

FORGIVENESS IN LEADER-MEMBER EXCHANGE (LMX) RELATIONSHIPS: A MULTI-STUDY EXAMINATION OF MEDIATING AND MODERATING MECHANISMS

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Doctor of Philosophy

ASTON UNIVERSITY

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THESIS SUMMARY

Drawing upon theories from both the leadership and forgiveness domains, the overarching aim of this thesis was to answer a fundamental question. Namely, how and when does forgiveness unfold in Leader-Member Exchange (LMX) relationships and what are its outcomes? Even though it has been suggested that generic relationship knowledge from close relationship science can inform the understanding of LMX relationship maintenance, surprisingly little theoretical or empirical studies have addressed this area. By integrating both a framework of relationship maintenance mechanisms and a model of forgiveness in close relationships with LMX theory, study one developed and tested a model of forgiveness in LMX relationships. In a cross-sectional study involving 254 employees from eight organisations it was found that high LMX quality lead to higher job satisfaction and subjective well-being via greater follower's forgiveness and subsequent follower's relational efforts. Furthermore, it was found that higher levels of follower's relationship self-efficacy and Leader-Member Exchange Social Comparison (LMXSC) enhanced follower's forgiveness. The results of study one demonstrated that forgiveness of interpersonal transgressions in LMX relationships can lead to positive outcomes, and thus has important implications for LMX relationship maintenance and repair. Building on study one, study two adopted an experimental scenario design in order to examine the causal associations between LMX and forgiveness. Additionally, the study investigated the moderating role of forgiveness climate and the type of offence on follower's forgiveness. The causal links between LMX and forgiveness were found for a competence-based offence but not for an integrity-based offence. Furthermore, it was found that forgiveness climate enhanced follower's forgiveness in low quality (but not high quality) LMX relationships. This impact of forgiveness climate was found only following a low severity competence-based offence, and not following a high severity of competence-based or integrity-based offence. Overall, the findings of the thesis demonstrate that LMX relationships are vulnerable to interpersonal offences and that forgiveness could be used as a relationship maintenance strategy that yields positive outcomes.

Key words: Leadership, forgiveness, Leader-Member Exchange (LMX), subjective well-being, job satisfaction

DEDICATION

In the memory of my grandfather whose extraordinary personality and biography inspired me to pursue a career in academia.

My grandfather was born in a small village into a poor peasant family few months before the outburst of the World War I. Despite numerous hardships that were bestowed upon his family, he finished the grammar school, and enrolled at the Faculty of Agriculture, University of Belgrade. Later he specialised in physiology and anatomy of domestic animals at the Faculty of Natural Sciences, and in radioactive isotopes at the Nuclear Science Institute.

My grandfather, Professor Jevto M. Radulovic, was a renowned physiologist and radiobiologist at the Faculty of Agriculture, University of Belgrade. He was the founder of the theory on biological conquest of space with the use of hypothermia, which contributed to solving the problem of man's flight into space. Upon receiving a UNESCO grant he spent a year (1959-1960) in Brookhaven National Laboratory Upton, New York, USA, an eminent institution for nuclear power research. During his career, he published over fifty-five papers and was a member of various institutions such as: American Association for Advancement of Science, Washington; International Society of Blood Transfusion, Paris; International Pharmaceutical Federation, The Hague; The Royal Society of Medicine, London; International Society for Research on Civilization Diseases and Environment, Brussels.

My grandfather's biography was published in *Who's who in Yugoslavia* (1970), *Who's who in science in Europe, Dictionary of international biography* (1980) UK, *Who's who in the world* (1980-1981) USA, *International book of honors, Who's who in Montenegro* (1993), and *Who's who in Serbia* (1991; 1995; 1996). For his impact on science, he gained numerous recognitions including Andreas Vesalius medal in 1956 in Brussels, Sempre Imparo medal in 1958 in Brussels, and the Order of Labour with Golden Wreath in 1981 in Belgrade. In addition to being a researcher, my grandfather was also an exceptional orator and he received seven awards for his teaching approach on behalf of student organisations at the University of Belgrade (1972-1975). Versatile as he was, my grandfather spoke several languages and translated the book *Anatomy and physiology of domestic animals* (1949) from Russian into Serbian for his students.

In spite of his fame and reputation, he remained modest and always let his deeds speak for him. His students, colleagues, and friends always addressed him with sincere admiration. My childhood would have never been the same without his amazing stories, kindness, and encouragement. For me he will always be the symbol of the 20th century, the man who survived two World Wars, who defeated poverty, the man who had visions and left his mark on science. But above all, he was a common man who loved his family and who loved life.

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CHAPTER 1: INTRODUCTION

“To err is human, to forgive, divine”
Alexander Pope, An essay on criticism

1.1 Leadership, transgressions, and forgiveness

Forgiveness, the process that enables individuals to abandon their negative responses following an interpersonal offence and instead respond positively (Fincham, 2000), has enabled humanity to heal itself and maintain relationships since its inception. Forgiveness is an aim promoted by all of the world’s enduring religions (Thoresen, Luskin, & Harris, 1998). The Christian tradition, in particular, views forgiveness as its religious, theological, and ethical core (Rye et al., 2000). As illustrated by Alexander Pope’s quote, forgiveness represents a means for emulating God, implementing God’s plan, or enhancing one’s relationship with the divine (Rye et al., 2000). It is this strong association between forgiveness and religious belief that has created a chasm between forgiveness on the one hand, and social sciences and academia, on the other hand. Indeed, throughout most of the past century, forgiveness was the focus of theology (e.g., Marty, 1998; North, 1987). By contrast, the scientific study of forgiveness began in earnest only in the mid-1980s and has advanced since that time (Worthington, 2005a). In particular, forgiveness has been investigated in personal, social and clinical psychology, and of late in organisational psychology. Indeed, empirical findings regarding the positive effects of forgiveness in close relationships has encouraged the research of forgiveness in organisations (e.g., Aquino, Tripp, & Bies, 2001, 2006; Fehr & Gelfand, 2012).

Unlike the study of forgiveness, the study of leadership has been the focus of social sciences over the last century (see Bass & Bass, 2008), becoming one of the most researched and multidisciplinary areas (Thomas, Martin, & Riggio, 2013b). Most leadership definitions propose that it is a process by which intentional influence is employed to guide, structure, and facilitate activities and relationships in a group or organisation (Yukl, 2010). Vitally, leadership can facilitate

effectiveness in organisations (Yukl, 2010). As a result, myriad theories attempt to explain how different approaches to leadership enhance individual and organisational effectiveness. These theories have been classified in five major paradigms including trait, behaviour, power-influence, situational, and integrative approaches (Yukl, 2010).

What most leadership theories have in common is an average leadership style approach, according to which leaders use the same style with all subordinates, and thus develop broadly similar relationships with all of their members. Transformational leadership theory (Bass, 1985), a prototypical example of the average approach to leadership, has been one of the most researched theories over the past decade. Nevertheless, scholars have recently critiqued its validity (e.g., Van Knippenberg & Sitkin, 2013). In addition, leader-centric approaches in general have been challenged by the relational approach to leadership which proposes that leaders differentiate among followers and thus create different quality relationships with each of them (Dansereau, Graen, & Haga, 1975).

Leader-Member Exchange (LMX) theory (Dansereau et al., 1975; Graen & Uhl-Bien, 1995), one of the most popular approaches to understanding workplace leadership (Thomas, Martin, Epitropaki, Guillaume, & Lee, 2013a), focuses on the unique relationship that evolves between a leader and a follower, and recognises that members have the power to influence the leadership process. Therefore, the associations between leadership processes and outcomes are studied principally in the context of this relationship (Graen & Uhl-Bien, 1995). LMX relationships can range from low to high quality (Dienesch & Liden, 1986; Graen & Uhl-Bien, 1995). Low quality or “out-group” relationships, are primarily based on the employment contract, whereas high quality or “in-group” relationships aim to enhance employee’s ability to perform on the job (Dansereau et al., 1975; Graen & Cashman, 1975). Therefore, leaders provide high quality exchange members with access to information, influence, desired tasks, latitude, support and attention. In return, members are expected to deliver performance, commitment, loyalty and citizenship (Martin, Epitropaki, Thomas, & Topakas, 2010). Since the nature of leader-follower relationship can significantly affect important work outcomes, effective leadership is determined by the quality of exchange relationship between a leader and a member within the dyad (Schriesheim, Castro, & Cogliser, 1999).

Indeed, an impressive array of empirical research supports these theoretical claims. For example, LMX has been shown to positively influence a number of important outcomes such as member's satisfaction, organisational citizenship behaviour, task performance, counterproductive work behaviour and turnover intentions (for meta-analytic evidence see Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012; Gerstner & Day, 1997; Ilies, Nahrgang, & Morgeson, 2007; Martin, Guillaume, Thomas, Lee, & Epitropaki, 2016; Rockstuhl, Dulebohn, Ang, & Shore, 2012). In addition, LMX has been found to positively influence members' well-being (Martin et al., 2010).

Broadly speaking, relationship heterogeneity is the critical feature that demarcates LMX theory from more traditional leadership theories. LMX differentiation refers to the leader's tendency to treat and therefore develop relationships of varying quality with their subordinates (Liden, Erdogan, Wayne, & Sparrowe, 2006). LMX theory is founded on social exchange theory (Blau, 1964) - an important theory in the social sciences that focuses on the social or economic principles that underlie any exchange relationship. Specifically, social exchange theory suggests that the interactions between two parties are *interdependent*, and thus have the potential to yield high-quality relationships. Dansereau, Alutto, and Yammarino (1984) define relationship investments as "...what one party gives to another party" and returns as "...what one party gets back from another" (p. 98). Investments generate returns and, over time, leaders and members develop stable patterns of exchange (Dansereau et al., 1984). Indeed, mutual dependencies in social exchange relationships are perceived as "reciprocal interdependence" (Cropanzano & Mitchell, 2005; Molm, 1994). The notion that interdependence in LMX relationships increases as a result of the leader's and member's investment efforts is comparable with the mechanism of interdependence in close relationships, which partly depends on the size of the partners' investments into their relationship (Kelley & Thibaut, 1978; Rusbult, 1980).

The developmental trends of LMX research have been categorised into four stages of theory development including the discovery of differential dyads, LMX relationship antecedents and outcomes, dyadic partnership building and examination of LMX at the group and network level (Graen & Uhl-Bien, 1995). Despite a variety of research directions, Graen and Uhl-Bien (1995) observed that most of the research has narrowly focused on the second stage which identifies

antecedents and outcomes of LMX. Despite scholarly calls, empirical research has largely overlooked the latter two stages of the theory's development (e.g., Avolio, Walumbwa, & Weber, 2009; Erdogan & Liden, 2002; Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Liden, Wayne, & Stilwell, 1993; Martin et al., 2010; Yukl, 2010).

The third stage aims to explain the development of LMX relationships. The predominant position has portrayed the developmental cycle of LMX relationships as a smooth and continuous process from the initial interaction which quickly plateaus and then remains stable over time (Bauer & Green, 1996; Liden et al., 1993; Nahrgang, Morgeson, & Ilies, 2009). Nevertheless, Scandura (1999) acknowledges that although relationships are considered stable, exchange status can deteriorate due to critical incidents in which leaders or members view the other's actions as violating relationship norms. However, it remains unclear why or how the deterioration of LMX relationships occur. Likewise, the trust literature has recognised that leader-follower relationships can deteriorate as a result of trust violations (Scandura & Pellegrini, 2008). Consequently, it is likely that interpersonal transgressions can impede LMX relationship development and deteriorate relationship quality.

As the understanding of how leaders and members develop good quality LMX relationships is predominantly conceptual (Scandura, 1999), this thesis primarily focuses on the third stage of LMX theory development. Namely, the current research aims to demonstrate that once developed LMX relationships are vulnerable to interpersonal transgressions, enhancing thus the understanding of LMX relationship development. Furthermore, prior empirical research has not yet investigated contextual factors of the relationship which may enhance or hinder LMX development (Dirks & Ferrin, 2002). Therefore, the current research also addresses the fourth stage of LMX theory development by identifying the boundary conditions of LMX relationship maintenance. In particular, the research focuses on the moderating influence of LMX Social Comparison (LMXSC; Vidyarthi, Liden, Anand, Erdogan, & Ghosh, 2010) and forgiveness climate (Fehr & Gelfand, 2012) whose referents are at the group and organisational level, respectively.

Just as offences are inevitable in close personal relationships, conflict is a pervasive element of everyday life in organisations (Fehr & Gelfand, 2012). In their daily activities leaders are likely to transgress against their followers, possibly due to a lack of competence or integrity (Kim, Dirks,

Cooper, & Ferrin, 2006; Shapiro, Boss, Salas, Tangirala, & Von Glinow, 2011). Studies have recently documented a variety of transgressions that subordinates experience on behalf of their leaders (e.g., Basford, 2014; Basford, Offermann, & Behrend, 2014; Shapiro et al., 2011). Shapiro et al. (2011) suggest that leader transgressions involve *workplace offences* such as disrespectful comments or loss of temper (Aquino et al., 2001, 2006), *abusive supervision* (Tepper et al., 2009; Tepper, Henle, Lambert, Giacalone, & Duffy, 2008), *interactional injustice* (Bies & Shapiro, 1987, 1988) and *antisocial behaviours* (O'Leary-Kelly, Duffy, & Griffin, 2000). Furthermore, Bies and Tripp (2004) suggest that workplace offences involve goal obstruction, violation of rules, norms and promises, and status and power derogation. Moreover, Byrne, Barling, and Dupré (2013) found that the severity and nature of transgressions play a vital role in granting forgiveness and sustaining employee's psychological well-being. These critical events can negatively impact followers' satisfaction with job and psychological well-being which, in turn, can affect turnover and healthcare costs in organisations (Cameron & Caza, 2002; Exline & Baumeister, 2000). Therefore, the current thesis investigates the impact of type and severity of offence on follower's forgiveness. Since relationships are the lifeblood of organisations (Ren & Gray, 2009), an important question is how and when followers repair ruptured relationships with their leaders.

Clark and Reis (1988) define a close relationship "...as close to the extent that it endures and involves strong, frequent, and diverse causal interactions". Indeed, the nature of close relationships implies making oneself vulnerable to another person by placing the fulfilment of one's needs, aspirations, and hopes at the goodwill of a relationship partner (Fincham, 2000). This openness to vulnerability entails two outcomes; it creates the profound sense of well-being experienced in close relationships and it includes a possibility of an inevitable injury due to the partner's imperfection (Fincham, 2000). Nevertheless, the effects of these injuries could be lessened via forgiveness which was shown to positively influence an individual's health and subjective well-being (Toussaint, Worthington, & Williams, 2015), contribute to relationship satisfaction (Fehr, Gelfand, & Nag, 2010), and facilitate conflict resolution (Fincham, Beach, & Davila, 2007). Clinical psychology has found the positive effects of forgiveness interventions on individuals, couples, and communities (Fincham, 2015; Fincham, May, & Beach, 2016; Wade, Hoyt, Kidwell, & Worthington, 2014).

Fincham (2000) noted that most conceptualisations of forgiveness agree that a motivational change leads to a decrease in negative response tendencies (e.g., retaliation, vengeance) toward the offender (McCullough, Fincham, & Tsang, 2003). Nevertheless, a decrease in negative motivation would entail returning to the state of neutrality rather than positivity (Braithwaite, Selby, & Fincham, 2011). Consequently, Fincham introduced increased positive transformation toward the offender as an additional component of forgiveness (Fincham, 2000). In his view, forgiveness is an *intra*-individual process with an *inter*-personal referent (Fincham et al., 2016), and this definition has been adopted within the current thesis.

Rusbult and colleagues have conducted a programme of research that investigates how close partners succeed in sustaining healthy, long-term relationships (e.g., Rusbult, 1980; Rusbult, Martz, & Agnew, 1998; Rusbult, Olsen, Davis, & Hannon, 2001). Drawing upon both interdependence theory and the investment model, Rusbult et al. (2001) developed a framework of commitment and relationship maintenance mechanisms. After experiencing an interdependence dilemma, that is, an interpersonal offence, an individual becomes focused on the *given situation*. The transformation of motivation is a process that enables the individual to move away from the given preferences based on their direct self-interest and act on the basis of broader considerations (Holmes, 1981; Kelley & Thibaut, 1978). An outcome of this process is the *effective situation* which involves adjusted, reconceptualised preferences that influence behaviour.

The investment model (Rusbult, 1980) extends interdependence theory in two regards. First, it identifies size of investment as a third pillar of dependence, in addition to satisfaction with the relationship and the quality of alternatives. Second, the investment model proposes that feelings of commitment occur as a result of increased dependence upon the relationship (Rusbult, 1980, 1983; Rusbult, Drigotas, & Verette, 1994). That is, as the satisfaction level and investment size increase and the quality of alternatives decrease, partners become dependent on one another. Dependence generates the psychological experience of commitment which involves the intent to persist, long-term orientation and psychological attachment. Commitment, in turn, facilitates the transformation of motivation which enables the individual to engage in relationship maintenance acts (Rusbult et al., 2001). Interpersonal orientations including personal dispositions, relationship specific motives and

social norms can enhance the process of transformation of motivation. Relationship maintenance mechanisms are classified into cognitive and behavioural maintenance acts (Rusbult et al., 2001). Behavioural maintenance acts are adequate responses to more serious offences, whereas cognitive maintenance acts are sufficient for less severe offences. Forgiveness is a behavioural maintenance act which occurs following betrayals, or offences that have a moral character.

Rusbult et al.'s (2001) framework delineates why and how forgiveness unfolds in close relationships. Since the core objective of the current research is the examination of forgiveness in leader-follower relationships, Rusbult et al.'s (2001) framework is drawn upon to explain forgiveness in LMX relationships. The rationale behind this cross-fertilisation is a tendency in sociology and psychology toward generating a superordinate body of knowledge that transcends the boundaries of relationship type (Berscheid, 1994). Indeed, when broadly construed, interpersonal relationship processes offer principles that can expand our understanding of almost any type of relationship (Blumstein & Kollock, 1988). Therefore, the processes associated with forgiveness in close personal relationships (i.e., romantic relationships, families, close friends) are expected to transcend these relationship contexts and operate in leader-follower relationships in organisational contexts.

Scholarly attention has been focused on damaged relationships in the workplace (e.g., Elangovan & Shapiro, 1998; Kramer & Lewicki, 2010; Morrison & Robinson, 1997), as well as on negative responses to workplace transgressions such as revenge, avoidance and aggression (e.g., Barling, Dupré, & Kelloway, 2009; Tripp & Bies, 2009). In the *Academy of Management Review*'s special topic forum, relationship repair was identified as an "important but relatively underresearched topic" (Dirks, Lewicki, & Zaheer, 2009, p. 69). Relationship repair is defined as a process following a transgression in which positive states underlying the relationship predominate over negative states, while one or both partners make efforts to restore the relationship to a positive state (Dirks et al., 2009). Even though a few researchers have recently focused on a number of relationship repair strategies including trust repair (Kim, Ferrin, Cooper, & Dirks, 2004; Tomlinson & Maryer, 2009), relationship reconciliation after a broken promise (Tomlinson, Dineen, & Lewicki, 2004), repairing relationship conflict (Ren & Gray, 2009) and rebuilding cooperation (Bottom, Gibson, Daniels, &

Murnighan, 2002), workplace forgiveness is likely to be a superior relationship maintenance strategy for a number of reasons.

First, not only does forgiveness diminish the urge for negative responses following a transgression, but it also triggers positive, pro-relationship responses (Fincham, 2000). Empirical evidence has supported the role of the positive dimension of forgiveness (e.g., Braithwaite et al., 2011; Fincham & Beach, 2002; Fincham & Beach, 2007; Karremans & Van Lange, 2004; Paleari, Regalia, & Fincham, 2009). Indeed, if forgiveness were to only suppress negative responses, the relationships would be restored to the state of neutrality rather than positivity (Braithwaite et al., 2011). Second, most of the previously mentioned mechanisms are *inter*-personal processes since they require an apology, explanation or amends on behalf of the transgressor before the relationship can be restored. In contrast, forgiveness is an *intra*-individual process with an *inter*-personal referent (Fincham et al., 2016) which does not need incentives on behalf of the transgressor, although such acts could facilitate the granting of forgiveness. Interestingly, this feature of forgiveness is aligned with Christian interpretation that forgiveness does not depend on the repentance by the offender (Rye et al., 2000). Lastly, most relationship repair mechanisms involve the restoration of a relationship to the pre-transgression state. In contrast, forgiveness does not guarantee reconciliation with the transgressor. It is possible that a victim completely forgives the offender, and yet decides not to reconcile with him or her. This stems from the need to contextualise forgiveness (Fincham, 2015) which has recently been evidenced in studies involving the victims of domestic violence (Gordon, Burton, & Porter, 2004). That is, the victim should reconcile only those relationships that do not involve potential threats in the future.

In early 2000s, practitioners considered forgiveness as an abstract philosophical or religious notion which should not be discussed in the workplace (Stone, 2002). Indeed, workplace forgiveness has only recently been addressed by organisational research (e.g., Aquino et al., 2001, 2006; Cox, Bennett, Tripp, & Aquino, 2012; Fehr & Gelfand, 2012; Zdaniuk & Bobocel, 2015). The presence of different types of interpersonal offences in organisations reiterates the relevance of this topic (e.g., Bies & Tripp, 2004; Byrne et al., 2013; Shapiro et al., 2011). Furthermore, the finding that offence severity influences workplace forgiveness (e.g., Beattie & Griffin, 2014; Karelaia & Keck, 2013; Mok

& De Cremer, 2015) highlights the need to examine workplace offences more closely. More recently, forgiveness has been conceptualised at the organisational level which has been suggested as an optimal level of analysis (Fehr & Gelfand, 2012; Palanski, 2012). Nevertheless, the academic understanding of *how* and *under what circumstances* forgiveness operates at the individual level is far from complete. Understanding the mechanisms of forgiveness in the leader-follower relationship is relevant for both scholars and practicing managers.

Enhancing academic understanding of forgiveness as the key relationship maintenance mechanism in LMX relationships involves cross-fertilising the close relationships literature with the LMX literature. Specifically, this integration provides an empirical test of forgiveness in LMX relationships. In doing so, Graen & Uhl-Bien's (1995) third and the fourth stage of LMX theory are advanced by showing that LMX relationships are vulnerable to interpersonal offences and that contextual factors can impact the maintenance of LMX relationships. Therefore, the current research answers the calls to advance LMX theory by addressing the latter stages of LMX development (Martin et al., 2010). The close relationships literature, in turn, is advanced by examining the impact of the organisational context on forgiveness. In doing so, the current research answered the calls for examining forgiveness across various relationship contexts (Maio, Thomas, Fincham, & Carnelley, 2008).

On the other hand, practitioners may benefit from becoming aware of the impact of workplace offences and forgiveness. In particular, leaders and followers can gain a better understanding of how to maintain and repair LMX relationships from the answers to questions such as: How does forgiveness as a relationship maintenance mechanism unfold in LMX relationships? What are the outcomes of forgiveness in LMX relationships? Is forgiveness in LMX relationships dependent on the type and severity of offence? Under what circumstances can forgiveness be enhanced in LMX relationships? The current research answers these questions by conducting a field study which involves employees from eight organisations across four countries, and by conducting three scenario experiments with the student population. This knowledge will not only enable leaders to effectively maintain relationships with their members but may also help them avoid the perils of interpersonal transgressions in the future.

1.2 Integration of the leadership and forgiveness domains

According to Thomas et al. (2013a), the integration of the close relationships literature (also referred to as relationship science) with relationship-based approaches to leadership can enhance the understanding of leader-follower relationships. As previously noted, Thomas et al. (2013a) emphasised that the partners in both LMX and close (non-work) relationships are interdependent which affects their interactions (Kelley et al., 1983). Furthermore, they observed that both relationships are characterised by partners' frequent, mutual, and diverse influence, and by the longevity of interaction, all of which are the features of close relationships (Thomas et al., 2013a). However, Thomas et al. (2013a) suggest that closeness is observable in both friendly and hostile relationships of high importance to individuals (Clark & Reis, 1988). As such, closeness should not be restricted to the intensity and positivity of affect generated by relationship interactions (Berscheid & Reis, 1998). This understanding of closeness implies that leader-follower relationships share most of the features of close relationships.

Thomas et al. (2013a) compared a good leader-follower relationship with a close friendship and noted that both involve high trust, reciprocal liking, mutual disclosure of privileged information, responsiveness, and harmonised plans and goals, to name a few (Berscheid & Reis, 1998; Boyd & Taylor, 1998; Fehr, 2008). The main differences, in their view, between close work and non-work relationships include power relations, voluntariness of interaction and goal instrumentality (Ferris et al., 2009; vanLear, Koerner, & Allen, 2008). Nevertheless, Thomas et al. (2013a) recognised that these differences may not be very pronounced since many non-work close relationships can also differ regarding power relations (e.g., friendships vary in status) and the voluntariness of interactions (e.g., parent-child relationships). Moreover, individuals aim to establish close relationships in order to self-expand, that is, to gain access to other's resources, skills, networks, abilities, insights, perspectives, identities, and the like (Aron, Aron, Tudor, & Nelson, 1991; Lewandowski & Ackerman, 2006). Thus, both close and LMX relationships can enable individuals to achieve their goals.

The main contribution of this thesis is the integration of LMX theory with frameworks from the close relationships literature. Specifically, LMX theory will be integrated with the relationship maintenance mechanisms framework (Rusbult et al., 2001). This framework has been built on the

investment model (Rusbult, 1980), which, in turn, represents one of the most influential extensions of interdependence theory (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959). As pointed out by Thomas et al. (2013a), the mechanisms from Rusbult et al.'s (2001) framework are observable in LMX relationships. Namely, high quality LMX relationships, like close relationships, seem to generate high levels of relationship dependence and commitment. Indeed, a leader and a follower can help each other gain access to a number of resources such as affiliation, service, goods, money, information, and status (Wilson, Sin, & Conlon, 2010). High levels of commitment are likely to facilitate the transformation of motivation and relationship maintenance acts following a transgression. In contrast, leaders and followers in low-quality LMX relationships tend to perceive less dependence upon and less commitment to one another, which could impede the transformation of motivation and limit relationship maintenance efforts.

According to Rusbult, Kumashiro, Finkel, and Wildschut (2002), forgiveness is a behavioural relationship mechanism following a betrayal in a close relationship. Indeed, unlike other behavioural (e.g., accommodation) or cognitive (e.g., positive illusion) maintenance acts, forgiveness becomes relevant when the transgression has a *moral* character and involves a violation of a relationship norm (Rusbult et al., 2002). The moral aspect of a transgression is also relevant in the leader-follower relationships. Indeed, leaders were found to violate a number of norms underlying relationships with their members (Scandura & Pellegrini, 2008; Shapiro et al., 2011; Tyler & Kramer, 1996). Empirical demonstration that interpersonal offences occur in leader-follower relationships contributes to the LMX literature. Understanding the impact of organisational context on forgiveness in LMX relationships contributes to the close relationships literature. Indeed, it is the organisational context of social exchanges that brings uniqueness to the study of work relationships (Ferris et al., 2009; Thomas et al., 2013a).

1.3 How and when does forgiveness unfold in LMX relationships?

As previously emphasised, forgiveness is theorised to promote not only a reduction in negative responses but also an increase in positive responses toward the transgressors. Therefore, both of these dimensions influenced a study by Braithwaite et al. (2011) which investigated mediators of

the link between tendency to forgive and relationship satisfaction. In particular, Braithwaite et al. (2011) investigated the mediating role of interpersonal conflict tactics and the mediating role of behavioural self-regulation, defined as behavioural efforts to improve one's romantic relationship (Wilson, Charker, Lizzio, Halford, & Kimlin, 2005). As expected, it was found that forgiveness lead to a decrease in negative tactics which in turn impacted relationship satisfaction (Braithwaite et al., 2011).

The current research builds on the framework by Braithwaite et al. (2011) by focusing on the positive mediating path. Specifically, the research investigates the mediating role of forgiveness and relational efforts in LMX relationships in an organisational context. As a result, the research identifies the outcomes of forgiveness in LMX relationships. Furthermore, Braithwaite et al.'s (2011) framework is extended by examining the boundary condition of forgiveness in LMX relationships. According to Rusbult and Van Lange (1996), interpersonal orientations are moderately stable pattern-contingent and partner-contingent solutions to repeatedly encountered interdependence situations (i.e., interpersonal transgressions). Interpersonal orientations can be manifested in terms of personal dispositions, relationship-specific motives, and social norms (Rusbult et al., 2001; Rusbult & Van Lange, 1996). The current research demonstrates how each of these interpersonal orientations enhances forgiveness in LMX relationships.

The close relationship literature has defined relationship self-efficacy as an individual's belief in their ability to demonstrate the behaviour required to resolve conflicts in intimate relationships (Doherty, 1981). Considering the vulnerability of LMX relationships, these types of beliefs may be essential for maintaining relationships between leaders and followers. Therefore, the current research investigates the moderating effects of follower's relationship self-efficacy, a dispositional interpersonal orientation, on forgiveness in LMX relationships. The LMX literature suggests that followers tend to compare between their own LMX and that of their co-workers, referred to as LMX social comparison - LMXSC (Vidyarthi, Liden, Anand, Erdogan, & Ghosh, 2010). Since this concept is dyadic in nature, LMXSC is considered as a relationship-specific motive that moderates the association between LMX and forgiveness. Recently, organisational scholarship has defined forgiveness climate as "the shared perception that empathic, benevolent responses to conflict

from victims and offenders are rewarded, supported and expected in organisations” (Fehr & Gelfand, 2012, p. 666). Since the shared perceptions in organisations reflect social norms, the moderating role of forgiveness climate is examined as a group-level interpersonal orientation in the experimental study. Taken together, the current research contributes to the framework of maintenance mechanisms in close relationships (Rusbult et al., 2001) by empirically testing the moderating influence of these three types of interpersonal orientations on forgiveness in LMX relationships.

This thesis examines the mechanisms of forgiveness in two studies (one cross-sectional field study and one experimental study). One of the methodological contributions of the current research pertains to the development of an LMX relationship quality manipulation for the scenario experiment. Furthermore, the experimental study is among the first to examine the causal links from LMX to forgiveness, with the aim of corroborating the apriori causal relationships postulated in the cross-sectional, field study. Lastly, the current research investigates offence-specific forgiveness, in addition to dispositional forgiveness. In particular, the offence-specific forgiveness is examined using different type of offence and varying severity of offence.

1.4 A summary of the thesis objectives and intended contributions to knowledge

The current thesis has identified six core objectives. Each objective overviews the indented theoretical and methodological contributions.

1. The main objective of this thesis is to investigate the role of forgiveness as the key relationship maintenance mechanism in LMX relationships. This will be achieved by cross-fertilising the close relationships literature with the LMX literature. In particular, drawing upon the maintenance in close relationships framework (Rusbult et al., 2001) and theory and research on forgiveness in close relationships (e.g., Braithwaite et al., 2011; Fincham, 2000) this thesis provides an empirical test of forgiveness in LMX relationships. This amalgamation advances both LMX and forgiveness literatures in important ways. The LMX literature is advanced by showing that LMX relationships are not only vulnerable to interpersonal offences, but also how and when forgiveness plays a role in recovering from such offences,

contributing thus to the third stage of LMX theory development (Graen & Uhl-Bien, 1995).

The close relationships literature is advanced by showing that certain features of the work group and organisational context in which the LMX relationship is embedded have an important impact on follower's forgiveness.

2. A secondary objective of this thesis is to investigate the outcomes of forgiveness in LMX relationships. In doing so, the constructs are investigated in the new context. In particular, the research identifies enhanced job satisfaction and subjective well-being as the outcomes. As previously noted, it has been argued that forgiveness is one of the most effective relationship maintenance strategies because it can lead to positive outcomes, at least under certain conditions. By examining the outcomes of forgiveness in the context of the LMX relationships, this research allows an empirical test of this important claim.
3. A further objective is to investigate the mediating mechanism of forgiveness in LMX relationships. Specifically, Braithwaite et al.'s (2011) framework provides the underlying mediating mechanisms of the forgiveness process while LMX theory provides the relationship context. To my knowledge, this constitutes the first empirical test of the mediating role of forgiveness in LMX relationships.
4. Another objective is to investigate the boundary conditions of forgiveness in LMX relationships. While the investment model (Rusbult, 1980) informs the mechanisms of relationship maintenance, the categorisation of interpersonal orientations provided by Rusbult & Van Lange (1996) provides a theoretically-driven rationale for the proposed moderators which are measured at the individual-, dyad- and group-level, and are thus tested using a multi-method approach. A better understanding of when forgiveness is successful in LMX relationships can help organisations create the conditions for effectively maintaining and repairing this pivotal close relationship. This is particularly important given that the LMX

relationship acts as a lens through which followers view the organisation (Gerstner & Day, 1997).

5. An ancillary objective is to develop an LMX relationship quality manipulation for the scenario experiment. In doing so, the experimental study is among the first to examine the causal effects from LMX to forgiveness.
6. The last objective of the thesis is to investigate both dispositional and offence-specific forgiveness in LMX relationships. Furthermore, the offence-specific forgiveness is investigated across different types and severities of offence. In doing so, the understanding of what impacts forgiveness in LMX relationships is enhanced.

1.5 Thesis overview

The current chapter has identified the importance of studying forgiveness in LMX relationships, and has explained how the current research contributes to theory and research. Chapter two provides a focused review of the leadership and forgiveness literatures. Importantly, the chapter delineates the relationship maintenance model (Rusbult et al., 2001), which builds on the interdependence theory (Kelley & Thibaut, 1978) and the investment model (Rusbult, 1980). Furthermore, the chapter reviews the classification of interpersonal orientations (Rusbult & Van Lange, 1996), the frameworks of forgiveness in close relationships (Braithwaite et al., 2011), and LMX theory (Dansereau et al., 1975). The chapter closes with the argumentation for integrating these theoretical frameworks.

