interest of researchers are certain aspects of job performance (Harms, 2011) that are regarded as more interpersonal in nature, such as CWB (Dalal, 2005) or discretionary behaviour exceeding contractual requirements (Organ, 1997) that derives from leader-follower exchange (Harms, 2011). Thus far, personality research in organizational settings has focused on personal attributes and traits that are associated with job performance (Davidovitz et al., 2007; Hurtz & Donovan, 2000), burnout (Simmons, Gooty, Nelson, & Little, 2009), and counterproductive work behaviour (Mount et al., 2006; Penney et al., 2011). In comparison to these traits, attachment style represents unique individual difference attribute that can potentially explain how individuals function at work (Černe et al., 2018; Richards & Schat, 2011). According to attachment theory, individuals will develop secure or insecure (anxious, avoidant) representations of themselves and others, depending on their experience in the past relationships with other people (Fraley, 2007; Mikulincer, 1995).

Securely attached individuals are more likely to view themselves as worthy and others as trustworthy to provide comfort and assistance, have higher levels of overall work satisfaction, which leads to greater resiliency and ability to cope with difficulties (Mikulincer, Shaver, Gillath, & Nitzberg, 2005; Richards & Schat, 2011). Individuals with secure attachment are more flexible and resilient in their emotion regulation (Mayseless, 2010), which enhances the tendency towards higher social exchange in a relationship and consequently reduces the likelihood of engagement in CWB. On the other hand, anxiously attached individuals have a negative view of themselves, leading to defending strategies and exaggeration in hurt feelings (Mikulincer et al., 2005). Avoidantly attached individuals perceive others as unavailable or unsupportive (Collins & Feeney, 2000; Shaver & Mikulincer, 2010), denying the importance of relationship development and evade from emotional intimacy (Richards & Schat, 2011).

From leader-follower perspective, employees' engagement in CWB is less likely to happen in instances of social exchange relationship (Hackett & Lapierre, 2004; Spector, 2011; Xu, Huang, Lam, & Miao, 2012). Taking into consideration that individual differences might shape the nature of interpersonal relationships, past experiences in relationships with other people could strengthen or diminish perceived nature of the exchange (e.g. higher or lower levels of LMX) in the workplace. Furthermore, leaders in these exchanges share common values, beliefs and organizational goals with their followers or group members, which increases their intrinsic motivation for extra performance and engagement in behaviours that are discretionary rather than counterproductive. These discretionary behaviours will most likely result from relationships with higher levels of LMX, where followers take extra effort to undertake more responsible and demanding job tasks not defined in their employment contract.

We propose that attachment styles should bring out the nature of exchange relationship, where leader-follower exchange depends on individuals' experience in the past relationships with others. Additionally, we can potentially explain individual behaviour at work through individual attachment, as their attachment style reflects how they see themselves as well as significant others (Richards & Schat, 2011). In relation to leadership, leaders are considered as attachment figures, which is associated with leader-follower relationship (Hinojosa, McCauley, Randolph-Seng, & Gardner, 2014). Thus, we propose that higher levels of secure attachment will enhance levels of psychological safety in the relationship between LMX and CWB:

H4a: The relationship between LMX and CWB mediated by psychological safety will be further upward adjusted when the follower experiences secure type of attachment.

On the other hand, individuals with avoidant attachment generally avoid getting close to others and develop deactivating or passive approach towards emotion regulation, therefore they ignore other people's needs and prefer to rely on themselves (Maslyn et al., 2017; Mayseless, 2010). Avoidantly attached individuals perceive their relationships as more temporary and tend to extremely rely on themselves, with little appreciation on close relationships with others (Hazan & Shaver, 1987; Maslyn et al., 2017). Individuals that portray this characteristic might demonstrate happiness and satisfaction to a greater degree in comparison with anxiety attachment, but at the expense of social bonding positive emotions such as love and compassion (Shiota, Keltner, & John, 2006). Even in reciprocal social exchange relationship, individuals with avoidant attachment might undertake more responsible job tasks as long as they are consistent with their self-interests. However, they do not invest effort in relationship development neither seek support from others, which can lead to uncertainty and poor communication regarding organizational goals (Černe et al., 2018; Maslyn et al., 2017). Thus, even in a psychologically safe environment their behaviour would depend mostly on their own needs, prioritizing self-interests towards others, allowing more room for manifestation of counterproductive behaviour. Their sense of insensitivity and uncaring towards other people might lead to diminished performance among followers and consequently encourage others to engage in CWB.

Moreover, individuals with avoidant attachment might negatively reciprocate their behaviour, as they are more distant in exchange relationship and disregarding other people's needs. Consequently, this also increases the potential to intentionally engage in counterproductive behaviour, as they are more self-oriented and it is in their nature to react consistent with their attachment style that represents the underlying motive for their outcome behaviour. Thus, individuals with higher levels of anxious attachment will decrease the levels of psychological safety in relation to social exchange transfer toward CWB engagement:

H4b: The relationship between LMX and CWB mediated by psychological safety will be downward adjusted when the follower experiences avoidant type of attachment.

Similarly, anxious individuals are perceived to be insensitive, but on the other hand preoccupied with their own feelings and needs with a strong desire for attention (Mayseless, 2010). Unlike avoidant individuals, which deactivate their attachment system and take more a passive role, anxious individuals are hyperactivating their need for attention and recognition (Mikulincer & Shaver, 2003). Individuals with anxious attachment are likely to refrain from or avoid engaging in LMX relationship development because of their inclination to depend on their managers (Richards & Hackett, 2012). Therefore, they might respond inappropriately to leaders' offer and effort in relationship building, which might hinder the development of social exchange (Maslyn et al., 2017). These individuals possess intense emotional responses, seek support from others and doubt their own self efficacy (Shiota et al., 2006), which will in turn, even in a psychologically safe environment, compensate their refusal of relationship development with attention gained from other members. Therefore, they might intentionally engage in counterproductive behaviour to gain other peoples' attention or unintentionally, exhibiting conflictual responses towards others when feeling distressed. Thus, individuals with higher levels of anxious attachment will hinder the positive effect of psychological safety in the relationship between LMX and CWB and increase the likelihood for engagement in CWB:

H4c: The relationship between LMX and CWB mediated by psychological safety will be downward adjusted when the follower experiences anxious type of attachment.

3.3 Methods

3.3.1 Sample and procedure

The proposed relationships were tested through a field study, the same way as in Chapter 2 of this dissertation. Study was performed in three large EU technological organizations with a total sample size of 257 employees.

3.3.2 Measures

LMX was measured by LMX 7-item scale, developed by Graen and Uhl-Bien (1995) ($\alpha = .919$). Respondents were asked to reply to what extent they agree with individual statements (1-strongly disagree, 7- strongly agree). Sample items include: »My supervisor understands my job problems and needs« and »I have an effective relationship with my supervisor«.

Attachment styles were measured using 36-item scale of Experiences in Close Relationships by Brennan, Clark, and Shaver (1998) ($\alpha = .905$), where participants were asked to indicate

how they generally experience relationships. Respondents used a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree), such that higher scores were associated with a higher endorsement of the construct. Sample items include: »I try to avoid getting too close to my supervisor« and »I find it relatively easy to get close to others«.

Psychological safety was measured by a 7-item scale developed by Edmondson (1999) ($\alpha = .672$). Respondents were asked to decide to what extent they agree with individual statements (1-strongly disagree, 7- strongly agree). Sample items include: »It is difficult to ask other members of this team for help« and »Working with members of this team, my unique skills and talents are valued and utilized«.

Counterproductive work behaviour was measured by 10-item scale developed by Spector et al. (2010) ($\alpha = .892$). Respondents were asked, based on 7-point Likert-type scale (1-never to 7-every day), to indicate how often they have performed each behaviour at work. Sample items include: »Told people outside the job what a lousy place you work for« and »Insulted someone about their job performance«.

We controlled for other two attachment styles in all analyses in order to conduct a more conservative test of a specific role of each attachment style.

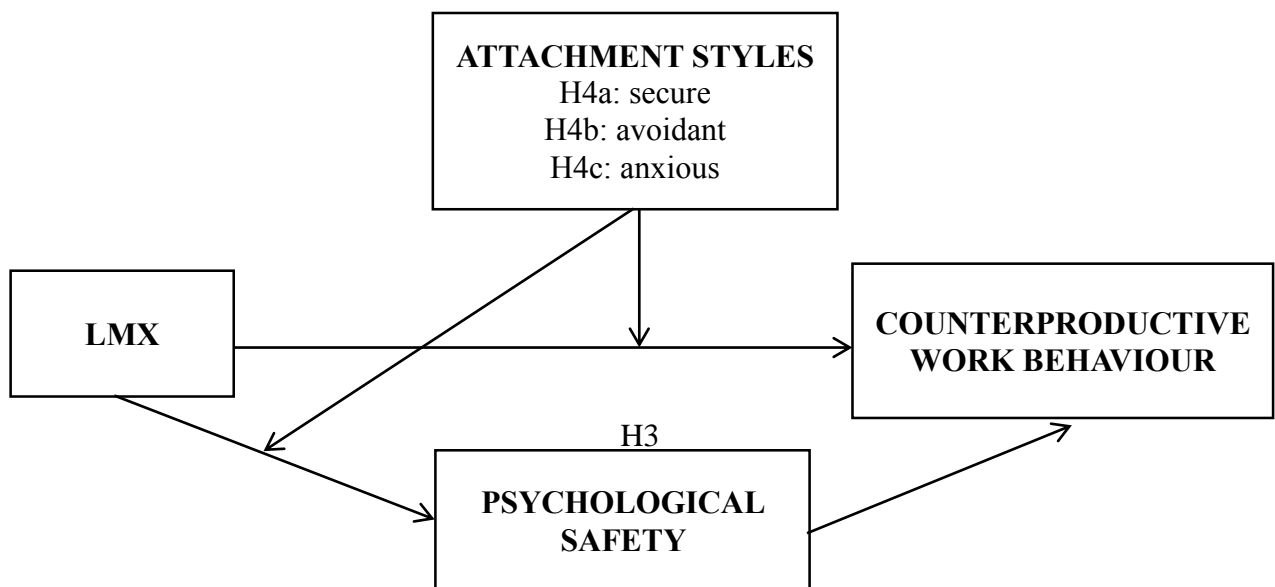
Confirmatory factor analysis (CFA) with AMOS was used to test how well measures relate to observed constructs. The six-factor structure (LMX, CWB, psychological safety and three attachment styles) displayed an adequate fit (Chi-square = 4072.528, CFI = 0.965, RMSEA = 0.065, SRMR = 0.068).

3.3.3 Statistical analysis

To examine moderation and mediation effects, we applied regression analysis in SPSS using moderated-mediation model with PROCESS macro, which is also referred as conditional process modelling (Bolin, 2014; Hayes, 2012). Additionally, this kind of model enables moderation of direct or indirect effects of independent variable onto dependent variable through one or more mediators (Hayes, 2012). When a moderation of the effect of independent variable on mediator or mediator on dependent variable exists, estimation of conditional indirect effect of the independent variable gives us an insight to its effect on the dependent variable through the mediator (Hayes, 2012). In our case, the moderator is an individual difference variable (i.e. attachment style), which means that the mediating process that intervenes with psychological safety between LMX and CWB is different for people who differ on attachment style (Muller, Judd, & Yzerbyt, 2005). The conceptual model with proposed hypotheses is presented in Figure 7.

In order to estimate the parameters of each of the equations PROCESS uses ordinary least squares regression (OLS), which is a common practice in observed variable path analysis. In conditional process analysis for calculation of conditional indirect effects, it requires the combination of parameter estimates and is based on bootstrapping methods (Hayes, Montoya, & Rockwood, 2017, p. 77). Although one might prefer using structural equation modeling, sufficient empirical evidence exists that even though PROCESS relies on OLS and SEM relies on maximum likelihood, the differences in results should be minimal (see Hayes, 2013; Hayes et al., 2017).

Figure 7: The relationship between LMX, attachment styles, psychological safety and counterproductive work behaviour



3.4 Results

3.4.1 Descriptives and correlations

Table 6 provides means, standard deviations and correlations for included study variables. The results show that LMX is associated with psychological safety ($r = .330$, $p < 0.01$), secure attachment ($r = .360$, $p < 0.01$) and anxious attachment ($r = .180$, $p < 0.01$), respectively. Table 6 also indicates that both CWB ($r = -.331$, $p < 0.01$) and anxious attachment ($r = -.207$, $p < 0.01$) were associated with psychological safety, respectively. Attachment avoidant is associated with CWB ($r = .392$, $p < 0.01$) and psychological safety ($r = -.217$, $p < 0.01$). Attachment anxious is associated also with CWB ($r = .376$, $p < 0.01$), avoidant attachment ($r = .560$, $p < 0.01$) and secure attachment ($r = .276$, $p < 0.01$), respectively.

Table 6: Means, standard deviations, and correlations

Variable	Mean	S.D.	1	2	3	4	5	6
1. LMX	4.100	1.025	.(919)					
2. CWB	1.636	.623	-.037	.(892)				
3. Psychological safety	4.841	1.025	.330*	-.331*	.(672)			
4. Attachment Avoidant	2.129	1.149	.023	.392*	-.217*	.(905)		
5. Attachment Secure	3.703	1.005	.360*	.021	.082	-.070	.(905)	
6. Attachment Anxious	1.925	1.064	.180*	.376*	-.207*	.560*	.276*	.(905)

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

N = 257. Coefficient alphas are given on the diagonal in parentheses.

3.4.2 Moderated mediation analysis results

First, providing support for Hypothesis 3, that psychological safety mediates the relationship between LMX and CWB, the indirect effect is statistically significant, showing that there is a difference in the effect (indirect effect size = -0,051; $LLCI = -0,079$, $ULCI = -0,031$). Additionally, independent variable and the intervening variable (psychological safety) predict dependent variable, showing that overall model is significant ($F(2,254) = 16,519$; $p = 0,000$; $R^2 = 0,115$) and also the intervening variable predicts dependent variable ($b = -2,176$; $t(254) = -5,711$; $p = 0,000$).

To test hypotheses 4a to 4c, moderated-mediation analysis was applied using the PROCESS macro (Hayes, 2013). Results of moderated-mediation analysis are shown in Table 7. Model 1, $F(6, 250) = 13.505$, $p = 0.000$, shows the main effects of LMX, psychological safety, attachment anxious, and the interaction between LMX and attachment anxious on CWB (the dependent variable). Model 2, $F(6, 250) = 13.503$, $p = 0.000$, shows the main effects of LMX, psychological safety, attachment avoidant, and the interaction between LMX and attachment avoidant on CWB. Model 3, $F(6, 250) = 16.213$, $p = 0.000$, shows the main effects of LMX, psychological safety, attachment secure, and the interaction between LMX and attachment secure on CWB.

First, results do not show support for Hypothesis 4a (Model 3), the 95% confidence intervals included zero ($coefficient = 0,006$; $LLCI = -0,003$; $ULCI = 0,019$), meaning that secure attachment does not have a moderating effect on the relationship between LMX and CWB mediated by psychological safety.