Chapter three introduces the conceptual model for the field study. This chapter presents the arguments for the mediating role of forgiveness and relational efforts, as well as for the outcomes of forgiveness in LMX relationships. Furthermore, the chapter proposes interpersonal orientations as the boundary conditions of forgiveness in LMX relationships. In short, this chapter provides the theoretical and empirical support for the independent, moderating, mediating and dependent variables

which constitute the full conceptual model. The chapter culminates with a representation of the conceptual model and a summary of hypotheses.

Chapter four details the methodology and the results of the field study. Initially, the chapter describes sample characteristics and measures, which is followed by study setting and procedures. The preliminary results are discussed which is followed by the reporting of the key findings. Results are presented in a piecemeal approach using SPSS and subsequently the full model is tested using Mplus. The chapter closes with a summary and discussion of the results.

Chapter five introduces the conceptual model for the experimental study. Additionally, the chapter investigates the moderating influence of a group-based interpersonal orientation on forgiveness in LMX relationships. Moreover, the chapter investigates the occurrence of forgiveness in LMX relationships after different types and severities of offence. The chapter closes with a conceptual model and a summary of hypotheses.

Chapter six reports the results of the experimental study which involves three scenario studies. Namely, the chapter describes research design, sample, procedure, manipulations, measures and results for each of the three studies. The chapter ends with a summary of the results.

Finally, a general discussion of the thesis is provided within chapter seven. The chapter reflects upon the findings of both the field and experimental studies, and discusses contributions of the research to the literature. The chapter also highlights practical and theoretical implications, and reviews the strengths and limitations of the research. Furthermore, the chapter provides a summary of thesis objectives and identifies directions for future research. The chapter closes with concluding remarks of the thesis.

CHAPTER 2: LITERATURE REVIEW

This chapter reviews the literatures that provided the key theoretical frameworks upon which the current research draws. The chapter begins with the literature review of Leader-Member Exchange (LMX) Theory. The following section defines forgiveness in close relationships and delineates its antecedents and consequences. This is followed by the interdependence theoretical analysis of relationship maintenance, and the commitment and relationship maintenance mechanisms model (Rusbult et al., 2001). The subsequent section introduces the relationship science domain and outlines the notion of generic relationship knowledge. This is followed by a review of workplace forgiveness research. The final section provides the integration of LMX and forgiveness frameworks and outlines the points of theoretical overlap.

2.1 Leader-Member Exchange (LMX) theory

Leader-Member Exchange (LMX) theory, currently one of the most popular approaches to understanding workplace leadership (Thomas et al., 2013a), was introduced during 1970s by Graen and colleagues who originally referred to it as the Vertical Dyad Linkage (VDL) approach (Dansereau et al., 1975; Graen & Cashman, 1975). Relationship heterogeneity is what sets LMX theory apart from more traditional leadership theories. Indeed, traditional approaches propose that leaders develop rather similar relationships with their subordinates, referred to as an Average Leadership Style approach (Dansereau et al., 1975).

In contrast, the unique proposition of LMX theory is that leaders treat and thus develop different quality relationships with their subordinates, namely LMX differentiation (Liden et al., 2006). LMX draws upon social exchange theory (Blau, 1964) which posits that the basis of any exchange relationship can be described in terms of either social or economic principles. According to Blau (1964), the series of interactions between two parties are typically perceived as *interdependent* and contingent on the actions of another person. Social exchanges involve unspecified obligations; when one person does another a favour, a return is expected in the future although it is not clear when

exactly and in what form it will occur (Gouldner, 1960). Social exchange theory suggests that these interdependent transactions have the potential to generate high-quality relationships.

In their general model of exchange theory, Dansereau et al. (1984) emphasise the role of equity perceptions in the development of leader-member relationships. They define investments as “...what one party gives to another party” and returns as “...what one party gets back from another” (Dansereau et al., 1984, p. 98). It is suggested that investments produce returns and that, over time, stable patterns of exchange develop between leaders and members, based on the ratios of investments to returns by both parties. These investment-return cycles gradually impact relationship development. In order to develop high quality leader-member exchanges in organisations, it is necessary that “each party must see the exchange as reasonably equitable or fair” (Graen & Scandura, 1987, p. 182). Indeed, work relationships are based on continuous interplay between the partners (Ferris et al., 2009), and these mutual dependencies in social exchange relationships are viewed as “reciprocal interdependence” (Cropanzano & Mitchell, 2005; Molm, 1994).

LMX operates through a dyadic process in which either a leader or a member begins an exchange cycle and the respective other accepts the prospect for exchange (Graen & Scandura, 1987). According to this principle, positive exchange behaviour, allied with a satisfying response, results in the continuation of the exchange relationship. Nevertheless, a lack of behavioural reciprocation hinders the opportunity for the relationship to advance (Dienesch & Liden, 1986). Relationships primarily based on the employee’s contract are low quality LMX, initially referred to as “out-group” relationships, whereas relationships focused on enhancing the employee’s ability to perform on the job are high quality LMX, initially referred to as “in-group” (Dansereau et al., 1975; Graen & Cashman, 1975). Resources that leaders offer include information, influence, desired tasks, latitude, support and attention, while employees, in turn, deliver task performance, commitment, loyalty and citizenship (Martin et al., 2010). In-group members receive more work-related benefits in comparison to out-group members (Scandura, 1999). Effective leadership, therefore, depends on the quality of exchange relationship between a leader and a subordinate within the dyad (Schriesheim et al., 1999).

2.2 Evolution of LMX theory

The evolution of LMX research has been categorised into four stages of theory development which delineate how research has advanced since its inception (Graen & Uhl-Bien, 1995). These stages include the discovery of differential dyads, the focus on the LMX relationship and outcomes, the description of dyadic partnership building and the examining of LMX at the group and network level (see Martin et al., 2010, for a recent review).

The first stage of LMX theory development established that leaders develop different quality relationships with their subordinates (e.g., Graen, Orris, & Johnson, 1973; Johnson & Graen, 1973), which has been corroborated in longitudinal studies (e.g., Graen & Wakabayashi, 1994; Nahrgang et al., 2009). Indeed, this practice was identified among approximately 85-90% of leaders (Dansereau et al., 1975; Liden & Graen, 1980) and was also confirmed by subordinates (Hooper & Martin, 2006, 2008). One of the reasons why leaders may develop high quality exchanges based on mutual trust, respect and obligation with some subordinates and low quality LMX relationships based on the formal employment contract with others (Dansereau et al., 1975) is that they have limited time and resources that can be invested (Martin et al., 2010).

The second stage of theory development has focused on the correlates of LMX quality; antecedents and outcomes. Research in this stage has mainly utilised cross-sectional designs and causal relations of antecedents and outcomes of LMX have been inferred. Liden, Sparrowe, and Wayne (1997) have grouped antecedent variables into four main categories: subordinate characteristics, leader characteristics, interactional variables and contextual variables. Subordinate characteristics include subordinate locus of control (Kinicki & Vecchio, 1994; Martin, Thomas, Charles, Epitropaki, & McNamara, 2005), extraversion (Phillips & Bedeian, 1994), cognitive style (Allinson, Armstrong, & Hayes, 2001), to name a few. Interactional variables, for instance, revealed positive relationship between leader-subordinate demographic similarity including gender, age, race, education (e.g., Duchon, Green, & Taber, 1986; Epitropaki & Martin, 1999) and supervisor-subordinate tenure (e.g., Somech, 2003) and LMX quality. Research on leader factors examined leader's ability to use power strategies (e.g., Borchgrevink & Boster, 1997), leader agreeableness (Nahrgang et al., 2009), downward influence tactics (e.g., Sparrowe, Soetjijto, & Kraimer, 2006) and

such. Regarding contextual variables, a negative relationship between leader workload and the quality of LMX was found (Graen, Scandura, & Graen, 1986), and between the number of subordinates a leader manages (i.e., span of control) and LMX quality (Green, Anderson, & Shivers, 1996; Schriesheim, Castro, & Yammarino, 2000; Schyns, Paul, Mohr, & Blank, 2005).

Numerous studies have addressed the consequences of having a low or high quality LMX including attitudes and perceptions, behaviours and task performance. Regarding attitudes and perceptions, research has shown that a high quality LMX relationship is related to individual-level outcomes such as positive employee job satisfaction (Aryee & Chen, 2006; Epitropaki & Martin, 2005; Lapierre & Hackett, 2007), job related well-being (Bernas & Major, 2000; Epitropaki & Martin, 1999, 2005), lower job stress (Bernas & Major, 2000) and others. Dyad-level outcomes include workplace friendships (Tse, Dasborough, & Ashkanasy, 2008), perceived leader support (Bauer & Green, 1996) and perceived leader delegation and consultation (Yukl & Fu, 1999) whereas organisational-level outcomes incorporate perceived justice (Andrews & Kacmar, 2001) and perceived transformational leadership (Howell & Hall-Merenda, 1999). Finally, favourable employee behavioural outcomes include increased time and effort devoted to the job (Liden & Graen, 1980), greater likelihood of engaging in a wider job breadth (Hsiung & Tsai, 2009) and performance (for meta-analytic reviews see Banks et al., 2014; Dulebohn et al., 2012; Gerstner & Day, 1997; Ilies et al., 2007; Martin et al., 2016; Rockstuhl et al., 2012).

The third stage of theory development has centred on describing the development of LMX relationships and the ways in which leaders develop effective relationships with their subordinates. What sets this stage apart from the previous stages is the shift in focus from different quality relationships to the ways leaders develop these relationships and mechanisms for providing equal opportunities for effective LMX. The lack of understanding of the process through which LMX relationships are developed has been referred to as the “black box” of LMX research (Rousseau, 1998). Some empirical evidence shows that LMX relationships develop remarkably quickly, during the first few weeks and even days of interaction (Bauer & Green, 1996; Liden et al., 1993). The “Leadership Making Model” (Graen & Uhl-Bien, 1991; Uhl-Bien & Graen, 1992), the most popular theoretical model for explaining LMX development, is based on Kahn and colleagues’ Role Theory

(Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Katz & Kahn, 1978). Additionally, several models have been proposed that consider the role of attributions (e.g., Dienesch & Liden, 1986; Green & Mitchell, 1979). A better understanding of how LMX relationships develop would allow leaders and subordinates to forge effective relationships. Effective management of LMX relationships development would not only benefit the leader's and follower's workplace experience but also the organisation as a whole.

The fourth stage of theory development acknowledges that LMX relationships do not evolve in isolation but as a part of a network of relationships across the organisation. Thus, recent research has focused on the group and network levels of analysis and the three areas of development include social network analysis, relational leadership and relationship variation. The social network analysis approach (Burt, Minor, & Alba, 1983; Granovetter, 1985) suggests that network can provide individuals with opportunities but also restrain their behaviour. Sparrowe and Liden (1997) advocated studying LMX relationships within the context of the organisation as a whole which was achieved by several studies (e.g., Goodwin, Bowler, & Whittington, 2009; Mehra, Dixon, Brass, & Robertson, 2006; Sparrowe & Liden, 2005). The relational approach to leadership (Brower, Schoorman, & Tan, 2000; Hosking, Dachler, & Gergen, 1995; Uhl-Bien, 2006) focuses on the social construction processes that shape the understanding of leadership whereas the entity approach focuses on the attributes and behaviours of people in the LMX dyad. According to Uhl-Bien (2006), the relational perspective goes beyond dyads and abounds in opportunities for examining leader and subordinate relationship in the broader social system. Finally, relationship variation concerns both relationship variation between subordinates, "team-member exchange" (TMX; Seers, 1989) later developed into member-member exchanges (MMX; Gerstner & Tesluk, 2005) and relationship variation with the leader, namely, "LMX differentiation" (Liden et al., 2006).

Despite the voluminous nature of the LMX literature, Graen and Uhl-Bien (1995) note that most of the research has narrowly focused on the second stage by which antecedents and outcomes of LMX are identified. As a result, the latter two stages of LMX theory have been mostly overlooked, despite frequent calls to address them (e.g., Avolio et al., 2009; Erdogan & Liden, 2002; Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Liden et al., 1993; Martin et al., 2010; Yukl, 2010). Since the

understanding of how leaders and members develop good quality LMX relationships is predominantly conceptual (Scandura, 1999), the primary focus of this thesis is on the third stage of LMX theory. Namely, the current research aims to demonstrate that once developed LMX relationships do not plateau but are vulnerable to interpersonal transgressions, enhancing thus the understanding of LMX relationship development. Furthermore, extant research has essentially ignored the contextual factors of the relationship which can enhance or hinder LMX development (Dirks & Ferrin, 2002). Consequently, the current research also pertains to the fourth stage of LMX theory since its boundary conditions, namely the moderating influence of LMX Social Comparison (LMXSC) and forgiveness climate, are possible only when the referent is a group and an organisation, respectively.

2.3 LMX development

LMX theory offers several frameworks for understanding the development of leader-follower relationships: the Role Making Model (Graen & Scandura, 1987) and the Leadership Making Model (Graen & Uhl-Bien, 1995). The prior framework by Graen and Scandura (1987) served as a theoretical base for the Leadership Making Model (Graen & Uhl-Bien, 1995) which outlines three stages of development, namely, the “stranger stage”, the “acquaintance stage” and the “maturity stage”. The stranger stage parallels the “role-specification” stage of the founding model and involves the initial segment of the relationship when the leader and member assume independent roles and job requirements dictate the nature of the exchange. The progress to the second stage depends on the acceptance and reciprocation of particular career-centred social exchange offered by either member of the dyad. The acquaintance stage (role-making) occurs when the mutual exchange of resources within the dyad define the nature of the relationship. Lastly, the mature stage of the relationship (role-routinisation) involves highly developed exchanges between the leader and member. At this stage the leader and member are more interdependent and it is proposed that this stage of development corresponds to a high-quality LMX relationship (Martin et al., 2010).

Even though these conceptualisations are valuable, both frameworks broadly depict LMX development. The two models do not provide a prescriptive account of the variables critical to the

process nor do they define the content of the exchanges (Martin et al., 2010). Indeed, apart from the work of Maslyn and Uhl-Bien (2001) who studied the role of effort in LMX relationships, the content of these exchanges is yet to be researched. The absence of integrative theory that could explain the process of LMX development has likely resulted in the lack of empirical research into LMX development (Martin et al., 2010). This shortage of studies demonstrates that social exchange theory is extensively applied within LMX, but not empirically supported. In their review of the LMX literature, Martin et al. (2010) suggested that research will increasingly focus on the later stages of LMX theory development. Since relationship maintenance contributes to the development of a relationship, this thesis is particularly relevant to what is currently most needed in the LMX literature.

The predominant position in the LMX literature has described the developmental cycle of LMX relationships as smooth and continuous progress from the initial interaction which quickly plateaus and then remains stable over time (Bauer & Green, 1996; Liden et al., 1993; Nahrgang et al., 2009). According to this general interpretation, LMX development is mostly determined in the first few weeks of the relationship. Nevertheless, in her “Rethinking Leader-Member Exchange” paper, Scandura (1999) acknowledged that although the LMX relationship is considered stable, exchange status can deteriorate. Namely, critical incidents in which the leader or member views the other’s actions as violating the norms may send the relationship back to the role-specification phase (Scandura, 1999). Nevertheless, it is not yet clear why or how the deterioration of an LMX relationship occurs. In a similar vein, the trust literature has recognised that leader-follower relationships can deteriorate as a result of trust violations (Scandura & Pellegrini, 2008). Therefore, there are reasons to believe that interpersonal transgressions can significantly impact relationship by triggering its deterioration.

Relatedly, Ferris et al. (2009) suggested that relationship development is influenced by change and expansion, which has not been considered in the early LMX theorising, including the Role Making and Leadership Making Model. In Yukl’s (2010) view, the dyadic relationship is likely to advance through a series of ups and downs which are likely to change attitudes and behaviours of the involved parties. Previously established relationship quality is likely to be re-evaluated and be vulnerable to change through enhancement or deterioration (Ferris et al., 2009). In their integrative

model of work relationships, Ferris et al. (2009) conceptualised the first two stages in a similar vein as the early developmental stages outlined in the models of LMX (described above). It is the third stage of relationship development that represents a divergence from the traditional conceptualisation of LMX development. This new conceptualisation suggests that, even once developed, relationships are subject to substantial degree of instability and change, rather than being stable. The final stage of relationship development involves mutual accountability where individuals assist in maintaining each other's role identities and encourage behavioural consistency. According to the interdependence perspective, LMX relationships, like close non-work relationships, are likely to experience critical incidents which could deteriorate the relationships (Thomas et al., 2013a). Therefore, it is desirable to investigate mechanisms that leaders and followers can use to maintain their relationship. This represents one of the major gaps in the LMX literature which the current thesis aims to address.

2.4 Workplace offences

Even though forgiveness has been considered as an “inappropriate” topic for the workplace (Stone, 2002), the ubiquity of interpersonal offences in organisations makes the notion of forgiveness highly relevant. Indeed, as is the case with close personal relationships, the leader and follower are likely to encounter situations that could damage their relationship. These situations or offences have attracted scholarly attention that yielded a number of typologies of workplace offences. In addition to different types of offence, offence severity has also been shown to play a role in maintaining damaged relationships. In order to effectively maintain leader-follower relationships, it is important to understand the types of offences that occur in the workplace.

Shapiro et al. (2011) conceptualised leader transgressions in organisations as a broad category that involves *workplace offences* such as disrespectful comments or loss of temper (Aquino et al., 2001, 2006), *abusive supervision* (Tepper et al., 2009; Tepper et al., 2008), *interactional injustice* (Bies & Shapiro, 1987, 1988) and *antisocial behaviours* (O'Leary-Kelly et al., 2000). Procedural inconsistency or capriciousness are instances of *procedural injustice* (Colquitt, 2001) which, if immoral, illegal, or deviant, are labelled as *unethical leader behaviour* (Mayer, Kuenzi, Greenbaum,

Bardes, & Salvador, 2009) or *workplace deviance* (Robinson & Bennett, 1995; Tepper et al., 2009; Tepper et al., 2008).

In their study, Shapiro et al. (2011) surveyed 182 full-time employees and asked them to think about a particular transgressing leader in their organisation. Participants were asked to open-endedly describe what their leader had done. When coded, responses provided several categories of transgressions and their frequencies. It was found that transgressions in organisations include absenteeism/negligence of duty (13), verbal or physical abusiveness (22), discrimination, demographically oriented differential treatment (9), favouritism, relationally oriented differential treatment (14), dishonesty (66), incompetence (19), interpersonal sabotage (13), and miscellaneous (6). Moreover, the content analysis showed that transgressors in organisations were referred to as “my colleague/co-worker/team member” (N=7), “my boss/supervisor” (N=94), “my boss’s boss” (N=9), and “senior manager/the CEO” (N=4) while remaining non-hierarchical descriptors included “he”, “she”, or “this leader”. Importantly, the authors identified that more than half of the leader-transgressors were just one or two hierarchical levels above the participants (Shapiro et al., 2011). As can be seen, leaders are quite often transgressing against their subordinates in organisations. Furthermore, the most frequent type of offence is dishonesty-related offence.

Byrne et al. (2013) found that the severity and nature of transgressions play a vital role in granting forgiveness and sustaining employee’s psychological well-being. In their studies they borrowed the offence typology from the trust literature and used competence- and integrity-based transgressions (e.g., Dirks, Kim, Ferrin, & Cooper, 2011; Kim et al., 2006; Kim et al., 2004). Competence-based transgressions involve unintentionally harming the followers due to the lack of knowledge, skills or resources (Kim et al., 2004). In contrast, integrity-based transgressions entail deliberately offending or inconveniencing subordinates because of selfishness, dishonesty or discrimination (Kim et al., 2006; Mayer, Davis, & Schoorman, 1995). The level of leader transgressions also varies in severity (Lewicki & Polin, 2012). Byrne et al. (2013) found that offence severity moderated the positive association between leader apologies and follower’s psychological well-being. Furthermore, offence type moderated a positive relationship between leader apologies and

leader positive emotions, whereas offence severity moderated the association between leader apologies and their positive emotions and psychological health (Byrne et al., 2013).

Bies and Tripp (2004) suggested that workplace offences can be categorised as: (a) goal obstruction, (b) violation of rules, norms and promises, and (c) status and power derogation. Goal obstruction takes place when a co-worker's intentional or unintentional actions obstruct an employee's achievement which leads to frustration (Buss, 1962) and revenge (Morrill, 1992). Winning a promotion and thus depriving one's colleague of being promoted exemplifies goal obstruction. Violating the formal rules of the organisations challenges the sense of civic order (Bies & Tripp, 1996) or sense of "fabric of society" (Darley & Pittman, 2003). The examples of this type of offence include an organisational decision-maker modifying decision-making rules to validate a self-serving judgement (Bies & Tripp, 1996), and a formal breach of contract between an employee and employer leading to lawsuit (Bies & Tyler, 1993). In addition to formal rules, violations could include breaches of social norms and etiquette such as taking credit for other's performance, taking other's ideas (Bies & Tripp, 1996) and revealing secrets inside or outside the organisation (Bies, 1993; Lewicki, McAllister, & Bies, 1998).

Derogation of a colleague's status or power is embodied in hypercritical, over-demanding, and harsh superiors (Bies & Tripp, 1996), destructive criticism (Baron, 1988), and public ridicule focused on embarrassment (Morrill, 1992). While rule violation and derogations belong to the domains of procedural and interactional justice respectively, goal obstruction does not necessarily belong to the domain of organisational justice (Tripp, Bies, & Aquino, 2007). Even though obstructing one's goals can trigger the feeling of injustice and depict the transgressor as sinister (Kramer, 1994), it could also be perceived as tolerable behaviour in the politics of organisational affairs (Morrill, 1995). As can be seen, many of these offence typologies overlap. For instance, taking credit for other's ideas can be classified as an integrity-based violation (Kim et al., 2004) but also as a violation of rules, norms and promises (Bies & Tripp, 2004), as well as dishonesty (Shapiro et al., 2011).

Research on forgiveness in close relationships showed that, in addition to the type of offence, the degree of severity impacts forgiveness. For example, perceiving the offence as less severe

mediated the link between personal capability and forgiveness (Exline, Baumeister, Zell, Kraft, & Witvliet, 2008). Furthermore, depletion and offence severity interacted so that depleted (versus non-depleted) individuals in romantic relationships were less forgiving of severe offences (Stanton & Finkel, 2012). Additionally, the negative link between the need to belong and forgiveness of specific transgressions was mediated by offence-related anger and perceptions of offence severity (Barnes, Carvallo, Brown, & Osterman, 2010). Drawing upon these findings, studies on workplace transgression demonstrated that offence severity impacts victim's forgiveness. For instance, it was shown that global information processing style increases willingness to forgive by making the offence appear less severe (Mok & De Cremer, 2015). Offence severity is an important determinant of punitive actions that people are willing to impose on deviant leaders (Karelaia & Keck, 2013). Perceived severity of the critical incident significantly predicted whether or not a target engaged in forgiveness (Beattie & Griffin, 2014). Taken together, both theoretical and empirical evidence has demonstrated that workplace offences are a normal part of life in organisations. Therefore, the current thesis investigates the impact of type and severity of offence on forgiveness in LMX relationships.

2.5 Forgiveness domain

In their brief history of the psychology of forgiveness, McCullough, Pargament, and Thoresen (2000b) noted that the concept of forgiveness was not systematically examined for most of the discipline's short account. They suggested that a possible explanation why forgiveness has been neglected by social sciences and academia were the omnipresent links between forgiveness and religious belief. Indeed, forgiveness is a "goal commonly advocated by all of the world's longstanding religions" (Thoresen et al., 1998, p. 164). Rusbult et al. (2002) observed that the notions of betrayal and forgiveness were primarily the focus of philosophy and theology (for example, Dorff, 1992; Marty, 1998; North, 1987). The history of forgiveness in the psychological and social sciences can be divided into two periods (McCullough et al., 2000b). The first period lasted around five decades, from 1932 to 1980, and generated a number of theoretical papers and modest empirical studies that examined facets of forgiveness. The second period, approximately spanning the three and a half decades from 1980 to present, has generated a thorough and serious examination of forgiveness.

2.6 Defining forgiveness

Even though the conceptualisation of forgiveness has evolved over the last two decades, a consensual definition is yet to be reached. In the late 1990s, McCullough and colleagues defined interpersonal forgiving as “the set of motivational changes whereby one becomes (a) decreasingly motivated to retaliate against an offending relationship partner, (b) decreasingly motivated to maintain estrangement from the offender, and (c) increasingly motivated by reconciliation and goodwill for the offender” (McCullough, Worthington, & Rachal, 1997, p. 321). This initial conceptualisation assumed that forgiveness necessarily leads to reconciliation, or restoration of the relationship between offender and victim (Worthington, 2005b). Recently, this definition has been refined. According to the functional definition of forgiveness, it might be possible to forgive a transgression by which one becomes less vengeful, less avoidant and more benevolent toward the victim without reconciling, that is, without restoring the relationship (McCullough, Kurzban, & Tabak, 2010).

Rusbult and colleagues emphasised the interpersonal nature of the phenomenon and define forgiveness as “the victim’s resumption of prebetrayal behavioural tendencies – that is, as the tendency to forego vengeance and other destructive patterns of interaction, instead behaving toward the perpetrator in a positive and constructive manner” (Rusbult et al., 2002, p. 257). In their view, forgiveness is the victim’s readiness to suppress resentment and revenge and instead to behave positively and constructively toward the transgressor with the aim of resuming pre-transgression interactional tendencies (Rusbult, Hannon, Stocker, & Finkel, 2005; Rusbult et al., 2002). According to Rusbult et al. (2005), the transformation of the situation could also be influenced by perpetrators’ amends such as acceptance of responsibility, sincere apology and genuine atonement.

Fincham (2009) noted that the common ideas in various conceptualisations of forgiveness is that the urge to take revenge and avoid contact with the transgressor is overcome via freely chosen motivational transformation. According to Fincham, most conceptualisations of forgiveness emphasise a motivational change that leads to a decrease in negative response tendencies (e.g., retaliation, vengeance) toward the offender (McCullough et al., 2003). Nevertheless, a decrease in negative motivation in and of itself is not sufficient for relationship repair when the transgressor is an intimate partner since it entails returning to the state of neutrality rather than positivity (Braithwaite et

al., 2011). Consequently, Fincham postulated increased positive transformation (goodwill) toward the offender as an additional component of forgiveness, which underlies approach behaviour following partner transgression (Fincham, 2000). In Fincham's view, forgiveness is an *intra*-individual process even though the referent is inter-personal (Fincham et al., 2016), and this conceptualisation has been adopted within the thesis.

2.7 Distinguishing forgiveness from related constructs

Even though the scientific literature has not reached consensus regarding the exact nature of forgiveness, various conceptualisations feature the notion of a freely chosen motivational transformation which relinquishes the urge for revenge and avoidance (Fincham & Beach, 2013). This conceptualisation differentiates forgiveness from related constructs such as *forgetting* since forgiving involves more than not pondering over the transgression (Enright & Coyle, 1998; Fincham & Beach, 2013). Unlike *the spontaneous disappearance of anger and animosity over time*, forgiving exceeds the passive exclusion of the transgression from the consciousness (Fincham & Beach, 2013). Forgiveness is possible only when the transgression is remembered which is contradictory to the expression "forgive and forget" (Fincham, 2009; Fincham & Beach, 2013).

The concept of *acceptance* incorporated in research-driven couple therapy may appear similar to forgiveness (Jacobson & Christensen, 1996). Acceptance entails the change of perception; what was viewed as culpable becomes understandable, tolerable or even valuable disparity that is occasionally unpleasant (Koerner, Jacobson, & Christensen, 1994). Acceptance, therefore, implies that change on behalf of the wrongdoer is no longer needed (Christensen, Jacobson, & Babcock, 1995). The major dissimilarity among the two concepts is that acceptance could be displayed in situations that do not require forgiveness (Fincham, 2000).

Forgiveness should also be distinguished from *condoning* transgressor's behaviour which implies viewing the behaviour as justified, as well as from *excusing* transgressor's behaviour which encompasses finding a defensible reason for the behaviour, as both of these constructs annul a blameworthy offence (Enright & Coyle, 1998; Fincham, 2000). Similarly, *pardoning*, granted by a representative of society such as a judge, justifies the offence (Enright & Coyle, 1998; Fincham &

Beach, 2013). In these cases, the need for forgiveness disappears. These behaviours are similar to acceptance in that offence is overcome and no change in behaviour is required. Forgiveness should also be distinguished from denials of the harmful actions by an offender (Coyle & Enright, 1997). Forgiveness, in contrast, is an effortful, transformative process that unfolds in spite of the acknowledgment that an offence had occurred (Fehr & Gelfand, 2012).

Moreover, forgiveness should be differentiated from *accommodation*, or the willingness to restrain impulses to act destructively and the eagerness to act constructively in response to the hurtful actions of a close relationship partner (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). For example, accommodation could occur because the destructive nature of harmful behaviour is disregarded, lessened or, when fully recognised, is condoned or excused (Fincham, 2000). Forgiveness is not relevant in these circumstances. As is the case with acceptance, accommodation cannot be associated with forgiveness due to its random occurrence both when the necessary conditions for forgiveness are met and when they are not met.

Forgiveness should be distinguished from *reconciliation* (Fincham, 2009). Aquino et al. (2006) depict forgiveness as an *intra*-personal act entailing the transformation of thoughts, emotions, and attitudes toward the transgressor from negative to more positive aspects, whereas they conceptualise reconciliation as an *inter*-personal behaviour directed toward restoring the relationship. Indeed, forgiveness as the motivational change primarily occurs at the individual level although it is influenced by interpersonal events such as expression of regret by the transgressor (Fincham, 2009). Reconciliation, by contrast, is a dyadic process that involves both partners in the relationship repair process. In a similar vein, Rusbult et al. (2002) view reconciliation as the restoration by *both* partners of prebetrayal relationship state. While interpersonal forgiveness is quite specific to the offence in question, reconciliation encompasses the wider relationship (Rusbult et al., 2002). While forgiveness increases the possibility of reconciliation the two concepts are not equivalent. The decision to forgive a wrongdoer but also to end the relationship with them is not contradictory. Indeed, forgiveness opens the possibility for reconciliation, but does not guarantee this outcomes (Rusbult et al., 2002). On the other hand, reconciliation may occur without forgiveness which differentiates these two constructs

(Fincham, 2009). Granting forgiveness could be tremendously difficult since it entails overcoming, not avoiding, emotional pain (Fincham & Beach, 2013).

2.8 Types of forgiveness

According to Fincham et al. (2016), forgiveness can be conceptualised at different levels of specificity: as a trait, as a tendency toward a specific relationship partner, and as an offence-specific response. *Trait forgiveness*, or forgivingness, unfolds across relationships, offences and situations while *the tendency to forgive a particular relationship partner*, occasionally referred to as dyadic forgiveness (Fincham, Hall, & Beach, 2005; McCullough, Hoyt, & Rachal, 2000a), is the tendency to forgive the partner across multiple offences. Lastly, *offence-specific*, or *episodic forgiveness* represents a single act of forgiveness for a specific offence within a particular interpersonal context (Fincham et al., 2016). Other conceptualisations include group forgiveness (Noor, Branscombe, & Hewstone, 2015), third-party forgiveness (Green, Burnette, & Davis, 2008) and self-forgiveness (Carpenter, Tignor, Tsang, & Willett, 2016). The current thesis focuses on tendency to forgive and offence-specific forgiveness.

2.9 Operationalising forgiveness

Forgiveness has mostly been operationalised either as a personality trait, or as a response to a particular offence (Fincham, 2009). Since Fincham (2000) considers that benevolence motives cannot be assumed by the absence of unforgiveness, he included both dimensions into measures of forgiveness in close relationships. Fincham's scale for dispositional forgiveness (Fincham & Beach, 2002) is the only scale for general tendency to forgive the partner assessing retaliation, avoidance *and* benevolence. Therefore, this measure was used for assessing dispositional forgiveness in the field study of this thesis. Fincham's scale measuring forgiveness of a particular event in a relationship (Fincham, Beach, & Davila, 2004) also includes the dimensions of retaliation, avoidance and benevolence. Therefore, this scale was adopted and used in the experimental study of this thesis.

2.10 Antecedents of forgiveness

Research has identified a number of antecedents of forgiveness (Fincham & Beach, 2013; McCullough, Root, Tabak, & Witvliet, 2009). Empirical studies have shown a positive link between relationship satisfaction and forgiveness (e.g., Braithwaite, Mitchell, Selby, & Fincham, 2016; Fincham, 2000; Gordon & Baucom, 2003; Paleari, Regalia, & Fincham, 2005). This association has also been corroborated by meta-analytic evidence involving twenty-one studies where the weighted mean correlation was .32 (Fehr et al., 2010). Since both commitment and forgiveness promote pro-relationship motives, the positive association between these two constructs is not surprising (Finkel, Rusbult, Kumashiro, & Hannon, 2002; Karremans & Smith, 2010; Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003; McCullough et al., 1998). This link has also been found in the meta-analysis including seventeen studies with a mean weighted average correlation of .23 (Fehr et al., 2010). The association between empathy and forgiveness has been supported with both correlational and experimental data (Fincham, Paleari, & Regalia, 2002; McCullough et al., 1997), as well as with meta-analytic evidence ($r=.51$, across thirty-two studies, Fehr et al., 2010). Severity of offence was shown to significantly impact forgiveness, since more severe transgressions are more difficult to forgive (Boon & Sulsky, 1997; Brose, Rye, Lutz-Zois, & Ross, 2005; Girard & Mullet, 1997; Karremans, Van Lange, & Holland, 2005; Wade & Worthington, 2003).

Other important antecedents of forgiveness include *attributions* (Crossley, 2009; Davis & Gold, 2011; Friesen, Fletcher, & Overall, 2005; Struthers, Eaton, Mendoza, Santelli, & Shirvani, 2010), *expected value* (Boehm, 1987; Bottom et al., 2002; Finkel et al., 2002), *trust and safety* (Hoyt, Fincham, McCullough, Maio, & Davila, 2005; McCullough & Hoyt, 2002), *personality* (Braithwaite et al., 2016; Brose et al., 2005; Depue & Morrone-Strupinsky, 2005; Eaton, Struthers, & Santelli, 2006; McNulty & Russell, 2016; Strelan, 2007), *religiousness* (McCullough, Bono, & Root, 2005; Tsang, McCullough, & Hoyt, 2005), *apology* (Exline et al., 2008; McCullough et al., 1998; McCullough et al., 1997), and *ruminatation* (Berry, Worthington, Parrott, O'Connor, & Wade, 2001; Braithwaite et al., 2016; Kachadourian, Fincham, & Davila, 2005; McCullough et al., 1998).

2.11 Outcomes of forgiveness

Psychological and physical well-being. McCullough et al. (2009) noted various beneficial outcomes of forgiveness. Indeed, forgiveness leads to psychological well-being, physical health and desirable relationship outcomes (Toussaint et al., 2015; Worthington & Scherer, 2004). These associations are not surprising given the link between relationship quality and various psychological disorders (Beach & Whisman, 2012). People with the propensity to forgive others are less anxious, depressed and hostile (Brown, 2003; Thompson et al., 2005). Forgiveness also contributes to high positive emotion, low negative emotion, high satisfaction with life and low self-reports of physical health symptoms (Bono, McCullough, & Root, 2006). Meta-analytic evidence reaffirms that forgiveness enhances life satisfaction and positive affect, whereas the lack of forgiveness leads to depression, anxiety, perceived stress and negative affect (Riek & Mania, 2012).

Forgiveness offers substitutes for negative responses such as rumination and suppression which seem to negatively affect mental and physical health (McCullough, Bono, & Root, 2007; Witvliet & McCullough, 2005). Furthermore, forgiveness assists beneficial emotion regulation processes (Lawler-Row, Karremans, Scott, Edlis-Matityahou, & Edwards, 2008; McCullough et al., 2009; Thayer & Lane, 2000; Witvliet & McCullough, 2005; Worthington, Witvliet, Pietrini, & Miller, 2007), such as the ability to trigger compassion and display sympathetic thoughts, feelings and behaviours that are linked to more positive and relaxed psychophysiological profiles (Witvliet, Ludwig, & Vander Laan, 2001).

Individuals with a strong tendency to forgive are less likely to suffer from nicotine dependence disorders, substance abuse disorders, depressive disorders and several anxiety disorders (Kendler et al., 2003). Several studies found that blood pressure and heart rate increase when people recall a transgression they have not forgiven, compared to recalling transgression that they have forgiven (Hannon, Finkel, Kumashiro, & Rusbult, 2012; Lawler et al., 2003; Witvliet et al., 2001).

Forgiveness positively impacts social support, which is strongly associated with mental and physical health (House, Landis, & Umberson, 1988). People who willingly forgive their transgressors are likely to maintain positive relations with relationship partners (McCullough et al., 1998) and thus tend to benefit more from social support, experience relational closeness, commitment, willingness to

accommodate, willingness to sacrifice and cooperation after a transgression (Karremans & Van Lange, 2004; McCullough et al., 1998; Tsang, McCullough, & Fincham, 2006). In contrast, failure to forgive close relationship partners can result in psychological tension (Karremans et al., 2003) which, in turn, could reduce life-satisfaction and self-esteem and increase negative affect (McCullough et al., 2009). Additionally, forgiving facilitates one's engagement in volunteering and contributing to charity, that is, to pro-relationship motivation that surpasses the victim's relationship with a particular offender (Karremans et al., 2005).

Relationship satisfaction. Since meta-analytic evidence shows a strong, positive association between relationship satisfaction and forgiveness, it is unsurprising that relationship satisfaction is one of the outcomes of forgiveness in close relationships. Paleari, Regalia, and Fincham (2011) found that ineffective arguing partially mediated the link between forgiveness and relationship satisfaction among married couples. The model of forgiveness in close relationships (Braithwaite et al., 2011) is another key framework upon which the current research draws. Braithwaite et al. (2011) showed that relative absence of conflict behaviour and behavioural regulation in parallel mediate the link between forgiveness and relationship satisfaction. Namely, a cross-sectional and a longitudinal study involving romantic partners demonstrated that forgiveness was positively associated with offended partner's self-regulation manifested as improving relationship efforts which, in turn, was positively associated with relationship satisfaction (Braithwaite et al., 2011). As expected, it was found that forgiveness lead to a decrease in negative tactics which deteriorate relationship satisfaction (Braithwaite et al., 2011). The current thesis sought to extend this framework by testing it in other relationship contexts and by investigating moderating mechanisms that enhance forgiveness.

Conflict behaviours. Forgiveness is significant for appreciating relationship behaviours as it mediates the relationship between attributions and behaviour toward one's spouse (Fincham, 2000) or romantic partner (Eaton & Struthers, 2006). The transgressions that are not forgiven may negatively affect relationships by escalating into future conflicts and expanding into a negative cycle of interactions. Indeed, futile conflict resolutions were associated with retaliation and avoidance among husbands and absence of benevolence among wives (Fincham et al., 2004). Additionally, the positive dimension of forgiveness (benevolence) for wives predicted husbands' accounts of enhanced conflict

resolution 12 months later, controlling for initial levels of conflict resolution and extent of harm (Fincham et al., 2007). Lastly, adolescents associate forgiving with a tendency to avoid ensuing parent-adolescent conflict (Paleari, Regalia, & Fincham, 2003).

Although robust empirical evidence has demonstrated the beneficial outcomes of forgiveness, it is necessary to understand the underlying mechanisms of why and how forgiveness unfolds in close relationships. The following section elaborates on the framework of commitment and relationship maintenance mechanisms (Rusbult et al., 2001), the third key framework upon which the current research draws.

2.12 An interdependence theoretical analysis of relationship maintenance

The real test of a relationship occurs when partners face dilemmas such as conflicted interaction, incompatible preferences, or betrayals. Rusbult and colleagues have conducted a programme of research that investigates how close partners succeed in sustaining healthy, long-term relationships (e.g., Rusbult, 1980; Rusbult et al., 1998; Rusbult et al., 2001). Rusbult et al. (2001) based their model of persistence and couple well-being on the norms and constructs of interdependence theory (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959). Interdependence *dilemmas* are situations in which the immediate well-being of an individual is incongruous with the immediate well-being of the partner and relationships (Kelley & Thibaut, 1978). Dilemmas are based on conflicting motives. On the one hand, the individual may be compelled to pursue immediate self-interests. On the other hand, promoting the interests of one's relationship may be compelling. Therefore, resolving interdependence dilemmas involves some degree of effort or personal cost and requires individuals to evaluate their priorities (Rusbult et al., 2001).

2.12.1 Adaptation to interdependence dilemmas

Transformation of motivation. Interdependence theory differentiates between the given situation and the effective situation which explain why some individuals are willing to endure cost or exert effort to ensure the well-being of the relationship or the partner (Kelley & Thibaut, 1978). The

given situation indicates each partner's immediate well-being in a particular situation. Departures from this baseline gut-level, self-centred preferences can to some degree be costly or effortful (Rusbult et al., 2001). Nevertheless, individuals do not always pursue their self-oriented given preferences. Behaviour is often influenced by considerations such as attaining long-term goals or the willingness to endorse both one's own and a partner's well-being. The process that enables an individual to move away from the given preferences based on their direct self-interest and act on the basis of broader considerations is called the *transformation of motivation* (Holmes, 1981; Kelley & Thibaut, 1978). An outcome of this process is the *effective situation* which involves adjusted, reconceptualised preferences that influence behaviour.

Transformational tendencies and interpersonal orientations. The process of adaptation to ongoing circumstances of interdependence enables individuals to develop habitual tendencies to respond to specific patterns in specific ways, referred to as *habitual transformational tendencies* (Kelley, 1983b). These tendencies are influenced by *interpersonal orientations*, defined as moderately stable pattern-contingent and partner contingent solutions to repeatedly encountered situations (Rusbult & Van Lange, 1996). Namely, habitual solutions that individuals obtain during adaptation to a range of interdependence situations seem to influence individuals' affinity for one type of transformation instead of another. These solutions tend to be specific to a particular type of interdependence situations, as well as to a particular interaction partner. Interpersonal orientations are manifested in three forms: (a) *personal dispositions*, or person-specific inclinations to respond to particular interdependence pattern in a specific manner when interacting with various partners (e.g., secure attachment, dispositional competitiveness); (b) *relationship-specific motives* or dyad-specific inclinations to respond to particular interdependence pattern in a specific manner (e.g., commitment, trust); and (c) *social norms* or group-based inclinations to respond to specific interdependence pattern in a specific manner, either while interacting with various partners or within the context of a given relationship (e.g., the social contract) (Rusbult et al., 2001; Rusbult & Van Lange, 1996).

Individuals react to specific interdependence dilemmas as occurrences of general patterns instead of identifying and reacting to each situation over again (Kelley, 1984). Therefore, the transformation process is initiated when an individual identifies the given situation as either a new

situation or as a situation comparable to previous interactions based on the familiar pattern (Rusbult et al., 2001). In cases when broader considerations are not relevant for the pattern, the individual responds according to their immediate self-interest and no transformation occurs. Consequently, the pattern of outcomes in the given situation directs the conduct and the effective situation becomes tantamount to the given situation. Nevertheless, in cases when the given pattern is more intricate, any of interpersonal orientations may be triggered. In sum, transformation process involves (a) characteristics of a particular individual such as dispositions, relationship-specific motives, and norms, combined with (b) characteristics of a given situation governed by immediate self-interests, to yield (c) individual action (Rusbult et al., 2001). Nevertheless, as much as interpersonal orientations affect the process of transformation, they are not the only factor that influence behaviour.

2.12.2 Dependence, commitment, and persistence

Bases of dependence. As noted by Rusbult et al. (1998), the distinctive feature of interdependence theory (Kelley, 1979; Kelley & Thibaut, 1978) is its focus on an analysis of the interdependence structure of a specific relationship, not on the personal dispositions of the individuals. A fundamental component of interdependence structure is dependence which aims to explain persistence in a relationship. *Dependence level* indicates the degree to which a person needs a particular relationship, or the extent to which a relationship impacts individual's well-being. Interdependence theory identified satisfaction with a relationship and quality of alternatives as two core mechanisms through which dependence upon a relationship increases. *Satisfaction level* involves evaluation of positive and negative affect experienced in a relationship. Satisfaction is influenced by the degree to which a partner meets the individual's most significant needs. *Quality of alternatives* indicates the observed attractiveness of the best available alternative to a relationship. Quality of alternatives is determined by the degree to which the individual's most significant demands could effectively be met beyond the ongoing relationship, namely by the wider range of potential partners, by friends and family members, or on one's own.

The investment model extends interdependence theory propositions in two respects (Rusbult, 1980, 1983). First, the investment model proposes that dependence is also influenced by a third factor,

investment size (See Figure 2.01). *Investment size* represents the size and the significance of the resources that the relationship provides, especially those resources whose value would decline or disappear if the individual would terminate the relationship (cf. Becker, 1960; Rubin & Brockner, 1975; Staw, 1976; Teger, 1980; Tropper, 1972). Over the course of the relationship, partners tend to advance the relationship by directly investing into it resources such as personal identity, shared material possessions, mutual friends, and children. Seemingly, invested resources enhance commitment since the act of investment increases the costs of ending the relationship, operating thus as a strong psychological incentive to persist (Rusbult et al., 1998).

Commitment. The investment model further extends interdependence theory by proposing that the feelings of commitment occur as a result of increased dependence upon the relationship (Rusbult, 1980, 1983; Rusbult et al., 1994), which is consistent with other major models of the commitment process (cf. Johnson, 1991; Levinger, 1979). *Commitment level* is built upon three interrelated elements including conative, affective and cognitive properties. The conative component of commitment is intent to persist. Namely, as the dependence upon the relationship increases so does the individual's motivation to persist with their partner. The affective component is psychological attachment; as the dependence upon the relationship increases the individuals' emotional well-being is influenced by their partners and relationships. The cognitive component is long-term orientation; as the dependence upon the relationship increases the individual gradually imagines being in the relationship for long-term, reflecting on the impacts of current actions for future consequences.

Commitment, persistence and adjustment. Rusbult et al. (2001) note that the predominant position in the close relationships literature is that individuals persist since they are satisfied with their relationships (for a literature review, see Berscheid & Reis, 1998). On the other hand, the investment model implies that liking, attraction, satisfaction and other positive feelings are not sufficient for making extra efforts for the sake of a relationship. Indeed, high satisfaction level constitutes one basis for dependence. Nevertheless, feeling satisfied with one's relationship is not sufficient to generate strong dependence or commitment. In addition, the psychological experience of commitment extends beyond its three pillars of dependence. Dependence is a central quality of relationships since it depicts the summative effect of wanting to persist (feeling satisfied), needing to persist (having high

investments), and having no option but to persist (possessing poor alternatives). In contrast, commitment can be perceived as loyalty that one creates toward the source of one's dependence (Rusbult et al., 1998). As individuals become dependent on their relationship, individuals develop a tendency to persist with their partner, they begin to think of themselves as a part of the unity between themselves and their partner, and they consider broader implications of their actions that will impact the relationship in the long term (Rusbult et al., 2001).

There is good empirical support for the investment model showing that (a) commitment is positively linked to satisfaction level and investment size, and is negatively linked to quality of alternatives; (b) each of these constructs contributes unique variance to predicting commitment; (c) compared to less committed individuals, highly committed individuals are significantly more likely to persist in their relationships; and (d) commitment is the most direct and powerful predictor of persistence which partially or wholly mediates the effects of satisfaction, alternatives and investments on decisions to persist as opposed to end a relationship (Rusbult et al., 1998; Rusbult et al., 2001). These findings have been shown in several cultures, in studies using numerous methods, and in various respondent populations (Rusbult et al., 1998; Rusbult et al., 2001).

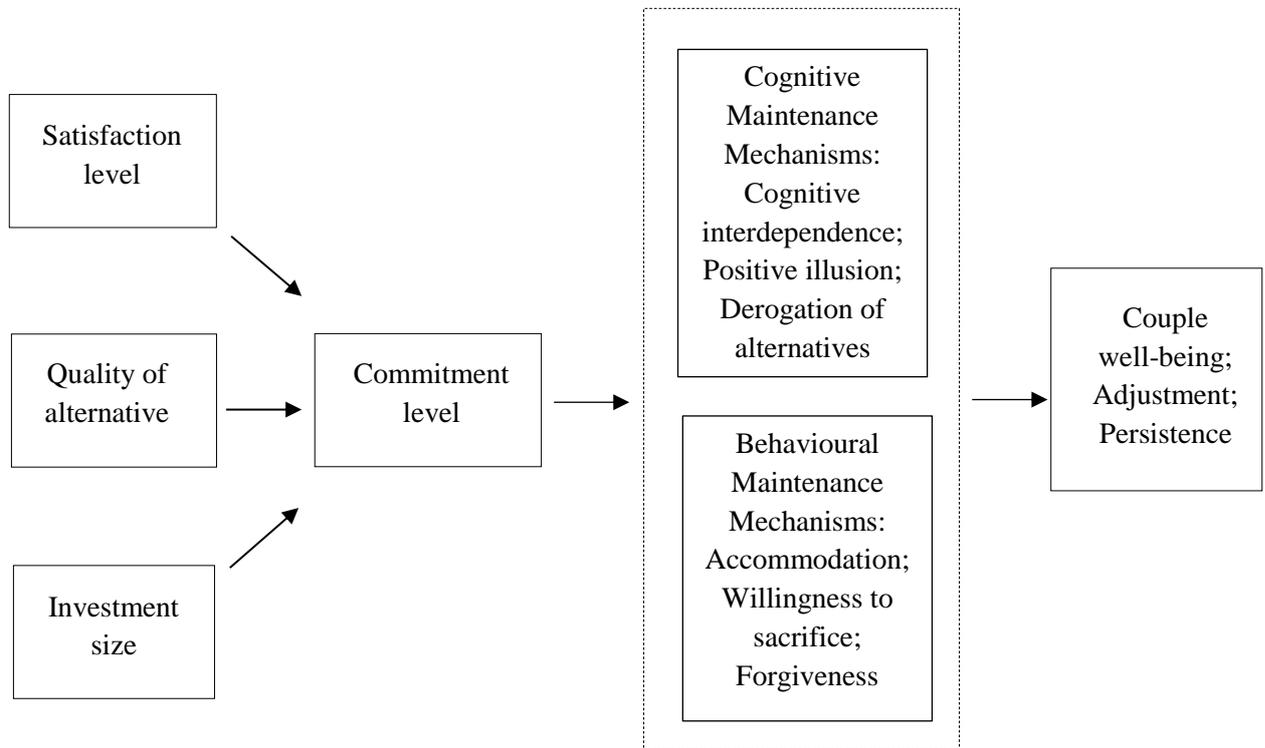


Figure 2.01. Commitment and relationship maintenance mechanisms (adapted from Rusbult et al., 2001)

2.12.3 Maintenance mechanisms in ongoing relationships

Along with encouraging persistence, strong commitment triggers a range of *relationship maintenance mechanisms* (see Figure 2.01), delineated as the particular acts that enable partners to endure long-term, well-functioning relationships (Rusbult et al., 2001). Relationship maintenance mechanisms are classified into cognitive and behavioural maintenance acts. Cognitive maintenance mechanisms encompass mental restructuring with the purpose of increasing couple well-being (Rusbult et al., 2001). These maintenance acts are relatively unconscious outcomes of strong commitment, although individuals can sometimes intentionally involve themselves in such activities. Cognitive maintenance mechanisms include cognitive interdependence, positive illusion and derogation of tempting alternatives. On the other hand, behavioural maintenance mechanisms entail altering one's behaviour with the purpose of improving couple well-being. These positive pro-relationship acts include accommodative behaviour, willingness to sacrifice, and forgiveness of betrayal.

2.12.3.1 Cognitive maintenance mechanisms

Cognitive interdependence. Strong commitment has been shown to trigger pro-relationship restructuring of the actor's representation of the self (Rusbult et al., 2001). Cognitive interdependence is shifting from a predominantly individual-focused internal representation of the self to a mutual representation of the self and partner. For instance, in contrast to less committed individuals, highly committed individuals tend to use more plural pronouns such as *we, us, our* rather than *I, me, mine* (Agnew, Van Lange, Rusbult, & Langston, 1998).

Positive illusion. Relationship partners gradually cultivate idealised beliefs regarding actors and relationship; these narratives and cognitive representations diminish a sense of ambiguity and mitigate concerns regarding the very relationship (Rusbult et al., 2001). Idealised beliefs are maintained through a number of mechanisms such as: (a) cognitive filters through which individuals detect harmful information regarding their relationship; (b) downward social comparison through which individuals equate their relationships with other, poorer relationships; and (c) dimensional

comparison through which individuals estimate their own relationship in comparison to other relationships regarding the aspects in which their relationship excels (Van Lange & Rusbult, 1995).

Derogation of tempting alternatives. In order to protect the relationship, individuals must manage tempting alternatives (Rusbult et al., 2001). Potential alternatives may distance themselves when they learn that an individual is committed or they may be driven away by visible symbols of the individual's involvement such as a wedding ring (cf. Kelley, 1983a). Nevertheless, alternatives never entirely disappear and always represent a threat. It has been shown that involved individuals cognitively disparage alternative partners by, for instance, subtly undermining alternative partner's capabilities and qualities (e.g., "He is probably not very intelligent").

2.12.3.2 Behavioural maintenance mechanisms

Accommodative behaviour. Research on accommodative behaviour is rooted in the use of the exit-voice-loyalty-neglect typology to understand reactions to dissatisfactions in daily relations (Rusbult & Zembrodt, 1983; Rusbult, Zembrodt, & Gunn, 1982). Accommodation defines the inclination when faced with partner's potentially destructive behaviour to (a) suppress the urge to respond detrimentally, (b) instead respond constructively (Rusbult et al., 1991). That is, accommodation is the willingness to restrict the urge to reciprocate partner's exit and neglect behaviours and, instead, to respond with voice and loyalty behaviours.

Willingness to sacrifice. When partners encounter a relationship dilemma, it is essential that one or both individuals show willingness to sacrifice, specified as the tendency to relinquish immediate self-interest in order to endorse the well-being of the partner and relationship (Van Lange et al., 1997). Sacrifice involves refraining from behaviours that otherwise would be desirable (passive sacrifice), displaying behaviours that otherwise would not be desirable (active sacrifice), or both. The magnitude of sacrifice acts varies from minor and temporary (e.g., the individual accompanies the partner to an event), to considerable and permanent (e.g., an individual agrees to relocate to a different country for the sake of partner's career).

Forgiveness of betrayal. Unlike other types of maintenance acts, betrayal incidents are caused by the violation of an implicit or explicit relationship norm (Rusbult et al., 2001). Indeed,

willingness to sacrifice emerges when partners' preferences are incompatible whereas accommodation occurs when partner displays a potentially destructive behaviour. Betrayal occurs when the victim believes that the transgressor has intentionally violated the rules that govern their relationship, thus harming the victim. It is the moral aspect of betrayal that contributes to its severity. Betrayal is overcome through *forgiveness*, which involves abandoning one's immediate gut-level impulses for the sake of broader considerations. In sum, behavioural maintenance acts are adequate responses to more serious offences, whereas cognitive maintenance acts are suitable for less severe interdependence situations.

Rusbult et al.'s (2001) framework delineates why and how forgiveness unfolds in close relationships. Since the core objective of the current research is the examination of forgiveness in leader-follower relationships, it is questionable whether the framework from the close relationships literature would be appropriate for depicting forgiveness in leader-follower relationships. Nevertheless, the interdisciplinary nature of relationship science domain and generic relationship knowledge discussed in the following section addresses these concerns, supporting thus the integration of LMX theory with forgiveness research.

2.13 Relationship science domain

In her paper "Greening of relationship science", Berscheid (1999) acknowledged the potentials and implications of interpersonal relationships on psychology and other disciplines. Furthermore, she recognised its influence on closing the gap between academia and practitioners, and enhancing the understanding of human behaviour. Berscheid (1999) noted that the field of relationship science has emerged as both international in scope and multidisciplinary in nature. Indeed, even though it is grounded in psychology, it also involves sociology, anthropology, communication studies, marital and family therapy, and even economics. Additionally, it encompasses several health sciences such as epidemiology, traditional and alternative medicine, nursing, and pharmacology. While it integrates scientific disciplines beyond psychology, relationship science also operates as an integrating force within the fragmented discipline of psychology.

Furthermore, Berscheid (1999) suggested that relationship science has a potential to narrow the chasm between psychological scholars and practitioners. Indeed, the empirical evidence shows that the most common cause of seeking psychotherapy is a distressed marital or family relationship (Berscheid & Reis, 1998). In addition, Berscheid (1999) notes that relationship science needs to surpass the individualistic orientation to human behaviour which is inherent in the field (see Sears, 1951). Indeed, psychologists' interests have been focused on attitudes, personality traits, skills, aptitudes, genes and the like, uncovered in the individual. By contrast, relationship scholars are interested in examining interactions of two people, or the impact that each person's behaviour has on his or her partner's behaviour. Such an examination enables relationship science to actualise its most important potential, that is, to enhance our understanding of human behaviour. Since relationships are the context of most human behaviour, it is essential to investigate the nature of the environments in which it occurs. Therefore, future studies should investigate forgiveness in organisational contexts and in leader-follower relationships in particular, which would not only enhance the two respective literatures but would also contribute to the understanding and prediction of human behaviour in general.

2.13.1 Generic relationship knowledge

In her overview of the notion of generic relationship knowledge, Berscheid (1994) noted that sociology has observed a tendency toward generating a superordinate body of knowledge that transcends the boundaries of relationship type. Likewise, Blumstein and Kollock (1988) noted the major strength of psychology's approach to close relationships is its endeavour to extract generic relationship knowledge (e.g., Kelley et al., 1983), although a serious weakness of this approach, in their view, is the oversight that "the behaviour in a close relationship is shaped by the structural circumstances and cultural definitions of that relationship" (p. 471). Nevertheless, Blumstein and Kollock (1988) support this approach by suggesting that interpersonal processes, when broadly construed, provide principles that can deepen our understanding of almost any type of relationship. Interestingly, many of the relationship processes are perceived to be causally linked to the closeness of the relationship (Berscheid, 1994). Having recognised this overlap, Clark and Reis (1988)

structured their review of relationship research “around interpersonal processes that affect the course and conduct of interpersonal relationships, rather than, as is common in the literature, relationship types (e.g., friendship, marriage)” (p. 610) and they highlighted the processes linked to interdependence. In a similar vein, the majority of Berscheid’s (1994) review of interpersonal relationships is devoted to relationship cognition which not only exceeds relationship type but also allows the researchers to directly address the culturally defined norms, roles, and understandings associated with different types of relationships.

In their review of attraction and close relationships, Berscheid and Reis (1998) covered in depth processes associated with relational phenomena. The review introduced the concept of relationships and discussed the establishing of interdependence and relationship taxonomies. Following, the review discussed the beginnings of relationships including the first encounter (voluntariness of interaction and the social context), the concept and principles of attraction, mate selection and love. This is followed by an elaboration of relationship development, including relationship cognition (relationship schemata, attribution, and relationship memory), theories of relationship development (e.g., self-closure, intimacy), and emotion regulation in relationships (e.g., empathy). The next section discussed relationship satisfaction and stability through the lenses of the sociological, clinical and social psychological approaches. The final section in the review covered relationships and wellbeing. In particular the topics of happiness, morbidity and mortality, toxic relationships and relationship dissolution are discussed. The structure of this comprehensive review demonstrates the utility of a generic relationship knowledge in generating interdisciplinary relationship research. Therefore, the processes associated with forgiveness in close relationships are expected to transcend relationship type and operate in leader-follower relationships.

2.14 Relationship repair domain

In the *Academy of Management Review*’s special topic forum, relationship repair was identified as an “important but relatively underresearched topic” (Dirks et al., 2009, p. 69). In their quest of the meaning of repairing a relationship, Dirks et al. (2009) note that research has given a number of viewpoints. For instance, Kim and colleagues (Kim et al., 2006; Kim et al., 2004)

examined how trust perceptions can be enhanced following a trust violation (see also Lewicki & Bunker, 1996; Nakayachi & Watabe, 2005). Adopting a somewhat broader definition of repair, Schweitzer, Hershey, and Bradlow (2006) investigated how trust perceptions and risk-taking behaviours can be enhanced after a transgression. Assuming a different position, Bradfield and Aquino (1999) examined forgiveness and reconciliation. Taking a different point of view, Bottom et al. (2002) investigated the restoration of cooperation and positive affect after an offence. Each of these relationship repair mechanisms is relevant and contributes to the enhancement of a ruptured workplace relationship.

Trust repair. Kim et al. (2004) define trust as a psychological state that involves the readiness to accept vulnerability on the basis of positive expectations of the intentions or behaviour of the other party (Rousseau, Sitkin, Burt, & Camerer, 1998). In line with the conceptualisation of McKnight, Cummings, and Chervany (1998), Kim et al. (2004) differentiate between “trusting intentions” (i.e., a readiness to make oneself vulnerable to the other party due to risk) and “trusting beliefs” (e.g., the beliefs about another’s integrity or competence that may result in trusting intentions). Therefore, Kim et al. (2004) define trust repair efforts as “activities directed at making a trustor’s trusting beliefs and trusting intentions more positive after a violation is perceived to have occurred” (p. 104). Research on trust repair has recently begun to attract scholarly attention. Kim et al. (2004) investigated the impact of apology as opposed to a denial for repairing trust following an alleged violation. Schweitzer et al. (2006) demonstrated that observing a consistent series of trust worthy actions can facilitate the restoration of trust ruptured by the untrustworthy behaviour. Tomlinson and Maryer (2009) examined the repair of injured party’s trust through repairing trustworthiness (Mayer et al., 1995). Gillespie and Dietz (2009) developed a systemic, multilevel framework for interpreting trust repair at the organisational level.

Reconciling a relationship following a broken promise. In Tomlinson et al.’s (2004) view, reconciliation occurs when both parties demonstrate effort to rebuild a damaged relationship (Lewicki & Bunker, 1996) and willingness to resolve issues that caused the damage (Freedman, 1998) so that the relationship can be restored to vitality (Aquino et al., 2001; Lewicki & Bunker, 1996). Furthermore, reconciliation may be perceived as a behavioural manifestation of forgiveness, although

it is possible to forgive an offender without reconciling the relationship or trusting him or her again in the future (Enright, Gassin, & Wu, 1992; Freedman, 1998). Tomlinson et al. (2004) proposed a model according to which a trust violation may cause a complete termination of relationship if the victim is not willing to reconcile the relationship.

Repairing relationship conflict. Ren and Gray (2009) defined relationship conflict between members of dyads as an action in which the offending party violates the victim's expectations about satisfying one or more of victim's most vital needs (Cropanzano, Goldman, & Folger, 2005; Schutz, 1958). Relationship conflicts yield several negative consequences for individuals and organisations such as anxiety, psychological pressure, inactive listening and others eventually resulting in hampered performance (De Dreu & Weingart, 2003). Building on Goffman's (1967) concept of interaction rituals, Ren and Gray (2009) proposed a process model, a causal model, and a number of propositions regarding effective relationship restoration behaviour after a relationship conflict.

Rebuilding cooperation. Bottom et al. (2002) view cooperative interactions as mutually desirable choices for parties that are not competing directly. The possibility for joint benefit or loss underlies the structure of most interactions, especially between organisational actors. Violation of cooperative expectations can have negative outcomes such that minor violations can raise concern while major violations could be viewed as mistreatment, trigger strong emotional reactions and deprive relationships of any future benefits (Bottom, Eavey, & Miller, 1996; Murnighan, 1981). Bottom et al. (2002) found that apologies and simple explanations can facilitate the restoration of cooperation to an extent, nevertheless, substantive amends are significantly more influential than mere explanations. Bottom et al. (2002) demonstrate that the ruptured cooperation can be resumed and that the relationship repair process is facilitated by actions, in addition to explanations and apologies.

2.15 Why is forgiveness a superior relationship maintenance strategy?

Even though each of previously mentioned mechanisms merits scholarly attention, forgiveness appears to be a superior strategy for depicting and testing maintenance of a leader-follower relationship in an organisational context. For instance, research on trust repair has mainly used organisation as a referent (e.g., Gillespie & Dietz, 2009), overlooking thus the context of the

leader-follower relationship. In contrast, forgiveness involves an *inter*-personal referent, and thus is compatible with the dyadic nature of an LMX relationship. Furthermore, compared to other relationship repair mechanisms, forgiveness has a number of superlative facets such as a positive dimension, immunity to external stimuli and critical awareness of its process. Namely, not only does forgiveness diminish the urge for negative responses following a transgression, but it also triggers positive, pro-relationship responses. Moreover, unlike some of the repair mechanisms, forgiveness as an *intra*-personal process does not require stimuli such as an apology, explanation or amends on behalf of the transgressor. Even though these actions can certainly enhance forgiveness, an individual can fully forgive an offence in the absence of these acts. Lastly, most of the previously mentioned repair mechanisms imply that the relationship is restored to the pre-transgression state. Forgiveness, on the other hand, does not imply reconciliation with the transgressor. It is possible to completely forgive a transgressor, and yet decide not to reconcile with them. Importantly, the forgiveness literature recognises the need to contextualise forgiveness (Fincham, 2015), so that the victim reconciles only those relationships that do not involve potential treats in the future. Considering that forgiveness is a superior maintenance strategy for workplace relationships, it is not surprising that research has recently began to address the notion of workplace forgiveness.

2.16 Workplace forgiveness

Aquino and colleagues have significantly contributed to the study of forgiveness in organisations. They defined interpersonal work forgiveness as “a process whereby an employee who perceives himself or herself to have been the target of a morally injurious offence deliberately attempts to (a) overcome negative emotions (e.g., resentment, anger, hostility) toward his or her offender and (b) refrain from causing the offender harm even when he or she believes it is morally justifiable to do so” (Aquino, Grover, Goldman, & Folger, 2003, p. 212). This conceptualisation is somewhat narrow in scope since it does not include the positive dimension proposed by Fincham’s (2000). That is, overcoming negative emotions and refraining from revenge is likely to bring the relationship to the neutral rather than positive state. Nevertheless, Aquino et al.’s (2003) definition resonates with the conceptualisation by Rusbult et al. (2002) in that forgiving takes place when the

transgression has a *moral* character. In spite of these efforts, Fincham's (2000) conceptualisation of forgiveness in close relationships is equally applicable in the context of workplace relationships.

Bradfield and Aquino (1999) were among the first to propose and test a model that depicts forgiveness in organisations. The model draws upon theories of cognitive attribution and consistency, and theories of revenge in organisations to describe the process by which a personal offence leads to revenge and forgiveness cognitions and behaviour. Furthermore, Aquino et al. (2001) investigated the relationships between blame, victim and offender status leading to the reconciliation following a personal offence. In a later study, Aquino et al. (2006) found that procedural justice climate moderated the effect of organisational variables on the victim's revenge, forgiveness, reconciliation and avoidance behaviours. In their vigilant model of justice, Tripp et al. (2007) proposed that serving justice can enhance the possibility of forgiveness and reconciliation and minimise the possibility of revenge and avoidance. In a similar vein, Bobocel (2013) found that perceiving one's organisation as a fair entity facilitated forgiveness among those with strong other-oriented organisation and suppressed revenge among those with strong self-concern.

Even though organisational justice seems to have been a dominant theme in the study of workplace forgiveness, new research directions have emerged. Namely, scholars investigated the role of apologies in forgiveness of workplace offences (e.g., Basford et al., 2014; Byrne et al., 2013; Hill & Boyd, 2015; Zheng, Van Dijke, Leunissen, Giurge, & De Cremer, 2016). Zdaniuk and Bobocel (2015) showed that idealised influence leaders could facilitate employees' positive responses to workplace mistreatment. Andiappan and Treviño (2011) proposed a future-oriented model that focuses on the reconciliation of the supervisor-subordinate relationship after a workplace injustice. Mok and De Cremer (2015) found that forgiveness can be influenced by generalised modes of information processing, which are temporarily activated by previous tasks. In spite of these efforts, scholarly understanding of forgiveness mechanisms at the individual level is far from complete. Therefore, future studies should explain how and under what circumstances forgiveness unfolds at the individual level in organisations. Moreover, studies should investigate the outcomes of forgiveness in organisations.