Table 7: Results of the moderated-mediation analysis with the PROCESS macro

Dependent variable: Counterproductive Work Behaviour	Model 1 (anxious)		Model 2 (avoidant)		Model 3 (secure)	
	Coeff. (SE)	LLCI/ULCI	Coeff. (SE)	LLCI/ULCI	Coeff. (SE)	LLCI/ULCI
Constant	1.933 (0.266); p = 0.000	1.408/2.457	1.935 (.270); p = 0.000	1.404/2.467	2.786 (.343); p = 0.000	2.112/3.461
Psychological safety	-.142 (.0378); p = 0.002	-.216/.068	-0.142 (0.038); p = 0.002	-.216/-.067	-.134 (.036); p = .000	-.206/-.062
LMX	-.022 (.049); p = .650	-.119/.074	-.023 (.051); p = .651	-.123/.077	-.262 (.078); p = .001	-.416/-.108
Attachment Anxious	.072 (.101); p = .716	-.126/.271	.117 (.043); p = .008	.031/.202	.113 (.042); p = .008	.029/.196
Attachment Secure	-.001 (.039); p = .975	-.079/.076	-.002 (.039); p = .966	-.079/.076	-.263 (.083); p = .002	-.427/-.099
Attachment Avoidant	.121 (.037); p = .001	.048/.195	.082 (.019); p = .338	-.087/.251	.122 (.036); p = .001	.050/.193
Conditional effect of LMX on CWB at the low level of Attachment (95% bootstrapped confidence intervals)	-.013 (.035); p = .712	-.083/.057	-.014 (.036); p = .707	-.086/.058	-.076 (.034); p = .026	-.144/-.009
Conditional effect of LMX on CWB at the high level of Attachment (95% bootstrapped confidence intervals)	.009 (.035); p = .795	-.060/.078	.009 (.035); p = .803	-.059/.077	.059 (.032); p = .064	-.004/.123
Index of moderated mediation	.013 (.007)	.002/.031	.013 (.006)	.003/.029	.006 (.005)	-.003/.019

Note. N = 257; LLCI: lower level confidence interval, ULCI: upper level confidence interval.

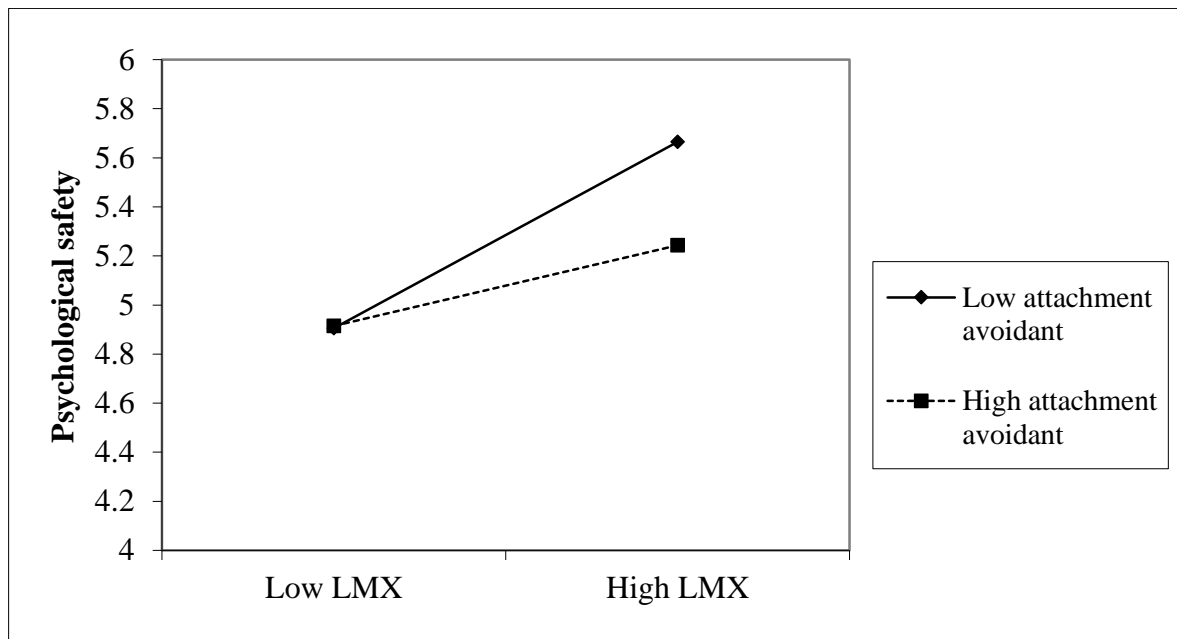
On the other hand, results show support for Hypothesis 4b (Model 2) and Hypothesis 4c (Model 1), suggesting that anxious (*coefficient* = 0,013; *LLCI* = 0,002; *ULCI* = 0,031) and avoidant (*coefficient* = 0,013; *LLCI* = 0,003; *ULCI* = 0,029) attachment have moderating effect on the relationship between LMX and CWB mediated by psychological safety. Figure 8 and 9 display two-way interaction effect with simple slopes of avoidant and anxious attachment with LMX on psychological safety (intervening variable), which are significant for lower levels of moderator (avoidant attachment *t*-value = 3.464, *p* = 0.001; anxious attachment *t*-value = 3.511, *p* = 0.001), but not for higher levels. Based on the analysis, lower levels of avoidant attachment in interaction with higher levels of LMX yield in higher levels of psychological safety. On the contrary, higher levels of avoidant attachment with higher LMX show less psychological safety. Similarly, in cases of lower anxious attachment in interaction with higher LMX, there is more psychological safety.

3.5 Discussion

The proposed study offers insight into how different attachment styles are associated with the relationship between LMX and CWB, mediated by psychological safety. First, basic mediation model suggests that psychological safety has an indirect effect on the link between LMX and CWB. Results confirm that psychological safety mediates the relationship between LMX and CWB, which means that higher LMX enables higher psychological safety and therefore diminishes engagement of employees in CWBs. LMX differs from other leadership theories in focusing on building mutual trust in a leader-follower relationship and emphasizes reciprocity in these exchanges (Emerson, 1976; Scandura & Pellegrini, 2008; Van den Broeck et al., 2014). This further suggests that employees will not engage in counterproductive work behaviour in cases of higher psychological safety, where employees perceive that they can freely share their unique knowledge, are encouraged for open communication and learning from their own mistakes (Edmondson, 1999; May et al., 2004).

Results support proposed Hypotheses 4b and 4c that insecure attachment (i.e. anxious and avoidant) has a moderating effect on the relationship between LMX and CWB, which is mediated by psychological safety. Figure 8 shows that lower levels of avoidant attachment in interaction with higher levels of LMX result in more psychological safety. This supports our suggestion that the relationship between LMX and CWB mediated by psychological safety will be downward adjusted when the follower experiences avoidant type of attachment. Furthermore, avoidantly attached individuals are perceived as very insensitive and uncaring, also ignoring their own as well as others' needs, leading to poorer performance (Keller, 2003) and lower efficacy (Leiter et al., 2015).

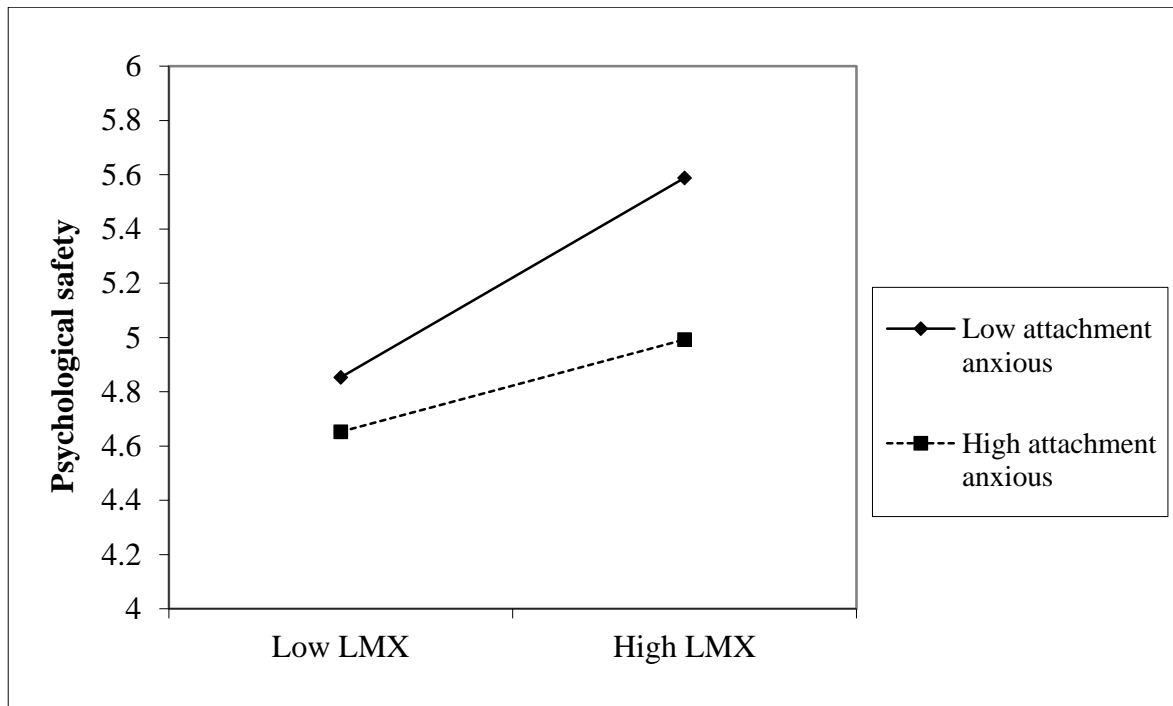
Figure 8: Two-way interaction effect with simple slopes of avoidant attachment and LMX on psychological safety



Similarly, as shown in Figure 9, in cases of lower anxious attachment in interaction with higher LMX there is more psychological safety, which in this case intervenes to less CWB. Anxiously attached individuals are more likely to be involved in social interactions, but avoid conflicting situations because they seek support for their beliefs, even if those are negative (Leiter et al., 2015). Therefore, their perception of psychological safety will be lower, which increases the likelihood for incivility or engagement in CWBs.

Based on the analysis, there is no empirical support for Hypothesis 4a, suggesting that secure attachment has a moderating effect on the relationship between LMX and CWB, which is mediated by psychological safety. This could be due to perceived similarity between LMX and secure attachment, as in both cases constructs are related to exhibiting trust and empathy (Mayseless, 2010) leading to superior effectiveness.

Figure 9: Two-way interaction effect with simple slopes of anxious attachment and LMX on psychological safety



3.5.1 Theoretical contributions

First contribution relates to the psychological safety as a key explanatory mechanism why individuals engage in CWBs. As attachment is a reflection of past experiences in relationships, it can have an impact in shaping a certain leader-follower relationship. Similarly, secure attachment and high LMX are marked by high levels of mutual trust and respect, which is transmitted through individual's psychological safety results in a lower likelihood of CWB. High LMX relationships encourage positive social context, where people respond in positive ways, are acknowledged and appreciated, and more likely engage in process of task performance (Carmeli & Gittell, 2009; Edmondson, 1999). Individuals in such cases share common interests and goals, therefore exhibiting rather discretionary behaviours than counterproductive. Accordingly, those with insecure attachment are characterized as insensitive and more self-oriented, so they might have lower interests in developing relationships with higher proximity towards others as well as seeking support.

The second contribution is to extend the conceptualization of adult attachment to the LMX research. Drawing from parental perspective, leaders and followers form emotional relationships (Popper & Mayseless, 2003) compared to those in child-parent relationships. In addition, representations of attachment in workplace settings are associated with LMX development, which enables us to better understand the LMX relationships by accounting

for interpersonal conceptions about oneself and others simultaneously (Černe et al., 2018; Popper et al., 2000). Social interactions in the workplace enable psychological safety and reflect the relationships among employees, their approach about how they perceive them and the propensity to build and maintain these relationships according to the attachment style of an individual (Leiter et al., 2015). Leadership attachment helps to predict the actions of the leader and/or of the followers within their exchange relationships. In addition, it can offer a predictive constituent regarding the relationship between leaders and organizational performance, taking into account more complex nature of issues they are facing (Hudson, 2013).

3.5.2 Practical implications

Our study suggests that there are two potential practical implications. First, we assumed that secure attachment will upward adjust negative relationship between LMX and CWB mediated by psychological safety, but results did not support the proposed hypothesis. It seems that secure attachment exhibits also in high LMX, resulting in CWBs. Clearly, the perceived level of LMX is of greater importance than their attachment. This suggests that organizations should encourage LMX development through different training programs, mentorships and informal social interactions, which would build psychological safety of individuals and consequently reduce the possibility of CWB enactment. Leaders should also take into consideration that employees interpretation of social relationships might differ from those of leaders or others (Leiter et al., 2015).

Second, results show support for hypotheses that attachment anxiety and avoidance are associated with the relationship between LMX and CWB mediated by psychological safety. In insecure attachment, individuals are more insensitive, uncaring towards others and more self-focused (Bresnahan & Mitroff, 2007). Thus, particularly for individuals with high avoidance, and those who do not actively seek support, interventions related to social support might result in CWB. Offering different types of support, such as informational and emotional (Richards & Schat, 2011), may encourage employees to voluntarily seek assistance and advice when they need it. Specifically, individuals with anxious or avoidant attachment may need more guidance in relationship development and encouragement to invest more effort in relationship building to achieve higher LMX. Moreover, leaders should also take into consideration that relationship development is a process that needs time and unfolds more slowly (Graen & Uhl-Bien, 1995; Maslyn et al., 2017).

Finally, leaders in exchange relationship might manipulate with followers' or their own attachment in order to achieve desired goals, which can exhibit discretionary or even counterproductive behaviour.

3.5.3 Limitations and future research directions

Although the integration of attachment and psychological safety is a strength of our study, few limitations are to be taken into consideration when interpreting results. First limitation is that our study was based on cross-sectional and self-reported data. Relying on self-perceptions may cause more biased and dishonest results, however, this is necessary for understanding peoples' emotions, actions and beliefs (Wood et al., 2011). Also, we adopted well validated measures established in extant literature. Future research should try to complement cross-sectional studies with additional experimental data, to rely on more objective indicators workplace behaviour.

Similarly, as in Chapter 2, one limitation is associated with industry, where organizations operate. Variations among industries may lead to different results. For example, the nature of job requirements in manufacturing is focused on accomplishing tasks in accordance to the set processes in production line. In such cases employees are probably less involved in relationship development, the need for team cooperation and innovation might be less emphasized, therefore we could expect that employees will engage less in exchange interactions and development of psychological safety.

Future studies should attempt to extend research on attachment orientations and how they are related to leader-follower relationship and focus on possible boundary conditions that can affect LMX and CWB relationship (Davidovitz et al., 2007). Leader can be perceived as caregiver from an attachment perspective, by possessing power to some degree and having a security-providing role (Davidovitz et al., 2007). The results of our study encourage further exploration of workplace attachment that represents a meaningful component of individuals experience of workplace relationships (Leiter et al., 2015).

Researchers should also explore attachment as a possible mechanism through which leaders can manipulate in a leader-follower relationship (Davidovitz et al., 2007), resulting in positive or negative behaviour. Another interesting avenue relates to the role of leadership, how it can, over a certain period of time, potentially shape the attachment style of an employee (Popper et al., 2000). Moreover, also the response of individuals regarding trust violations and its link to outcome behaviour (Schoorman, Mayer, & Davis, 2007).