Recently, scholars have called for conceptualising forgiveness at higher organisational levels (Fehr & Gelfand, 2012; Palanski, 2012). In their forgiving organisation framework, Fehr and Gelfand (2012) define forgiveness climate as “the shared perception that emphatic, benevolent responses to conflict from victims and offenders are rewarded, supported and expected in organisations” (Fehr & Gelfand, 2012, p. 666). They view forgiveness climate as an embodiment of behaviours that are perceived by the employees and supported by the organisation (Schneider, Ehrhart, & Macey, 2011). According to Fehr and Gelfand (2012), forgiveness climates are most likely to emerge from three core cultural values, namely, restorative justice, compassion and temperance which are further institutionalised by leader attributes and organisational practices. In addition to gaining a comprehensive understanding of forgiveness at the organisational level, future studies should also consider the impact of forgiveness climate on an individual’s forgiveness.

2.17 Integration of LMX theory and Forgiveness

Thomas et al. (2013a) proposed that the integration of the theoretical concepts and methodologies from the close relationships literature with relationship-based approaches to leadership can deepen the understanding of leader-follower relationships. A close relationship is defined “...as close to the extent that it endures and involves strong, frequent, and diverse causal interactions” (Clark & Reis, 1988). Thomas et al. (2013a) draw a parallel between close relationships and leader-follower relationships by emphasising that *interdependence* between partners in both relationships affects interaction process (Kelley et al., 1983). Furthermore, they note that some of the most common interaction properties studied as indicators of a close relationship include partners’ frequent mutual influence (e.g., emotions, cognitions, actions), the diverse influence (i.e., through different types of behaviours and not one in particular), and the tendency of the interactions to continue in time. Nevertheless, Thomas et al. (2013a) suggest that closeness is not to be merely averaged with the intensity and positivity of affect experienced in relationship interactions (Berscheid & Reis, 1998). Rather, it involves both friendly and hostile relationships that are most important to people (Clark & Reis, 1988). This conceptualisation of closeness, according to Thomas et al. (2013a), suggests that

“the leader-follower relationships share many, if not all, of the defining characteristics of a close relationship” (p. S64).

Thomas et al. (2013a) argued that a type of close relationship most comparable to a good leader-follower relationship is that of a close friendship. In their view, a good quality relationship between a leader and follower, as is the case with close friendships, embodies high trust, mutual influence, reciprocal liking, mutual disclosure of privileged information, responsiveness, harmonised plans and goals, various kinds of support and a recognition of the uniqueness of the relationship (Berscheid & Reis, 1998; Boyd & Taylor, 1998; Fehr, 2008). However, Thomas et al. (2013a) recognised that the key differences between close (non-work) relationships and leader-follower relationships include power relations, voluntariness of interaction and goal instrumentality (Ferris et al., 2009; vanLear et al., 2008). Thomas et al. (2013a) further noted that these distinctions might not be as explicit since many non-work close relationships can also differ in terms of power relations (e.g., friendships vary in status) and the voluntariness of interactions (e.g., parent-child relationships). Moreover, self-expansion is a primary motivation for establishing close relationships as they provide access to other’s resources, skills, networks, abilities, insights, perspectives, identities, and the like (Aron et al., 1991; Lewandowski & Ackerman, 2006). Therefore, non-work close relationships, like leader-follower relationships, can enable individuals to reach their goals (Thomas et al., 2013a).

The leader-follower relationship evolves within a specific context; therefore, some of the conditions influencing the behaviour of leaders and followers may exist mainly or even exclusively within the work context (Thomas et al., 2013a). Accordingly, certain features of the leader-follower relationship may be better explained by existing leadership theories (e.g., LMX) than generic relationship science theories (Thomas et al., 2013a). Overall, there are more similarities than differences between close non-work and leader-follower relationships (Martin et al., 2010). Thomas et al. (2013a) note that the generic base of knowledge from relationship science pertinent to all relationship types (Berscheid, 1994) could be successfully applied to the leader-follower relationships.

Recently, it has been suggested that mechanisms from the investment model could be observed in LMX relationships (Epitropaki, Martin, & Thomas, 2016; Thomas et al., 2013a). Namely, high-quality LMX relationships are likely to nurture high levels of dependence and high levels of

relationship commitment (i.e., intent to persist, long-term orientation and psychological attachment) which is likely to facilitate the transformation of motivation and trigger relationship maintenance acts. Indeed, a follower and a leader depend upon each other for a variety of resources including affiliation, service, goods, money, information, and status (Wilson et al., 2010). In contrast, leaders and followers in low-quality LMX relationship are likely to view less dependence upon and commitment to one another. This is likely to impede the transformation of motivation and constrain relationship maintenance behaviour.

According to Epitropaki et al. (2016), interdependence theory is appropriate for explaining the process of LMX development for at least two reasons. First, both the investment model and LMX theory are extensions of social exchange theory (Blau, 1964), which implies that their perceptions of relationships are influenced by the principles of social exchange and reciprocity. As noted by Rusbult and Buunk (1993), all social exchange theories share the basic principle that individuals initiate and maintain relationships at least partly because of the benefits of interactions in a relationship (Blau, 1964; Homans, 1961). As previously noted, self-expansion is a primary motivation for establishing close relationships (Thomas et al., 2013a).

Second, the investment model is appropriate since relationship maintenance behaviour is mainly driven by juxtaposed roles of self-interest and partner interest (Epitropaki et al., 2016). Other close relationship theories acknowledge the importance of self-interest as a source of relationship motivation by proposing that in close committed relationships people either assume a communal position where they decide to sacrifice their self-interest to meet their partners' needs (Clark & Mills, 1979), or that self-interest and partner interests become largely merged and indistinguishable (Aron & Aron, 1997). Investment theory, on the contrary, suggests that self-interest is significant for motivating relationship maintenance acts (Rusbult et al., 2001). Namely, partners in highly interdependent relationships are willing to surrender their immediate short-term interests in order to achieve the longer term interests of both the self and the relationship. The fact that partners engage in positive acts, in spite of the knowledge that such behaviour often is antithetical to their self-interest, is exactly what gives the meaning to positive behaviour (Rusbult et al., 2001). Therefore, pro-relationship motivation which is beneficial both for the self and the partner occurs because of, not in

spite of, self-interest (Epitropaki et al., 2016). Consistent with this view, the investment model is superior for depicting leader-follower relationships in which the self-interest of leaders and followers seems to be an important source of pro-relationship motivation (Epitropaki et al., 2016).

Empirical studies have only recently begun to integrate research on leadership with research on forgiveness (e.g., Stouten & Tripp, 2009; Zdaniuk & Bobocel, 2015). The only published study that has incorporated the concepts of forgiveness and LMX within the same framework is that of Basford et al. (2014). Namely, Basford et al. (2014) investigated how followers evaluate leader apologies and how these perceptions influence work-related outcomes. Specifically, this study examined leader trustworthiness and its impact on subsequent leader apology, perceived humility and perceived transformational leadership. This serial multiple mediation, in turn, influenced the outcomes of trust in leader, satisfaction with supervision, LMX relationship quality and organisational commitment. Forgiveness was shown to mediate the link between leader apology and the outcomes including LMX. Nevertheless, since apology was viewed as a “forgiveness-seeking strategy” (Waldron & Kelley, 2008, p. 112), forgiveness granted following the act of apology is facilitated by the very expression of regret and thus constitutes an *inter*-personal process.

The current thesis, in contrast, conceptualises forgiveness as an *intra*-personal process (Fincham, 2000) that does not require a specific act by the transgressor in order to unfold. Additionally, the study by Basford et al. (2014) considered forgiveness and LMX to be the consequences of leader trustworthiness, a construct from the rich trust literature. The current research, on the other hand, is among the first to investigate the influence of LMX on forgiveness and its outcomes, integrating thus LMX theory with the forgiveness literature, in particular. Even though the current thesis provides novel insights into mediating and moderating mechanisms of forgiveness in LMX relationships, future studies should address the numerous gaps in the cross-fertilisation of these two literatures. Doing so will not only inform the LMX literature by demonstrating that once established, high-quality LMX relationships are vulnerable to transgressions but will also inform the close relationships literature in terms of the contextual influence on forgiveness which has been underresearched in relationship science (Maio et al., 2008).

In summary, leader-follower relationships are susceptible to interpersonal offences, as is the case with close personal relationships. High-quality LMX relationships are similar to friendships in that they both encompass high investments and mutual benefits. Forgiveness is considered to be a superior relationship maintenance strategy since, in addition to diminishing negative responses, it also encourages pro-relationship responses. The mechanisms that underlie forgiveness in close relationships are likely to occur in LMX relationships, based on the assumption of generic relationship knowledge (Thomas et al., 2013a). The integration of LMX theory, model of forgiveness in close relationships (Braithwaite et al., 2011), and the framework of relationship maintenance mechanisms (Rusbult et al., 2001) is likely to enhance our understanding of forgiveness in LMX relationships and its outcomes. Therefore, the next chapter introduces a conceptual model that explains mediating and moderating mechanisms of forgiveness in LMX relationships and delineates its outcomes.

CHAPTER 3: CONCEPTUAL MODEL DEVELOPMENT

This chapter describes the process of forgiveness in LMX relationships and its outcomes. The chapter provides the rationale for integrating LMX theory, the relationship maintenance model (Rusbult et al., 2001), and the mediating model of forgiveness in close relationships (Braithwaite et al., 2011). Drawing upon the mechanisms from these frameworks, and referring to the empirical findings, the chapter identifies LMX and forgiveness as antecedents of relational efforts. Furthermore, a serial multiple mediation process involving forgiveness and relational efforts is discussed. Moreover, job satisfaction and well-being are depicted as outcomes of relational efforts. The chapter then identifies relationship self-efficacy and LMXSC as moderators of the forgiveness process. Finally, the integration of mediating and moderating mechanisms is discussed. The chapter closes with a conceptual model and a summary of the thesis hypotheses.

3.1 Antecedents of relationship efforts: LMX relationship quality and forgiveness

Considering the ubiquity of interpersonal transgressions in organisations, it is important to understand what influences relationship repair process between leaders and subordinates. Forgiveness, defined as a prosocial change toward the offender (McCullough et al., 2000), may facilitate relationship repair as it promotes pro-relationship responses after an offence (e.g., Fincham & Beach, 2002; Karremans & Van Lange, 2004). A dual nature of forgiving involves reducing negative motivations and increasing positive ones (Fincham et al., 2005). Namely, the freely chosen prosocial motivation enables a victim to overcome the desire to seek revenge and avoid contact with a transgressor, and, instead, to expand positive thoughts, feelings and behaviours (Fincham, 2000; Worthington & Scherer, 2004). Therefore, forgiveness can be conceptualised in terms of the transformation of motivation since it involves broader considerations, such as pursuit of relationship well-being or the willingness to promote both one's own and a partner's well-being (Karremans et al., 2003). As implied earlier, the interdependent nature of LMX relationships provides a unique relationship context for studying forgiveness and the relationship repair process. This section

integrates the findings from the research on forgiveness in close relationships with research on LMX in order to predict the antecedents of relational efforts following a transgression.

According to the investment model (Rusbult, 1980), relationship satisfaction level, quality of alternatives, and investment size generate dependence upon the relationship. These three components of dependence could also be observed in LMX relationships. First, features of high quality LMX relationship such as high trust, loyalty and feelings of liking and respect (Graen & Uhl-Bien, 1995) are likely to generate high levels of relationship satisfaction. Second, non-voluntariness of interaction in LMX relationships makes the quality, or rather, the availability of alternatives low both for leaders and followers. Namely, the nature of relationships in organisations restricts employees' free choice of their co-workers, leaders and subordinates. Third, the increase in resources that the leader and member exchange over time in a high-quality LMX relationship (e.g., information, rewards, performance) is comparable to the growth of investments that partners make in their relationship over time (e.g., identity, mutual friends, material goods). As the satisfaction level and investment size increase and the quality of alternatives decrease in LMX relationships, a leader and a member become dependent on one another. Dependence generates the psychological experience of commitment which encompasses the intent to persist, long-term orientation and psychological attachment. Commitment, in turn, facilitates the transformation of motivation which involves moving away from given preferences based on immediate self-interests and instead acting on the basis of broader considerations. Subsequently, leaders and followers engage in relationship maintenance behaviour. Nevertheless, dependency seems to be greater for followers than leaders because of the inherent power differential (Snodgrass, Hecht, & Ploutz-Snyder, 1998). Therefore, the LMX relationship repair process has been examined considering follower's perspective in the present research.

Given that forgiveness involves pro-relationship transformation, it seems that an important determinant of forgiveness is the level of relational commitment (Fincham & Beach, 2013; McCullough, 2000; McCullough et al., 1998; Rusbult et al., 2001). Indeed, abundant empirical evidence shows that these two constructs are positively related (Finkel et al., 2002; Karremans et al., 2003; McCullough et al., 1998). In their meta-analysis, Fehr et al. (2010) reported a positive relationship between commitment and forgiveness with a mean weighted average correlation of .23

across seventeen studies. Experimental evidence suggests that highly committed individuals seem to be more motivated to forgive because of their intention to persist in the relationship (Finkel et al., 2002). According to Fincham and Beach (2013), it is possible that the effects run in the opposite direction. That is, after a relational transgression, forgiveness has to occur so that damaged closeness and commitment can be restored. Indeed, it is hard for the hurt individual to feel close to his or her transgressing partner if he or she still harbours a grudge about the offence (Fincham & Beach, 2013). Consistent with this reasoning, Tsang et al. (2006) found longitudinal evidence that forgiveness promotes restoration of closeness and commitment in relationships.

Research along this line of inquiry has demonstrated that relationship satisfaction and relationship closeness also positively affect forgiveness. Maio, Thomas, Fincham, and Carnelley (2008) found that forgiveness in a family dyad was uniquely associated with relationship quality and relationship closeness. Furthermore, a meta-analytic study found a positive association between relationship satisfaction and forgiveness; the weighted mean correlation of .28 was based on twelve studies including 1,814 participants. Additionally, numerous studies showed a positive association between relationship satisfaction and forgivingness. Namely, meta-analytic evidence involving twenty-one studies showed that the weighed mean correlation was .32 (Fehr et al., 2010). It seems that this relationship is bidirectional as marital quality predicts later forgiveness (Paleari et al., 2005) and forgiveness predicts later marital satisfaction (Fincham & Beach, 2007).

As discussed previously, LMX relationships, like close relationships, are characterised by high levels of dependence which is based on the level of satisfaction with relationship, poor quality of alternatives and the size of investments. Since high-quality LMX relationships are characterised by high levels of dependence and thus high levels of relationship commitment, members in high-quality LMX relationships are more likely to reach the transformation of motivation and forgive leader's transgression. On the other hand, followers in low-quality LMX relationships are likely to feel less dependent upon the leader, less likely to feel committed to the relationship and thus less likely to reach the transformation of motivation and forgive. Therefore,

Hypothesis 1: The quality of follower's LMX relationship will be positively related to follower's forgiveness.

Since forgiveness not only inhibits negative responses but also promotes goodwill toward the transgressor, Braithwaite et al. (2011) examined both of these dimensions as mediators of association between tendency to forgive and relationship satisfaction. Specifically, Braithwaite et al. (2011) examined the relative absence of negative behaviour, or negative conflict tactics, and the presence of positive behaviour, or behavioural regulation. Initially, the objective of the present study was to investigate both mediating mechanisms in LMX relationship repair process. However, since participating organisations were not comfortable with questions referring to negative behaviour, the present study only examines positive behaviour as potential mediator.

As noted previously, Kelley and Thibaut (1978) introduced the concept of transformation of motivation, a relationship-specific form of self-regulation where a partner constrains responses that maximise their own short-term interests and, instead, responds in ways that maximise long-term relationship goals. In the broader psychological literature, self-regulation has been conceptualised as adjusting behaviour to constrain a dominant response, usually for the sake of longer term goals (Muraven & Baumeister, 2000). Expanding these two ideas, Wilson et al. (2005) introduced the concept of *behavioural self-regulation* in romantic relationships. Contrary to previous conceptualisations of self-regulation which comprehensively target behaviour, affect and cognition, Wilson et al. (2005) specifically referred to behaviour that displays a voluntary effort to improve one's romantic relationship.

Participants in LMX relationships, like partners in close relationships, are prone to experiencing the transformation of motivation following a transgression. Since forgiveness activates positive responses following a transgression, it is not surprising that individuals with high tendency to forgive are more likely to self-regulate in order to improve their relationship (Braithwaite et al., 2011). Therefore, it is expected that followers who are more likely to forgive transgressions in their LMX relationship are subsequently more likely to engage in relationship efforts. Hence,

Hypothesis 2: Greater levels of follower's forgiveness will be positively related to follower's efforts into maintaining the relationship with their leader.

3.2 Outcomes of relationship efforts: Job satisfaction and subjective well-being

The outcomes of forgiveness in organisations have recently received scholarly attention. For example, Cox (2011) examined the relationship between the specific aspects of forgiveness climate and individual's willingness to forgive. In addition, she investigated the impact of willingness to forgive on organisational outcomes. Interestingly, Cox (2011) found that one's willingness to forgive was positively associated with one's job satisfaction. According to a widely accepted definition, job satisfaction is a work-related attitude that reflects the degree to which an employee evaluates certain aspects of their job such as co-workers, the supervisor, career opportunities, the organisation and working conditions, as beneficial to him or her (Hausknecht, Hiller, & Vance, 2008; Locke, 1976; Schleicher, Watt, & Greguras, 2004; Weiss, 2002). Consequently, relationship with one's supervisor seems to be an important determinant of one's job satisfaction.

A study of forgiveness in close relationships found that the tendency to forgive a romantic partner increases relationship satisfaction via increased relational effort (Braithwaite et al., 2011). Previously, it was argued that high-quality LMX relationships are similar to close relationships since both involve high levels of dependence and commitment. Given that relational efforts in close relationships enhance relationship satisfaction, and considering the fact that satisfaction with supervisory relationship contributes to one's job satisfaction, it is proposed that relational efforts in LMX relationships will increase one's job satisfaction. Therefore,

Hypothesis 3a: Follower's efforts into maintaining the relationship with their leader will be positively related to follower's job satisfaction.

Subjective well-being is viewed as a broad category of phenomena that includes people's emotional responses, domain satisfaction and global judgements of life satisfactions (Diener, Suh, Lucas, & Smith, 1999). Different aspects of this multifaceted construct include state self-esteem, positive affect, negative affect and life satisfaction. Whereas self-esteem refers to a cognitive evaluation of the self (Rosenberg, 1979), and life satisfaction to a cognitive evaluation of one's life situation, moods and emotions, together labelled as affects, refer to people's evaluations of events that occur in their lives (Diener et al., 1999).

Numerous studies in the counselling and close relationships literature have showed that forgiveness leads to better psychological well-being (Bono, McCullough, & Root, 2008; Brown, 2003; Freedman & Enright, 1996; Muñoz Sastre, Vinsonneau, Neto, Girard, & Mullet, 2003; Toussaint et al., 2015). Indeed, forgiveness affects mental and physical health because it restrains negative responses and facilitates beneficial emotion regulation processes (McCullough et al., 2009; Thayer & Lane, 2000; Witvliet & McCullough, 2005). In their review, Worthington and Scherer (2004) showed that unforgiveness is accompanied with many negative physical changes linked to stress such as changes in hormonal patterns, in the sympathetic nervous system, in blood chemistry, and in brain activity. For instance, the blood pressure and heart rate increase when individuals recall a transgression they have not forgiven, compared to recalling transgression that they have forgiven (Lawler et al., 2003; Witvliet et al., 2001). In particular, failures to forgive close relationship partners can result in “psychological tension” (Karremans et al., 2003) leading to reduced life-satisfaction and self-esteem and an increase in negative affect (McCullough et al., 2009).

The positive association between forgiveness and well-being was recently corroborated by a meta-analysis. Namely, meta-analytic evidence based on 22 studies involving 4,510 participants found a negative significant relationship between forgiveness and depression ($r = -.26$, Riek & Mania, 2012). As anticipated, higher levels of forgiveness were associated with greater life satisfaction ($r = .25$, 11 studies, 2,984 participants) and reported positive affect ($r = .32$, 9 studies, 1,502 participants, Riek & Mania, 2012). Likewise, negative links were found between forgiveness and anxiety ($r = -.18$), forgiveness and perceived stress ($r = -.23$), and forgiveness and negative affect ($r = -.47$, Riek & Mania, 2012).

Using principles of interdependence theory, Karremans et al. (2003) proposed that the link between forgiving and psychological well-being could be explained by interpersonal commitment, defined as intent to persist, long-term orientation, and psychological attachment (Rusbult, 1983). The results showed significant interactions of forgiving and commitment on psychological well-being. Nevertheless, forgiveness was only associated with psychological well-being when commitment was strong but not when commitment was weak. These results were observed across conceptually and

empirically distinct measures of psychological well-being: state self-esteem, positive affect, negative affect and life satisfaction.

The previous discussion suggests that high quality LMX relationships entail high levels of commitment and dependence, as it is the case in close relationships. Given that forgiveness in close relationships leads to enhanced subjective well-being (Karremans et al., 2003; Riek & Mania, 2012) and seeing that relational effort mediates the link between forgiveness and relationship satisfaction (Braithwaite et al., 2011), it is proposed that relational efforts in LMX relationships will lead to increased subjective well-being. Specifically, relational effort will increase state self-esteem, positive affect and satisfaction with life and will decrease negative affect. Accordingly,

Hypothesis 3b: Follower's efforts into maintaining the relationship with their leader will be positively related to follower's state self-esteem.

Hypothesis 3c: Follower's efforts into maintaining the relationship with their leader will be positively related to follower's positive affect.

Hypothesis 3d: Follower's efforts into maintaining the relationship with their leader will be negatively related to follower's negative affect.

Hypothesis 3e: Follower's efforts into maintaining the relationship with their leader will be positively related to follower's satisfaction with life.

3.3 Serial multiple mediation: Forgiveness and relationship effort

According to Martin et al. (2010), the positive association between a high LMX quality relationship and employee job satisfaction is well-documented (e.g., Aryee & Chen, 2006; Epitropaki & Martin, 2005; Lapierre & Hackett, 2007; Liden, Wayne, & Sparrowe, 2000; Major, Kozlowski, Chao, & Gardner, 1995; Mardanov, Heischmidt, & Henson, 2008; Martin et al., 2005; Masterson, Lewis, Goldman, & Taylor, 2000; Murphy & Ensher, 1999). In the current thesis, it is suggested that the positive influence of LMX relationship on job satisfaction is indirect, mediated through follower's forgiveness and relational efforts in sequence. As noted previously, LMX relationships are comparable to close relationships in that they both entail high levels of commitment that facilitate follower's transformation of motivation and lead to forgiveness. Recently, it was found that

willingness to forgive in an organisational context was positively associated with job satisfaction (Cox, 2011). Research in close relationships found that the association between forgiveness and relationship satisfaction was mediated by relational efforts (Braithwaite et al., 2011). In the light of the above, it is predicted that a high quality LMX relationship will positively affect forgiveness which will, in turn, increase follower's relational efforts. Increased relational efforts will subsequently be associated with enhanced follower's job satisfaction. Therefore,

Hypothesis 4a: The quality of follower's LMX relationship will indirectly influence follower's job satisfaction via forgiveness, which will in turn influence relationship effort.

In their review, Martin et al. (2010) note the positive relationship between a high LMX quality relationship and well-being (e.g., Bernas & Major, 2000; Epitropaki & Martin, 1999; Martin et al., 2005; Sparr & Sonnentag, 2008). Following the preceding discussion, the association between LMX and subjective well-being relationship is expected to be indirect, operating through follower's forgiveness and relational efforts. Karremans et al. (2003) found that forgiveness was associated with enhanced subjective well-being in cases when partners were highly committed. Braithwaite et al. (2011) showed that forgiveness in close relationships was positively associated with relational efforts. Using the principles of the investment model, close relationships could be equated with high quality LMX relationships. Consequently, forgiveness in high-quality LMX relationships will be positively associated with relational efforts, which will in turn lead to increased state self-esteem, positive affect and satisfaction with life and decreased negative affect. Accordingly,

Hypothesis 4b: The quality of follower's LMX relationship will indirectly influence follower's state self-esteem via forgiveness, which will in turn influence relationship effort.

Hypothesis 4c: The quality of follower's LMX relationship will indirectly influence follower's positive affect via forgiveness, which will in turn influence relationship effort.

Hypothesis 4d: The quality of follower's LMX relationship will indirectly influence follower's negative affect via forgiveness, which will in turn influence relationship effort.

Hypothesis 4e: The quality of follower's LMX relationship will indirectly influence follower's satisfaction with life via forgiveness, which will in turn influence relationship effort.

3.4 Three-way interaction: Relationship-self efficacy and LMXSC

The capacity for self-regulation is one of the key features of human agency in social cognitive theory (Bandura, 2001). Perceived self-efficacy takes a central role in this process of self-management as it involves “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). Self-efficacy beliefs are “can do” beliefs since they affirm that one has sufficient power and skills to achieve desired outcomes by one’s actions (Bandura, 1997). Irrespective of one’s actual knowledge and skill, without a strong belief that one “can do” behaviours required to succeed, one is easily overcome by setbacks, limitations, negative feedback from others, and other challenges. One’s self-beliefs that outcomes can be obtained through actions impact one’s selection of goals, expectations of goal achievement, and persistence in response to difficulties (Riggio et al., 2013).

In the close relationship literature, relationship self-efficacy is defined as an individual’s belief that he or she can exhibit the behaviour needed to resolve conflict in intimate relationships (Doherty, 1981). These types of beliefs may be essential for functioning in close relationships due to ubiquity of interpersonal transgressions. Indeed, individuals who believe that their behaviour can contribute to relationship satisfaction are effective in maintaining their relationships. When faced with relationship challenges, these individuals show willingness to persist. Furthermore, these individuals engage in behaviours that demonstrate commitment to relationships and view relationship satisfaction as an achievable goal (Bandura, 1997; Riggio et al., 2013).

The close relationships literature has shown the association between self-efficacy and positive relationship outcomes. Namely, efficacy beliefs indirectly influence relationship quality due to their diminishing impact on conflict behaviour (Bradbury & Fincham, 1990; Cui, Fincham, & Pasley, 2008; Fincham & Bradbury, 1987). Furthermore, there is a robust relationship between efficacy and marital quality (Fincham, Harold, & Gano-Phillips, 2000). Likewise, efficacy is associated with relationship satisfaction in college student relationships (Egeci & Gencoz, 2006; Lopez, Morúa, & Rice, 2007). Additionally, the notion of self-efficacy was examined by management scholars who found the association between LMX relationship quality and self-efficacy. Walumbwa, Cropanzano, and Goldman (2011) found that LMX relationship quality enhances subordinate’s self-

efficacy which in turn improves job performance. Liao, Liu, and Loi (2010) showed that LMX affects self-efficacy, which, in turn, increases employee creativity. Elias, Barney, and Bishop (2013) found that the effect of generalised self-efficacy on LMX is mediated by work self-efficacy.

Considering the notion of relationship self-efficacy in the LMX context, it is likely that followers high on self-efficacy will have strong beliefs that they can execute behaviours needed to achieve the desired outcomes. These beliefs will facilitate the transformation of motivation, and will subsequently enhance forgiveness. On the other hand, followers low on relationship self-efficacy might not have strong beliefs that they can display behaviours needed to attain the desired outcomes. Consequently, this might impede their transformation of motivation and subsequent forgiveness. Nevertheless, self-efficacy as an actor-specific disposition might not be the only boundary condition influencing follower's forgiveness due to uniqueness of LMX context.

As noted previously, leaders treat and thus develop different quality relationship with their subordinates, referred to LMX differentiation (Liden et al., 2006). According to Social Comparison Theory, individuals tend to self-evaluate and learn about themselves by comparing their attributes, abilities and performance with others' qualities. Social comparison process occurs when there is a lack of objective means against which individuals can understand their own state in a social context (Festinger, 1954). Members of a group who have regular interactions, access to similar organisational resources and work interdependently on relevant tasks are likely to engage in social comparison (Tse et al., 2008).

Since followers observe the leader's treatment of other members in the work group, they are likely to evaluate whether they or their co-worker are closer to or more distant from the leader (Vidyarthi et al., 2010). The comparison between one's own LMX and that of co-workers is referred to as LMX social comparison, or LMXSC (Vidyarthi et al., 2010). The notion of LMXSC should be distinguished from RLMX, i.e., Relative Leader-Member Exchange (Henderson et al., 2008). Namely, LMXSC involves followers' subjective evaluation and is obtained directly from focal employees. In contrast, RLMX denotes the actual degree to which the follower's LMX differs from the average LMX relationship in the work group and thus represents objective information (Hu & Liden, 2013).

As noted by Thomas et al. (2013a), LMXSC is likely to influence evaluation of one's relationship and subsequent cognition, affect, and behaviour. Indeed, Vidyarathi et al. (2010) showed that LMXSC fully mediated the relationship between LMX variation and OCB and partially mediated the association between LMX variation and job performance. Furthermore, Henderson, Wayne, Shore, Bommer, and Tetrick (2008) found that psychological contract fulfilment mediated the relationship between RLMX and the outcomes of performance and sportsmanship behaviours. Moreover, Tse, Ashkanasy, and Dasborough (2012) demonstrated that RLMX was positively related to social identification after controlling for perceptions of LMX. Additionally, they found that social identification mediated the relationship between RLMX and job performance (Tse et al., 2012).

Thus far, LMX scholars have perceived the social comparison process in terms of the downward comparison-feel good-perform better effect (Thomas et al., 2013a) which has also been the case in the present study. Namely, followers high on LMXSC perceive their relationship to be better than the average relationship quality the leader has with other followers. It is likely that these followers will feel more committed to the relationship which will, in turn, additionally trigger the transformation of motivation and further enhance their forgiveness. In contrast, followers low on LMXSC perceive their relationship to be similar to an average relationship the leader has within the group. It is likely that these followers will not feel additional commitment to the relationship which will not additionally trigger the transformation of motivation nor enhance their forgiveness further.

It is important to note that, theoretically, it is possible that followers who are in high LMX relationships can have low LMXSC. For instance, even though a follower may have a good quality relationship with the leader, this could also be the case with other followers within the work group. That is, the perceived quality of the follower's relationship is similar to the average relationship quality within the work group. Since there is not much difference between the two perceived values, follower's LMXSC is low. Likewise, it is possible that followers in low LMX relationships have high LMXSC. Namely, although a follower may not have a good quality relationship with the leader, the quality of other followers' relationships within the group may be worse. Consequently, the perceived quality of the follower's relationship would be better than the average relationship quality within the work group. The difference between these two perceived values yields high LMXSC. Nevertheless, it

is expected that high LMXSC will be interpreted as an additional display of commitment in relationships of high quality. Therefore, high LMXSC operates as a relationship-specific motive that additionally enhances follower's forgiveness.

The above discussion suggests that followers who are high on relationship self-efficacy and high on LMXSC are likely to be the most forgiving. This is due to their strong beliefs that they can display behaviours needed to achieve desired outcomes and their perception that the leader is more committed to their relationship compared to other relationships within the work group. These two processes are likely to cognitively mediate the transformation of motivation and thus enhance forgiveness. Therefore, the following three-way interaction is predicted:

Hypothesis 5: Follower's LMX relationship quality, relationship self-efficacy and LMXSC interact to affect follower's forgiveness in such a way that when follower's relationship self-efficacy and LMXSC are both high, LMX quality has the strongest positive relationship with follower's forgiveness.

Previously it was argued that followers in high-quality LMX relationships are more likely to forgive which is likely to lead to increased relational efforts. Additionally, it was suggested that followers in LMX relationships who are high on self-efficacy and high on LMXSC are likely to be the most forgiving. Taking these arguments together, forgiveness is expected to mediate the relationship between the three-way interaction and follower's relational efforts. Therefore,

Hypothesis 6: Follower's forgiveness mediates the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's relationship effort.

3.5 Integration of mediating and moderating mechanisms

Thus far two major processes in the conceptual model have been outlined. Namely, serial multiple mediation depicts the indirect effects of LMX relationship quality on job satisfaction and subjective well-being via enhanced forgiveness and relational efforts. Additionally, a three-way interaction between the LMX relationship quality, high levels of relationship self-efficacy and high levels of LMXSC is proposed to enhance follower's forgiveness. Integration of these two mechanisms suggests that followers in LMX relationships who are high on self-efficacy and high on LMXSC will

be more forgiving and thus will engage in more relational efforts that will result in enhanced job satisfaction and subjective well-being. Thus, it is proposed,

Hypothesis 7a: Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's job satisfaction in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's job satisfaction.

Hypothesis 7b: Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's state self-esteem in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's state self-esteem.

Hypothesis 7c: Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's positive affect in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's positive affect.

Hypothesis 7d: Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's negative affect in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest negative relationship with follower's negative affect.

Hypothesis 7e: Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's satisfaction with life in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's satisfaction with life.

The overall conceptual model is presented in Figure 3.01. A full list of thesis hypotheses is provided in Table 3.01. The following chapter will discuss the result of the field study.

Figure 3.01: Conceptual model

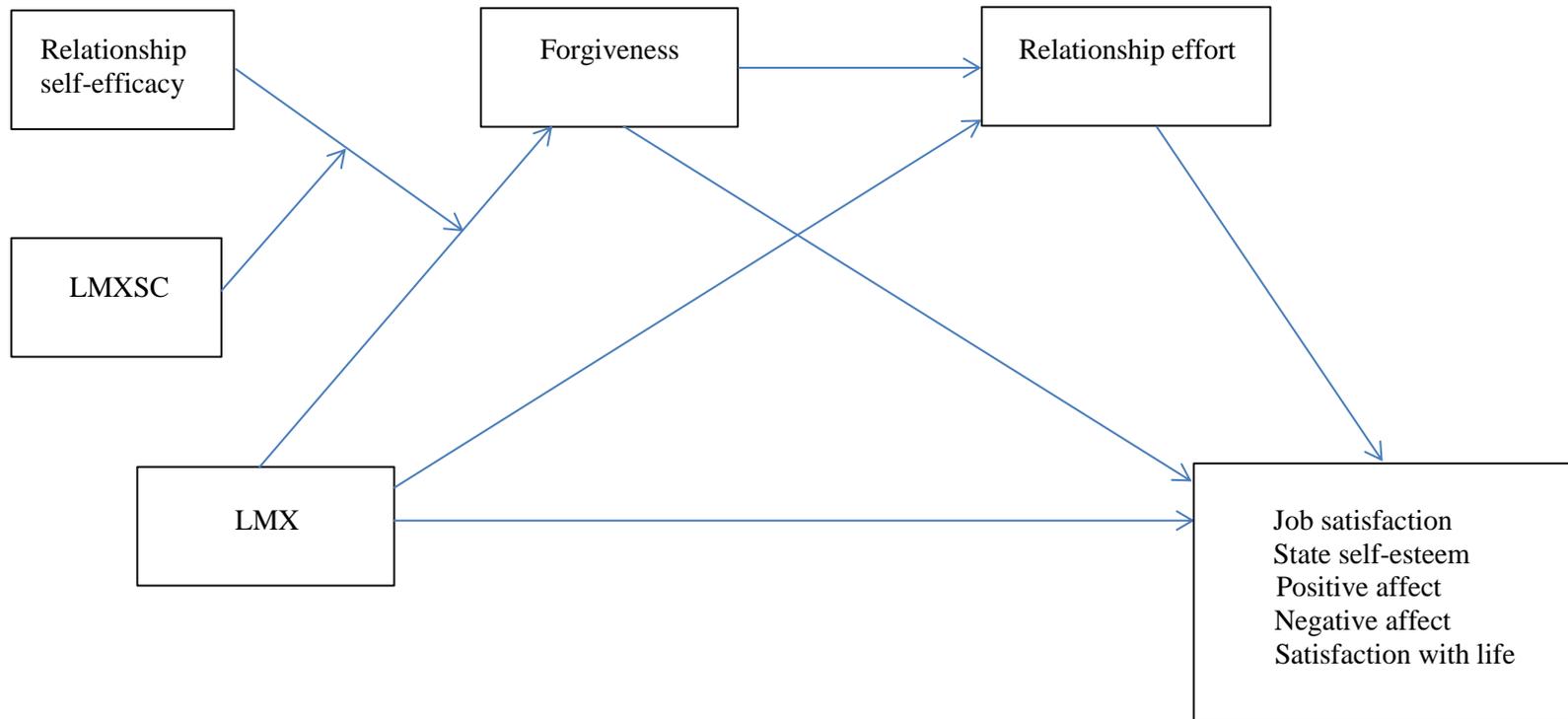


Table 3.01: A list of hypotheses

Hypothesis	Serial multiple mediation
H1	The quality of follower's LMX relationship will be positively related to follower's forgiveness.
H2	Greater levels of follower's forgiveness will be positively related to follower's efforts into maintaining the relationship with their leader.
H3a	Follower's efforts into maintaining the relationship with their leader will be positively related to follower's job satisfaction.
H3b	Follower's efforts into maintaining the relationship with their leader will be positively related to follower's self-esteem.
H3c	Follower's efforts into maintaining the relationship with their leader will be positively related to follower's positive affect.
H3d	Follower's efforts into maintaining the relationship with their leader will be negatively related to follower's negative affect.
H3e	Follower's efforts into maintaining the relationship with their leader will be positively related to follower's satisfaction with life.
H4a	The quality of follower's LMX relationship will indirectly influence follower's job satisfaction via forgiveness, which will in turn influence relationship effort.
H4b	The quality of follower's LMX relationship will indirectly influence follower's state self-esteem via forgiveness, which will in turn influence relationship effort.
H4c	The quality of follower's LMX relationship will indirectly influence follower's positive affect via forgiveness, which will in turn influence relationship effort.
H4d	The quality of follower's LMX relationship will indirectly influence follower's negative affect via forgiveness, which will in turn influence relationship effort.
H4e	The quality of follower's LMX relationship will indirectly influence follower's satisfaction with life via forgiveness, which will in turn influence relationship effort.
Three-way interaction/moderated mediation	
H5	Follower's LMX relationship quality, relationship self-efficacy and LMXSC interact to affect follower's forgiveness in such a way that when follower's relationship self-efficacy and LMXSC are both high, LMX quality has the strongest positive relationship with follower's forgiveness
H6	Follower's forgiveness mediates the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's relationship effort.

Conditional process modelling / Whole model

- | | |
|-----|--|
| H7a | Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's job satisfaction in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's job satisfaction. |
| H7b | Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's state self-esteem in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's state self-esteem. |
| H7c | Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's positive affect in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's positive affect. |
| H7d | Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's negative affect in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest negative relationship with follower's negative affect. |
| H7e | Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's satisfaction with life in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's satisfaction with life. |
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CHAPTER 4: THE FIELD STUDY

This chapter describes the method and the results of the field study. To begin with, the chapter provides an outline of the sample characteristics and measures used within the study. This is followed by a discussion of the study setting and procedures. Second, the preliminary results section describes data checking procedure, measurement evaluation, confirmatory factor analysis. Third, the key findings are discussed. Initially, the results are presented in a piecemeal approach using SPSS software and the five serial multiple mediator models are discussed. Furthermore, the results of the three-way interaction are presented. This is followed by the analysis of the four conditional process models using Mplus software which allowed the integration of serial multiple mediation and the three-way interaction processes. Subsequently, the most comprehensive analysis of the model which includes the four outcomes is discussed. The chapter ends with a discussion of results.

4.1 Method

4.1.1 Sample

The sample for this study consisted of 254 employees (full time 98.8%). The age of the employees ranged from 21 to 65; the average age was 43.18 (SD = 10.69). Of the sample, 165 were male (65%). The ethnicity of the sample was as follows: the majority of employees were white (94.9%), Asian (2%), mixed (1.2%), Black (0.4%), the remaining employees stated other (0.4%) or did not disclose the information (1.2 %). The average dyadic tenure was 3.73 years (SD=4.19).

4.1.2 Measures

Leader-Member Exchange (LMX). The quality of the leader-member exchange relationship was assessed with the LMX-7 scale originally developed by Scandura and Graen (1984), and later modified by Graen and Uhl-Bien (1995). Seven items asked respondents to rate the extent to which they felt that they had a good relationship with their leader. Higher scores indicated a high quality LMX relationship. Answers were made on a 7-point Likert scale ranging from 1=*strongly disagree* to

7= *strongly agree*. Cronbach's alpha was .92 and a sample item is "I feel I know where I stand with my team leader. I know how satisfied my team leader is with me". All scale items are available in Appendix A.

Forgiveness. Forgiveness was measured with a scale developed by Fincham, Beach, Lambert, Stillman, and Braithwaite (2008; study 3) which assessed forgiveness in romantic relationships (e.g., Braithwaite et al., 2011). For the purpose of the current research the scale was adapted to leader-follower context. Respondents rated nine items following the statement "When my team leader wrongs or hurts me..." on a 6-point Likert scale ranging from 1= *strongly agree* to 6=*strongly disagree*. Three items assessed avoidance, a sample item is "I tend to give him/her the cold shoulder", benevolence, a sample item is "I soon forgive my team leader", and retaliation, a sample item is "I find a way to make him/her regret it". Avoidance and retaliation items were reverse scored, Cronbach's alpha was .78.

Relationship self-efficacy. To assess respondents' beliefs about their ability to resolve relationship conflicts, perceived efficacy scale was used (Bradbury, 1989). Seven items were modified to refer to conflicts in the leader-follower relationship. Responses were made on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Cronbach's alpha was .83 and a sample item is "I have little control over the conflicts that occur between me and my team leader". Higher scores on the scale reflected higher levels of relationship self-efficacy.

Leader-Member Exchange Social Comparison (LMXSC). Follower's perceived comparison of their LMX with others in their group was assessed with a six-item scale developed by Vidyanthi et al. (2010). Answers were made on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7= *strongly agree*. Cronbach's alpha was .89 and a sample item is "I have a better relationship with my team leader than most others in my work group".

Relationship effort. The extent to which respondents made efforts in their relationships by regulating their behaviour in order to improve the quality of the relationship was assessed with Behavioural Self-Regulation for Effective Relationships Scale –Effort Scale (BSRERS-Effort) developed by Wilson et al. (2005). The six-item scale was modified to reflect leader-follower relationship with internal reliability of .80. Responses were made on a 5-point Likert scale ranging

from 1 = *not true at all* to 5 = *very true*, and a sample item is “If my team leader does not appreciate the change efforts I am making in our relationship, I tend to give up”.

Job satisfaction. Respondents’ satisfaction with their job was assessed with three items from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). Answers were made on a 7-point Likert scale ranging from 1=*strongly disagree* to 7= *strongly agree*. Cronbach’s alpha was .82 and a sample item is “All in all, I am satisfied with my job”.

Subjective psychological well-being. Psychological wellbeing was assessed with measures of *state self-esteem*, *positive affect*, *negative affect* and *satisfaction with life* in order to capture different aspects of this multifaceted construct (Diener et al., 1999; Karremans et al., 2003).

Self-esteem was assessed with the State Self-Esteem Scale (Heatherton & Polivy, 1991). The scale is composed of twenty items, responses were made on a 5-point Likert scale ranging from 1 = *not at all* to 5 = *extremely*. Cronbach’s alpha was .84 and a sample item is “I feel confident about my abilities”.

Positive affect and **negative affect** were assessed with the Positive Affect and Negative Affect Scale – PANAS (Watson, Clark, & Tellegen, 1988). The scale involves rating of ten positive feelings, e.g., “excited” (.83) and ten negative feelings, e.g., “scared” (.88). For each item, respondents were asked to report the degree to which the item described how they were feeling at that moment.

Satisfaction with life was assessed with a five item scale developed by Diener, Emmons, Larsen, and Griffin (1985). Responses were made on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*, a sample items is “In most ways my life is close to my ideal”.

Control variables. A number of demographic questions were included in the questionnaire. Participants indicated their gender, their age in years and their dyadic tenure with the current leader in months. Individual culture was measured by assessing collectivism, power distance and uncertainty avoidance. Responses were made on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree* (Dorfman & Howell, 1988). Collectivism was assessed with a six-item subscale that showed a good internal reliability (.78), a sample item is “Group success is more important than individual success”. Cronbach’s alpha of a six-item power distance subscale was .73; a sample item is

“Managers should avoid off-the-job social contacts with employees”. Uncertainty avoidance subscale consisted of five items (.82), a sample item is “Managers expect employees to closely follow instructions”. Social desirability was measured with a short form of Marlowe-Crowne Social Desirability Scale developed by Reynolds (1982). Respondents were asked to indicate whether each of ten items was *true* or *not true* for them. Cronbach’s alpha was .65 and a sample item is “I always try to practice what I preach”.

4.1.3 Study setting and procedure

This research used quantitative methodology in the form of a cross-sectional survey design. After being granted ethical approval by the Research and Ethics Committee, the research proposal was sent to a number of organisations in the UK and Serbia. The researcher used her network of personal contacts to communicate the research. The research proposal provided a brief overview of the intended aims of the research. Furthermore, the proposal outlined the intended benefits to the participating organisations, and data collection procedure. Lastly, the document provided ethical assurances regarding confidentiality.

The research was conducted in organisations in four countries including Serbia, the UK, Australia and Greece. The Serbian sample consisted of three organisations; two were from the public sector and the third was a private sector organisation. The UK sample consisted of three organisations; two were from a private sector and the third organisation was from a not-for profit sector. An Australian organisation belonged to the public sector and a Greek organisation belonged to the private sector. Overall, the four organisations from the public sectors provided services in the field of transport, management, research and construction. The three organisations from the private sectors provided consulting services in the fields of IT, project management and finance. The non-for profit organisation worked in the field of poverty eradication.

The data were collected in accordance with the University Research Ethics Regulations and Procedures. Participants were informed that taking part in the research was voluntary and that they could withdraw from completing the survey at any point without providing a reason, which would not have negative consequences on their employment. Furthermore, participants were provided with study

background and advantages for employees and the organisation. Participation was not compensated with any monetary or non-monetary rewards and the study did not use any mean of deception. Data collection was coordinated with the Human Resources Managers of the participating organisations.

The link to an online survey was sent out to employees in seven out of eight participating organisations by the researcher. The first page of the questionnaire provided a brief description of the research, expected completion time, assurance of confidentiality, and to whom the results will be reported and for what purposes. The first page required respondents to tick a box to confirm that they give their informed consent to participate in the research. In the remaining organisation, paper-based questionnaire was distributed by the researcher. Since several studies have shown that there is no significant difference in the psychometric properties of scales administered via paper-based or online surveys (Cole, Bedeian, & Feild, 2006; Epstein, Klinkenberg, Wiley, & McKinley, 2001; Knapp & Kirk, 2003), both samples were used in the analysis. For organisations in Serbia, the questionnaire was translated into Serbian language using a method of iterative back-translation (Brislin, 1970). The organisation in Greece used the English version of the questionnaire.

4.2 Preliminary results

The means, standard deviations, intercorrelations and scale reliabilities (where applicable) for all study variables are presented in Table 4.01. Cronbach's alpha of the measures exceeded the acceptable levels of reliability (i.e., $<.70$), except for social desirability which was $.65$. In addition to the Cronbach's alpha internal consistency reliability measure, confirmatory factor analysis (CFA) was conducted. The analysis was conducted controlling for age, gender, dyadic tenure, collectivism, uncertainty avoidance, and power distance. Gender was coded as (1) male and (0) female.

Table 4.01: Means, standard deviations, intercorrelations, and scale reliabilities

Variables		Mean	SD	1	2	3	4	5	6	7	8	9	10
1.	Age	43.18	10.69	-									
2.	Gender ^a	0.65	0.48	.12	-								
3.	Dyadic tenure	44.83	50.34	.20**	-.03	-							
4.	Collectivism	3.50	0.62	.16*	.15*	-.02	(.78)						
5.	Power distance	2.28	0.62	.14*	.11	.17**	.23**	(.73)					
6.	Uncertainty avoidance	4.13	0.53	.05	.09	-.02	.24**	.10	(.82)				
7.	Social desirability	1.34	0.14	-.02	.15*	-.11	.06	.01	-.06	(.65)			
8.	LMX	5.48	1.13	-.04	.05	.04	.14*	.00	.10	.11	(.92)		
9.	Forgiveness	4.60	0.74	-.07	-.09	-.09	-.02	-.23**	.11	.18**	.43**	(.78)	
10.	Relationship effort	3.93	0.77	-.12	-.06	-.04	-.02	-.23**	.01	.07	.30**	.48**	(.80)
11.	Job satisfaction	5.80	1.09	.04	-.03	-.07	.16*	-.09	.10	.16*	.27**	.35**	.34**
12.	State self-esteem	3.87	0.45	.04	.10	.05	.21**	.04	.12	.08	.12	.21**	.36**
13.	Positive affect	3.52	0.57	-.06	-.06	-.03	.18**	-.09	.20**	.02	.20**	.26**	.30**

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
14. Negative affect	1.73	0.60	.00	-.08	.07	-.02	.11	-.06	-.33**	-.16*	-.24**	-.31**
15. Satisfaction with life	4.43	1.28	-.14*	-.08	.02	.17**	.03	.17**	.02	.20**	.22**	.12
16. Relationship self-efficacy	5.31	0.98	-.08	.10	-.03	.06	-.10	.11	.09	.48**	.53**	.56**
17. LMXSC	3.69	1.37	.10	.17**	.10	.21**	.10	.15*	.04	.50**	.27**	.06

Variables	Mean	SD	11	12	13	14	15	16	17
11. Job satisfaction	5.80	1.09	(.82)						
12. State self-esteem	3.87	0.45	.30**	(.84)					
13. Positive affect	3.52	0.57	.42**	.31**	(.83)				
14. Negative affect	1.73	0.60	-.30**	-.50**	-.09	(.88)			
15. Satisfaction with life	4.43	1.28	.27**	.33**	.40**	-.28**	(.87)		
16. Relationship self-efficacy	5.31	0.98	.33**	.33**	.22**	-.25**	.18**	(.83)	
17. LMXSC	3.69	1.37	.11	.07	.19**	-.04	.16**	.28**	(.89)

N = 254 ** $p < .01$ * $p < .05$ (2-tailed).

1 = male, 0 = female

4.2.1 Confirmatory factor analysis (CFA)

Confirmatory factor analysis (CFA) is a procedure that evaluates the extent to which there is a shared variance-covariance among groups of observed variables that comprise of a factor or theoretical construct (Schumacker & Lomax, 2004). CFA defines the extent to which data meets the proposed factor structure. It defines relations between the observed and unobserved variables, that is, it specifies the pattern by which each observed measure loads on a particular factor (Bryne, 2012). It is recommended to consider several fit indices when assessing model fit (Bryne, 2012).

The chi-square (X^2) test of model fit assesses the hypothesised model against the data. A non-significant low value of X^2 suggests that there is no significant discrepancy between the two covariance matrices and thus a good fit. Considering the presence of the likelihood ratio statistic X^2 in the literature, it is considered when evaluating model fit. However, other fit indices are also considered when evaluation model fit.

In contrast to absolute fit indices, incremental indices use a reference model to determine model fit. The most frequently used incremental fit indices are the CFI (Bentler, 1990) and the TLI (i.e., the non-normed fit index, NNFI; Tucker & Lewis, 1973). Both measure the proportionate improvement in model fit by comparing the hypothesised model with the less restricted nested baseline model. Values of CFI are normed and range from zero to 1.00, with values close to 1.00 suggesting that model fits data well (Bryne, 2012). Even though a value $> .90$ was initially used as the cutoff for good fit (Bentler, 1992), a revised cutoff value close to $> .95$ has recently been considered more suitable (Hu & Bentler, 1999). Contrary to CFI, TLI is a non-normed index as its values can extend outside the range of 0.0 to 1.0. Nevertheless, it is still conventional to interpret its values in the same way as for the CFI (Bryne, 2012).

The remaining two goodness-of-fit indices considered within this research are the Root Mean Square Error of Approximation (RMSEA; Steiger & Lind, 1980) and the Standardised Root Mean Square Residual (SRMR), both of which represent absolute fit indices (Bryne, 2012). In contrast to incremental fit indices, absolute fit indices do not depend on assessment of a reference model in order to determine the extent of model improvement. Instead, they rely on determining the extent to which the hypothesised model fits the sample data. Therefore, whereas incremental fit indices increase as

goodness-of-fit improves, absolute fit indices decrease so that lower-bound values of zero reflect good model fit (Browne, MacCallum, Kim, Andersen, & Glaser, 2002). Indeed, values of $< .05$ or less are considered to be the indicators of a good fit. Mplus version 7.3 (Muthén & Muthén, 1998-2012) was used to conduct CFA analysis. A number of above mentioned goodness-of-fit indices were used as indicators of model fit.

Due to the limited sample size ($N=254$), it was not possible to conduct a CFA analysis of the whole conceptual model. Instead, CFA analysis was conducted to show that the three key constructs within the conceptual model, namely LMX, forgiveness and relationship effort, are distinguishable from one another. The first construct of interest was forgiveness. As previously mentioned, the scale of forgiveness is composed of three subscales: avoidance, benevolence and retaliation. Confirmatory factor analysis of the scale revealed a good level of model fit ($X^2(24, N = 274) = 37.70, p = .03; X^2/df = 1.57; CFI = .98, TLI = .98; RMSEA = .04, SRMR = .03$). This model confirmed the three-factor structure of forgiveness scale. To confirm that the best level of model fit had been obtained, the three factor structure was compared to a two-factor structure where the dimensions of avoidance and retaliation were combined as well as to a single-factor structure where all three dimensions were combined. Considering fit indices in Table 4.02, it could be concluded that the three-factor model fits the data better than either the single-factor model or two-factor model. Furthermore, CFA of LMX construct was conducted as a single-factor structure and showed a good fit ($X^2(14, N = 274) = 59.728, p < .001; X^2/df = 4.26; CFI = .97, TLI = .95; RMSEA = .11, SRMR = .02$). Similarly, CFA of relationship effort construct as a single-factor structure demonstrated a good fit ($X^2(9, N = 274) = 26.744, p < .01; X^2/df = 2.97; CFI = .96, TLI = .93; RMSEA = .08, SRMR = .03$).

Table 4.02: Confirmatory factor analysis of forgiveness scale

Model	df	X²	X²/ df	CFI	TLI	RMSEA	SRMR
Three-factor model	24	37.70	1.57	.98	.98	.04	.03
Two-factor model	25	278.37	11.13	.77	.67	.19	.11
Single-factor model	27	669.330	24.79	.42	.23	.29	.18

Note: The two factor model combines avoidance and retaliation as a single factor since they are both negative responses; benevolence represents the second factor.

Finally, a CFA was performed to show the empirical distinctiveness of the three key constructs in a measurement model. A six-factor measurement model was tested which allowed the items of LMX to load on a single factor, the items of avoidance, benevolence and retaliation to load to three factors specifying thus a latent factor of forgiveness, and the items of relationship effort to load on a single factor. An acceptable level of model fit was obtained ($X^2(203, N = 274) = 413.976$, $p < .001$; $X^2/df = 2.04$; CFI = .93, TLI = .92; RMSEA = .06, SRMR = .06). This six-factor model was compared to a restricted model which forced avoidance, benevolence and retaliation items to load on a single factor. As shown in Table 4.03, this alternative three-factor model provided a poorer fit to the observed data. Finally, the three-factor model was compared to a restricted model which forced LMX, forgiveness and relationship effort to load on a single factor. This single-factor model showed the poorest model fit. Taken together, the measurement model results support distinctiveness of the focal variables within the study.

Table 4.03: Measurement model results

Measurement model	df	X²	X²/ df	CFI	TLI	RMSEA	SRMR
Six-factor model	203	413.976	2.04	.93	.92	.06	.06
Three-factor model	206	1045.780	5.07	.74	.70	.12	.10
Single-factor model	209	1713.031	8.19	.53	.48	.16	.14

Note: The three-factor model combines avoidance, benevolence and retaliation as a single factor. The single factor model combines LMX, forgiveness and relationship effort as a single factor.

Even though the CFA analysis showed that forgiveness is a latent construct, the testing of hypotheses was performed treating forgiveness as an observed construct for a number of reasons. Namely, treating forgiveness as a latent construct in the analysis would not have been possible because of the complexity of the conceptual model, the restricted sample size (N=254), and thus restricted statistical power. Also, the authors of the scale have treated forgiveness as an observed construct in their conceptual model and analysis (see Braithwaite et al., 2011).

4.2.2 Data checking

Before conducting the analysis it is necessary to ascertain that the data are multivariate normal. Hence, the data was screened for normality by assessing the skewness and kurtosis of the variables (DeCarlo, 1997; Nunnally, 1978). According to Tabachnick and Fidell (2007), a variable is skewed when its mean is not in the centre of the distribution. Kurtosis is established by the peakedness of the distribution; too flat or too peaked distribution indicates a non-normal kurtosis. Normal distribution is present when the values of skewness and kurtosis are zero. Thus far, there is no agreement on the extent to which a value must deviate from zero in order to be considered problematic (Byrne, 2012; Kline, 2005). The screening of the data showed that none of the scales displayed a consistently high skewness or kurtosis so no data transformation was performed. The results of the skewness and kurtosis values of the scales are presented within Table 4.04.

Table 4.04: Skewness and kurtosis values for each scale

Construct	Skewness	Kurtosis
LMX	- 1.24	1.23
Forgiveness	- 0.18	- 0.30
Relationship effort	- 0.47	- 0.17
Job satisfaction	- 1.45	2.38
State self-esteem	- 0.71	0.47
Positive affect	- 0.16	0.31
Negative affect	0.76	- 0.19
Satisfaction with life	- 0.34	- 0.38
Relationship self-efficacy	- 0.42	- 0.38
LMXSC	0.09	- 0.62
Collectivism	- 0.11	- 0.02
Power distance	0.29	0.72
Uncertainty avoidance	- 0.42	0.42
Social desirability	- 0.31	- 0.13

4.3 Results

4.3.1 Hypothesis testing and statistical analysis

As a research area develops, the focus eventually shifts away from showing the existence of an effect toward understanding the mechanisms by which an effect operates (Hayes, 2013).

Answering the questions of “how” and “when” not only provide us with a better understanding of the phenomenon but also illustrate how that understanding can be applied (Hayes, 2013, 2015). The questions of “how” are typically addressed with *mediation analysis* whereas the questions of “under what circumstance” are address with *moderation analysis*. Hayes (2013) introduces the term *conditional process analysis* to refer to this collection of methods and procedures.

The approach to performing and interpreting these procedures has changed significantly. According to the causal step process (Baron & Kenny, 1986), it is necessary to establish an effect of

predictor variable on outcome variable which may be mediated. This method, however, has been regarded as unnecessarily restrictive and thus no longer appropriate (Cerin & MacKinnon, 2009; Rucker, Preacher, Tormala, & Petty, 2011). Instead, researchers are encouraged to adopt methods such as bootstrapping for inference about indirect effects (Hayes, 2009). Therefore, bootstrapping for inference about indirect effects method has been used in this research.

The conceptual model (see Figure 3.01) depicts that the LMX quality influences job satisfaction, state self-esteem, positive affect, negative affect, and satisfaction with life via two mediators in sequence, namely follower's forgiveness and relationship effort. Furthermore, these paths are moderated by relationship self-efficacy and LMXSC. A list of hypotheses pertaining to the conceptual model are provided in Table 3.01.

Data analysis has been performed in two stages. First, a piecemeal approach has been taken and hypotheses referring to serial multiple mediation analyses, the three-way interaction and moderated mediation were tested using PROCESS macro for SPSS developed by Hayes (2013). Second, hypotheses referring to the conditional process analysis of the full model (serial multiple mediation and the three-way interaction) were tested using Mplus. The following section provides the results of the five serial multiple mediator models (see Figure 4.02), the three-way interaction, the moderated mediation/conditional process model, four conditional process models and the conditional process model that includes four outcomes.

4.3.2 Serial multiple mediation analysis

Serial multiple mediation analysis was performed to test Hypotheses 1-4d. Figure 4.01 depicts a serial multiple mediator model in which X is affecting Y through four pathways (Hayes, 2013). The first indirect pathway runs from X to Y through M1 (path a_1b_1). The second indirect pathway runs through M2 (path a_2b_2). A third indirect effect passes through both M1 and M2 in sequence, with M1 affecting M2 (path $a_1a_3b_2$). Lastly, X directly affects Y without passing through either M1 or M2 (c_1'). Combined, these three indirect effects sum to the total indirect effect of X on Y ($a_1b_1+a_2b_2+a_1a_3b_2$). When the total indirect effect of X is added to the direct effect of X the results is c_1 , the total effect of X. Therefore $c_1 = c_1' + a_1b_1+a_2b_2+a_1a_3b_2$. The total indirect effect of X on Y is

the difference between the total effect of X on Y and direct effect of X on Y: $c_1 - c_1' = a_1b_1 + a_2b_2 + a_1a_3b_2$ (Hayes, 2013). This model has been specified using the syntax for Model 6 (model templates, Hayes, 2013).

It is predicted that the LMX relationship quality (X) will induce the follower to be more forgiving of their leader (M1). Greater levels of forgiveness will, in turn, lead to enhanced relationship efforts (M2). Investing efforts into maintaining the relationship with the leader will result in enhanced job satisfaction, state self-esteem, satisfaction with life and positive affect and also in reduced negative affect (Y). Each of the outcomes were analysed in separate models so as to effectively test the hypothesis (See Figure 4.01). In these analyse age, gender, dyadic tenure, individualism, power distance, uncertainty avoidance, and social desirability were controlled for.

Figure 4.01: Serial multiple mediator model with three indirect effects and a direct effect specified.

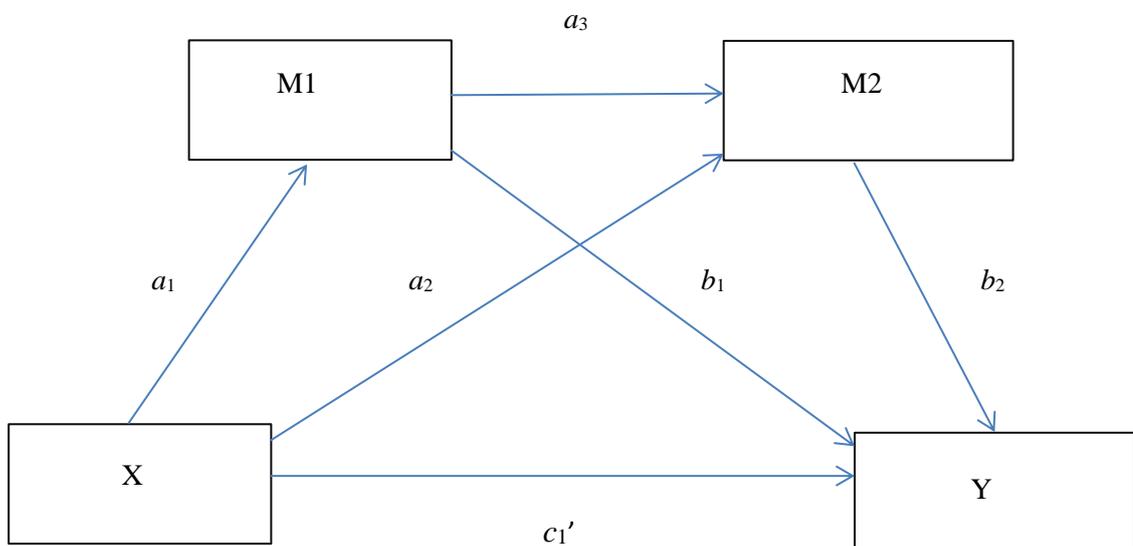


Figure 4.02: Serial multiple mediator models 1-5

Model 1



Model 2



Model 3



Model 4



Model 5



4.3.2.1 Serial multiple mediator Model 1

The path a_1 shows the association between follower's LMX quality (X) and the levels of follower's forgiveness (M1) and was found to be significant ($\beta = .274$, $t(255) = 7.451$, $p < .001$). As predicted in Hypothesis 1, the quality of follower's relationship with their leader will positively predict the levels of follower's forgiveness. The pathway (a_2) from follower's LMX quality to follower's relationship effort (M2) was not found to be significant ($\beta = .083$, $t(255) = 1.949$, $p = n.s.$). Indeed, a good quality relationship with one's leader will encourage further relationship efforts.

Path a_3 from follower's forgiveness (M1) to follower's relationship effort (M2) was found to be significant ($\beta = .425$, $t(255) = 6.387$, $p < .001$). According to Hypothesis 2, greater levels of forgiveness will be positively related to follower's efforts into maintaining the relationship with their leader. The pathway (b_1) between follower's forgiveness (M1) and follower's job satisfaction (Y) was found to be significant, ($\beta = .251$, $t(255) = 2.391$, $p = .018$). This finding suggests that follower's job satisfaction can be enhanced by forgiving leader's offence. Path b_2 from follower's relationship effort (M2) to follower's job satisfaction (Y) was found to be significant ($\beta = .297$, $t(255) = 3.175$, $p = .002$). These results support Hypothesis 3a; follower's efforts into maintaining the relationship with their leader are positively related to follower's job satisfaction. The path coefficients for each of the indirect effects and direct effect are presented in Figure 4.03 and Table 4.05.

Figure 4.03: Coefficients for each of the indirect effects and direct effect for serial multiple mediator Model 1

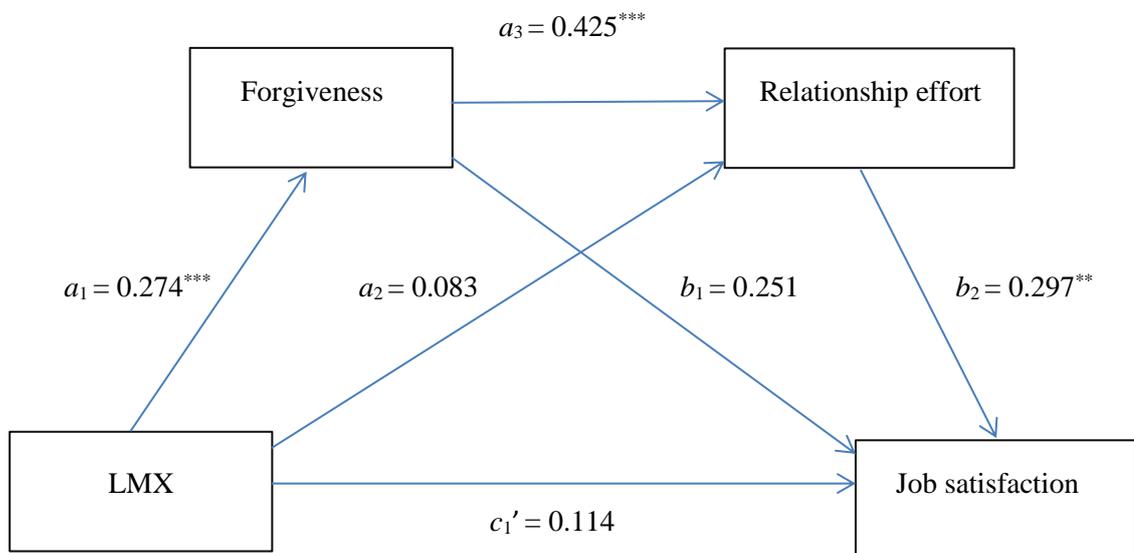


Table 4.05: Regression coefficients, standard errors, and model summary information for serial multiple mediator Model 1

		Consequent											
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			Job satisfaction (<i>Y</i>)					
Antecedent		Coeff.	SE	<i>P</i>		Coeff.	SE	<i>P</i>		Coeff.	SE	<i>p</i>	
LMX (<i>X</i>)	$a_1 \rightarrow$	0.274	0.037	.000	$a_2 \rightarrow$	0.083	0.042	.052	$c_1' \rightarrow$	0.114	0.063	.081	
Forgiveness (<i>M1</i>)					$a_3 \rightarrow$	0.425	0.067	.000	$b_1 \rightarrow$	0.251	0.105	.018	
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	0.300	0.093	.002	
Constant	$i_{M1} \rightarrow$	2.105	0.572	.000	$i_{M2} \rightarrow$	2.335	0.614	.000	$i_y \rightarrow$	0.564	0.924	.542	
Gender (<i>U1</i>)		-0.168	0.087	.055		-0.013	0.092	.885		-0.114	0.134	.397	
Age (<i>U2</i>)		0.001	0.004	.865		-0.006	0.004	.178		0.008	0.006	.189	
Dyadic tenure (<i>U3</i>)		-0.001	0.001	.467		0.001	0.001	.613		-0.001	0.001	.451	
Power distance (<i>U4</i>)		-0.254	0.068	.001		-0.168	0.073	.023		-0.067	0.110	.540	
Uncertainty avoidance (<i>U5</i>)		0.172	0.079	.030		-0.050	0.083	.560		0.084	0.121	.492	
Collectivism (<i>U6</i>)		-0.052	0.071	.465		0.038	0.074	.604		0.235	0.110	.030	
Social desirability (<i>U7</i>)		0.856	0.303	.005		-0.094	0.321	.770		0.810	0.470	.090	
		$R^2 = 0.280$			$R^2 = 0.273$			$R^2 = 0.218$					
		F (9, 246) = 11.947, <i>p</i> = .000			F (9, 245) = 10.242, <i>p</i> = .000			F (10, 244) = 6.810, <i>p</i> = .000					

N=255

The total effect (c_1) indicates how the predictor affects the outcome when mediators are not present in the model and was found to be significant ($\beta = .237$, $t(255) = 4.049$, $p < .001$). However, the evidence of a total effect is not a prerequisite for establishing the indirect effects (Cerin & MacKinnon, 2009; Hayes, 2009, 2013; Rucker et al., 2011; Shrout & Bolger, 2002; Zhao, Lynch, & Chen, 2010). The total effect is the sum of the direct and indirect effects: $.2377 = .1097 + .1280$.