4 GENERAL DISCUSSION

4.1 Theoretical contributions of the dissertation

This dissertation broadens the understanding of why CWBs in organizations occur. Specifically, what role do examined mechanisms have in explaining CWBs, drawing on social exchange perspective, which is a common thread throughout the dissertation that connects all chapters. Proposed hypotheses and their status are presented in Table 8. Summary of main findings, used methodology and contributions are presented in Tables 9 to 11 for each chapter, respectively. In this section they are elaborated in more detail and integrated in our overarching theory of social exchange.

Theoretical foundations of social exchange theory (Blau, 1964) enable us to explain how relationships at a workplace are developed, suggesting that invested effort of employees is an exchange for direct (e.g., payment for required work tasks) or indirect rewards (e.g., status and recognition) (Settoon et al., 1996). These exchange relationships are strengthened when individuals value their rewards, there exists mutual trust in dyadic relationship, perceived fairness that is compliant to the norm of reciprocity, and affective attachment that indicates psychological commitment (Cropanzano & Mitchell, 2005; O'Boyle et al., 2011). The general contribution of the dissertation is showing that MTL and attachment are changing social exchange patterns through psychological safety, as attachment orientations are developed based on reciprocal responses of proximal attachment figures, which is reflected in the development of interpersonal relationships at work.

Based on social exchange theory, actors in exchange relationships influence each other, which yields in outcome behaviour that they value. Specifically, they will increase engagement in behaviour that they positively value and engage less in behaviour that they negatively value (Cook, Molm, & Yamagishi, 1993). Furthermore, the value of rewards and sanctions is based on subjective judgement of individuals in the exchange process (Nunkoo, 2016). Since social exchanges are rooted in mutual interdependency of actors in exchange relationships, this theoretical framework enables us to better understand why individuals engage in CWBs in the first place and how to prevent it. Moreover, such conceptualization provides a stable background for interrelatedness of examined constructs.

While exchange process is two-sided, our first empirical study in the second chapter is based on a multilevel perspective, where we examined how leaders' MTL is linked to the relationship between SLMX/ELMX and CWB of followers. MTL represents a construct that enables us to understand the underlying motives for undertaking leadership roles. LMX as a relational approach to leadership based on dyadic interactions between leaders and followers is related to CWBs under certain conditions of leaders' MTL that represents an intrinsic,

subjective factor, composed from individuals' inner motivation to lead others, perceived social responsibility and evaluated costs or benefits.

Since most research acknowledges the importance of the dynamics of relationship development, it also suggests that internalized leader identity becomes static in leadership relationship (DeRue & Wellman, 2009), which is also the assumption in emerging literature on followership (Collinson, 2006; Van Vugt, Hogan, & Kaiser, 2008). Therefore, perceiving oneself as a leader is a driver of inner motivation to lead others (Chan & Drasgow, 2001; Kark & Van Dijk, 2007) and in addition encourages individuals to proactively engage in leadership roles and focus on activities that provide opportunities to develop leadership skills (D. Day, Harrison, & Halpin, 2009; DeRue & Ashford, 2010). This aligns well with our findings of the study in Chapter 2, that there exists a moderation effect, which signifies the importance of interaction between SLMX and MTL in order to yield less CWB. This is also consistent with previous studies in extant literature that have suggested that SLMX is relevant in understanding workplace behaviour (Berg et al., 2017; Cropanzano & Mitchell, 2005).

However, we did not observe any relationship between ELMX and CWB, although several studies have found negative relationship between ELMX and certain types of OCB and performance (Buch et al., 2014; Kuvaas et al., 2012). That is why we expected that we will find positive relationship between ELMX and CWB, since CWB is often represented as an opposite of OCB (Hackett & Lapierre, 2004). Furthermore, we tried to answer calls for the need for a multilevel perspective in examining workplace relationships and employee behaviour (Batistič et al., 2017; Cobb & Lau, 2015; Henderson et al., 2009; Zhang, Waldman, & Wang, 2012). Increased levels of exchange and reciprocal responses in exchange relationships might lead to different choices for allocation of resources from leaders to employees. Higher levels of invested effort in relationship development might lead to increased communication and information exchange, which would allow employees with higher SLMX to achieve better performance. Additionally, highly motivated leaders would be more engaged in transferring organizational goals and objectives, thus would be focused on long-term relationships and invest more effort in relationship development.

With regard to attachment theory, individuals develop an affectional bond with proximal attachment figure, formed on the basis of social interactions and reciprocal exchanges. In our case this is reflected in a relationship development in a workplace, suggesting that individuals in leader-follower relationships will form lower or higher LMX, depending on their "attachment behavioural system" to maintain or strengthen the bond with attachment figure (Cassidy & Shaver, 2002). Therefore, bridging social exchange theory and attachment theory can have important implications in explaining human social interactions and relations at work. LMX as a driver of psychological safety is developed and formed depending on individuals' attachment perceptions.

In cases of insecure attachment individuals perceive others as unavailable and insensitive, therefore avoiding relationship development, which yields in lower psychological safety.

Furthermore, psychological safety is an important mechanism that helps individuals to deal with stress and anxiety when individuals are faced with certain organizational changes and shifts focus from self-protection toward collective goals and problem prevention (Edmondson & Lei, 2014). In the third chapter results indicate that there is lower probability for CWB engagement in cases of higher levels of LMX, where higher LMX enables higher psychological safety. In addition, insecure attachment is an important mechanism that is associated with LMX and psychological safety in predicting CWB.

Researchers suggest that LMX is an important factor in fostering involvement of team members (Gajendran & Joshi, 2012) and when members perceive higher psychological safety, this would encourage them to contribute more into the collective (Joshi & Roh, 2009). Moreover, psychologically attached employees identify with their organization's mission, vision and values (Burris, Detert, & Chiaburu, 2008; Walumbwa & Schaubroeck, 2009), therefore these emotional ties to the organization will more likely induce greater motivation and accelerate the achievement of its objectives or result in discretionary behaviour beyond contractual requirements (Luchak, 2003).

The deviance from accepted social norms can also be a consequence of individual's attachment to his or her leader or colleagues. When social bond is strong, employees will be more likely motivated to refrain from behaviours that compromise their bonds to the social group (Thau, Crossley, Bennett, & Sczesny, 2007). On the contrary, when the social bond is weak, employees invest less effort in development of social exchange relationships and thus will more likely engage in antisocial behaviours (Hirschi & Stark, 1969; Thau et al., 2007). Results of the study in Chapter 3 revealed that a moderation effect of insecure attachment (anxious and avoidant) exists in the relationship between LMX and CWB mediated by psychological safety. This is also in line with the findings of previous researchers, who demonstrated positive associations of insecure attachment with negative work outcomes, such as burnout and emotional distress (Mikulincer & Shaver, 2007; Pines & Keinan, 2005; Ronen & Mikulincer, 2009).

In the following section we summarize and further explain theoretical contributions for respective chapters. The first contribution relates to existing literature in the area of LMX research by providing a comprehensive literature review with presentation of the evolution and the development of LMX research. Specifically, the use of a combination of bibliometric techniques enabled us to examine intellectual structure and scientific communication among scholars in the past (e.g., document co-citation and co-word analysis) and research front (e.g., bibliographic coupling) to identify possible future avenues for LMX research. Not only

it complements existing qualitative and quantitative reviews, it also enriches LMX research considering broader interpretation and view of accumulated literature.

First period reveals that most of the research at that time was driven by social exchange theory and the norm of reciprocity, which shaped theoretical foundations for LMX development. The analysis revealed that in the next period perceived organizational support became a separate stream, where researchers tried to explain the relationship of perceived organizational support and LMX with employee attitudes and behaviour (Settoon et al., 1996). Despite conceptual similarities between perceived organizational support and LMX, theoretical development and research continued independently. Finally, in the last period 2010-2017 authors gave considerable attention to theoretical reviews of LMX, considered different methodological approaches to address mediation–moderation models and the use of different statistical methods in social sciences. This is the period in which LMX was effectively incorporated into the leadership field.

The second part of the literature review represents co-word analysis, where the output was a network of different themes that shape the field. The same division of time frames was applied as in the co-citation analysis, which allowed us to identify dynamic changes. The first period relates mostly with keywords such as “leadership”, “management”, “behaviour”, “exchange” and “justice”, which is not surprising considering the development of LMX, as its early stages started with examining supervisor–subordinate relationships (Dansereau et al., 1975) and continued to approach leadership as an exchange relationship (Graen & Uhl-Bien, 1995). The second interval reveals that performance and outcomes in relation to LMX gained more attention of researchers, whereas trust was shown as emerging stream of research. In the last period more focus was on various leadership styles, organizational citizenship behaviour (OCB) and mechanisms that are associated with organizational outcomes. A peripheral, emerging cluster shows increasing interest of researchers in negative outcomes as a consequence of LMX.

With bibliographic coupling in the third part the aim was to detect current trends and propose potential trajectories for future research. Since this approach is static, does not need citations to accumulate, we selected only last time frame (2010-2017). Analysis revealed two major clusters: Organizational justice, support, and commitment and Leadership styles and approaches. In particular, the period after the 2000s is marked by the rise of social exchange theory for examining reactions to justice. For the first time, creativity and innovation gained more attention from researchers in this field, focusing on how the leader–follower relationship are associated with employees’ creative behaviour (Aarons & Sommerfeld, 2012). Results also reveal peripheral or emerging topics: safety climate and negative outcomes, abusive leadership, and ethics. Overall, findings of the first chapter offer a broader picture of LMX research and its position in management and leadership field. In addition,

such science mapping enables us to explore scientific communication among scholars and to propose potential developmental areas in the future.

In line with our findings based on literature review, we follow increased interest of researchers in examining negative outcomes related to employee behaviour (Hannah et al., 2013; Xu et al., 2012). Drawing on social exchange perspective, individuals with higher LMX tend to engage in more relationship-oriented interactions with a presence of mutual trust, commitment and socio-emotional benefits (Van Dyne, Graham, & Dienesch, 1994). Thus, high LMX relationships are likely to encourage employees' identification with organizational values and create a relational obligation, which would motivate employees to engage in behaviours with favourable outcomes (Lavelle, Rupp, & Brockner, 2007) rather than counterproductive. Building further on the findings of bibliometrics, we focus on examining the relationship between LMX and CWB. Furthermore, increased interest of researchers in safety climate, encouraged us to also include other aspects in examining the link between LMX and CWB, thus focusing on psychological safety of individuals.

According to social exchange theory, relationships can be considered of different qualities such as social leader-member exchange (SLMX) and economic leader-member exchange (ELMX) rather than different levels of quality that fall on a continuum of high and low exchange (Blau, 1964; Konovsky & Pugh, 1994). Therefore, in the second chapter we examine the direct link between ELMX/SLMX and CWB. Although, the negative relationship between LMX and CWB is already well established in the literature, there are only handful of studies that depart from the either/or distinction of categories of the relationship types, social or economic, and their relationship with CWB.

In the second chapter, field study was conducted in three large technological EU companies. Drawing from social exchange theory that exchange process is two-sided, we included MTL from a leader's perspective and how it is related to CWB of individuals. We analysed the moderating role of MTL in relationship between LMX and CWB. In the first part we examined the relationship between SLMX/ELMX and CWB, where results support the direct negative link between SLMX and CWB, but not for the positive relationship between ELMX and CWB. The second part relates to the multilevel nature of the proposed model, incorporating MTL of a leader (Level 2) in the relationship between SLMX/ELMX and CWB (Level 1). The aim was to analyse the cross-level effect and how leaders' MTL is related to employee behaviour (i.e., CWB).

In line with social exchange theory, individuals will react beneficially on positive actions, which may encourage employees towards higher levels of organizational commitment (Cropanzano et al., 2016) and thus diminish negative behaviour such as CWB. Surprisingly, results show that the relationship between SLMX and CWB is more negative when leaders score low on MTL. Although results show significant moderation effect, the two-way

interaction plot revealed unexpected levels of CWB, suggesting that followers engage in pretty much the same levels of CWB as a result of SLMX when they have a leader that is motivated to lead. This implies that LMX relationships are more important than leaders' MTL. This extends our knowledge in examining organizational behaviour by showing that individual differences play a significant role in work related behaviour. Specifically, to date no study has established MTL as a moderating variable in the relationship between SLMX/ELMX and CWB.

Another contribution of the study in the second chapter refers to used methodological approach and is related to the multi-level nature of the proposed model. Levels perspective is becoming increasingly important, as no construct is level free, but instead it is tied to one or more organizational levels, for example leaders are parts of dyads nested in a higher-level contexts such as teams (D Day & Harrison, 2007; K. J. Klein, Dansereau, & Hall, 1994; Kozlowski & Klein, 2000). Most of the existing studies that examine leadership theories and organizational behaviour were focused on a single-level analysis (Dunegan et al., 2002; Martin et al., 2016), unable to reveal the richness of social behaviour, neglecting the context in which behaviour occurs (Hitt, Beamish, Jackson, & Mathieu, 2007), which can lead to incomplete specification of models and unclear estimation of relationships (D Day & Harrison, 2007; House, Rousseau, & Thomas-Hunt, 1995). Individual behaviour is a complex phenomenon shaped by other contextual influences at higher levels and may also differ by level, which indicates that it is necessary to study interrelations and interactions across different levels of analysis (Černe, Hernaus, Dysvik, & Škerlavaj, 2017). Through the lens of a multilevel perspective, there is, to the best of our knowledge, only one study that adopts multilevel approach, examining MTL among individual professionals in the health care sector (Mascia, Dello Russo, & Morandi, 2015).

Building further on the findings of our literature review in the first chapter, we extend our research by examining other potential facets and mechanisms that are associated with CWBs. Recently, more emphasis has been put on individual's needs and how they manifest in the workplace. Social exchange perspective helps build theoretical foundations for psychological safety, where interpersonal relationships increase or decrease the levels of individuals' perceptions of psychological safety, which is reflected in CWB engagement. Moreover, considering the dynamics of interpersonal relationships, leadership attachment enables us to explore how individuals make sense of these dyadic relationships.

To date, in organizational research psychological safety has become well established factor that enables us to understand how individuals achieve shared outcomes (Edmondson & Lei, 2014). However, conditions under which psychological safety is related to behaviour is less represented, therefore, this study contributes to the research of psychological safety by responding to Edmondson & Lei's (2014) suggestion that additional research is needed to understand the link between psychological safety and other potential boundary conditions

that might alter predicted relationships. Results of the second study are in line with theoretical reasoning of proposed relationship that high LMX relationships enable higher psychological safety through which these relationships are reflected in less CWB engagement. Additionally, in workplace social interactions psychological safety reflects the relationships among employees, their approach about how they perceive them and the propensity to build and maintain these relationships according to the attachment style of an individual (Leiter et al., 2015). Therefore, we contribute to organizational and leadership research by incorporating leadership attachment as a mechanism in explaining workplace behaviour. Moreover, to date leadership attachment and its link to workplace behaviour is relatively under-investigated.

In the third chapter, we continue building on social exchange theory but also tap into other theories that help us explain interpersonal behaviour, such as attachment theory. We propose that social exchange perspective enables to build foundations for psychological safety of individuals, where LMX relationships are related to perceptions of psychological safety. This further suggests that employees will not engage in counterproductive work behaviour in cases of higher psychological safety, where employees perceive that they can freely share their unique knowledge, are encouraged for open communication and learning on their own mistakes (Edmondson, 1999; May et al., 2004). Specifically, results show that the relationship between LMX and CWB mediated by psychological safety is downward adjusted when individuals exhibit higher levels of avoidant or anxious attachment. From a relational perspective, applying conceptualization of adult attachment into leadership field as unique individual differences attribute helps us to better understand the dyadic relationships between leaders and followers by accounting for interpersonal conceptions about oneself and others simultaneously (Černe et al., 2018; Popper et al., 2000) and it extends our understanding in explaining how individual differences are related to dyadic leaders-follower relationships (Berson et al., 2006).

Table 8: Summary of research questions and hypotheses

	Hypotheses	Status	Chapter
Research question 1	What is the evolution and development of LMX field?		Chapter 1
Research question 2	What is the role of motivation to lead in the relationship between LMX and CWB.		Chapter 2
Hypothesis 1a	<i>The relationship between SLMX and CWB will be negative.</i>	Supported	Chapter 2
Hypothesis 1b	<i>The relationship between ELMX and CWB will be positive.</i>	Not supported	Chapter 2
Hypothesis 2a	<i>The relationship between SLMX and CWB will be more negative at higher levels of MTL.</i>	Not supported	Chapter 2
Hypothesis 2b	<i>The relationship between ELMX and CWB will be less negative at lower levels of MTL.</i>	Not supported	Chapter 2
Research question 3a	What is the role of attachment styles in the relationship between LMX and CWB?		Chapter 3
Research question 3b	What is the role of psychological safety in the relationship between LMX and CWB?.		Chapter 3
Hypothesis 3	<i>Psychological safety mediates the relationship between LMX and CWB.</i>	Supported	Chapter 3
Hypothesis 4a	<i>The relationship between LMX and CWB mediated by psychological safety will be further upward adjusted when the follower experiences secure type of attachment.</i>	Not supported	Chapter 3
Hypothesis 4b	<i>The relationship between LMX and CWB mediated by psychological safety will be downward adjusted when the follower experiences avoidant type of attachment.</i>	Supported	Chapter 3
Hypothesis 4c	<i>The relationship between LMX and CWB mediated by psychological safety will be downward adjusted when the follower experiences anxious type of attachment.</i>	Supported	Chapter 3

Table 9: Summary of main findings – Chapter 1

Chapter (Title) and research questions	Overarching theories	Study type (Methodology design)	The main findings	Contributions
Chapter 1: A Multi-Technique Bibliometric Review and Development Projections of the Leader-Member Exchange (LMX) Research <i>RQ1: What is the evolution and development of LMX field?</i>	<ul style="list-style-type: none"> - The Social exchange theory (Blau, 1964). - The norm of reciprocity (Gouldner, 1960). 	<ul style="list-style-type: none"> - Quantitative literature review with bibliometrics. - Web of Science database. - Document co-citation analysis. - Co-word analysis. - Bibliographic coupling. 	<ul style="list-style-type: none"> - Co-citation: the field of LMX research is not strictly segmented into well-defined and long-lasting research schools; studies of social exchange and organizational behaviour became a predominant research stream for the development of LMX from a leadership perspective. - Co-word analysis: main keywords in early work relate to leadership, management and behaviour; with the LMX development focus is turned to outcomes, performance and trust. - Bibliographic coupling: the period after the 2000s is marked by the rise of social exchange theory for examining reactions to justice; considerable attention is devoted to investigating negative aspects of leadership. 	<p>Theoretical Contributions:</p> <ul style="list-style-type: none"> - To leadership, LMX and management field. - Study complements existing qualitative and quantitative reviews. - Adds to previous reviews by presenting the evolutionary development of LMX using a framework of invisible colleges. <p>Practical Contributions:</p> <ul style="list-style-type: none"> - Study shows that relational approach is an important aspect to consider, thus leaders should invest more of their time in developing social exchange relationships.

Table 10: Summary of main findings – Chapter 2

Chapter (Title) and research questions	Overarching theories	Study type (Methodology design)	The main findings	Contributions
Chapter 2: The link between LMX, Motivation to Lead and Counterproductive Work Behaviour RQ2: <i>What is the role of motivation to lead in the relationship between LMX and CWB?</i>	<ul style="list-style-type: none"> - The Social exchange theory (Blau, 1964). - The norm of reciprocity (Gouldner, 1960). - Multilevel theory. 	<ul style="list-style-type: none"> - Qualitative literature review. - Quantitative literature review – document co-citation analysis. - CFA analysis. - Field study in three large EU companies with two-source examination: Level 1 - Employees (n = 257). and Level 2 - Leaders (n = 31). - Hierarchical linear regression with HLM. - Moderation testing of the two-way interaction. 	<ul style="list-style-type: none"> - individuals with higher levels of LMX (SLMX) exhibit lower levels of CWB - MTL moderates the relationship between SLMX and CWB – the relationship between SLMX and CWB is more negative at higher levels of MTL. 	<p>Theoretical contributions:</p> <ul style="list-style-type: none"> - Extends knowledge on MTL and its application to leadership field. - Complements research on LMX and CWB. - . - This study contributes to methodological approaches used in leadership domain (multilevel approach). <p>Practical Contributions</p> <ul style="list-style-type: none"> - To leaders, managers and employees. - Alternative routes to dealing with CWB. - Organizations should consider individuals' MTL and their fit or misfit within assigned job roles.

Table 11: Summary of main findings – Chapter 3

Chapter (Title) and research questions	Overarching theories	Study type (Methodology design)	The main findings	Contributions
<p>Chapter 3: The Role of Leadership Attachment and Psychological Safety in the Relationship between Leader-Member Exchange and Counterproductive Work Behaviour</p> <p><i>RQ3a: What is the role of attachment styles in the relationship between LMX and CWB?</i></p> <p><i>RQ3b: What is the role of psychological safety in the relationship between LMX and CWB?</i></p>	<ul style="list-style-type: none"> - The Social exchange theory (Blau, 1964). - The norm of reciprocity (Gouldner, 1960). 	<ul style="list-style-type: none"> - Qualitative literature review. - CFA analysis. - Field study in three large EU companies (n = 257). - Simple mediation in SPSS. - Moderated-mediation in SPSS with PROCESS macro. - Moderation testing of the two-way interaction. 	<ul style="list-style-type: none"> - Psychological safety mediates the relationship between LMX and CWB. - Most CWB occurs when followers experience avoidant or anxious attachment. - Results do not show support for secure attachment that the relationship between LMX and CWB mediated by psychological safety will be further upward adjusted when the follower experiences secure type of attachment. 	<p>Theoretical Contributions:</p> <ul style="list-style-type: none"> - To the literature on psychological safety, leadership attachment, LMX and CWB. - Psychological safety as a key explanatory mechanism for why individuals engage in CWBs. - Extends the conceptualization of adult attachment to the LMX research. - Conceptualize and empirically validate the two-way interaction term relationship. <p>Practical contributions:</p> <ul style="list-style-type: none"> - Important practical implications for leaders, managers and other employees. - The importance of perceived LMX. - How different attachment orientations are associated with engagement in CWBs.

4.2 Practical Implications of the dissertation

Findings of the dissertation offer several practical implications for HR managers, leaders, and employees. In the following section practical implications are summarized from the respective chapters in Table 12 and elaborated in a more inclusive manner.

Although first study represents a quantitative review of existing literature, it shows that relational approach is an important aspect to consider, thus leaders should invest more of their time in developing social exchange relationships. Even though organizations would have difficulties with influencing an individual's personality characteristics, they can influence their behaviour through the development of social relationships. Creating high LMX relationships enables the spread of ethical values, increases satisfaction at work, and is associated with the efficiency of employees and their perceived fairness. Therefore, promotion of open communication and environment where it is safe to learn from mistakes encourages knowledge sharing and behaviour that has favourable consequences for organizations.

HR managers have an important role in organizations and can often greatly contribute with facilitation of the environment that encourages relationship development and should include adaptation of HR systems and components that focus on strengthening social capital through: (1) encouraging interpersonal interactions that enable development of high LMX relationships, (2) creating a social network that connects people at all organizational levels and (3) creating a culture of commitment and interconnectedness (Uhl-Bien, Graen, & Scandura, 2000). Organizations should also encourage more informal events and meetings, such as “business breakfasts” or “get to know new employees” sessions, team buildings and other activities that enable informal networking and social exchanges among employees.

The level of the exchange between two parties also depends on the invested effort of individuals and expectations or benefits that they tend to have. According to Maslyn and Uhl-Bien (2001) leaders and employees report increased invested effort in the development of relationships and meet their mutual expectations when levels of LMX are higher. This suggests that individuals need to take initiative for LMX development.

Specifically, leaders as authority figures have the power and the ability for downward influence to achieve the desired outcomes (Yukl, Kim, & Falbe, 1996; Yukl, O'Donnell, & Taber, 2009). Therefore, we suggest that leaders should increase awareness about their position and ability to influence individuals' behaviour. Consequently, they will be able to consciously act and respond toward individual members in an organization.

Another implication relates to leaders' MTL. Although results of the second study show the moderating effect of MTL in the relationship between SLMX and CWB, the two-way

interaction revealed that followers engage in pretty much the same levels of CWB as a result of SLMX when they have a leader that is motivated to lead. This suggests that there may be two alternative routes to dealing with CWBs in organizations, either develop SLMX relationships, or recruit leaders who are motivated to lead. Since MTL consists of three dimensions, managers should take into consideration that potential leaders would have the intrinsic desire to lead others, feel a sense of responsibility to lead others and are less calculative about the costs and benefits for undertaking leadership role.

While MTL can change through different training programs and experiences, we recommend that organizations encourage leaders (or potential leaders) to actively engage in mentorship and leadership training programmes. Moreover, different consultancy firms offer various games and leadership simulations that address a range of key leadership capabilities, for example the Workz A/S consultancy company offers a wide range of board games and simulations in seven different languages, divided into different segments (e.g., time management, project management, leadership, change leadership etc.).

Table 12: Summary of Practical Implications of the dissertation

1	Leaders should consciously invest effort and time in LMX (Chapter 1) development.
2	HR managers can contribute with facilitation and adaptation of HR (Chapter 2) systems and components for LMX development.
3	Organizations should encourage more informal events and meetings, (Chapter 2) such as “business breakfasts” or “get to know new employees” sessions, team buildings and other activities that enable informal networking and social exchanges among employees.
4	HR department should recruit leaders who are motivated to lead. (Chapter 2)
5	Organizations should encourage leaders (or potential leaders) to (Chapter 2) actively engage in mentorship and leadership training programmes.
6	Offer various games and leadership simulations that address a range of (Chapter 2) key leadership capabilities.
7	Fostering open communication, knowledge sharing and learning from (Chapter 3) mistakes to build psychological safety.
8	Offer different types of support such as emotional or informational for (Chapter 3) employees with insecure attachment orientation to voluntarily seek advice and assistance when they need it.

Many organizations are facing interpersonal threats that are inherently related to individual behaviour. Emergence of psychological safety is not natural, but instead it is built and developed through open communication, company policies that enable knowledge sharing, learning from mistakes, provide support and feedback. Findings of the dissertation show that LMX is an important enabler of psychological safety, thus organizations should foster LMX development. However, not only leaders but also employees themselves are responsible for enabling and developing psychological safety.

In addition, attachment orientation as a unique attribute of an individual helps us understand how these individual differences are associated with LMX relationships, which are conveyed to CWB through psychological safety. Those individuals with insecure attachment (i.e., anxious, avoidant) have negative representations about themselves, are emotionally less stable than securely attached individuals, invest less effort in relationship development, and perceive others as unavailable and unsupportive (Černe et al., 2018; Maslyn et al., 2017; Mayseless, 2010; Mikulincer, 1995). Therefore, we recommend that organizations further encourage LMX development, but also offer different types of support such as emotional or informational (Richards & Schat, 2011), which could encourage employees to voluntarily seek advice and assistance when they need it.

4.3 Limitations and future research directions

While the dissertation has various strengths such as integrating different mechanisms in explaining CWB engagement it also has several limitations. First limitation is that our study was based on cross-sectional and self-reported data. Relying on self-perceptions may cause more biased and dishonest results, but is necessary for understanding peoples' emotions, actions and beliefs (Wood et al., 2011). However, future studies should consider the use of procedural remedies in order to address problems with common method variance (Podsakoff & Organ, 1986; Richardson, Simmering, & Sturman, 2009).

One important limitation is associated with indications of poor model fit and low reliability for internal consistency of MTL measure. The reason most likely lies in multidimensionality of the construct, where coefficient alpha could be under or overestimated. Moreover, MTL measure is relatively new and therefore underinvestigated in a way that there would be sufficient evidence in accumulated literature that this current measure is the most reliable.

Another limitation is in regard to industry in which firms operate. All three selected organizations are considered large, mature and active in technological industry. Therefore, we could not control for industry effect and firm size, which might cause generalization issues. Future studies should also consider different contexts, such as start-ups, public sector, family firms and SMEs to yield more general conclusion. Last limitation is related to the issue of time, since relationship development is a dynamic process we would need to include

time as a boundary condition to capture the full complexity of how these dynamic interactions unfold across time (Kozlowski & Klein, 2000).

In line with previous qualitative and quantitative analysis we have also discovered that there is a lack of longitudinal studies that would examine the dynamic aspect of relationship development and add to understanding of the process of LMX development. Additional experimental or longitudinal studies are needed in order to infer causality in tested relationships. Future studies should also include longitudinal data in order to avoid causality issues and to advance knowledge and understanding on how LMX changes over time and its link with outcome behaviour. It is also more likely to reveal issues that might remain undetected with the use of cross-sectional designs. For example, conducting research at two or three different points in time, first if LMX increases and is followed by decrease in CWB, and then if LMX decreases and is followed by increase in CWB, this changes in response patterns can yield stronger inference of causality (Avey, Luthans, & Mhatre, 2008).

Future studies could examine whether country of origin (i.e., China, Canada, Russia etc.) as a possible boundary condition. Since many behavioural patterns are shaped by social norms and ethical values, the results might be different in non EU countries, especially those where major cultural differences are present (e.g., non-western cultures). Differences in national culture represent a possible boundary for the development of exchange processes, therefore researchers should examine content and processes of social exchange cross-culturally (Rockstuhl et al., 2012).

Although leadership is considered to be stable and common throughout the world, there are differences in specific leadership styles such as LMX (Pillai, Scandura, & Williams, 1999). Specifically, LMX is regarded as relational approach to leadership and operates through different processes, values across and within cultures are different, therefore it is important to examine to what extent cultural contingencies relate to relationship development. In addition, there might be differences in certain cultural dimensions, for example, collectivism can contribute to relationship development and attachment orientation (Erdogan & Liden, 2006; Erdogan, Liden, & Kraimer, 2006; Fischer & Mansell, 2009).

A recommendation for further research is integration of other explanatory mechanisms through which LMX can predict CWB. It would be interesting to investigate how personality characteristics of leaders shape interpersonal relationships, and also look at the personality attributes of followers, whether the coherence of the mutual characteristics relate to the level of the exchange between leaders and followers, and their link to CWB. With the use of person-person fit approach, we could examine the congruence between each person's characteristics, such as values, goals and beliefs (Kristof, 1996). Researchers suggest that when values overlap between actors, this leads to favourable outcomes (e.g., Jackson & Johnson, 2012; Kristof-Brown, Zimmerman, & Johnson, 2005).