The total indirect effect was positive and found to be significant at $.1280$ with 95% bootstrap confidence intervals of $.0737$ to $.2035$. The total indirect effect represents the sum of the three indirect effects: $.1280 = .0689 + .0346 + .0246$. Examination of the bootstrap confidence intervals shows that all three indirect effects are significant as their confidence intervals do not straddle zero.

The first indirect effect is the product of $a_1 = .274$ and $b_1 = .251$ or $.068$ (X- M1-Y), and it was significant with a 95% bootstrap confidence interval of $.0737$ to $.2055$. This first indirect effect carries the effect of follower's LMX quality through follower's forgiveness only, bypassing follower's relationship effort. Followers who had a good quality relationship with their leaders showed greater levels of forgiveness and this in turn led to increased job satisfaction.

The second indirect effect runs from follower's LMX to follower's relationship effort and then to follower's job satisfaction, avoiding follower's forgiveness. This effect is defined as the product of $a_2 = .083$ and $b_2 = .297$ or $.0246$ (X-M1-M2-Y) and was significant with a 95% bootstrap confidence interval of $.0017$ to $.0693$. Indeed, followers who have a high quality LMX relationship are likely to continue to invest efforts into maintain that relationship quality which is likely to enhance their job satisfaction.

The last indirect effect flows from the quality of follower's LMX relationship via both mediators, forgiveness and relationship effort, such that forgiveness affects relationship effort. This effect is estimated as the product of $a_1 = .274$, $a_3 = .425$ and $b_2 = .297$, or $.0346$, (X-M1-M2-Y) and was significant with a 95% bootstrap confidence interval of $.0125$ to $.0708$. This indirect effect is consistent with the full mediation process proposed in Hypothesis 4a. Indeed, greater levels of follower's LMX quality will lead to greater levels of forgiveness, which in turn will lead to greater relationship efforts and as a consequence to enhanced job satisfaction. Analysis shows that the proposed mediating roles of follower's forgiveness and relationship effort are fully supported. Table

4.06 outlines results for total effect and bootstrapped results for the total effect, total indirect effect and the three indirect effects.

Table 4.06: Results for the total effect and bootstrapped results for total indirect effect and the three indirect effects for serial multiple mediator Model 1

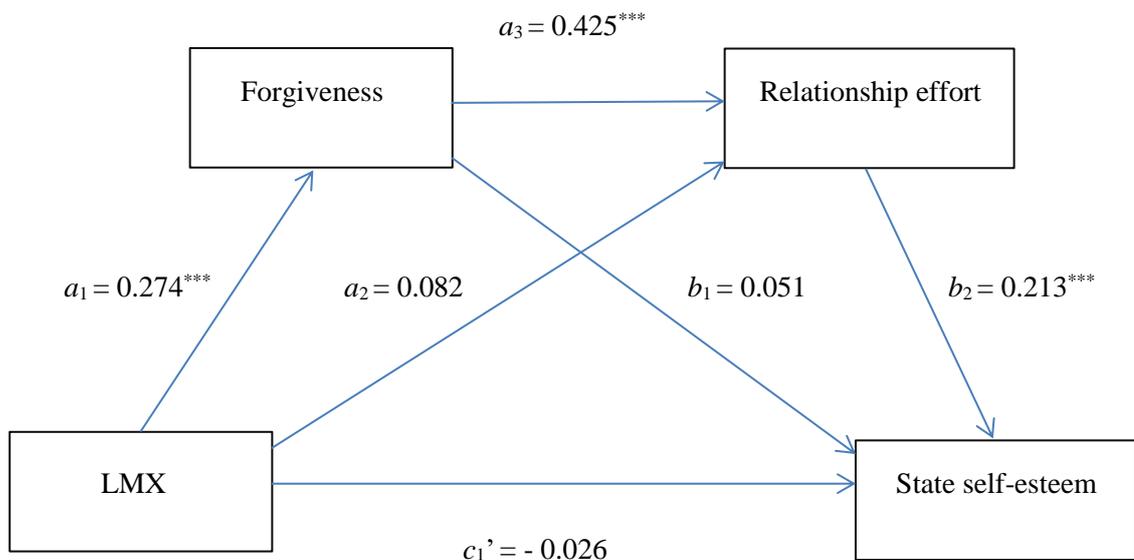
		95% Cis		
	Indirect effect	SE	Lower	Upper
Total effect of LMX on Job satisfaction	0.2377	0.059	0.1221	0.3534

		95% BC Cis		
	Boot indirect effect	Boot SE	Lower	Upper
Total indirect effect: LMX – Job satisfaction	0.1280	0.032	0.0188	0.1472
Indirect effect via Forgiveness	0.0689	0.031	0.0188	0.1472
Indirect effect via Relationship effort	0.0246	0.016	0.0017	0.0693
Indirect effect via both Forgiveness and Relationship effort	0.0346	0.0142	0.0125	0.0708

4.3.2.2 Serial multiple mediator Model 2

Serial multiple mediation analysis showed similar results when state self-esteem was the outcome of interest (see Figure 4.04). As was the case in the model where job satisfaction was the outcome, path a_1 from follower's LMX relationship quality (X) to follower's forgiveness (M1) was found to be significant ($\beta = .274$, $t(255) = 7.4506$, $p < .001$). Therefore, Hypothesis 1 was supported in this model, as well. The pathway (a_2) between LMX and follower's relationship effort (M2) was not found to be significant ($\beta = .082$, $t(255) = 1.9498$, $p = n.s.$). Path a_3 , which shows the link between the two serial mediators, forgiveness (M1) and relationship effort (M2), was significant ($\beta = .425$, $t(255) = 6.3877$, $p < .001$), reiterating the support for Hypothesis 2.

Figure 4.04: Coefficients for each of the indirect effects and direct effect for serial multiple mediator Model 2



The pathway (b_1) between follower's levels of forgiveness (M1) and follower's state self-esteem (Y) was not found to be significant ($\beta = .051$, $p = .233$). Nevertheless, this relationship seems to be mediated by the efforts a follower invests into the relationship with their leader. Path b_2 from follower's relationship effort (M2) to follower's state self-esteem (Y) was found to be significant ($\beta = .213$, $t(255) = 5.5360$, $p < .001$), thus supporting Hypothesis 3b. Indeed, follower's efforts into

maintaining the relationship with their supervisor are positively related to follower's state self-esteem. The path coefficients for this model are presented in Figure 4.04 and Table 4.07.

Table 4.07: Regression coefficients, standard errors, and model summary information for serial multiple mediator Model 2

		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			State self-esteem (<i>Y</i>)				
Antecedent		Coeff.	SE	<i>p</i>	Coeff.	SE	<i>P</i>	Coeff.	SE	<i>P</i>		
LMX (<i>X</i>)	$a_1 \rightarrow$	0.274	0.036	.000	$a_2 \rightarrow$	0.083	0.042	.052	$c_1' \rightarrow$	-0.026	0.025	.300
Forgiveness (<i>M1</i>)					$a_3 \rightarrow$	0.425	0.066	.000	$b_1 \rightarrow$	0.051	0.043	.233
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	0.213	0.039	.000
Constant	$i_{M1} \rightarrow$	2.105	0.572	<.001	$i_{M2} \rightarrow$	2.393	0.620	<.001	$i_y \rightarrow$	1.871	0.381	.000
Gender (<i>U1</i>)		-0.168	0.087	.055		-0.013	0.092	.885		0.057	0.059	.332
Age (<i>U2</i>)		0.001	0.004	.865		-0.005	0.004	.178		-0.001	0.003	.918
Dyadic tenure (<i>U3</i>)		-0.001	0.001	.466		0.001	0.001	.613		0.001	0.001	.274
Power distance (<i>U4</i>)		-0.253	0.068	.000		-0.167	0.073	.023		-0.022	0.046	.940
Uncertainty avoidance (<i>U5</i>)		0.172	0.078	.030		-0.050	0.083	.546		0.064	0.054	.233
Collectivism (<i>U6</i>)		-0.051	0.071	.465		0.038	0.073	.604		0.135	0.048	.006
Social desirability (<i>U7</i>)		0.856	0.303	.005		-0.094	0.321	.770		0.223	0.206	.281
		$R^2 = 0.280$			$R^2 = 0.273$			$R^2 = 0.215$				
		F (8, 246) = 11.947, <i>p</i> = .000			F (9, 245) = 10.242, <i>p</i> = .000			F (10, 244) = 6.685, <i>p</i> = .000				

N = 255

The total effect was not found to be significant ($c_1 = 0.029, p = .233$). Nevertheless, as previously discussed, evidence of a total effect is not required for searching for the evidence of indirect effects. The total indirect effect was positive and found to be significant at 0.057 with 95% bootstrap confidence intervals of .0303 to .0879. The first indirect effect is the product of $a_1 = 0.274$ and $b_1 = 0.051$ or 0.014 and flows from LMX relationship quality to state self-esteem via forgiveness, bypassing relationship effort (X-M1-Y). This effect was not found to be significant as the 95% bootstrap confidence intervals of -0.0105 to 0.0405 straddled zero.

The next indirect effect of follower's LMX on state self-esteem via relationship effort, bypassing forgiveness (X-M2-Y) is defined as the product of $a_2 = 0.082$ and $b_2 = 0.213$ or 0.017. This effect was not found to be significant with a 95% bootstrap confidence interval of 0.0001 to 0.0420. These results support the prediction that followers whose LMX relationship is of a higher quality tend to invest efforts into maintaining the quality of that relationship. Engaging in relationship efforts positively affects follower's state self-esteem.

The final indirect effect flows from follower's LMX to follower's state self-esteem via both mediators, such that follower's forgiveness affects relationship effort (X-M1-M2-Y). This relationship is defined as the product of $a_1 = 0.274, a_3 = 0.425$ and $b_2 = 0.213$ or 0.024 and was significant with a 95% bootstrap confidence interval of 0.0128 to 0.0448. This effect is consistent with the full mediation process proposed in Hypothesis 4b showing that the quality of follower's LMX relationship indirectly positively influences follower's state self-esteem through greater levels of forgiveness and relationship effort. Results for total effect, and bootstrapped results for the total effect, total indirect effect and the three indirect effects are outlined in Table 4.08.

Table 4.08: Results for the total effect and bootstrapped results for total indirect effect and the three indirect effects for serial multiple mediator Model 2

	Indirect effect	SE	95% Cis	
			Lower	Upper
Total effect of LMX on State self-esteem	0.029	0.025	-0.0194	0.0791
	Boot indirect effect	Boot SE	95% BC Cis	
			Lower	Upper
Total indirect effect: LMX – State self-esteem	0.0560	0.014	0.0303	0.0879
Indirect effect via Forgiveness	0.0142	0.012	0.0105	0.0405
Indirect effect via Relationship effort	0.0177	0.010	-0.0001	0.0420
Indirect effect via both Forgiveness and Relationship effort	0.0248	0.007	-0.0001	0.0448

4.3.2.3 Serial multiple mediator Model 3

Serial multiple mediation analysis was conducted for the model in which positive affect was the intended outcome. The path coefficients are showed in Figure 4.05 and Table 4.09. As predicted in Hypothesis 1, the path (a_1) from follower's LMX relationship quality (X) to the levels of follower's forgiveness (M1) was found to be positive and significant ($\beta = .274$, $t(255) = 7.450$, $p < .001$). The second pathway (a_2) from follower's LMX to relationship effort (M2) was also found to be significant ($\beta = .082$, $t(255) = 1.9949$, $p = .052$). Hypothesis 2 was supported as a positive significant path (a_3) from follower's forgiveness (M1) to relationship effort (M2) was found, ($\beta = .425$, $t(255) = 6.3877$, $p < .0001$).

As was the case with the model in which state self-esteem was the outcome, the pathway b_1 follower's forgiveness (M1) to follower's positive affect (Y) was not found to be significant ($\beta = .078$, $p = .167$). Path b_2 which flows from follower's relationship effort (M2) to follower's positive affect (Y) was found to be significant ($\beta = .161$, $t(255) = 3.1988$, $p = .0016$). Thus, Hypothesis 3c stating that follower's efforts into maintaining the relationship with their leader enhance follower's positive affect was supported. The total effect of follower's LMX on their positive affect was significant ($\beta = .085$, $t(255) = 2.7319$, $p = .007$). However, as mentioned previously, this is not a prerequisite for detecting indirect effects.

Figure 4.05: Coefficients for each of the indirect effects and direct effect for serial multiple mediator Model 3

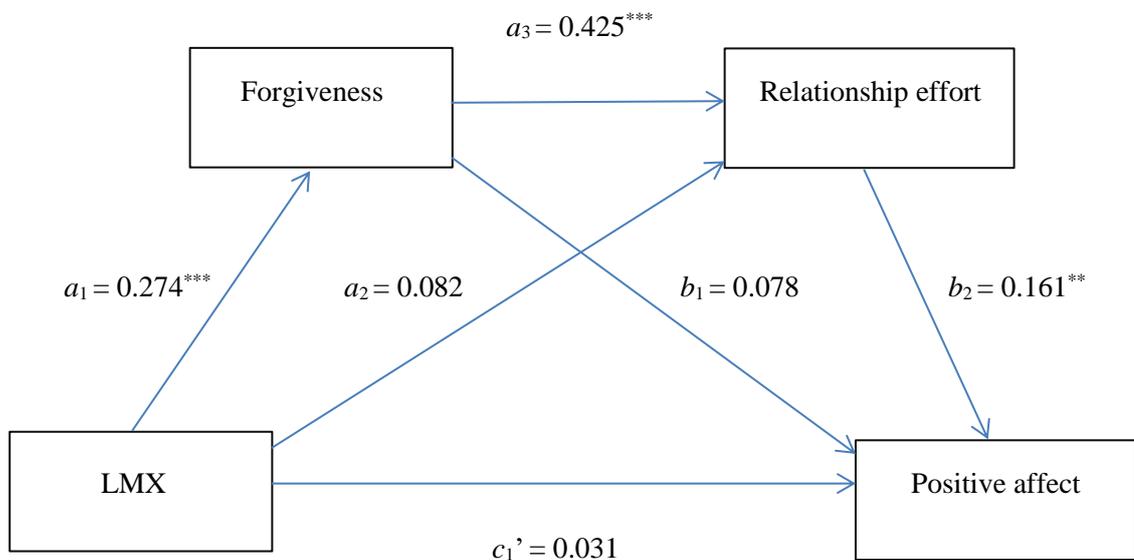


Table 4.09: Regression coefficients, standard errors, and model summary information for serial multiple mediator Model 3

		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			Positive affect (<i>Y</i>)				
Antecedent		Coeff.	SE	<i>p</i>	Coeff.	SE	<i>P</i>	Coeff.	SE	<i>p</i>		
LMX (<i>X</i>)	$a_1 \rightarrow$	0.274	0.036	.000	$a_2 \rightarrow$	0.082	0.042	.052	$c_1' \rightarrow$	-0.031	0.033	.348
Forgiveness (<i>M1</i>)					$a_3 \rightarrow$	0.425	0.066	.000	$b_1 \rightarrow$	0.078	0.056	.167
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	0.161	0.050	.001
Constant	$i_{M1} \rightarrow$	2.105	0.572	<.001	$i_{M2} \rightarrow$	2.335	0.613	<.001	$i_y \rightarrow$	1.331	0.499	.008
Gender (<i>U1</i>)		-0.168	0.084	.055		-0.013	0.091	.885		-0.070	0.072	.332
Age (<i>U2</i>)		0.001	0.004	.865		-0.005	0.004	.178		-0.002	0.003	.590
Dyadic tenure (<i>U3</i>)		-0.001	0.001	.466		0.001	0.001	.506		0.002	0.007	.749
Power distance (<i>U4</i>)		-0.253	0.068	.001		-0.167	0.073	.023		-0.062	0.058	.283
Uncertainty avoidance (<i>U5</i>)		0.172	0.078	.029		-0.050	0.082	.545		0.171	0.065	.009
Collectivism (<i>U6</i>)		-0.051	0.070	.465		0.038	0.073	.604		0.169	0.058	.004
Social desirability (<i>U7</i>)		0.856	0.303	.005		-0.094	0.321	.769		-0.011	0.254	.965
		$R^2 = 0.279$			$R^2 = 0.273$			$R^2 = 0.187$				
		F (9=8, 246) = 11.946, <i>p</i> = .000			F (9, 245) = 10.241, <i>p</i> = .000			F (10, 244) = 5.645, <i>p</i> = .000				

N= 255

The total indirect effect was positive and significant at 0.0538 with 95% bootstrap confidence intervals of 0.0262 to 0.0890. The first indirect effect carries the relationship from follower's LMX quality to positive affect via follower's forgiveness, without including relationship effort (X-M1-Y). This effect is defined as the product of $a_1 = 0.274$ and $b_1 = 0.078$ or 0.0210 and was not found to be significant as 95% bootstrap confidence intervals of -0.0098 to 0.0565 straddled zero. The second indirect effects is defined as the product of $a_2 = 0.082$ and $b_2 = 0.161$ or 0.0130 as it flows from follower's LMX quality to follower's positive affect, via follower's relationship effort, bypassing follower's forgiveness (X-M2-Y). This indirect effect was significant with 95% bootstrap confidence intervals of 0.0008 to 0.0385.

Finally, the indirect effect that flows from follower's LMX to follower's positive affect via forgiveness and relationship effort (X-M1-M2-Y), is defined as the product of $a_1 = 0.274$, $a_3 = 0.425$ and $b_2 = 0.161$ or 0.018. This effect was found to be significant with 95% bootstrap confidence intervals of 0.0061 to 0.0399 and thus supports Hypothesis 4c. Indeed, the quality of follower's LMX relationship indirectly positively affected follower's positive affect through follower's forgiveness and relationship efforts, such that greater levels of forgiveness led to more efforts into maintaining the relationship with one's leader. Greater relationship efforts, in turn, enhanced follower's positive affect. Results for total effect and bootstrapped results for the total effect, total indirect effect and the three indirect effects are outlined in Table 4.10.

Table 4.10: Results for the total effect and bootstrapped results for total indirect effect and the three indirect effects for serial multiple mediator Model 3

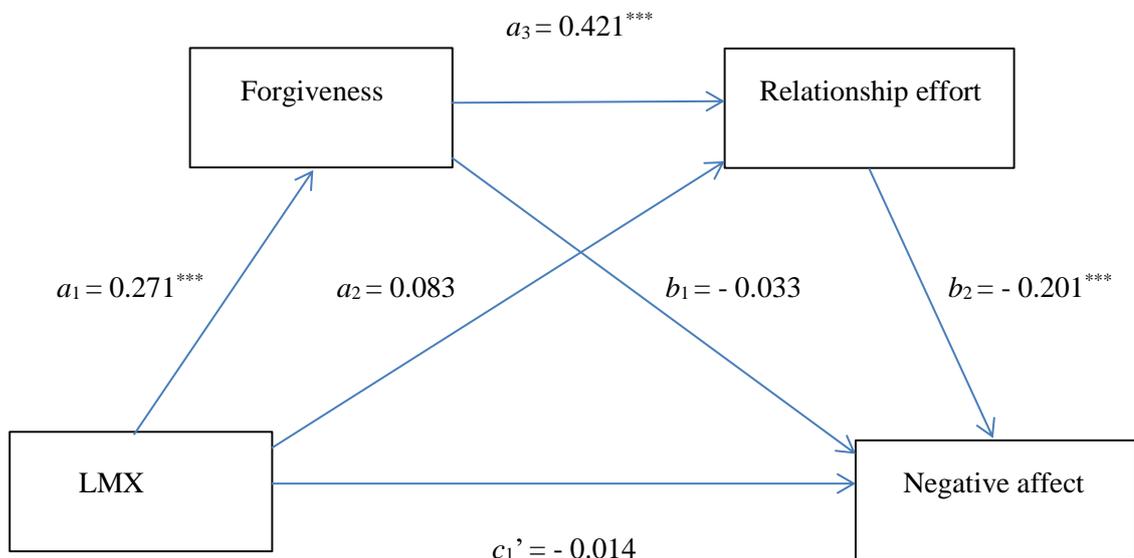
			95% Cis	
	Indirect effect	SE	Lower	Upper
Total effect of LMX on State self-esteem	0.0856	0.031	0.0239	0.1473

			95% BC Cis	
	Boot indirect effect	Boot SE	Lower	Upper
Total indirect effect: LMX – State self-esteem	0.0538	0.016	0.0262	0.0890
Indirect effect via Forgiveness	0.0216	0.016	-0.0098	0.0565
Indirect effect via Relationship effort	0.0134	0.009	0.0018	0.0385
Indirect effect via both Forgiveness and Relationship effort	0.0188	0.008	0.0061	0.0399

4.3.2.4 Serial multiple mediator Model 4

The same analysis was conducted for the model in which follower's negative affect was the outcome of interest. As was the case with the three previous models, the path (a_1) from follower's LMX relationship quality (X) to follower's forgiveness (M1) was found to be positive and significant ($\beta = .271$, $t(254) = 7.4023$, $p < .001$). Hypothesis 1 suggesting that the quality of follower's LMX relationship is positively related to follower's forgiveness was supported in this model, as well. The second pathway (a_2) that flows from follower's LMX to follower's relationship effort (M2) was not found to be significant ($\beta = .083$, $t(254) = 1.9492$, $p = .052$). Path a_3 which is a serial chain from follower's forgiveness (M1) to follower's relationship effort (M2) was found to be significant ($\beta = .421$, $t(254) = 6.2959$, $p < .001$). Thus, Hypothesis 2 according to which greater levels of follower's forgiveness would be positively related to follower's relationship effort was also supported in this model.

Figure 4.06: Coefficients for each of the indirect effects and direct effect for serial multiple mediator Model 4



The pathway (b_1) between follower's forgiveness (M1) and follower's negative affect (Y) was not found to be significant ($\beta = -.0335$, $p = .569$). A path (b_2) from follower's relationship effort

(M2) to negative affect (Y) was found to be negative and significant ($\beta = -.201$, $t(254) = -3.8454$, $p < .001$). This finding would imply that the more efforts a follower invests into maintaining the relationship with their leader, the less negative affect they experience. Therefore, Hypothesis 3d is supported. Model and path coefficients are presented in Figure 4.06 and Table 4.11.

The total effect was not found to be significant ($c_1 = -.062$, $p = .053$). However, as discussed, this does not prevent the researcher from looking for the evidence of indirect effects. Examination of the confidence intervals shows that the total indirect effect was negative and found to be significant at significant at -0.0487 with 95% bootstrap confidence intervals of -0.0884 to -0.0163 . The first indirect effect which is the product of $a_1 = 0.271$ and $b_1 = -0.033$ or -0.009 and flows from follower's LMX to follower's negative affect via follower's forgiveness (X-M1-Y) was not found to be significant as a 95% confidence interval of -0.0448 to 0.022 straddled zero.

The second indirect effect carries the relationship from follower's LMX to follower's negative affect via follower's relationship effort, without including follower's forgiveness (X-M2-Y). This indirect effect, defined as the product of $a_2 = 0.083$ and $b_2 = -0.201$ or -0.0166 was found to be significant with a 95% bootstrap confidence interval of -0.0421 to -0.001 . The final indirect effect includes both mediators flowing from follower's LMX relationship quality to follower's negative affect, via follower's levels of forgiveness and relationship effort (X-M1-M2-Y). This relationship is estimated as by a product of $a_1 = 0.271$, $a_3 = 0.421$ and $b_2 = -0.201$ or -0.023 and was significant with a 95% bootstrap confidence interval of -0.0454 to -0.0106 . These findings support Hypothesis 4d. Indeed, the quality of follower's LMX relationship indirectly negatively influenced follower's negative affect through follower's forgiveness and relationship effort. Greater levels of LMX quality led to greater levels of forgiveness, which in turn led to greater relationship effort. The more efforts follower invested into maintaining the relationship with their leader, the less negative affect they experienced. Results for total effect and bootstrapped results for the total effect, total indirect effect and the three indirect effects are outlined in Table 4.12.

Table 4.11: Regression coefficients, standard errors, and model summary information for serial multiple mediator Model 4

Antecedent		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			Negative affect (<i>Y</i>)				
		Coeff.	SE	<i>p</i>	Coeff.	SE	<i>P</i>	Coeff.	SE	<i>p</i>		
LMX (<i>X</i>)	$a_1 \rightarrow$	0.271	0.036	.000	$a_2 \rightarrow$	0.083	0.042	.052	$c_1' \rightarrow$	-0.014	0.035	.708
Forgiveness (<i>M1</i>)					$a_3 \rightarrow$	0.421	0.067	.000	$b_1 \rightarrow$	-0.033	0.059	.569
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	-0.201	0.052	<.001
Constant	$i_{M1} \rightarrow$	2.241	0.578	<.001	$i_{M2} \rightarrow$	2.400	0.624	<.001	$i_y \rightarrow$	4.836	0.524	.000
Gender (<i>U1</i>)		-0.170	0.087	.052		-0.014	0.092	.875		-0.058	0.075	.439
Age (<i>U2</i>)		0.001	0.004	.901		-0.005	0.004	.154		-0.002	0.003	.474
Dyadic tenure (<i>U3</i>)		-0.001	0.001	.341		0.001	0.001	.741		0.001	0.001	.685
Power distance (<i>U4</i>)		-0.247	0.068	.001		-0.165	0.073	.019		0.041	0.063	.419
Uncertainty avoidance (<i>U5</i>)		0.163	0.079	.038		-0.053	0.083	.469		-0.082	0.068	.247
Collectivism (<i>U6</i>)		-0.064	0.071	.365		0.032	0.074	.839		0.003	0.063	.854
Social desirability (<i>U7</i>)		0.822	0.303	.007		-0.105	0.322	.759		-1.324	0.263	.000
		R ² = 0.276 F (8, 245) = 11.682, <i>p</i> = .000			R ² = 0.269 F (9, 244) = 9.974, <i>p</i> = .000			R ² = 0.208 F (10, 243) = 6.382, <i>p</i> = .000				

N = 254

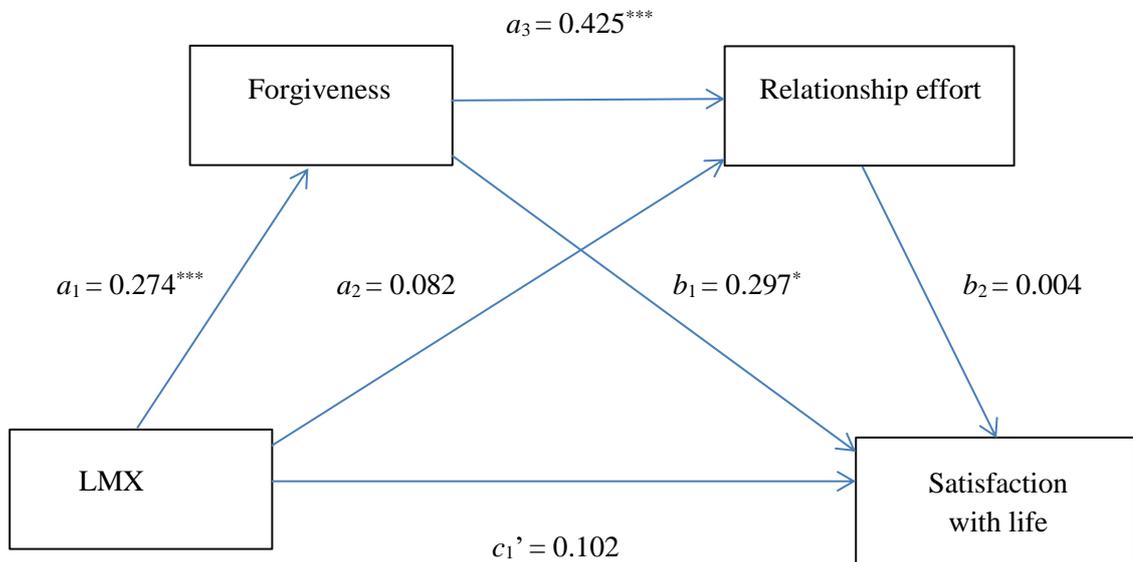
Table 4.12: Results for the total effect and bootstrapped results for total indirect effect and the three indirect effects for serial multiple mediator Model 4

			95% CIs	
	Indirect effect	SE	Lower	Upper
Total effect of LMX on Negative affect	-0.0629	0.032	-0.1268	0.0010
			95% BC CIs	
	Boot indirect effect	Boot SE	Lower	Upper
Total indirect effect: LMX – Negative affect	-0.0487	0.018	-0.0884	-0.0163
Indirect effect via Forgiveness	-0.0091	0.0160	-0.0448	0.0220
Indirect effect via Relationship effort	-0.0166	0.0103	-0.0421	-0.0010
Indirect effect via both Forgiveness and Relationship effort	-0.0230	0.0084	-0.0454	-0.0106

4.3.2.5 Serial multiple mediator Model 5

The model in which follower's satisfaction with life was the outcome of interest was also tested. As shown by the previous four models, the path (a_1) from follower's LMX relationship quality (X) to follower's forgiveness (M1) was found to be positive and significant ($\beta = .274$, $t(255) = 7.4506$, $p < .001$). All five models provide consistent support for the Hypothesis 1; the quality of follower's LMX relationship is positively related to follower's forgiveness. The second pathway (a_2) that flows from follower's LMX to follower's relationship effort (M2) was found to be significant ($\beta = .082$, $t(255) = 1.9498$, $p = .052$). Path a_3 which is a serial chain from follower's forgiveness (M1) to follower's relationship effort (M2) was found to be significant ($\beta = .425$, $t(255) = 6.3877$, $p < .001$). Therefore, Hypothesis 2 which suggests that greater levels of follower's forgiveness would be positively related to follower's relationship effort was supported across all five models.

Figure 4.07: Coefficients for each of the indirect effects and direct effect for serial multiple mediator Model 5



The pathway (b_1) between follower's forgiveness (M1) and follower's satisfaction with life (Y) was found to be significant ($\beta = .297, p = .02$). This was the only facet of subjective well-being that was significantly associated with forgiveness (unlike state self-esteem, positive affect and negative affect). A path (b_2) from follower's relationship effort (M2) to satisfaction with life (Y) was not found to be significant ($\beta = .004, t(255) = .0378, p = .9698$). This finding suggests that investing efforts into maintaining relationships with one's supervisor following a transgression did not lead to satisfaction with life. Since Hypothesis 3e was not supported, there are no grounds on which to proceed with testing Hypothesis 7e in the following section. Model and path coefficients are presented in Figure 4.07 and Table 4.13.

The total effect was found to be significant ($c_1 = 0.185, p = .009$). However, previously mentioned, this is not a prerequisite for looking for the evidence of indirect effects. Examination of the confidence intervals shows that the total indirect effect was found to be significant at 0.0825 with 95% bootstrap confidence intervals of 0.0117 to 0.1653. The first indirect effect which is the product of $a_1 = 0.274$ and $b_1 = 0.297$ or 0.081 and flows from follower's LMX to follower's satisfaction with life via follower's forgiveness (X-M1-Y) was found to be significant as a 95% confidence interval of 0.0079 to 0.1761.

The second indirect effect carries the relationship from follower's LMX to follower's satisfaction with life via follower's relationship effort, without including follower's forgiveness (X-M2-Y). This indirect effect, defined as the product of $a_2 = 0.082$ and $b_2 = 0.004$ or 0.001 was not found to be significant with a 95% bootstrap confidence interval of -0.0248 to 0.0272. The final indirect effect includes both mediators flowing from follower's LMX relationship quality to follower's satisfaction with life, via follower's levels of forgiveness and relationship effort (X-M1-M2-Y). This relationship is estimated as by a product of $a_1 = 0.274, a_3 = 0.425$ and $b_2 = 0.004$ or 0.001 and was not found to be significant with a 95% bootstrap confidence interval of -0.0302 to 0.0324. Therefore, Hypothesis 4e was not supported. Results for total effect and bootstrapped results for the total effect, total indirect effect and the three indirect effects are outlined in Table 4.14.