Majority of research was done on a single level of analysis such as between individuals, because of the temporal dynamics of individual behaviour researchers suggest that there is lack of studies on the basis of within-person variance (Lam, Weiss, Welch, & Hulin, 2009). Furthermore, individual-level models ignore organizational context, for example attitudes and behaviours, thus their simplicity represents a major limitation (Kozlowski & Klein, 2000). Applying a multi-level approach offers great potential for advancement and development of a scientific field (Mathieu & Chen, 2011).

We encourage researchers to also consider bottom-up emergent processes, how characteristics of individuals manifest at higher-levels (Kozlowski & Klein, 2000). Since MTL conveys behavioural intentions based on subjected attitudes towards leadership, it could be a predictor of leader emergence (Hong et al., 2011). Initiatives of individual team members and informal leader emergence are critical for team performance (e.g., Carson, Tesluk, & Marrone, 2007; Marrone, Tesluk, & Carson, 2007). However, we still do not know much about the role of MTL and emergent leadership, as well as their interplay with LMX (Zhang, Waldman, et al., 2012). More specifically, future studies should examine how these dynamic interactions at the individual level unfold across higher organizational levels, for example we could examine how individuals' attachment orientations (individual level) shape team psychological safety (group level) depending on individuals' MTL.

CONCLUSION

Counterproductive work behaviours are not new in organizations. Nevertheless, these behaviours deemed very costly and harmful for organizations, thus they are struggling to understand, recognize and eliminate such behaviours. The main purpose of this dissertation was to contribute to understanding why individuals engage in CWBs. We achieved that by examining mechanisms that are linked to the relationship between LMX and CWB, such as MTL, psychological safety and leadership attachment. The aim was to examine moderation and mediation effects of proposed constructs and how they are related to CWB. This dissertation demonstrates the importance of interpersonal relationships at work, differences among individuals and their link to CWBs.

The constructs were selected based on theoretical foundations of social exchange theory that integrates all chapters of the dissertation. First, extensive theoretical review was conducted using bibliometrics that offer a more objective examination of LMX research development. We further built on the findings of our quantitative review, which suggested that negative aspects of workplace behaviour recently gained increased interest of researchers and that is necessary for organizations to understand, recognize and prevent CWBs.

In the second chapter we focus on ELMX and SLMX as of two different qualities and how they are associated with CWB under certain conditions of leaders' MTL. Through the lens of multilevel perspective, we signify the importance of how interpersonal dynamics unfold across levels. Therefore, we have to take into consideration that organizations are hierarchically nested systems, where single-level relations in most cases inadequately explain organizational behaviour (Kozlowski & Klein, 2000). In our case, we have shown that organizations should take into consideration individual differences such as MTL of individuals, since they convey behavioural intentions on outcome behaviour.

In addition, the relationship development and interpersonal dynamics are relatively under-explored. Therefore, bridging social exchange perspective and leadership attachment enables us to understand the interplay of individual differences and reciprocal social exchanges at the workplace. More specifically, we have demonstrated that insecure attachment orientations are reflected in more CWB engagement, whereas perceived psychological safety intervenes the relationship between LMX and CWB. Thus, organizations should encourage the development of social exchange relationships through informal events and adaptation of HR systems.

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APPENDICES

Appendix 1: Summary in Slovene language/ Daljši povzetek disertacije v slovenskem jeziku

Uvod

V zadnjih nekaj desetletjih so raziskave na področju vodenja narasle eksponentno. Pokazalo se je, da bi lahko vodstveni vidiki potencialno povečali različne organizacijske rezultate, kot so uspešnost opravljanja nalog in inovacije ter vodili do višje finančne uspešnosti (Barling et al., 1996; Jung et al., 2003). Nedavni metodološki in teoretični napredek, kot so teorije in metodologije analiziranja na več ravneh ter socialne mreže (Aguinis et al., 2011; Bowler & Brass, 2006), je pritegnil pozornost manj raziskanih, a še vedno kompleksnih vodstvenih področij, kot je odnos med vodjo in sledilcem. Ta odnos imenujemo izmenjava vodja-sledilec (angl. *Leader-member exchange*; v nadaljevanju LMX), ki je opredeljena kot kakovost izmenjave med vodjo in podrejenim, kjer je poudarek na recipročnosti izmenjav v odnosih (Dadrich & Bhal, 2008). Osnovna predpostavka teorije je, da imajo vodje diferencirane odnose s svojimi podrejenimi in jih obravnavajo drugače (Graen & Uhl-Bien, 1995).

Zgodovinsko gledano so se prve raziskave o izmenjavi med vodjo in sledilcem začele na podlagi študij socializacije na delovnem mestu in vertikalnih povezav med dvojicami (Dansereau et al., 1975; Graen & Uhl-Bien, 1995). Tovrstne raziskave so preučevale rezultate dvojic, povezane z uresničevanjem nestrukturiranih nalog (Graen & Scandura, 1987), vključno s posameznimi značilnostmi (Turban & Jones, 1988), demografskimi spremenljivkami (Tsui & O'reilly, 1989), vodstvenim vedenjem in njihovo močjo (Yukl, 1989), ki vplivajo na odnos med vodjo in sledilcem. Večina preteklih raziskav temelji na predpostavki, da vodje s svojim vedenjem vplivajo na sledilce (Ilies et al., 2007). Skladno s teorijo socialne izmenjave bo kakovost izmenjave v odnosu vodja-sledilec recipročna ali vzajemna (Blau, 1964; Gouldner, 1960). Zato bo pri podrejenih v visokokakovostnih izmenjavah prisotno diskrecijsko vedenje (i. e. vedenje v dobrobit organizacije), ki koristi vodji (Ilies et al., 2007; Settoon et al., 1996). Nasprotno, če posamezniki ne zaznavajo pozitivne recipročnosti v izmenjavi, lahko to negativno vpliva na njihovo vedenje na delovnem mestu (Chernyak-Hai & Tziner, 2014).

Kontraproduktivno vedenje (angl. *Counterproductive work behaviour*) je namerno vedenje, ki škoduje organizacijam ali posameznikom v organizacijah (Miles et al., 2002; Spector, 2011). Kontraproduktivno vedenje negativno vpliva na uspešnost organizacije in učinkovitost zaposlenih (Mount et al., 2006). Zato je za organizacije pomembno, da sprva takšno vedenje identificirajo in raziščejo vzroke za pojav takšnega vedenja ter kako preprečiti takšno vedenje in prepoznati posameznike, za katere je verjetneje, da negativno vedenje izvajajo (Bolton et al., 2010).

Če gledamo z vidika recipročnosti, se posamezniki v izmenjavi odzivajo na podlagi analize stroškov in koristi (Chernyak-Hai & Tziner, 2014). Teorija socialne izmenjave in norma recipročnosti zato predpostavljata, da visokokakovostne interakcije med vodjo in sledilcem prinašajo koristi in povečujejo vedenje v dobrobit organizaciji. Po drugi strani pa izmenjave nizke kakovosti zaznamuje pomanjkanje zaupanja in predanosti (Dalal, 2005).

V zadnjih dveh desetletjih raziskovanja o razumevanju, zakaj se posamezniki vključujejo v kontraproduktivna vedenja, je prišlo do pomembnega napredka, saj so raziskovalci zagotovili obsežne teoretične in empirične analize predhodnikov in posledic kontraproduktivnega vedenja. V veliki meri pa so raziskovalci v glavnem obravnavali spremenljivke, usmerjene na posameznika le na enem nivoju in njihove interakcije, kot so osebne značilnosti (O'Boyle et al., 2011). Z mikro perspektive nas zanimajo individualne razlike vodij, ki lahko vplivajo na ravnanje zaposlenih, s čimer se osredotočamo na pomembne razlike med posamezniki (Kozlowski & Klein, 2000).

Notranje vrednote vodij služijo kot regulativni vodnik in vplivajo na motivacijske, čustvene in kognitivne procese vodij in sledilcev (Kark & Van Dijk, 2007; Lord & Brown, 2001). Mnoge motivacijske študije so se osredotočile na sledilce, kasneje pa je prišlo do premika fokusa na motivacijo vodij (Bower, 1966), ki izvira iz njihove notranje motivacije pri prizadevanjih za uspešnost na vodstvenih položajih (Miner et al., 1994). Motivacija za vodenje (angl. *Motivation to lead*) je bila zasnovana kot konstrukt razlikosti med posamezniki, preko katerega se odraža vpliv na vedenje vodij v odnosu do osebnosti in vrednot posameznikov (Chan & Drasgow, 2001). Glede na teorije medosebnega vedenja, prepričanj in odnosov (Triandis, 1979) se vedenjske namere odražajo preko motivacije za vodenje (Hong et al., 2011).

Odnos med vodjo in sledilci v veliki meri vpliva na percepcijo psihološke varnosti, pri čemer se zaposleni počutijo varne v primeru sprejemanja tveganj v medosebnih odnosih in se prosto izražajo (Edmondson, 1999). Po mnenju Hofmanna in Morgesona (1999), perspektiva socialne izmenjave pomaga graditi teoretične temelje za klimo varnosti, ki se kaže skozi procese usposabljanja in zaznavanje vzajemnih obveznosti (Hofmann & Morgeson, 1999; Hofmann et al., 2003). Poleg tega lahko različni vzorci medosebnih odnosov v procesu izmenjave pomagajo sledilcem, da sodelujejo v psihološko varnem okolju, kar posameznike spodbudi k diskrecijskemu vedenju in preprečuje vključevanje v kontraproduktivno vedenje. Zato psihološka varnost odraža raven LMX in kako se to kaže v vedenju zaposlenih.

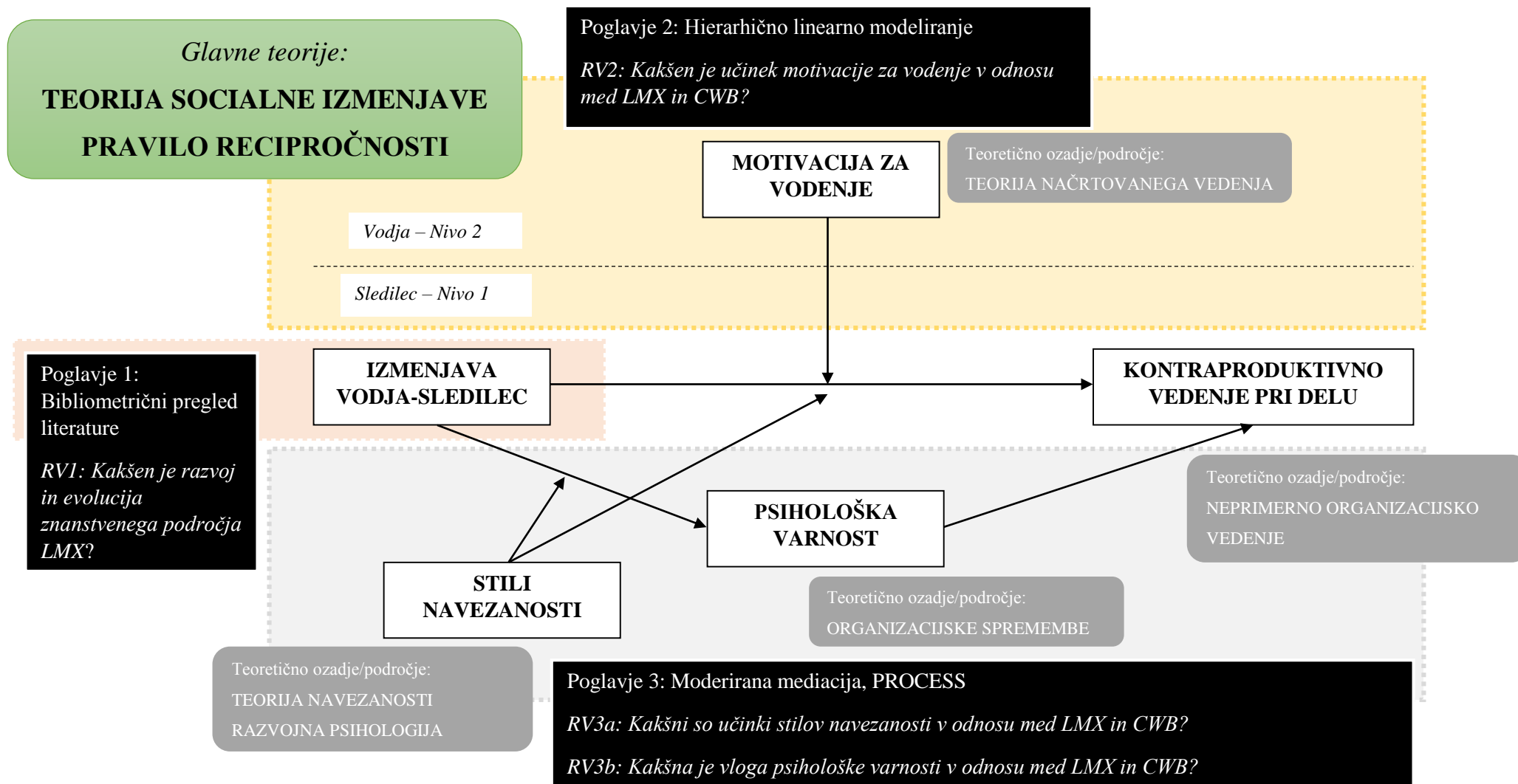
Poleg tega, je pri preučevanju socialnih interakcij in odnosov pomembno upoštevati, kako različni vzorci interakcije določajo proces socialne izmenjave. Zato teorija navezanosti omogoča poglobljeno razumevanje medosebne dinamike v odnosu med dvojicami (Popper et al., 2000; Troth & Miller, 2000), saj posamezniki razvijajo različne predstavitve sebe in

drugih, glede na izkušnje v preteklih odnosih (Davidovitz et al., 2007), kar se kaže v delovnem okolju. Tak pristop nam omogoča, da pojasnimo, kako so vodje povezani z zaposlenimi in kako zaposleni dajejo smisel tem odnosom (Černe et al., 2018). Zato psihološka varnost prenaša učinke stilov navezanosti v interakciji z LMX na kontraproduktivno vedenje. Slika 1 prikazuje medsebojno vplivanje izbranih konstruktov, raziskovalna vprašana, metodološke pristope in teorije.

Na podlagi pregleda literature lahko rečemo, da je teorija socialne izmenjave ena najbolj vplivnih paradig, ki pojasnjuje vedenje posameznikov na delovnem mestu. Medtem ko interakcije v socialni izmenjavi ustvarjajo vzajemne obveznosti, je treba razumeti, kako se ti vzorci medosebnih interakcij spreminjajo v medsebojno odvisnem procesu socialne izmenjave. Na splošno, na področju managementa je poseben interes raziskovalcev preučevanje razlik med akterji, vključenimi v proces razvoja odnosov socialne izmenjave (Cropanzano & Mitchell, 2005). V skladu s teorijo socialne izmenjave, vključevanje pravil in smernic za razvoj socialne izmenjave (kot je pravilo recipročnosti in razlikovanje med ekonomskimi in socialnimi izmenjavami), pomaga odkriti, zakaj posamezniki oblikujejo posebno vrsto izmenjav (Cropanzano & Mitchell, 2005; Emerson, 1976). Zelo malo študij neposredno preučuje proces izmenjave, zato so potrebne dodatne raziskave za razumevanje dinamike razvoja odnosov (Liden et al., 1997).

Disertacija temelji na teoretičnem okviru teorije socialne izmenjave in pravila recipročnosti kot enega od najpogostejših pravil izmenjave, ki se uporablja za razlago vključevanja posameznikov v določeno vrsto izmenjave. Prvič, v skladu s Shore et al. (2009), razlikujemo med socialno in ekonomsko izmenjavo kot odnosa dveh različnih kakovosti, da bi bolje razumeli te medsebojno odvisne izmenjave in kako vplivajo na kontraproduktivno vedenje. Ker je proces izmenjave dvostranski, nas zanima, kako raven LMX vpliva na kontraproduktivno vedenje pod določenimi vrednostmi motivacije za vodenje vodij. Motivacija za vodenje ima nekatere konceptualne podobnosti s teoretičnimi temelji teorije socialne izmenjave. Natančneje, ko posamezniki tehtajo stroške in koristi za prevzem vodstvenih vlog, je podobno primeru, kadar se zaposleni odzovejo drugače na podlagi zaznanega uravnoveženega ali neuravnoveženega odnosa. Podobno, zbliževanje teorije navezanosti in teorije socialne izmenjave pomaga razložiti, kako se vzorci interakcij spreminjajo v izmenjavah. Stili navezanosti se razvijejo na podlagi recipročnih odzivov na bližnje posameznike kot figure navezanosti, ki se kažejo v razvoju medosebnih odnosov na delovnem mestu. Poleg tega, odvisno od tega, kako se razvija LMX, to vpliva na zaznavo psihološke varnosti. Zato vzorci izmenjave omogočajo višjo ali nižjo psihološko varnost, skozi katero se odraža pozitivno ali negativno vedenje posameznikov. Zato preučujemo dvosmerno medsebojno delovanje LMX-a in stilov navezanosti ter kako se s tem spreminja zaznana raven psihološke varnosti.

Slika 1: Konceptualni model po posameznih poglavjih



1 Bibliometrična analiza razvoja teorije LMX

Čeprav do danes že obstajajo številne študije z obsežnimi teoretičnimi pregledi teorije LMX, ki ponujajo tako kvalitativni pristop (Graen & Uhl-Bien, 1995; Henderson et al., 2009; Schriesheim et al., 1999) in kvantitativni meta-analitični pristop (Dulebohn et al., 2012; Gerstner & Day, 1997; Ilies et al., 2007; Martin et al., 2016), še vedno ni jasnega soglasja o tem, katere teorije so vplivale na razvoj LMX. Večina študij je ugotovila, da se je razvoj LMX začel s preučevanjem odnosov vodja-podrejeni, pri čemer je bil poudarek na izmenjavi na ravni dvojic za razumevanje individualnega vedenja, ki temelji na socialni izmenjavi in recipročnosti (npr. Graen & Scandura, 1987; Yukl, 1989). Vendar pa nedavne študije temeljne korenine LMX postavljajo pod vprašaj in zahtevajo preučitev dodatnih nivojev v svoji zgodovini preučevanja razvoja LMX (D Day & Miscenko, 2016; Dulebohn et al., 2017).

V 1. poglavju preučujemo razvoj teorije izmenjave med vodjo in sledilcem (LMX), pri čemer analiziramo obstoječo literaturo, objavljeno od začetka razvoja konstrukta. Prvo poglavje dopolnjuje obstoječe kvalitativne in meta-analitične preglede področja LMX z uporabo kombinacije treh bibliometričnih tehnik - analiza soscliccev, analiza ključnih besed in bibliografska sklopljenost – z uporabo metode odkrivanja nevidnih grozdov (Vogel, 2012). Ta pristop nam omogoča, da prepoznamo najpomembnejše teme, določimo osnovno strukturo področja in odkrivamo potencialna zanimiva področja za nadaljnji razvoj. Kot prvo, smo priča rasti literature o ustvarjalnosti in inovativnosti, kjer raziskovalci vključujejo LMX v model z ustvarjalnostjo (npr. Atwater & Carmeli, 2009; Li et al., 2016). Drugič, bibliografska sklopljenost je pokazala povečano zanimanje raziskovalcev na področju negativnih vedenj, žaljivega vodenja (angl. *Abusive leadership*) in etike. Tretjič, teoretični razvoj LMX kaže, da je ta tema pridobila več pozornosti na področju vodenja v povezavi z različnimi stili vodenja in razkriva, da se je LMX v 2010-ih popolnoma integriral v skupino, ki preučuje vodenje, večinoma v povezavi s transakcijskim, transformacijskim in avtentičnim vodenjem (Avolio & Gardner, 2005; Wang et al., 2005).

2 Povezava med izmenjavo vodja-sledilec, motivacijo za vodenje in kontraproduktivnim vedenjem pri delu

Prejšnje študije povezujejo MTL večinoma s teorijo oblikovanja identitete, kjer imajo posamezniki željo, da se jih zaznava kot vodje (Waldman et al., 2013), in razvojem vodij, kjer velja predpostavka, da je MTL posameznika pogoj, da vodja razvije individualni vodstveni potencial (Amit et al., 2007; Hong et al., 2011). Individualne razlike vodij vplivajo na njihovo vedenje. MTL vpliva na odločitve in vedenje vodij ter na njihova prizadevanja in vključevanje preko usposabljanj, treniranja, vlogami in dodeljevanjem odgovornosti. MTL posameznikov se lahko spremeni s pridobivanjem vodstvenih izkušenj in usposabljanjem (Chan & Drasgow, 2001). V visokokakovostnih izmenjavah odnos temelji na medsebojnem

zaupanju in spoštovanju. Člani v teh izmenjavah prenašajo svoje etične vrednote, prepričanja, znanje in izkušnje na sledilce, kar omogoča, da se odnos razvije na višji ravni. S pridobivanjem izkušenj posameznikov MTL potencialno vpliva na vedenje (npr. kontraproduktivno vedenje) (Kark & Van Dijk, 2007).

Vendar pa je MTL do danes pridobil le malo empirične in teoretične pozornosti raziskovalcev, ne samo pri preučevanju svojih predhodnikov (Chan & Drasgow, 2001; Hong, 2005), temveč tudi pri upoštevanju njegovega učinka na organizacijske rezultate in vedenje vodij (Chan & Drasgow, 2001). Vodje v izmenjavi prenašajo svoje vrednote in izkušnje na sledilce, kar vpliva na vedenje sledilcev. Zato predpostavljamo, da vodje z visoko stopnjo motivacije za vodenje vplivajo na povezavo LMX-kontraproduktivno vedenje, kar se kaže v izvajanju manj kontraproduktivnega vedenja. Zanima nas interakcijski učinek MTL vodij, ki vpliva na moč povezave med LMX (sledilec) in kontraproduktivnim vedenjem (sledilec).

V 2. poglavju raziskujemo medsebojno vplivanje med LMX (SLMX in ELMX), motivacijo za vodenje in kontraproduktivnim vedenjem pri delu. Natančneje, preučujemo medsebojni učinek motivacije vodij za vodenje na odnos med LMX in kontraproduktivnim vedenjem pri delu zaposlenih. Z uporabo večnivojskega pristopa je bila izvedena študija v treh velikih evropskih podjetjih z vzorcem 217 zaposlenih, ki delujejo v timih z dodeljenimi 31 vodji. Pregled literature kaže, da obstoječi teoretični in empirični dokazi temeljijo na pristopu analize posamezne ravni in zaostaja za drugimi področji vodenja (npr. deljeno vodenje; angl. *Shared leadership*). Rezultati podpirajo hipotezo 1a, da posamezniki z višjo ravno SLMX (angl. *Social leader-member exchange*) kažejo nižje ravni kontraproduktivnega vedenja. Ugotavljamo, da je motivacija za vodenje pomemben mehanizem v razmerju LMX in kontraproduktivnim vedenje, vendar pa rezultati kažejo, da je to razmerje bolj negativno v primeru nižje motivacije za vodenje. Razlog je lahko v bolj negativnem zaznavanju vodij s strani zaposlenih zaradi, pri čemer se zaposleni samoiniciativno prevzemajo določene vodstvene vloge, kar je lahko povezano z izvajanjem manj kontraproduktivnega vedenja. To poglavje poskuša razširiti znanje na področju MTL in njen prenos na področje vodenja. LMX kot pomemben vidik relacijskega vodenja pridobiva veliko pozornosti raziskovalcev, ki poskušajo razložiti vedenje na delovnem mestu. Vloga LMX pri razlagi kontraproduktivnega vedenja je že dobro zastopana, vendar je manj raziskav na področju določanja mehanizmov, preko katerih LMX napoveduje kontraproduktivno vedenje. Čeprav literatura nakazuje, da so posamezne razlike pomembni dejavniki vedenja zaposlenih (Organ & Konovsky, 1989; Spector & Fox, 2002), obstaja precej malo raziskav o MTL na delovnem mestu in še posebej glede njegove vloge kot mehanizma, ki lahko pomaga razložiti vedenje. Še pomembneje je, da je MTL kot konstrukt relativno premalo raziskan, zato je sedanja študija korak naprej k zbiranju empiričnih dokazov (Chan & Drasgow, 2001). Nazadnje, ta študija prispeva k metodološkemu pristopu, ki se uporabljajo na področju vodenja, ki se nanašajo na večstopenjsko naravo predlaganega modela (raven vodje in raven sledilca).

Vodenje in njegova kompleksnost presega le raven vodje, zato je treba uporabiti pristop na več ravneh, da bi zagotovili rast znanstvenega področja (D Day & Harrison, 2007).

3 Povezava med izmenjavo vodja-sledilec, stili navezanosti, psihološko varnostjo in kontraproduktivnim vedenjem

Teorija navezanosti odraslih temelji na predpostavki, da posamezniki ustvarjajo drugačne zaznavanje sebe in drugih na podlagi njihovih izkušenj v odnosih iz preteklosti (Fraley, 2007). Odvisno od teh izkušenj v preteklih odnosih z drugimi ljudmi, bodo razvili varne (angl. *Secure*) ali negotove (angl. *Insecure*) – anksiozne (angl. *Anxious*), izogibne (angl. *Avoidant*) predstavitve sebe in drugih (M. D. S. Ainsworth, 2006; Fraley, 2007). Stili navezanosti (angl. *Attachment styles*) so bili sprva povezani z raziskavami pri opazovanju starševskega odnosa (Hazan & Shaver, 1987). Vendar pa je do nedavnega uporaba teorije navezanosti na vodstvenem področju pridobila več zanimanja raziskovalcev, saj poskuša pojasniti posamezno vedenje v organizacijah in odnos med vodjo in sledilci (Boatwright, Lopez, Sauer, Van Der Wege, & Huber, 2010; Richards & Hackett, 2012). Zasnova stila navezanosti je pomembna pri preučevanju družbeno-relacijskega vedenja in nam omogoča, da gledamo na odnos dvojic, ki hkrati upošteva relacijsko dinamiko in individualne razlike (Davidovitz et al., 2007; Popper & Amit, 2009; Popper et al., 2000), kar dopolnjuje raziskave na področju LMX. V nekaj preteklih študijah so raziskovalci poskušali stile navezanosti postaviti v organizacijski kontekst in jih povezati z odnosom vodja-sledilec kot njegovega predhodnika (Bresnahan & Mitroff, 2007; Keller, 2003; Seers et al., 2003).

Posebno zanimanje raziskovalcev so pritegnili določeni vidiki delovne uspešnosti (Harms, 2011), ki so po naravi bolj medosebni, kot je kontraproduktivno vedenje (Dalal, 2005). Iz perspektive vodja-sledilec je manj verjetno, da bodo zaposleni izvajali kontraproduktivno vedenje v primeru visokokakovostnih odnosov (Hackett & Lapierre, 2004; Spector, 2011; Xu et al., 2012). Zato predpostavljamo, da bodo stili navezanosti spodbudili kakovost LMX, pri čemer je izmenjava med vodjo in sledilcem odvisna od izkušenj posameznikov v preteklih odnosih.

LMX ima blažilno vlogo, ko gre za nižje ravni psihološke varnosti in služi kot socialna podpora članom v skupini (Hu & Zuo, 2007). Kadar se zaposleni ne srečujejo s psihološko varnim okoljem, izkoristijo visoko kakovostne izmenjave za preprečevanje negativnih učinkov takšne negotovosti. Nasprotno, nizka stopnja LMX in doživljanje psihološko manj varne klime v podjetju, lahko povečajo negativne posledice (Probst et al., 2016). V okviru disertacije želim preučiti učinek psihološke varnosti, ki posredno vpliva na razmerje med LMX in kontraproduktivnim vedenjem.

V 3. poglavju preučujemo koncept stilov navezanosti odraslih na delovnem mestu in kako vplivajo na odnos med LMX in CWB. Poleg tega integriramo psihološko varnost kot

posrednika med LMX in kontraproduktivnim vedenjem. Predlagana razmerja so bila preizkušena s študijo, izvedeno v treh velikih evropskih podjetjih s skupno velikostjo vzorca 257 zaposlenih. Študija ponuja vpogled v to, kako različni stili navezanosti preko psihološke varnosti vplivajo na povezavo med LMX in kontraproduktivnim vedenjem. Prvič, rezultati podpirajo naš osnovni mediacijski model, da ima psihološka varnost posreden učinek na povezavo med LMX in kontraproduktivnim vedenjem. Drugič, vključevanje stilov navezanosti kot moderatorja, rezultati kažejo značilen učinek v primerih stila tesnobe in izogibanja, ne pa tudi za varen stil navezanosti.

Prispevki tretjega poglavja so dvojni. Prvi prispevek se nanaša na psihološko varnost kot ključni pojasnjevalni mehanizem za pojav kontraproduktivnega vedenja. Visoka raven LMX omogoča komunikacijo širšega nabora čustev, posamezniki so odprti za nove ideje in informacije, odnosi so bolj fleksibilni, posamezniki izkazujejo spoštovanje do sebe in drugih (Carmeli et al., 2009). Zato pričakujemo, da je višji LMX spodbujevalec psihološke varnosti, skozi katero se manifestira vedenje članov organizacije, kar povzroči manj vključevanja v kontraproduktivna vedenja.

Drugi je razširiti konceptualizacijo stilov navezanosti odraslih na področju LMX. Vodje kot podobe, ki odsevajo stil navezanosti, oblikujejo čustvene odnose s svojimi sledilci, kar je podobno starševskemu odnosu (Popper & Mayseless, 2003). Uporaba takšne konceptualizacije na področju vodenja nam lahko pomaga bolje razumeti odnose med vodjo in sledilci, saj upošteva medosebne zaznave sebe in drugih hkrati (Černe et al., 2018; Popper et al., 2000). V socialnih interakcijah na delovnem mestu psihološka varnost odraža odnose med zaposlenimi, njihov pristop k njihovem zaznavanju odnosov in nagnjenost k temu, da gradijo in vzdržujejo te odnose v skladu s stilom navezanosti posameznika (Leiter et al., 2015). Zato se učinek medsebojnega delovanja stilov navezanosti in LMX prenaša z zaznano psihološko varnostjo na izvajanje kontraproduktivnega vedenja.

4 Teoretični prispevki disertacije

Ta disertacija razširja razumevanje, zakaj se pojavlja CWB v organizacijah. Natančneje, kakšno vlogo imajo preučevani mehanizmi pri razlagi CWB, ki izhajajo iz perspektive socialne izmenjave, kar je rdeča nit disertacije, ki povezuje vsa poglavja. Teoretična osnove teorije socialne izmenjave (Blau, 1964) nam omogoča, da poskušamo razložiti, kako se razvijajo odnosi na delovnem mestu. Splošni prispevek disertacije je, da MTL in stili navezanosti spreminjajo vzorce socialnih izmenjav preko psihološke varnosti, saj se usmeritve navezanosti razvijajo na podlagi recipročnih odzivov, kar se odraža v razvoju medosebnih odnosov na delovnem mestu.