Table 4.13: Regression coefficients, standard errors, and model summary information for serial multiple mediator Model 5

		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			Satisfaction with life (<i>Y</i>)				
Antecedent		Coeff.	SE	<i>p</i>	Coeff.	SE	<i>p</i>	Coeff.	SE	<i>p</i>		
LMX (<i>X</i>)	$a_1 \rightarrow$	0.274	0.036	.000	$a_2 \rightarrow$	0.083	0.042	.052	$c_1' \rightarrow$	0.102	0.078	.191
Forgiveness (<i>M1</i>)					$a_3 \rightarrow$	0.425	0.067	.000	$b_1 \rightarrow$	0.293	0.131	.024
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	0.004	0.116	.969
Constant	$i_{M1} \rightarrow$	2.105	0.572	.001	$i_{M2} \rightarrow$	2.335	0.614	<.001	$i_y \rightarrow$	0.889	1.152	.441
Gender (<i>U1</i>)		-0.168	0.087	.055		-0.013	0.092	.887		-0.215	0.167	.201
Age (<i>U2</i>)		0.001	0.004	.865		-0.005	0.004	.178		-0.019	0.007	.010
Dyadic tenure (<i>U3</i>)		-0.001	0.001	.539		0.001	0.001	.663		0.001	0.002	.298
Power distance (<i>U4</i>)		-0.253	0.068	.001		-0.167	0.073	.023		0.078	0.135	.356
Uncertainty avoidance (<i>U5</i>)		0.172	0.078	.029		-0.050	0.083	.545		0.083	0.154	.062
Collectivism (<i>U6</i>)		-0.051	0.071	.465		0.038	0.073	.604		0.357	0.135	.008
Social desirability (<i>U7</i>)		0.856	0.303	.005		-0.094	0.321	.769		-0.071	0.586	.903
		$R^2 = 0.280$			$R^2 = 0.273$			$R^2 = 0.139$				
		F (8, 246) = 11.947, <i>p</i> = .000			F (9, 245) = 10.241, <i>p</i> = .000			F (10, 244) = 3.946, <i>p</i> = .001				

N=255

Table 4.14: Results for the total effect and bootstrapped results for total indirect effect and the three indirect effects for serial multiple mediator Model 5

			95% CIs	
	Indirect effect	SE	Lower	Upper
Total effect of LMX on Satisfaction with life	0.1785	0.071	0.0459	0.3241

			95% BC CIs	
	Boot indirect effect	Boot SE	Lower	Upper
Total indirect effect: LMX – Satisfaction with life	0.0825	0.038	0.0117	0.1653
Indirect effect via Forgiveness	0.0816	0.042	0.0079	0.1761
Indirect effect via Relationship effort	0.001	0.012	-0.0248	0.0272
Indirect effect via both Forgiveness and Relationship effort	0.001	0.015	-0.0302	0.0324

4.3.3 The three-way interaction and conditional process analysis

In addition to serial multiple mediation analysis of the four models, conditional process analysis was performed in order to test for boundary conditions. Conditional process analysis is used when one aims to describe and understand the conditional nature of a mechanism by which a variable transmits its effect on another and test hypothesis about such contingent effects (Hayes, 2013).

Currently, PROCESS macro does not support simultaneous testing for indirect effects and three-way interaction effects when serial multiple mediators are operating. Therefore, the outcomes will be excluded from analysis and model depicting mediation with a three-way interaction will be used for testing hypotheses (see Figure 4.08). Statistical diagram is presented in Figure 4.09. This model was specified using the syntax for Model 11 (templates, Hayes, 2013).

Figure 4.08: Conditional process model with the three-way interaction

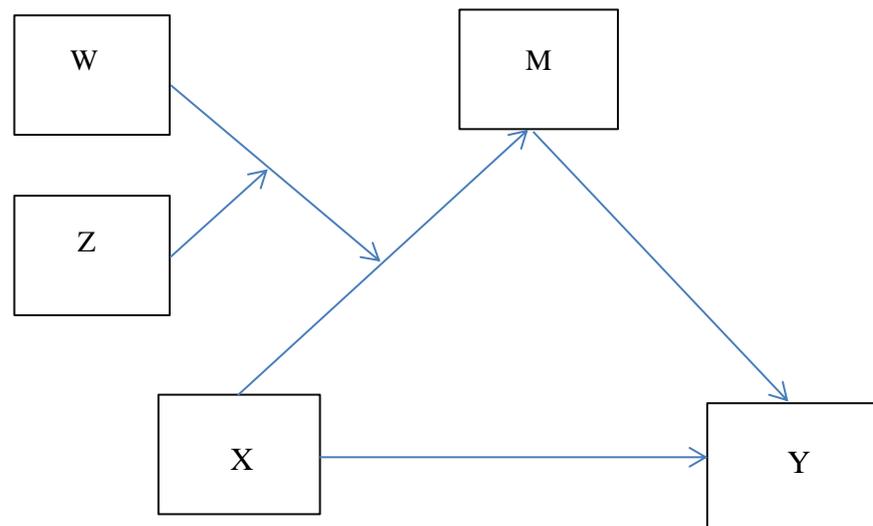
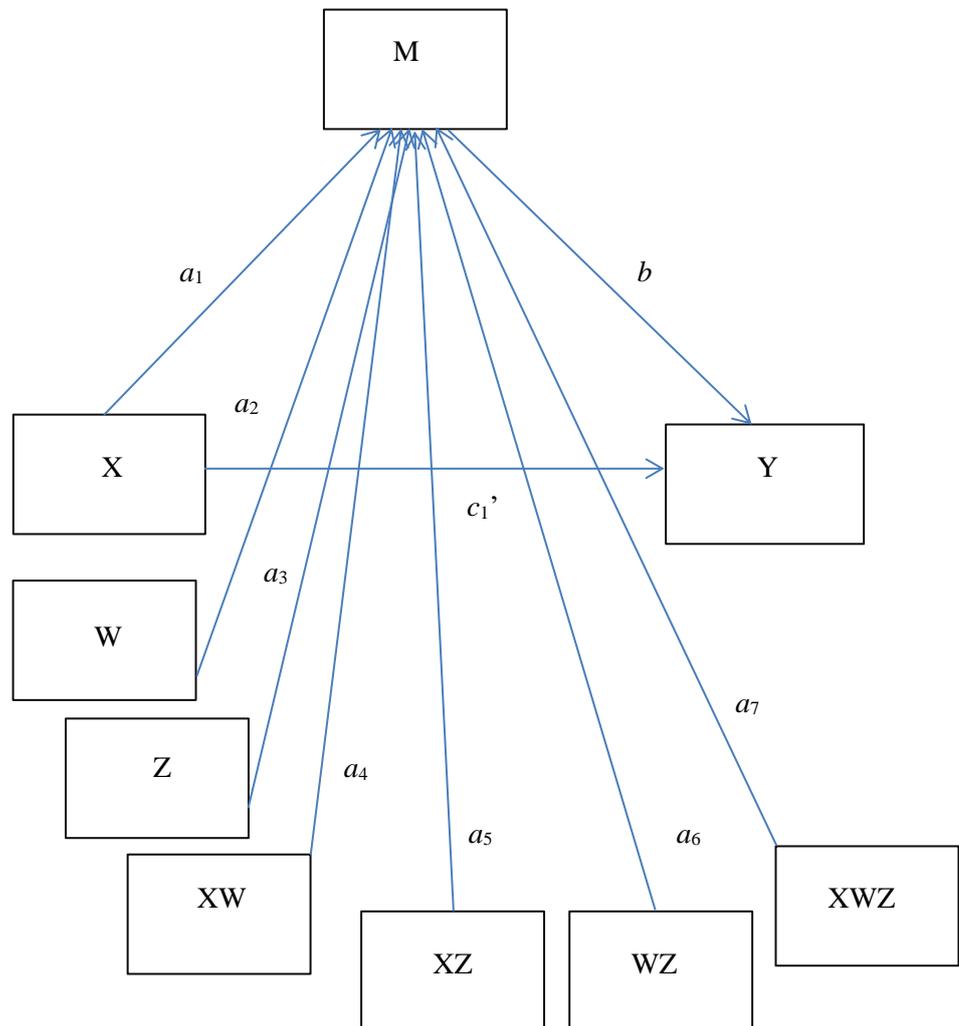


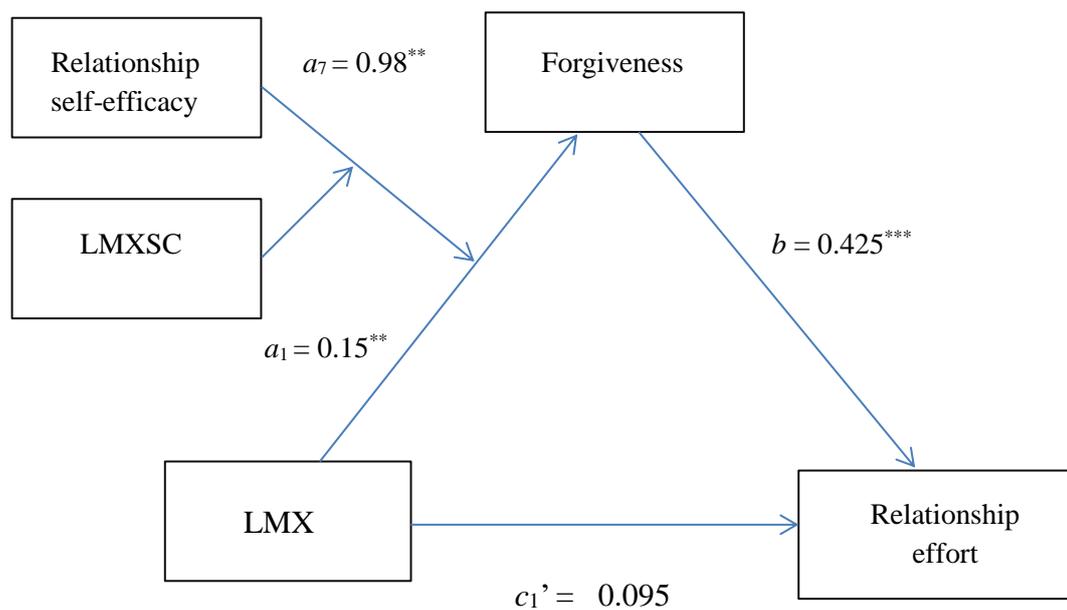
Figure 4.09: Statistical diagram for mediator with a three-way interaction model



The conditional process Model depicted in Figure 4.10 shows that LMX quality, follower's relationship self- efficacy and LMXSC interact to affect follower's relationship efforts via follower's levels of forgiveness. It was predicted that the follower is more likely to be forgiving of their leader if they have high relationship self-efficacy and if they perceive their relationship with their leader to be of a better quality compared to the relationships the leader has with other followers (i.e., high LMXSC). Furthermore, the follower's levels of forgiveness was expected to mediate the relationship between this three-way interaction and follower's relationship effort. Prior to analysis all the variables

involved in the interaction term, as well as control variables were standardised. This allows the coefficients of the three variables that define the product to be interpretable (Aiken, West, & Reno, 1991; Dawson, 2014; Dawson & Richter, 2006; Hayes, Glynn, & Huge, 2012).

Figure 4.10: The three-way interaction coefficient and path coefficients for conditional process model



The effects in conditional process models are derived by linking the coefficients from models of M and Y. An indirect effect is the product of the effect of the interaction of X on M and the effect of M on Y controlling for X (Hayes, 2013). This analysis is performed through a number of steps. First, it is necessary to show that the effect of LMX quality (X) on follower’s forgiveness (M) is dependent on follower’s relationship self-efficacy (W) and LMXSC (Z). This condition was satisfied as the interaction between LMX quality, relationship self-efficacy and LMXSC was found to be statistically significant ($\beta = .098$, $t(255) = 2.969$, $p = .003$). This is the first component of the indirect effect of LMX quality (X) on relationship effort (Y) through follower’s forgiveness (M) and is presented as: $a_1 + a_4W + a_5Z + a_7WZ$ (see statistical diagram in Figure 4.09).

Second, there should be a significant effect of follower's forgiveness (M) on relationship effort (Y) controlling for LMX quality (X). As can be seen, a significant effect ($\beta = .425$, $t(255) = 6.3877$, $p < .001$) confirmed that greater levels of follower's forgiveness are associated with greater relationship efforts. Since this effect was not modelled to be moderated, it is represented with a single estimate b . A product of these two components provides the indirect effect of X on Y through M: $(a_1 + a_4W + a_5Z + a_7WZ) b_1$.

The direct effect of LMX relationship quality (X) on relationship effort (Y) shows how differences in X influence differences in Y holding constant the proposed mediators or moderators (Hayes 2013). Direct effect was not found to be significant ($\beta = .095$, $t(255) = 1.949$, $p = .052$); nevertheless, this is not a prerequisite for looking for conditional indirect effects (Cerin & MacKinnon, 2009; Hayes, 2009, 2013; Rucker et al., 2011; Shrout & Bolger, 2002; Zhao et al., 2010).

With evidence that the relationship between LMX quality (X) and forgiveness (M) is moderated by relationship self-efficacy (W) and LMXSC (Z), the next step is to estimate the conditional indirect effects for high and low values of moderators. Since predictor variables were standardised prior to analysis, high and low values of moderators are ± 1 standard deviation above the mean.

Table 4.15: Regression coefficients, standard errors, and model summary information for conditional process model

		Consequent						
		Forgiveness (<i>M</i>)			Relationship effort (<i>Y</i>)			
Antecedent		Coeff.	SE	<i>p</i>		Coeff.	SE	<i>p</i>
LMX (<i>X</i>)	$a_1 \rightarrow$	0.158	0.054	.004	$c_1' \rightarrow$	0.095	0.048	.052
Forgiveness (<i>M</i>)					$b \rightarrow$	0.425	0.067	<.001
Relationship self-efficacy (<i>W</i>)	$a_2 \rightarrow$	0.229	0.048	<.001				
LMXSC (<i>Z</i>)	$a_3 \rightarrow$	0.049	0.047	.303				
X*W	$a_4 \rightarrow$	0.120	0.049	.016				
X*Z	$a_5 \rightarrow$	0.065	0.047	.169				
W*Z	$a_6 \rightarrow$	-0.108	0.048	.024				
X*W*Z	$a_7 \rightarrow$	0.098	0.033	.003				
Constant	$i_M \rightarrow$	4.5517	0.043	<.001	$I_y \rightarrow$	1.973	0.310	<.001
Gender (<i>U1</i>)		-0.116	0.038	.002		-0.006	0.044	.885
Age (<i>U2</i>)		0.018	0.038	.717		-0.059	0.044	.178
Dyadic tenure (<i>U3</i>)		-0.034	0.038	-.304		0.022	0.044	.613
Power distance (<i>U4</i>)		-0.109	0.038	.001		-0.103	0.045	.023
Uncertainty avoidance (<i>U5</i>)		0.065	0.038	.117		-0.026	0.045	.454
Collectivism (<i>U6</i>)		-0.031	0.039	.228		0.023	0.045	.604
Social desirability (<i>U7</i>)		0.116	0.038	.002		-0.013	0.045	.769
		$R^2 = 0.436$			$R^2 = 0.273$			
N = 255		F (14, 240) = 13.255, <i>p</i> = .000			F (9, 245) = 10.241, <i>p</i> = .000			

Hypothesis 5 predicted that follower's LMX relationship quality, relationship self-efficacy and LMXSC interact to affect follower's forgiveness in such a way that LMX quality had the strongest positive relationship with forgiveness when both relationship self-efficacy and LMXSC were both high. A significant interaction between LMX, relationship self-efficacy and LMXSC was found ($\beta = .098$, $t(255) = 2.969$, $p < .003$) (see Table 4.15). The three-way interaction was plotted in Figure 4.11 using the procedure by Aiken et al. (1991). As Figure 4.11 shows, LMX relationship quality had the strongest positive relationship with forgiveness when relationship self-efficacy and LMXSC were both high, thus supporting Hypothesis 5.

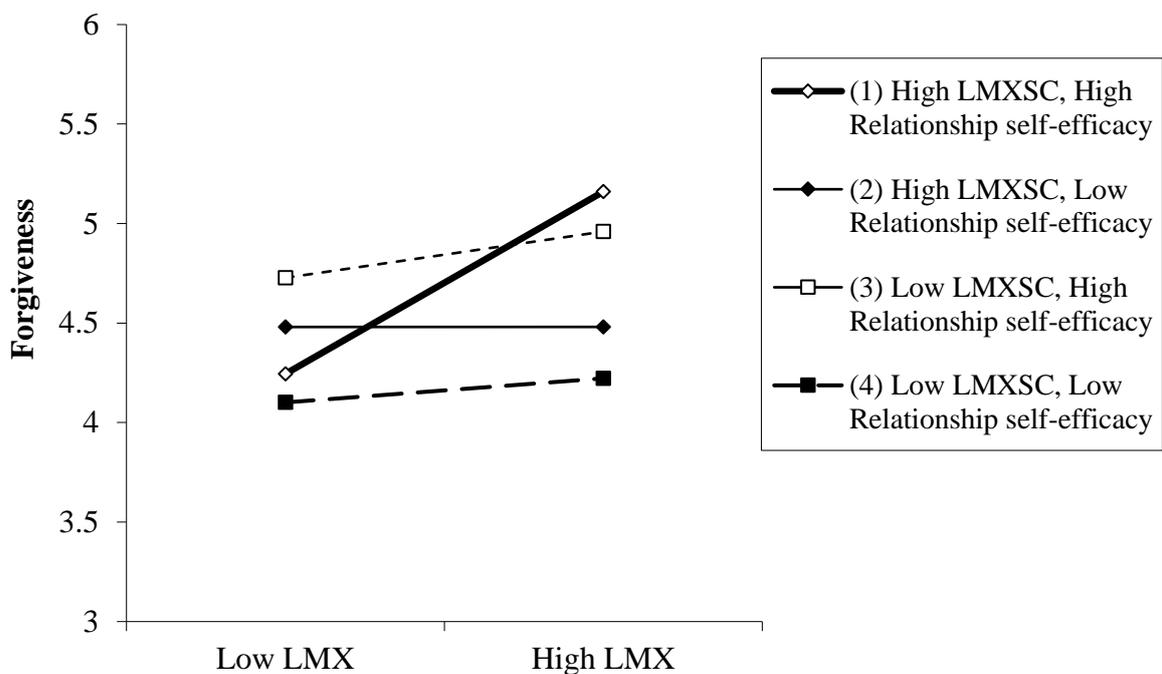


Figure 4.11: The interaction between LMX quality, relationship self-efficacy and LMXSC

The difference between the pairs of individual slopes was examined with a method developed by Dawson and Richter (2006). This method determines whether the ratio of the differences between a pair of slopes and its standard errors differs from zero. The simple slopes and

slope difference tests related are presented in Table 4.16. The results of the simple slopes tests showed that follower's LMX quality elicited greater levels of forgiveness when both follower's relationship self-efficacy and LMXSC were high (pair 1: $t=4.014, p<0.001$). In contrast, when followers had low levels of relationship self-efficacy and/or when followers perceived the quality of relationship with their leader to be similar to the average relationship quality the leader has within the workgroup, i.e. low LMXSC, the effect of LMX quality on forgiveness was actually statistically non-significant (pairs 2, 3 and 4).

However, the analysis of simple slope difference showed that the relationship between LMX and forgiveness is most positive when both relationship self-efficacy and LMXSC are high (Slopes 1 and 2; $t=3.236, p < .001$). However, when either moderator is not high there is a less positive relationship and this does not differ depending on whether one or both of the mediators are low (Slopes 1 and 3; $t=2.546, p < .05$), (Slopes 1 and 4; $t=2.897, p < .05$).

Hypothesis 6 stated that follower's forgiveness mediates the joint influence of LMX relationship quality, high levels of relationship self-efficacy and high LMXSC on follower's relationship effort. Conditional indirect effects of LMX quality on relationship effort at high and low values of the moderators are shown in Table 4.17. Indeed, when follower has high relationship self-efficacy and high LMXSC, LMX quality has the strongest positive effect on forgiveness ($\beta = .192, 95\% \text{ CI} = 0.0711 \text{ to } 0.3654$), thus supporting Hypothesis 6.

Table 4.16: Simple slopes comparisons for three-way interactions

Pairs of comparisons	Forgiveness	
	Slope	t
1 (High relationship self-efficacy, high LMXSC)	.458	4.014***
2 (High relationship self-efficacy, low LMXSC)	.116	1.524
3 (Low relationship self-efficacy, high LMXSC)	.000	0.001
4 (Low relationship self-efficacy, low LMXSC)	.061	0.856
Slope difference		
1 and 2		3.236***
1 and 3		2.546*
1 and 4		2.897*
2 and 3		-0.846
2 and 4		-0.659
3 and 4		0.593

Note. Pair numbers correspond to the numbers in Figure 4.11. Slope tests were based on Dawson and Richter (2006). *** $p < .001$ * $p < .05$

Table 4.17: Bootstrapped conditional indirect effects of the three-way interaction on relationship effort at high and low values of the moderators

Relationship self-efficacy (W)	LMXSC (Z)	B	Boot SE	95% bootstrap CI	
				Upper	Lower
-1 SD (-0.9568)	-1 SD (-1.0164)	0.0310	0.0285	-0.0188	0.0938
-1 SD (-0.9568)	+1 SD (1.0188)	0.0059	0.0593	-0.1073	0.1273
+1 SD (1.0299)	-1 SD (-1.0164)	0.0482	0.0373	-0.0182	0.1308
+1 SD (1.0299)	+1 SD (1.0188)	0.1922	0.0728	0.0711	0.3654

4.3.4 Conditional process analysis of the whole model

Figure 4.12 depicts the proposed conditional process model - a serial multiple mediation with a three-way interaction on path X-M1. Previously PROCESS macro was used to test the Hypotheses 1-6 in a piecemeal approach. First, a serial multiple mediation of the five models was performed. Second, a conditional process model involving X, M1 and M1, as well as a three-way interaction was tested. In order to test Hypotheses 7a- 7e, i.e., the whole conditional process model, Mplus software (Muthén & Muthén, 1998-2012) was used. Statistical diagram of the model is presented in Figure 4.13. The algebra for developing the Mplus syntax is available in Appendix B and the Mplus syntax is available in Appendix C.

Figure 4.12: Conditional process model: Serial multiple mediator model with the three-way interaction

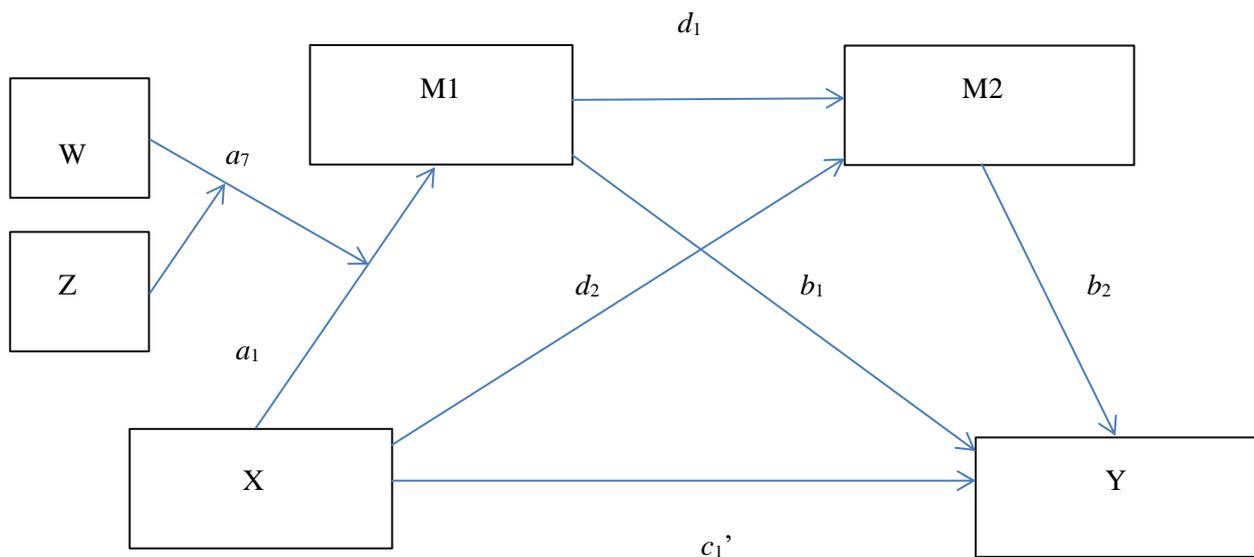
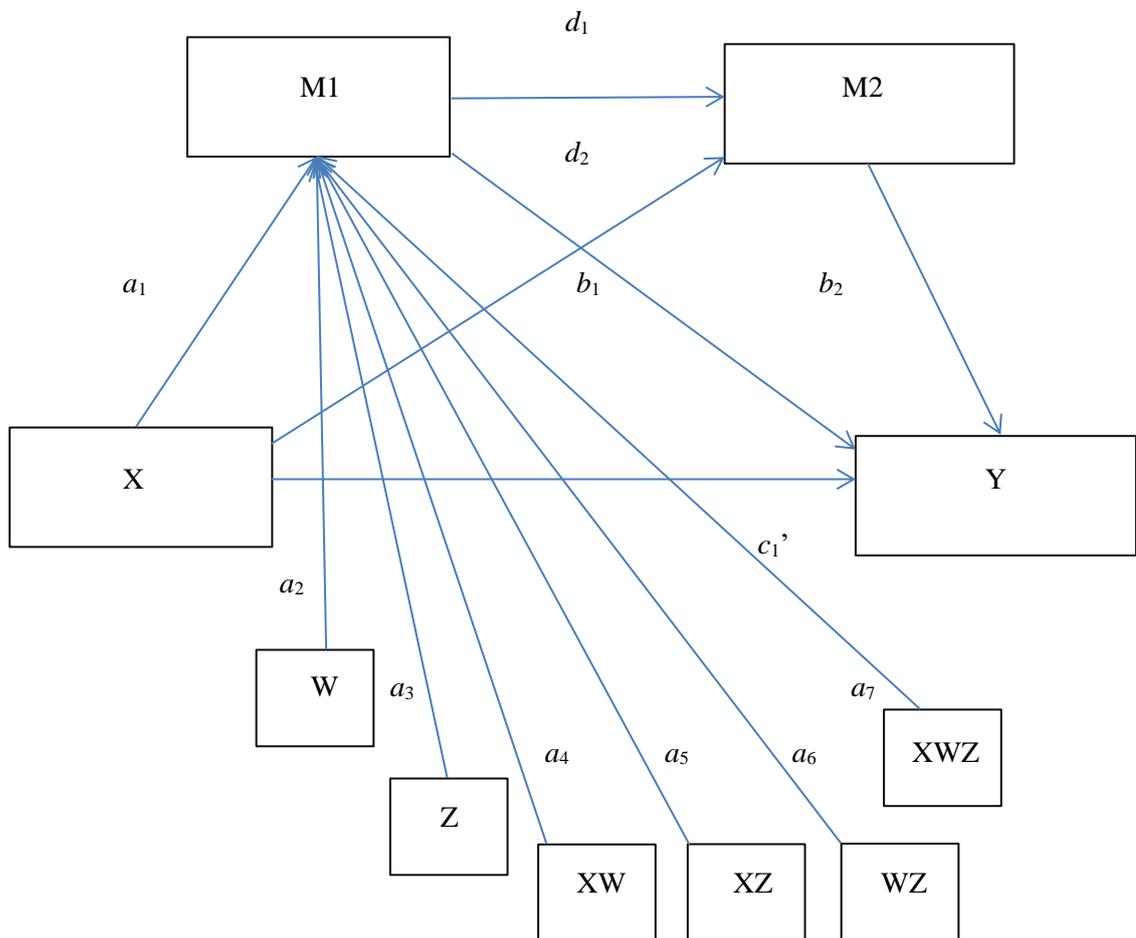


Figure 4.13: Statistical diagram for serial multiple mediator model with a three-way interaction



4.3.4.1 Conditional process Model 1

The conditional process Model 1 depicted in Figure 4.14 shows that LMX quality, follower's relationship self-efficacy and LMXSC interact to affect follower's job satisfaction via follower's levels of forgiveness and relationship effort, in sequence. It is predicted that the follower is more likely to be more forgiving of their leader if the follower has both high relationship self-efficacy and high LMXSC. Greater levels of follower's forgiveness will, in turn, lead to enhanced relationship effort. Consequently, relationship efforts will be positively associated with follower's job satisfaction.

The indirect effects are defined as the product of paths linking X to Y through both mediators, M1 and M2. Furthermore, these indirect effects are moderated by W and Z. Therefore, an indirect effect is the product of paths linking X to Y through mediators: (1) the function linking X to M1, (2) the effect of M1 on M2 controlling for X, and (3) the effect of M2 on Y controlling for X, M1 and M2. Thus, an indirect effect of X on Y conditional on W and Z is presented as (see Appendix B): $a_1b_1 + a_4 b_1W + a_5 b_1Z + a_7 b_1WZ + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1W + a_5 b_2d_1Z + a_7 b_2d_1WZ$.

Note that seven control variables were excluded from the diagram in order to reduce the visual clutter in statistical diagram (Figure 4.13). Results in the Table 4.18 show that the interaction between LMX quality, relationship self-efficacy and LMXSC was found to be positive and statistically significant ($\beta = 0.133, p = .014$). Moreover, the relationship between follower's forgiveness and relationship effort was positive and significant ($\beta = 0.40, p < .001$). Finally, there was a significant positive association between relationship effort and job satisfaction ($\beta = 0.229, p < .003$). These findings suggest that the three-way interaction between LMX, relationship self-efficacy and LMXSC does influence follower's job satisfaction via follower's forgiveness and relationship effort.

Conditional indirect effects for high and low values of moderators (± 1 standard deviation above the mean) were estimated using 95% bootstrap confidence intervals based on 10,000 bootstrap samples. The results in Table 4.19 indeed suggest that for high values of relationship self-efficacy and LMXSC there is the strongest positive relationship between the three-way interaction on job satisfaction via forgiveness and relationship ($b=0.195$, 95% bootstrapped confidence interval of 0.092 to 0.361) thus supporting Hypothesis 7a.

Figure 4.14: The three-way interaction coefficient and path coefficients for conditional process Model 1

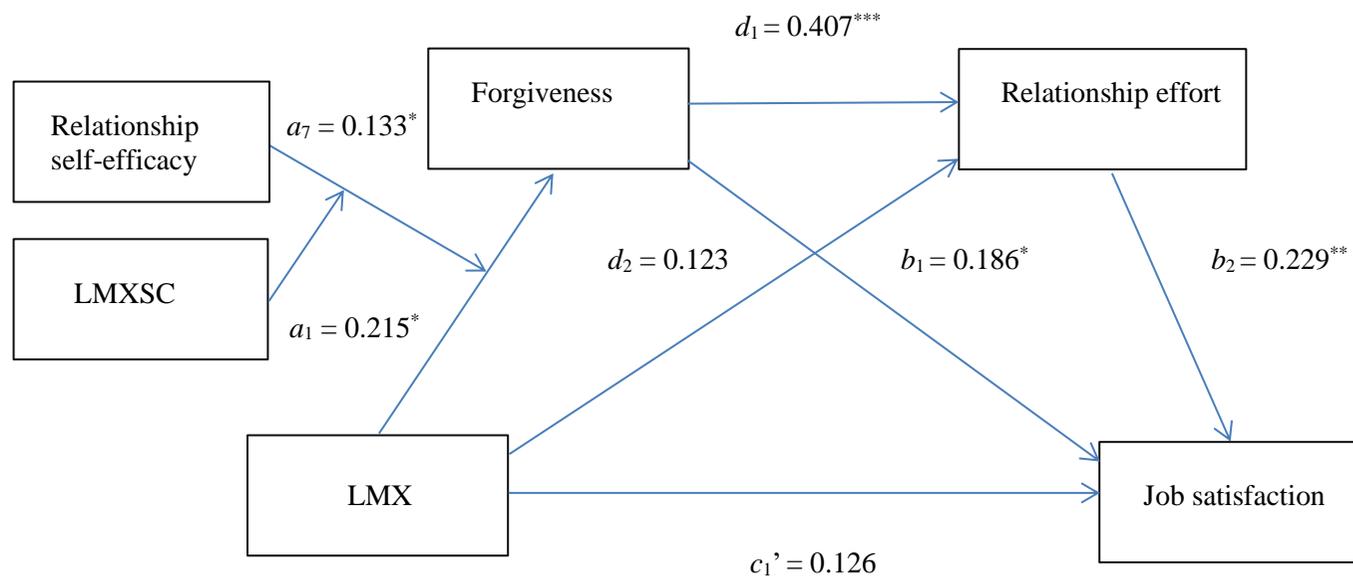


Table 4.18: Estimates, standard errors, and model information for conditional process Model 1

Antecedent		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			Job satisfaction (<i>Y</i>)				
		Estim.	SE	<i>p</i>	Estim.	SE	<i>P</i>	Estim.	SE	<i>p</i>		
LMX (<i>X</i>)	$a_1 \rightarrow$	0.215	0.092	.020	$d_2 \rightarrow$	0.123	0.067	.064	$c_1' \rightarrow$	0.126	0.077	.103
Relationship self-efficacy (<i>W</i>)	$a_2 \rightarrow$	0.311	0.073	.000								
LMXSC (<i>Z</i>)	$a_3 \rightarrow$	0.066	0.073	.361								
X*W	$a_4 \rightarrow$	0.116	0.072	.024								
X*Z	$a_5 \rightarrow$	0.088	0.080	.227								
W*Z	$a_6 \rightarrow$	-0.147	0.071	.039								
X*W*Z	$a_7 \rightarrow$	0.133	0.054	.014								
Forgiveness (<i>M1</i>)					$d_1 \rightarrow$	0.407	0.070	.000	$b_1 \rightarrow$	0.182	0.077	.015
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	0.229	0.078	.003
Constant	$i_{M1} \rightarrow$	-0.055	0.063	.378	$i_{M2} \rightarrow$	0.001	0.055	.990	$i_y \rightarrow$	5.802	0.062	.000
Gender (<i>U1</i>)		-0.159	0.050	.002		-0.008	0.056	.882		-0.055	0.067	.417
Age (<i>U2</i>)		0.019	0.054	.730		-0.077	0.060	.202		0.085	0.061	.163
Dyadic tenure (<i>U3</i>)		-0.053	0.050	.328		0.029	0.064	.650		-0.049	0.054	.369
Power distance (<i>U4</i>)		-0.170	0.059	.004		-0.135	0.065	.038		-0.042	0.058	.490
Uncertainty avoidance (<i>U5</i>)		0.082	0.052	.012		-0.035	0.059	.557		0.044	0.075	.553
Collectivism (<i>U6</i>)		-0.064	0.054	.423		0.030	0.058	.603		0.144	0.070	.041
Social desirability (<i>U7</i>)		0.160	0.051	.002		-0.017	0.057	.766		0.111	0.068	.105
				$R^2 = 0.436$				$R^2 = 0.273$				$R^2 = 0.218$

N=255

Table 4.19: Bootstrapped indirect effects of conditional process Model 1 at high and low values of the moderators

Relationship self-efficacy (<i>W</i>)	LMXSC (<i>Z</i>)	Estim.	SE	<i>p</i>	95% bootstrap CI	
					Upper	Lower
-1 SD (-1)	-1 SD (-1)	0.055	0.029	.061	0.005	0.122
-1 SD (-1)	+1 SD (1)	0.030	0.056	.593	-0.084	0.142
+1 SD (1)	-1 SD (-1)	0.072	0.038	.058	0.007	0.156
+1 SD (1)	+1 SD (1)	0.195	0.065	.003	0.092	0.361

4.3.4.2 Conditional process Model 2

The conditional process Model 2 is depicted in Figure 4.15. According to Hypothesis 7b, follower's forgiveness and relationship effort sequentially mediates the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's state self-esteem in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's state self-esteem.