Na podlagi teorije socialne izmenjave vpleteni v izmenjavah medsebojno vplivajo drug na drugega, kar se kaže v vedenju, ki ga zaposleni vrednotijo. Natančneje, zaposleni bodo

povečali zavzemanje za vedenje, ki ga pozitivno vrednotijo in se manj ukvarjajo z vedenjem, ki ga negativno vrednotijo (Cook et al., 1993). To kaže na to, da bodo posamezniki v izmenjavah razvili višje ali nižje stopnje LMX, odvisno od njihovega "vedenjskega sistema navezanosti", da bi ohranili ali okrepili vez z bližnjimi figurami navezanosti (Cassidy & Shaver, 2002). Zato lahko povezovanje teorije socialne izmenjave in teorije navezanosti pomembno vpliva na razlago človekovih družbenih odnosov in odnosov na delovnem mestu. LMX kot gonilna sila psihološke varnosti se razvija in oblikuje glede na zaznavanje stila navezanosti posameznikov. V primerih negotove navezanosti posamezniki dojemajo druge kot nedosegljive, nezahtevne, zato se izogibajo razvoju odnosa, kar privede do nižje psihološke varnosti. Poleg tega je psihološka varnost pomemben mehanizem, ki posameznikom pomaga pri spopadanju s stresom in tesnobo, ko se posamezniki soočajo z nekaterimi organizacijskimi spremembami in se preusmerijo iz samozaščite k skupnim ciljem in preprečevanju problemov (Edmondson & Lei, 2014).

5 Praktična priporočila

Mnoge organizacije se soočajo z medosebnimi grožnjami, ki so neločljivo povezane z vedenjem posameznikov. To ni samo nekaj, kar je naravno, ampak je zgrajeno in razvito z odprto komunikacijo, organizacijskimi smernicami, ki omogočajo izmenjavo znanja, učenje iz napak, zagotavljanje podpore in povratnih informacij. Ugotovitve disertacije kažejo, da je LMX pomemben dejavnik, ki spodbuja razvoj psihološke varnosti, zato morajo organizacije spodbujati razvoj LMX. Vendar pa zato niso odgovorni le vodje, temveč tudi zaposleni sami.

Poleg tega nam stil navezanosti, kot edinstven atribut posameznika, pomaga razumeti, kako razlike med posamezniki vplivajo na odnos LMX, ki se preko zaznane psihološke varnosti odražajo na izvajanju kontraproduktivnega vedenja. Posamezniki z negotovim stilom navezanosti (tj. anksiozen, izogibajoč) imajo negativne predstavitve o sebi, so čustveno manj stabilni kot posamezniki z varno navezanostjo, vlagajo manj truda v razvoj odnosa in druge zaznavajo kot posameznike, ki jim ne nudijo podpore in nedostopne (Černe et al., 2018; Maslyn et al., 2017; Mayseless, 2010; Mikulincer, 1995). Zato priporočamo, da organizacije še naprej spodbujajo razvoj LMX odnosov in nudijo različne vrste podpore, kot sta čustvena ali informativna (Richards & Schat, 2011), ki bi lahko zaposlene spodbudila k prostovoljnemu iskanju nasvetov in pomoči, ko jih potrebujejo.

Appendix 2: Document co-citation analysis for Motivation to Lead

The identified clusters reflect the community structure of the field and suggest that the field of MTL research is mostly incorporated within the leadership stream. We focus on a single time interval and describe each of the college. We provide an interpretation of the extracted factors and the rough outline of the core groups that were derived from the analyses. Each factor naturally has a richer tradition and is far more complex than its brief description suggests. The following Table provides a short description of research subjects and colleges.

Main clusters revealed from document co-citation analysis for MTL

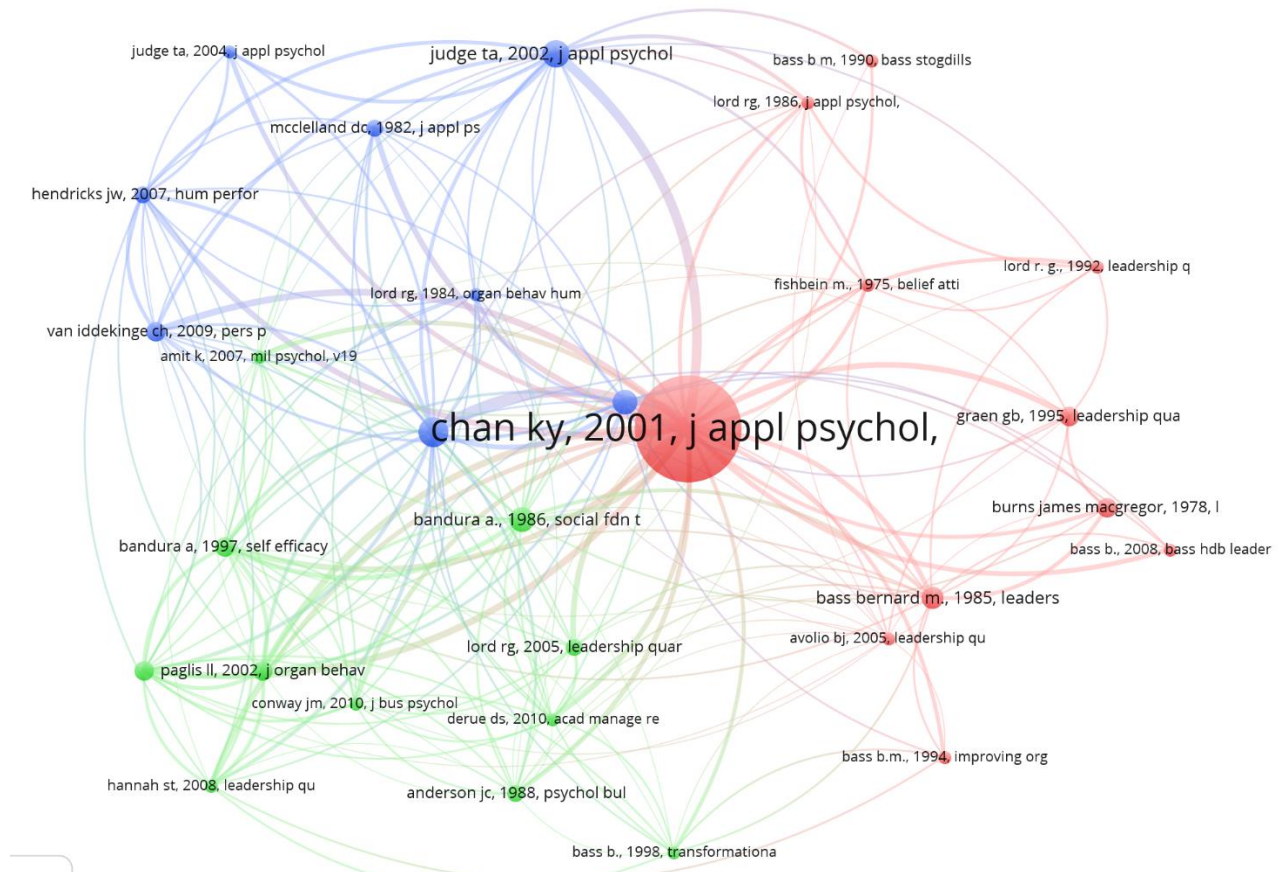
Time interval	Cluster		Brief description	Key cited authors	No. of docs
1990-2018	1	Leadership – individual differences	Leader-follower relationships.	(Bass, 1985; Chan & Drasgow, 2001)	11
	2	Leadership - behaviour	Motivation and behaviour.	(Bandura, 1986, 1997; Paglis & Green, 2002)	11
	3	Leadership - outcomes	Motivation to lead and performance.	(Chan et al., 2000; Judge et al., 2002; Kark & Van Dijk, 2007)	8

Analysis of the first co-citation network (Figure 5) reveals most influential works for the development of MTL theory and research. We labelled first cluster as *Leadership-individual differences*, which mostly refers to research on leader-follower relationships (Graen & Uhl-Bien, 1995) and the relationship between individual differences (e.g., traits and personality, personal attributes) and leadership perceptions (Lord et al., 1986), leadership development (Avolio & Gardner, 2005) and leadership styles (e.g., transformational leadership; Bass, 1990; Bass & Avolio, 1994). Highly cited work in this cluster represents the introduction of Motivation to lead as a construct of individual differences and its relationship to various leader behaviours (Chan & Drasgow, 2001). We observe background influxes of works by Fishbein and Ajzen (1975) about beliefs, attitudes, intention and behaviour.

The second cluster was labelled as *Leadership-behaviour* as most of the work relates to motives for undertaking leadership roles (Amit et al., 2007; Bandura, 1986) and incorporating self-efficacy as a possible source that is related to leader behaviour (Bandura, 1997; Paglis & Green, 2002). Many of the research in this cluster is based on foundations of social cognitive theory (Bandura, 1986).

The third cluster is mainly represented by researchers that are focused on leader performance (Van Iddekinge et al., 2009), leadership effectiveness (Hendricks & Payne, 2007) and their relation to personality and individual differences (Judge et al., 2002; Kark & Van Dijk, 2007). We labelled this cluster as *Leadership-outcomes*.

Co-citation visualization



Appendix 3: Survey questionnaire in English

QUESTIONNAIRE FOR EMPLOYEES

Demographic variables

In which work unit are you employed?

Gender

1. Male
2. Female

Age

_____ years.

Education

1. Doctorate Degree
2. Master's Degree
3. Bachelor's Degree
4. Higher school education Degree/Professional Degree
5. High School Diploma/Secondary education
6. Primary Education

Work experience

How long do you work in current company?

_____ years.

Dyad tenure

How long do you work with current leader?

_____ years.

Leader-follower relationship (LMX)

Please rate your relationship with your leader on a scale 1 (= strongly disagree) to 7 (= strongly agree).

Please rate your relationship with your leader on a scale 1 (= strongly disagree) to 7 (= strongly agree).		Strongly agree						
		Agree						
		Somewhat agree						
		Neither agree nor disagree						
		Somewhat disagree						
		Disagree						
Strongly disagree								
1.	The most accurate way to describe my relationship with my supervisor is that I do what I am told to do.	1	2	3	4	5	6	7
2.	I do what my supervisor demands from me, mainly because he or she is my formal boss.	1	2	3	4	5	6	7
3.	My relationship with my supervisor is mainly based on authority, he or she has the right to make decisions on my behalf and I do what I am told to do.	1	2	3	4	5	6	7
4.	All I really expect from my store manager is that he or she fulfils his or hers formal role as supervisor or boss.	1	2	3	4	5	6	7
5.	My relationship with my supervisor is based on mutual trust.	1	2	3	4	5	6	7
6.	My supervisor has made a significant investment in me.	1	2	3	4	5	6	7
7.	I try to look out for the best interest of my supervisor because I can rely on him to take care of me.	1	2	3	4	5	6	7
8.	The things I do on the job today will benefit my standing with my supervisor in the long run.	1	2	3	4	5	6	7
9.	I know where I stand with my supervisor.	1	2	3	4	5	6	7
10.	My supervisor understands my job problems and needs.	1	2	3	4	5	6	7
11.	My supervisor recognizes my potential.	1	2	3	4	5	6	7
12.	Regardless of how much formal authority he/she has built into his/her position, my supervisor would use his/her power to help you solve problems in my work.	1	2	3	4	5	6	7
13.	Regardless of the amount of formal authority my supervisor has, he/she would “bail me out,” at his/her expense.	1	2	3	4	5	6	7
14.	I have enough confidence in my supervisor that I would defend and justify his/her decision if he/she were not present to do so.	1	2	3	4	5	6	7
15.	I have effective work relationship with my supervisor.	1	2	3	4	5	6	7

Attachment styles

The following questions focus on your thoughts about your relationship with others.

		<div>Strongly agree</div> <div>Agree</div> <div>Somewhat agree</div> <div>Neither agree nor disagree</div> <div>Somewhat disagree</div> <div>Disagree</div> <div>Strongly disagree</div>						
1.	I prefer not to show my supervisor how I feel deep down.	1	2	3	4	5	6	7
2.	I worry about being abandoned.	1	2	3	4	5	6	7
3.	I am very comfortable being close to others.	1	2	3	4	5	6	7
4.	I worry a lot about my relationships.	1	2	3	4	5	6	7
5.	Just when other people start to get close to me I find myself pulling away.	1	2	3	4	5	6	7
6.	I worry that other people won't care about me as much as I care about them.	1	2	3	4	5	6	7
7.	I get uncomfortable when my supervisor tries to get close to me.	1	2	3	4	5	6	7
8.	I worry a fair amount about losing my connections with others.	1	2	3	4	5	6	7
9.	I don't feel comfortable opening up to other people.	1	2	3	4	5	6	7
10.	I often wish that others' feelings for me were as strong as my feelings for them.	1	2	3	4	5	6	7
11.	I want to get close to others, but I keep pulling back.	1	2	3	4	5	6	7
12.	I often want to merge completely with other people, and this sometimes scares them away.	1	2	3	4	5	6	7
13.	I am nervous when other people get too close to me.	1	2	3	4	5	6	7
14.	I worry about being alone.	1	2	3	4	5	6	7
15.	I feel comfortable sharing my private thoughts and feelings with others.	1	2	3	4	5	6	7
16.	My desire to be very close sometimes scares people away.	1	2	3	4	5	6	7
17.	I try to avoid getting too close to others.	1	2	3	4	5	6	7
18.	I need a lot of reassurance that I am liked and appreciated by other people.	1	2	3	4	5	6	7
19.	I find it relatively easy to get close to other people.	1	2	3	4	5	6	7
20.	Sometimes I feel that I force others to show more feeling, more commitment.	1	2	3	4	5	6	7
21.	I find it difficult to allow myself to depend on others.	1	2	3	4	5	6	7
22.	I do not often worry about being abandoned.	1	2	3	4	5	6	7
23.	I prefer not to be too close to other people.	1	2	3	4	5	6	7

24.	If I can't get others to show interest in me, I get upset or angry.	1	2	3	4	5	6	7
25.	I tell others just about everything.	1	2	3	4	5	6	7
26.	I find that other people don't want to get as close as I would like.	1	2	3	4	5	6	7
27.	I usually discuss my problems and concerns with other people.	1	2	3	4	5	6	7
28.	When I'm not connected to people, I feel somewhat anxious and insecure.	1	2	3	4	5	6	7
29.	I feel comfortable depending on others.	1	2	3	4	5	6	7
30.	I get frustrated when others are not around as much as I would like.	1	2	3	4	5	6	7
31.	I don't mind asking other people for comfort, advice, or help.	1	2	3	4	5	6	7
32.	I get frustrated if others are not available when I need them.	1	2	3	4	5	6	7
33.	It helps to turn to others in times of need.	1	2	3	4	5	6	7
34.	When other people disapprove of me, I feel really bad about myself.	1	2	3	4	5	6	7
35.	I turn to other people for many things, including comfort and reassurance.	1	2	3	4	5	6	7
36.	I resent it when others spend time away from me.	1	2	3	4	5	6	7

Counterproductive work behaviour

How often have you done each of the following things on your present job?

		<div> <div>Very often</div> <div>Often</div> <div>Occasionally</div> <div>Sometimes</div> <div>Rarely</div> <div>Very rarely</div> <div>Never</div> </div>						
1.	Purposely wasted your employer's materials/supplies.	1	2	3	4	5	6	7
2.	Complained about insignificant things at work.	1	2	3	4	5	6	7
3.	Told people outside the job what a lousy place you work for.	1	2	3	4	5	6	7
4.	Came to work late without permission.	1	2	3	4	5	6	7
5.	Stayed home from work and said you were sick when you weren't.	1	2	3	4	5	6	7
6.	Insulted someone about their job performance.	1	2	3	4	5	6	7
7.	Made fun of someone's personal life.	1	2	3	4	5	6	7
8.	Ignored someone at work.	1	2	3	4	5	6	7
9.	Started an argument with someone at work.	1	2	3	4	5	6	7
10.	Insulted or made fun of someone at work.	1	2	3	4	5	6	7

Psychological safety

Please rate following statements on a scale 1 (= strongly disagree) to 7 (= strongly agree).

							Strongly agree	
							Agree	
							Somewhat agree	
							Neither agree nor disagree	
							Somewhat disagree	
							Disagree	
							Strongly disagree	
1.	If you make a mistake in this work unit, it is often held against you.	1	2	3	4	5	6	7
2.	Members of this work unit are able to bring up problems and tough issues.	1	2	3	4	5	6	7
3.	People in this work unit sometimes reject others for being different.	1	2	3	4	5	6	7
4.	It is safe to take a risk in this work unit.	1	2	3	4	5	6	7
5.	It is difficult to ask other members of this team for help.	1	2	3	4	5	6	7
6.	No one on this team would deliberately act in a way that undermines my efforts.	1	2	3	4	5	6	7
7.	Working with members of this team, my unique skills and talents are valued and utilized.	1	2	3	4	5	6	7

QUESTIONNAIRE FOR LEADERS

Demographic variables

In which work unit are you employed?

Gender

1. Male
2. Female

Age

_____ years.

Education

1. Doctorate Degree
2. Master's Degree
3. Bachelor's Degree
4. Higher school education Degree/Professional Degree
5. High School Diploma/Secondary education
6. Primary Education

Work experience

How long do you work in current company?

_____ years.

Motivation to lead

Please rate following statements on a scale 1 (= strongly disagree) to 7 (= strongly agree).

							Strongly agree	
							Agree	
						Somewhat agree		
					Neither agree nor disagree			
				Somewhat disagree				
			Disagree					
		Strongly disagree						
1.	Most of the time, I prefer being a leader rather than a follower when working in a group.	1	2	3	4	5	6	7
2.	I usually want to be the leader in the groups that I work in.	1	2	3	4	5	6	7
3.	I have a tendency to take charge in most groups or teams that I work in.	1	2	3	4	5	6	7
4.	I would want to know "what's in it for me" if I am going to lead a group.	1	2	3	4	5	6	7
5.	I never expect to get more privileges if I agree to lead a group.	1	2	3	4	5	6	7
6.	I have more of my own problems to worry about than to be concerned about the rest of the group.	1	2	3	4	5	6	7
7.	I agree to lead whenever I am asked or nominated by the other members.	1	2	3	4	5	6	7
8.	I have been taught that I should always volunteer to lead other if I can.	1	2	3	4	5	6	7
9.	I was taught to believe in the value of leading others.	1	2	3	4	5	6	7

Appendix 4: Survey questionnaire in Slovene

VPRAŠALNIK ZA ZAPOSLENE

Demografske spremenljivke

V kateri delovni enoti ste zaposleni?

Spol

1. Moški
2. Ženski

Starost

_____ let.

Izobrazba

1. Dokončana osnovna šola
2. Dokončana srednja šola
3. Diploma višje ali visoke šole
4. Univerzitetna diploma
5. Magisterij
6. Doktorat

Delovne izkušnje

Kako dolgo že delate v tem podjetju?

_____ let.

Dolgotrajnost dvojice

Kako dolgo že delate s trenutnim vodjo?

_____ let.

Odnos vodja – zaposleni (LMX)

Z odgovori na naslednja vprašanja ocenite vaš odnos z neposrednim vodjo in na lestevici od 1 do 7 označite, v kolikšni meri se s trditvijo strinjate.

		<div>Popolnoma se strinjam</div> <div>Pretežno se strinjam</div> <div>Malo se strinjam</div> <div>Niti se ne strinjam, niti se strinjam</div> <div>Malo se ne strinjam</div> <div>Pretežno se ne strinjam</div> <div>Sploh se ne strinjam</div>						
		1	2	3	4	5	6	7
1.	Najboljši način za opis mojega odnosa z nadrejenim je, da naredim, kar mi reče, naj naredim.	1	2	3	4	5	6	7
2.	Naredim, kar od mene zahteva nadrejeni, predvsem zato, ker je formalno moj šef.	1	2	3	4	5	6	7
3.	Moj odnos z nadrejenim večinoma temelji na avtoriteti; ima pravico, da sprejema odločitve na moj račun, jaz pa delam, kar mi reče, da moram.	1	2	3	4	5	6	7
4.	Vse kar dejansko pričakujem od mojega nadrejenega je, da izpolni svojo formalno vlogo mojega šefa.	1	2	3	4	5	6	7
5.	Moj odnos z nadrejenim temelji na vzajemnem zaupanju.	1	2	3	4	5	6	7
6.	Moj nadrejeni je vložil veliko vame.	1	2	3	4	5	6	7
7.	Poskušam ščititi najboljše interese mojega nadrejenega, saj se lahko tudi nanj zanesem, da bo on poskrbel zame.	1	2	3	4	5	6	7
8.	Kar trenutno delam na delovnem mestu bo prineslo dolgoročno korist tudi za mojega nadrejenega.	1	2	3	4	5	6	7
9.	Dobro vem, kaj lahko pričakujem od mojega nadrejenega.	1	2	3	4	5	6	7
10.	Moj nadrejeni razume moje težave in potrebe, povezane z delom.	1	2	3	4	5	6	7
11.	Moj nadrejeni zna prepoznati moj potencial.	1	2	3	4	5	6	7
12.	Moj nadrejeni bi izkoristil svojo moč, da bi mi pomagal pri reševanju z delom povezanih težav.	1	2	3	4	5	6	7
13.	Moj nadrejeni bi me rešil težav, tudi če na svoj račun.	1	2	3	4	5	6	7
14.	Odločitve, ki jih je sprejel moj nadrejeni, zagovarjam, kadar tega ne more storiti sam.	1	2	3	4	5	6	7
15.	Z mojim nadrejenim imam učinkovit delovni odnos.	1	2	3	4	5	6	7

Stili navezanosti (splošno)

Naslednje trditve se nanašajo na vprašanje, kako se počutite v odnosu z drugimi. Zanima nas, kako na splošno doživljate odnos in ne samo, kaj se v določenem odnosu dogaja. Na lestvici od 1 do 7 označite, v kolikšni meri se s trditvijo strinjate.

		<div>Popolnoma se strinjam</div> <div>Pretežno se strinjam</div> <div>Malo se strinjam</div> <div>Niti se ne strinjam, niti se strinjam</div> <div>Malo se ne strinjam</div> <div>Pretežno se ne strinjam</div> <div>Sploh se ne strinjam</div>						
		1	2	3	4	5	6	7
1.	Drugim raje ne pokažem, kako se počutim.							
2.	Skrbi me, da bi me drugi zapustili.							
3.	Dobro se počutim, če sem si z drugimi blizu.							
4.	Zelo me skrbi, kakšne odnose imam z drugimi.							
5.	Ravno, ko se z drugimi zblížam v odnosu, se začnem umikati.							
6.	Skrbi me, da drugim ne bo mar zame tako kot meni zanje.							
7.	Neprijetno mi je, ko drugi želijo biti zelo blizu v odnosu.							
8.	Precej me skrbi, da bi izgubil vez z drugimi.							
9.	Neprijetno mi je se odpreti drugim ljudem.							
10.	Pogosto si želim, da bi bila čustva drugih do mene tako močna kot so moja do njih.							
11.	Želim si biti blizu drugim, ampak se kar naprej umikam.							
12.	Pogosto se želim popolnoma zblížati z drugimi ljudmi, kar jih včasih prestraši in odžene.							
13.	Sem nervozen, ko so drugi preblizu mene.							
14.	Skrbi me, da bi bil sam.							
15.	Sproščeno lahko z drugimi delim svoje osebne misli in občutke.							
16.	Moja želja, da sem si z drugimi blizu, jih včasih prestraši in odžene stran.							
17.	Poskušam se izogniti temu, da bi si bil blizu z drugimi.							
18.	Potrebujem veliko potrditev, da me imajo drugi ljudje radi in me cenijo.							
19.	Zlahka se zblížam z drugimi ljudmi.							
20.	Včasih se počutim kot da silim druge, da pokažejo več čustev in predanosti.							
21.	Težko si dovolim, da sem odvisen od drugih.							
22.	Ne skrbi me pogosto, da bi me drugi zapustili.							
23.	Raje vidim, da se ne zblížam preveč z drugimi ljudmi.							

24.	Če od drugih ne dobim dovolj pozornosti, me to vznemiri ali razjezi.	1	2	3	4	5	6	7
25.	Drugim lahko sproščeno povem prav vse.	1	2	3	4	5	6	7
26.	Ugotavljam, da si drugi ljudje ne želijo biti tako blizu kot bi si jaz želel.	1	2	3	4	5	6	7
27.	Običajno se pogovarjam o svojih težavah in skrbih z drugimi ljudmi.	1	2	3	4	5	6	7
28.	Če nisem povezan z drugimi ljudmi, se počutim nekoliko tesnobno in negotovo.	1	2	3	4	5	6	7
29.	Ne moti me, da sem odvisen od drugih.	1	2	3	4	5	6	7
30.	Ko drugih ni okoli mene v takšni meri kot si želim, se počutim frustrirano.	1	2	3	4	5	6	7
31.	Ni mi težko prositi druge za tolažbo, nasvet ali pomoč.	1	2	3	4	5	6	7
32.	Frustrira me, če drugi niso na voljo, ko jih potrebujem.	1	2	3	4	5	6	7
33.	Pomaga, če se obrneš na druge, ko potrebuješ pomoč.	1	2	3	4	5	6	7
34.	Ko me drugi ne sprejemajo, se počutim zelo slabo.	1	2	3	4	5	6	7
35.	Na druge se obrnem zaradi različnih stvari, vključno s tolažbo in iskanjem potrditve.	1	2	3	4	5	6	7
36.	Moti me, da drugi preživljajo čas brez mene.	1	2	3	4	5	6	7

Kontraproduktivno vedenje

Spodnje trditve se nanašajo na vaše obnašanje in ravnanje v podjetju. Na lestvici od 1 do 7 označite, kako pogosto delate navedene stvari na trenutnem delovnem mestu.

		<div> <div>Nikoli</div> <div>Zelo redko</div> <div>Redko</div> <div>Včasih</div> <div>Občasno</div> <div>Pogosto</div> <div>Zelo pogosto</div> </div>						
1.	Namenoma zavrgel material/zaloge delodajalca.	1	2	3	4	5	6	7
2.	Se pritoževal o nepomembnih stvareh na delovnem mestu.	1	2	3	4	5	6	7
3.	Govoril drugim ljudem izven službe, v kako slabem podjetju delam.	1	2	3	4	5	6	7
4.	Prišel kasneje v službo brez dovoljenja.	1	2	3	4	5	6	7
5.	Bil odsoten iz službe zaradi bolezni, čeprav nisem bil bolan.	1	2	3	4	5	6	7
6.	Užalil sodelavca glede njegove uspešnosti pri delu.	1	2	3	4	5	6	7
7.	Se norčeval iz zasebnega življenja sodelavca.	1	2	3	4	5	6	7
8.	Ignoriral druge na delovnem mestu.	1	2	3	4	5	6	7
9.	Začel prepir na delovnem mestu.	1	2	3	4	5	6	7
10.	Sem bil žaljiv ali se norčeval iz sodelavca.	1	2	3	4	5	6	7

Psihološka varnost

V kolikšni meri se strinjate s spodnjimi trditvami.

								Popolnoma se strinjam	
								Pretežno se strinjam	
								Malo se strinjam	
								Niti se ne strinjam, niti se strinjam	
								Malo se ne strinjam	
								Pretežno se ne strinjam	
								Sploh se ne strinjam	
1.	Če se v vašem timu zmotite, se to pogosto obrne proti vam.	1	2	3	4	5	6	7	
2.	Člani vašega tima so sposobni omenjati težave in težka vprašanja.	1	2	3	4	5	6	7	
3.	Posamezniki v vašem timu včasih zavračajo druge zato, ker so drugačni.	1	2	3	4	5	6	7	
4.	V vašem timu je varno tvegati.	1	2	3	4	5	6	7	
5.	V vašem timu je težko druge člane tima prositi za pomoč.	1	2	3	4	5	6	7	
6.	Nihče v vašem timu ne bi namenoma spodkopaval vaš trud.	1	2	3	4	5	6	7	
7.	Pri delu s člani vašega tima so vaše edinstvene sposobnosti in talenti cenjeni in izkoriščeni.	1	2	3	4	5	6	7	

VPRAŠALNIK ZA VODJE

Demografske spremenljivke

V kateri delovni enoti ste zaposleni?

Spol

1. Moški
2. Ženski

Starost

_____ let.

Izobrazba

1. Dokončana osnovna šola
2. Dokončana srednja šola
3. Diploma višje ali visoke šole
4. Univerzitetna diploma
5. Magisterij
6. Doktorat

Delovne izkušnje

Kako dolgo že delate v tem podjetju?

_____ let.

Motivacija za vodenje

Označite v kolikšni meri se strinjate z navedenimi trditvami.

		<div>Popolnoma se strinjam</div> <div>Pretežno se strinjam</div> <div>Malo se strinjam</div> <div>Niti se ne strinjam, niti se strinjam</div> <div>Malo se ne strinjam</div> <div>Pretežno se ne strinjam</div> <div>Sploh se ne strinjam</div>						
		1	2	3	4	5	6	7
1.	Večino časa sem raje v vlogi vodje, kadar gre za delo v skupini.	1	2	3	4	5	6	7
2.	Navadno si želim biti vodja v delovnih skupinah, kjer sem član.	1	2	3	4	5	6	7
3.	Po navadi prevzamem vlogo vodje v večini skupin ali timov, v katerih sodelujem.	1	2	3	4	5	6	7
4.	Želim vedeti kakšne koristi so zame, če prevzamem vodenje skupine.	1	2	3	4	5	6	7
5.	Nikoli ne pričakujem dodatnih privilegijev, če se strinjam, da prevzamem vodenje skupine.	1	2	3	4	5	6	7
6.	Imam dovolj svojih problemov, za katere me skrbi, namesto da bi se ukvarjal še s preostalimi člani skupine.	1	2	3	4	5	6	7
7.	Vlogo vodje prevzamem kadar koli me prosijo ali določijo drugi člani Skupine.	1	2	3	4	5	6	7
8.	Učili so me, da se vedno ponudim kot vodja, če le lahko.	1	2	3	4	5	6	7
9.	Učili so me, da verjamem v vrednost in pomen vodenja drugih.	1	2	3	4	5	6	7