The results in Table 4.20 support this hypothesis as the interaction between LMX quality, relationship self-efficacy and LMXSC was found to be positive and statistically significant ($\beta = 0.133$, $p = .014$). Additionally, the relationship between follower's forgiveness and relationship effort was positive and significant ($\beta = 0.407$, $p < .001$). Lastly, there is a significant positive association between relationship effort and state self-esteem ($\beta = 0.164$, $p < .001$).

Conditional indirect effects for high and low values of moderators (± 1 standard deviation above the mean) were estimated using 95% bootstrap confidence intervals based on 10,000 bootstrap samples. The results in Table 4.21 indeed suggest that for high values of relationship self-efficacy and LMXSC there is the strongest positive relationship between the three-way interaction on state self-esteem via forgiveness and relationship ($\beta = 0.083$, 95% bootstrapped confidence interval of 0.041 to 0.149). Therefore, Hypothesis 7b is supported.

Figure 4.15: The three-way interaction coefficient and path coefficients for conditional process Model 2

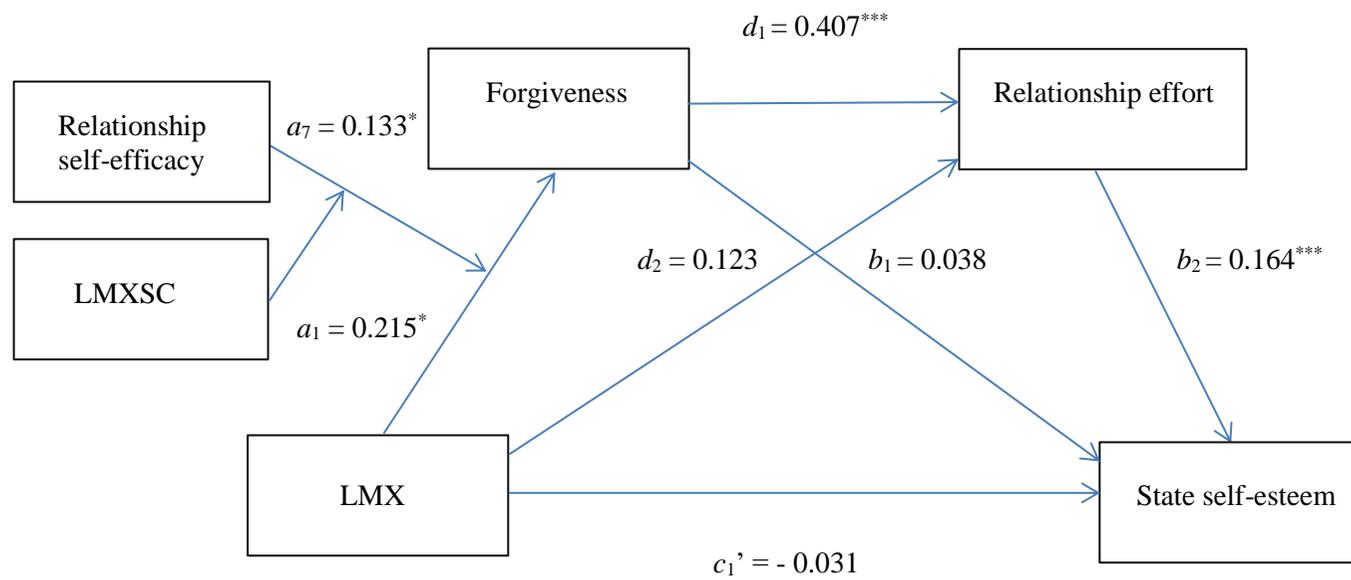


Table 4.20: Estimates, standard errors, and model information for conditional process Model 1

Antecedent		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			Job satisfaction (<i>Y</i>)				
		Estim.	SE	<i>p</i>	Estim.	SE	<i>p</i>	Estim.	SE	<i>p</i>		
LMX (<i>X</i>)	$a_1 \rightarrow$	0.215	0.092	.020	$d_2 \rightarrow$	0.123	0.067	.064	$c_1' \rightarrow$	0.126	0.077	.103
Relationship self-efficacy (<i>W</i>)	$a_2 \rightarrow$	0.311	0.073	.000								
LMXSC (<i>Z</i>)	$a_3 \rightarrow$	0.066	0.073	.361								
X*W	$a_4 \rightarrow$	0.116	0.072	.024								
X*Z	$a_5 \rightarrow$	0.088	0.080	.227								
W*Z	$a_6 \rightarrow$	-0.147	0.071	.039								
X*W*Z	$a_7 \rightarrow$	0.133	0.054	.014								
Forgiveness (<i>M1</i>)					$d_1 \rightarrow$	0.407	0.070	.000	$b_1 \rightarrow$	0.182	0.077	.015
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	0.229	0.078	.003
Constant	$i_{M1} \rightarrow$	-0.055	0.063	.378	$i_{M2} \rightarrow$	0.001	0.055	.990	$i_y \rightarrow$	5.802	0.062	.000
Gender (<i>U1</i>)		-0.159	0.050	.002		-0.008	0.056	.882		-0.055	0.067	.417
Age (<i>U2</i>)		0.019	0.054	.730		-0.077	0.060	.202		0.085	0.061	.163
Dyadic tenure (<i>U3</i>)		-0.053	0.050	.328		0.029	0.064	.650		-0.049	0.054	.369
Power distance (<i>U4</i>)		-0.170	0.059	.004		-0.135	0.065	.038		-0.042	0.058	.490
Uncertainty avoidance (<i>U5</i>)		0.082	0.052	.012		-0.035	0.059	.557		0.044	0.075	.553
Collectivism (<i>U6</i>)		-0.064	0.054	.423		0.030	0.058	.603		0.144	0.070	.041
Social desirability (<i>U7</i>)		0.160	0.051	.002		-0.017	0.057	.766		0.111	0.068	.105
				$R^2 = 0.436$				$R^2 = 0.273$				$R^2 = 0.218$

N=255

Table 4.21: Bootstrapped indirect effects of conditional process Model 2 at high and low values of the moderators

Relationship self-efficacy (<i>W</i>)	LMXSC (<i>Z</i>)	Estim.	SE	<i>p</i>	95% bootstrap CI	
					Upper	Lower
-1 SD (-1)	-1 SD (-1)	0.030	0.014	.031	0.005	0.061
-1 SD (-1)	+1 SD (1)	0.021	0.023	.363	-0.027	0.066
+1 SD (1)	-1 SD (-1)	0.037	0.017	.032	0.008	0.074
+1 SD (1)	+1 SD (1)	0.083	0.026	.001	0.041	0.149

4.3.4.3 Conditional process Model 3

The conditional process Model 3 depicted in Figure 4.16 shows that LMX quality, follower's relationship self-efficacy and LMXSC interact to affect follower's positive affect via follower's levels of forgiveness and relationship effort, in sequence. It is predicted that the follower is more likely to be more forgiving of their leader if the follower has both high relationship self-efficacy and high LMXSC. Greater levels of follower's forgiveness will in turn lead to enhanced relationship effort. Consequently, relationship efforts will be positively associated with follower's positive affect.

Table 4.22 shows that the interaction between LMX quality, relationship self-efficacy and LMXSC was found to be positive and statistically significant ($\beta = 0.133, p = .014$). Moreover, the relationship between follower's forgiveness and relationship effort was positive and significant ($\beta = 0.407, p < .001$). Finally, there is a significant positive association between relationship effort and positive affect ($\beta = 0.125, p = .005$). These findings suggest that the three-way interaction between LMX, relationship self-efficacy and LMXSC does influence follower's positive affect via follower's forgiveness and relationship effort. Conditional indirect effects for high and low values of moderators (± 1 standard deviation above the mean) were estimated using 95% bootstrap confidence intervals based on 10,000 bootstrap samples. The results in Table 4.23 indeed suggest that for high values of relationship self-efficacy and LMXSC there is the strongest positive relationship between the three-way interaction on positive affect via forgiveness and relationship ($\beta = 0.081, 95\%$ bootstrapped confidence interval of 0.033 to 0.160) thus supporting Hypothesis 7c.

Figure 4.16: The three-way interaction coefficient and path coefficients for conditional process Model 3

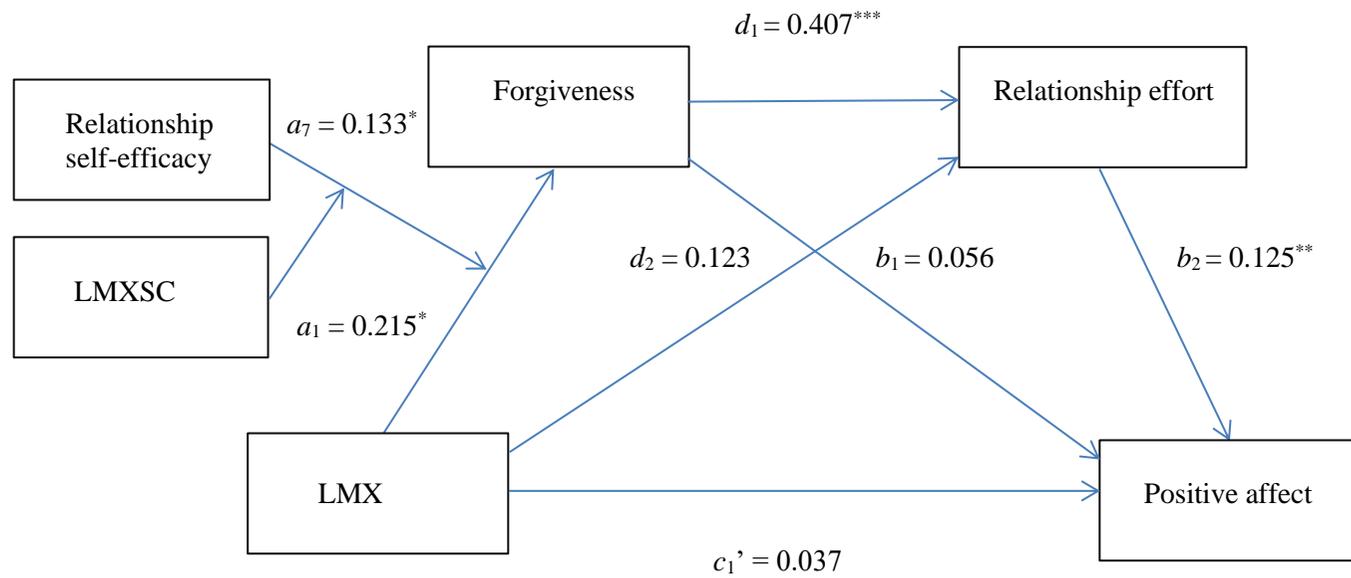


Table 4.22: Estimates, standard errors, and model information for conditional process Model 2

		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)				State self-esteem (<i>Y</i>)			
Antecedent		Estim.	SE	<i>p</i>		Estim.	SE	<i>p</i>		Estim.	SE	<i>p</i>
LMX (<i>X</i>)	$a_1 \rightarrow$	0.215	0.092	.020	$d_2 \rightarrow$	0.123	0.067	.064	$c_1' \rightarrow$	-0.031	0.028	.265
Relationship self-efficacy (<i>W</i>)	$a_2 \rightarrow$	0.311	0.073	.000								
LMXSC (<i>Z</i>)	$a_3 \rightarrow$	0.066	0.073	.361								
X*W	$a_4 \rightarrow$	0.163	0.072	.024								
X*Z	$a_5 \rightarrow$	0.088	0.080	.274								
W*Z	$a_6 \rightarrow$	-0.147	0.071	.039								
X*W*Z	$a_7 \rightarrow$	0.133	0.054	.014								
Forgiveness (<i>M1</i>)					$d_1 \rightarrow$	0.407	0.070	.000	$b_1 \rightarrow$	0.038	0.034	.258
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	0.164	0.032	.000
Constant	$i_{M1} \rightarrow$	-0.055	0.063	.378	$i_{M2} \rightarrow$	0.001	0.055	.990	$i_y \rightarrow$	3.871	0.025	.000
Gender (<i>U1</i>)		-0.159	0.050	.002		-0.008	0.056	.882		0.041	0.029	.157
Age (<i>U2</i>)		0.019	0.054	.730		-0.077	0.060	.201		0.009	0.027	.747
Dyadic tenure (<i>U3</i>)		-0.053	0.050	.284		0.029	0.064	.650		0.031	0.024	.189
Power distance (<i>U4</i>)		-0.170	0.059	.004		-0.135	0.065	.038		0.031	0.028	.273
Uncertainty avoidance (<i>U5</i>)		0.082	0.052	.120		-0.035	0.059	.557		0.027	0.026	.314
Collectivism (<i>U6</i>)		-0.064	0.054	.239		0.030	0.058	.603		0.082	0.030	.007
Social desirability (<i>U7</i>)		0.160	0.051	.002		-0.017	0.057	.766		0.017	0.024	.486
N= 255		R ² = 0.436				R ² = 0.273				R ² = 0.215		

Table 4.23: Bootstrapped indirect effects of conditional process Model 3 at high and low values of the moderators

Relationship self-efficacy (<i>W</i>)	LMXSC (<i>Z</i>)	Estim.	SE	<i>p</i>	95% bootstrap CI	
					Upper	Lower
-1 SD (-1)	-1 SD (-1)	0.026	0.013	.052	0.003	0.057
-1 SD (-1)	+1 SD (1)	0.016	0.024	.484	-0.030	0.065
+1 SD (1)	-1 SD (-1)	0.032	0.018	.065	0.005	0.073
+1 SD (1)	+1 SD (1)	0.081	0.031	.010	0.033	0.160

4.3.4.4 Conditional process Model 4

The conditional process Model 4 is depicted in Figure 4.17. According to Hypothesis 7d, follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's negative affect in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest negative relationship with follower's negative affect.

The results in Table 4.24 support Hypothesis 7d as the interaction between LMX quality, relationship self-efficacy and LMXSC was found to be positive and statistically significant ($\beta = 0.128$, $p = .022$). Additionally, the relationship between follower's forgiveness and relationship effort was positive and significant ($\beta = 0.403$, $p < .001$). Lastly, there is a significant negative association between relationship effort and negative affect ($\beta = -0.155$, $p < .001$).

Conditional indirect effects for high and low values of moderators (± 1 standard deviation above the mean) were estimated using 95% bootstrap confidence intervals based on 10,000 bootstrap samples. The results in Table 4.25 indeed suggest that for high values of relationship self-efficacy and LMXSC there is the strongest negative relationship between the three-way interaction on negative affect via forgiveness and relationship ($\beta = -0.070$, 95% bootstrapped confidence interval of -0.156 to -0.023). Therefore, Hypothesis 7d is supported.

Figure 4.17: The three-way interaction coefficient and path coefficients for conditional process Model 4

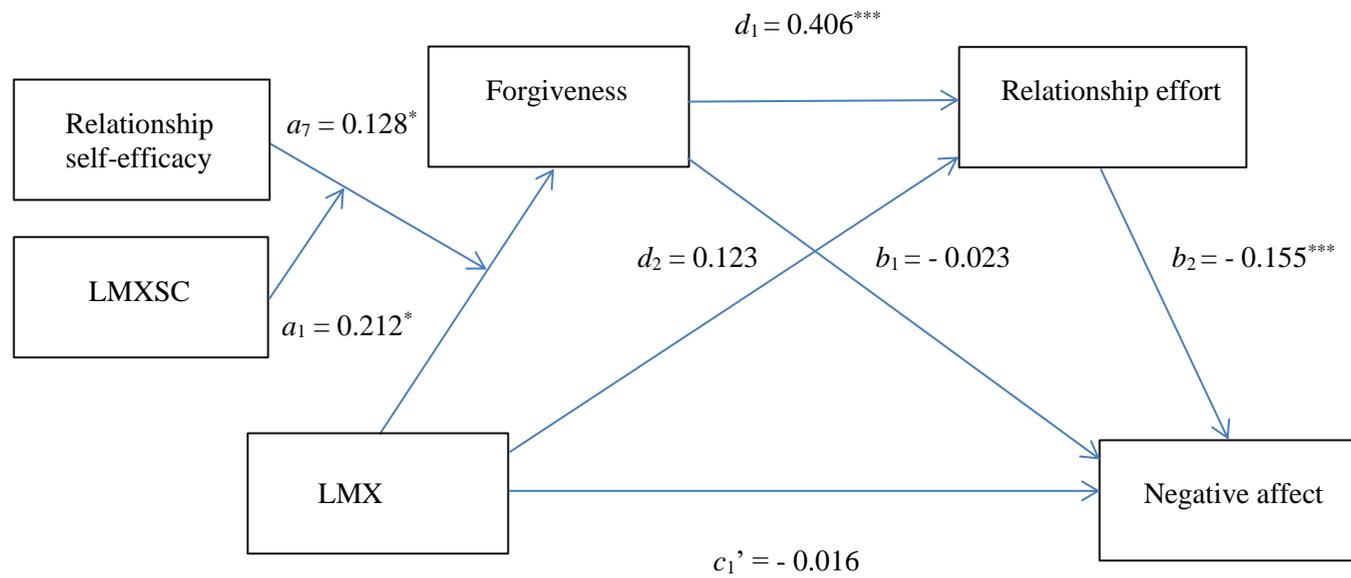


Table 4.24: Estimates, standard errors, and model information for conditional process Model 4

		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			Negative affect (<i>Y</i>)				
Antecedent		Estim.	SE	<i>p</i>		Estim.	SE	<i>p</i>		Estim.	SE	<i>p</i>
LMX (<i>X</i>)	$a_1 \rightarrow$	0.212	0.092	.022	$d_2 \rightarrow$	0.123	0.066	.062	$c_1' \rightarrow$	-0.016	0.036	.648
Relationship self-efficacy (<i>W</i>)	$a_2 \rightarrow$	0.312	0.074	.000								
LMXSC (<i>Z</i>)	$a_3 \rightarrow$	0.069	0.073	.345								
X*W	$a_4 \rightarrow$	0.158	0.073	.032								
X*Z	$a_5 \rightarrow$	0.085	0.080	.285								
W*Z	$a_6 \rightarrow$	-0.148	0.072	.041								
X*W*Z	$a_7 \rightarrow$	0.128	0.056	.022								
Forgiveness (<i>M1</i>)					$d_1 \rightarrow$	0.403	0.070	.000	$b_1 \rightarrow$	-0.025	0.044	.577
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	-0.155	0.041	.000
Constant	$i_{M1} \rightarrow$	-0.054	0.062	.380	$i_{M2} \rightarrow$	0.001	0.055	.979	$i_y \rightarrow$	1.728	0.034	.000
Gender (<i>U1</i>)		-0.159	0.051	.002		-0.009	0.055	.869		-0.009	0.055	.438
Age (<i>U2</i>)		0.018	0.055	.748		-0.078	0.060	.195		-0.078	0.060	.501
Dyadic tenure (<i>U3</i>)		-0.058	0.051	.250		0.023	0.065	.720		0.023	0.065	.675
Power distance (<i>U4</i>)		-0.169	0.060	.005		-0.133	0.065	.040		-0.133	0.065	.448
Uncertainty avoidance (<i>U5</i>)		0.080	0.052	.129		-0.037	0.059	.534		-0.037	0.059	.246
Collectivism (<i>U6</i>)		-0.068	0.055	.219		0.026	0.059	.663		0.026	0.059	.853
Social desirability (<i>U7</i>)		0.157	0.052	.003		-0.019	0.057	.741		-0.190	0.057	.000
N=254		R ² = 0.429				R ² = 0.269				R ² = 0.208		

Table 4.25: Bootstrapped indirect effects of conditional process Model 4 at high and low values of the moderators

Relationship self-efficacy (<i>W</i>)	LMXSC (<i>Z</i>)	Estim.	SE	<i>p</i>	95% bootstrap CI	
					Upper	Lower
-1 SD (-1)	-1 SD (-1)	-0.028	0.014	.047	-0.061	-0.005
-1 SD (-1)	+1 SD (1)	-0.020	0.021	.338	-0.064	0.020
+1 SD (1)	-1 SD (-1)	-0.033	0.016	.047	-0.072	-0.007
+1 SD (1)	+1 SD (1)	-0.070	0.032	.028	-0.156	-0.023

4.3.5 Conditional process analysis of the all four outcomes included in the model

Mplus software allowed the testing of the full model in which all four outcomes are included at the same time. Since Hypotheses 3d was not supported, satisfaction with life, the fifth predicted outcome, was not included in the analysis. Statistical diagram for this model is presented in Figure 4.18. The algebra for developing the Mplus syntax is presented in Appendix D, and the Mplus syntax is presented in Appendix E. Results in Table 4.26 show that Hypotheses 7a-d are supported even when all four outcomes are included in the model. Bootstrapped indirect effects are presented in Table 4.27.

Figure 4.18: Statistical diagram for the model that includes all four outcomes

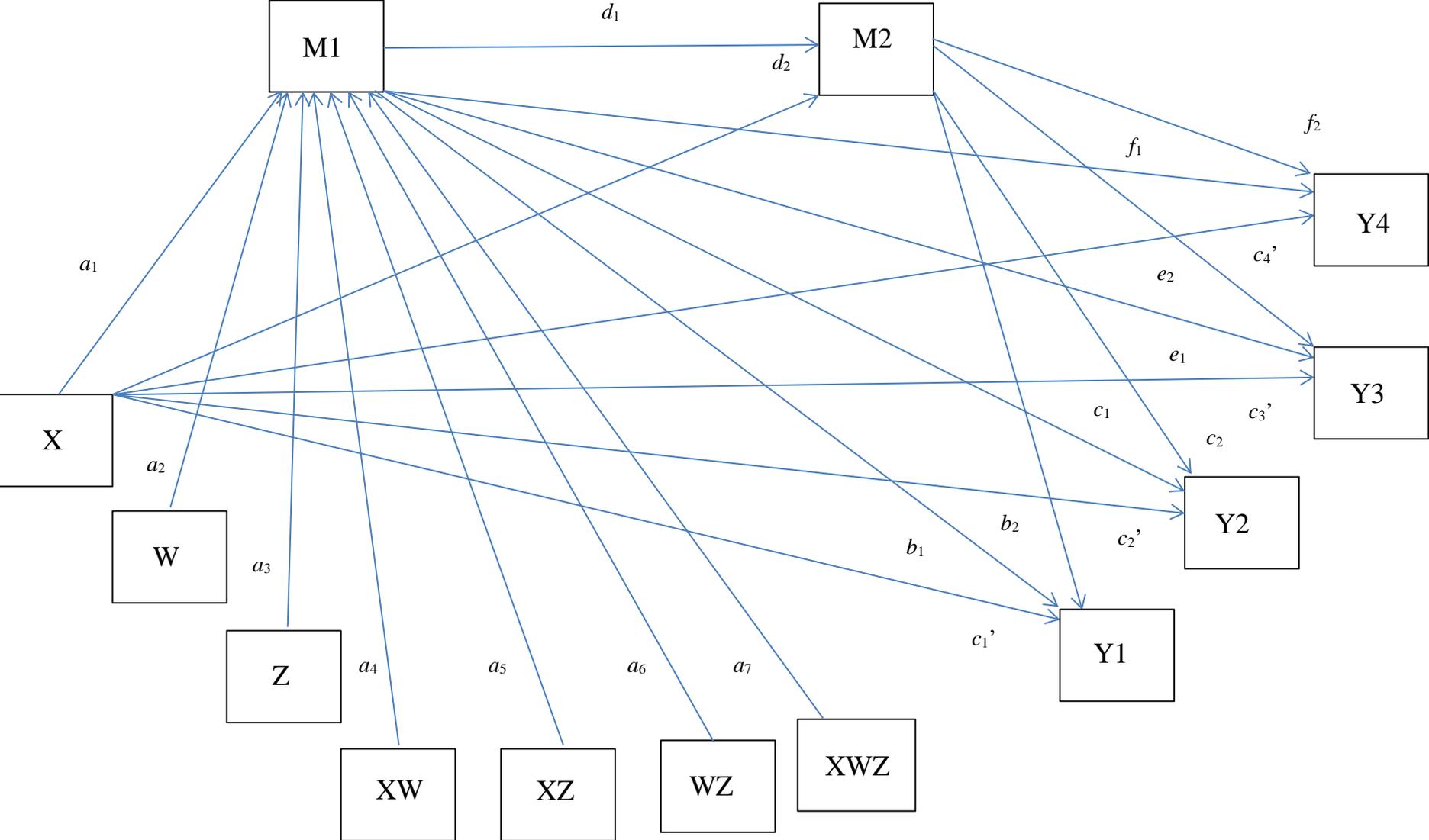


Table 4.26: Estimates, standard errors, and model information for the model which includes all four outcomes

		Consequent										
		Forgiveness (<i>M1</i>)			Relationship effort (<i>M2</i>)			Job satisfaction (<i>Y1</i>)				
Antecedent		Estim.	SE	<i>p</i>	Estim.	SE	<i>p</i>	Estim.	SE	<i>p</i>		
LMX (<i>X</i>)	$a_1 \rightarrow$	0.212	0.092	.022	$d_2 \rightarrow$	0.123	0.066	.062	$c_1' \rightarrow$	0.126	0.077	.102
Relationship self-efficacy (<i>W</i>)	$a_2 \rightarrow$	0.312	0.074	.000								
LMXSC (<i>Z</i>)	$a_3 \rightarrow$	0.069	0.073	.345								
X*W	$a_4 \rightarrow$	0.158	0.073	.032								
X*Z	$a_5 \rightarrow$	0.085	0.080	.285								
W*Z	$a_6 \rightarrow$	-0.148	0.072	.041								
X*W*Z	$a_7 \rightarrow$	0.128	0.056	.022								
Forgiveness (<i>M1</i>)					$d_1 \rightarrow$	0.403	0.070	.000	$b_1 \rightarrow$	0.186	0.076	.014
Relationship effort (<i>M2</i>)									$b_2 \rightarrow$	0.229	0.079	.004
Constant	$i_{M1} \rightarrow$	-0.054	0.062	.380	$i_{M2} \rightarrow$	-0.001	0.055	.979	$i_{y1} \rightarrow$	5.803	0.062	.000
Gender (<i>U1</i>)		-0.159	0.051	.002		-0.009	0.055	.869		-0.054	0.066	.406
Age (<i>U2</i>)		0.018	0.055	.748		-0.078	0.060	.195		0.085	0.062	.171
Dyadic tenure (<i>U3</i>)		-0.058	0.051	.249		0.023	0.065	.720		-0.047	0.056	.401
Power distance (<i>U4</i>)		-0.169	0.060	.005		-0.133	0.065	.040		-0.042	0.059	.476
Uncertainty avoidance (<i>U5</i>)		0.080	0.052	.129		-0.037	0.059	.534		0.045	0.074	.545
Collectivism (<i>U6</i>)		-0.068	0.055	.219		0.026	0.059	.663		0.145	0.070	.039
Social desirability (<i>U7</i>)		0.157	0.052	.003		-0.019	0.057	.741		0.111	0.067	.099
		R ² = 0.429				R ² = 0.269				R ² = 0.215		

Consequent												
Antecedent		State self-esteem (Y2)			Positive affect (Y3)			Negative affect (Y4)				
		Estim.	SE	<i>p</i>	Estim.	SE	<i>p</i>	Estim.	SE	<i>p</i>		
LMX (<i>X</i>)	$c_2' \rightarrow$	-0.031	0.028	.264	$c_3' \rightarrow$	0.037	0.036	.306	$c_4' \rightarrow$	-0.016	0.036	.648
Relationship self-efficacy (<i>W</i>)												
LMXSC (<i>Z</i>)												
X*W												
X*Z												
W*Z												
X*W*Z												
Forgiveness (<i>M1</i>)	$c_1 \rightarrow$	0.038	0.034	.264	$e_1 \rightarrow$	0.053	0.044	.223	$f_1 \rightarrow$	-0.025	0.044	.577
Relationship effort (<i>M2</i>)	$c_2 \rightarrow$	0.164	0.032	.000	$e_2 \rightarrow$	0.122	0.045	.006	$f_2 \rightarrow$	-0.155	0.041	.000
Constant	$i_{y2} \rightarrow$	3.871	0.025	.000	$i_{y3} \rightarrow$	3.521	0.033	.000	$i_{y4} \rightarrow$	1.728	0.034	.000
Gender (<i>U1</i>)		0.041	0.029	.161		-0.035	0.035	.308		-0.028	0.036	.438
Age (<i>U2</i>)		0.009	0.027	.745		-0.023	0.039	.564		-0.026	0.038	.501
Dyadic tenure (<i>U3</i>)		0.031	0.024	.205		0.003	0.038	.947		0.015	0.035	.675
Power distance (<i>U4</i>)		0.031	0.028	.275		-0.037	0.037	.316		0.030	0.040	.448
Uncertainty avoidance (<i>U5</i>)		0.027	0.026	.312		0.088	0.041	.034		-0.042	0.036	.246
Collectivism (<i>U6</i>)		0.082	0.031	.008		0.097	0.035	.005		0.007	0.037	.851
Social desirability (<i>U7</i>)		0.017	0.024	.490		-0.005	0.035	.895		-0.184	0.040	.000
N=254		R ² = 0.208				R ² = 0.174				R ² = 0.208		

Table 4.27: Bootstrapped indirect effects of Conditional process model with all four outcomes at high and low values of the moderators

Relationship self-efficacy (<i>W</i>)	LMXSC (<i>Z</i>)	Estim.	SE	<i>p</i>	95% Bootstrap CI	
					Upper	Lower
Job satisfaction (<i>Y1</i>)						
-1 SD (-1)	-1 SD (-1)	0.055	0.029	.059	0.005	0.122
-1 SD (-1)	+1 SD (1)	0.032	0.056	.572	-0.081	0.143
+1 SD (1)	-1 SD (-1)	0.072	0.038	.057	0.008	0.155
+1 SD (1)	+1 SD (1)	0.191	0.066	.004	0.089	0.359
State self-esteem (<i>Y2</i>)						
-1 SD (-1)	-1 SD (-1)	0.030	0.014	.032	0.005	0.062
-1 SD (-1)	+1 SD (1)	0.022	0.023	.352	-0.024	0.067
+1 SD (1)	-1 SD (-1)	0.037	0.017	.033	0.007	0.073
+1 SD (1)	+1 SD (1)	0.081	0.026	.002	0.039	0.147
Positive affect (<i>Y3</i>)						
-1 SD (-1)	1 SD (-1)	0.025	0.013	.055	0.003	0.056
-1 SD (-1)	+1 SD (1)	0.016	0.023	.475	-0.026	0.065
+1 SD (1)	-1 SD (-1)	0.031	0.017	.065	0.004	0.069
+1 SD (1)	+1 SD (1)	0.075	0.030	.012	0.029	0.151
Negative affect (<i>Y4</i>)						
-1 SD (-1)	-1 SD (-1)	-0.028	0.014	.047	-0.061	-0.005
-1 SD (-1)	+1 SD (1)	-0.020	0.021	.338	-0.064	0.020
+1 SD (1)	-1 SD (-1)	-0.033	0.016	.047	-0.072	-0.007
+1 SD (1)	+1 SD (1)	-0.070	0.032	.028	-0.156	-0.023

4.4 Summary of findings

The results of this study were in line with most of the hypotheses (see Table 4.28). The primary objective of this research was to provide support for the key role of forgiveness as a determinant of job satisfaction and subjective well-being. Even though job satisfaction and subjective well-being are likely to be determined by different factors, the study provides a strong theoretical rationale for the importance of forgiveness in impacting those outcomes. Serial multiple mediation analysis provided strong support for the mediating role of forgiveness and subsequent relationship effort in explaining the association between LMX relationship quality and the outcomes. The influence of these two mediators was found to be largely comparable across the four models featuring the four outcomes. Furthermore, the proposed boundary condition was supported as it was found that the followers who have high relationship self-efficacy and LMXSC are more likely to forgive the leader. The results were consistent when the results were analysed in a piecemeal approach using SPSS, when the full model with one outcome at a time was tested using Mplus, and finally when the full model including all four outcomes was tested using Mplus.

4.5 Discussion of findings

The results of the field study provided answers to the questions posed at the beginning of the thesis: How does forgiveness as a relationship maintenance mechanism unfold in LMX relationships? What are the outcomes of forgiveness in LMX relationships? Under what circumstances can forgiveness be enhanced in LMX relationships? Drawing on the field study sample that encompass eight organisations based in four countries, the current thesis provides support for most of its predictions and in doing so demonstrates that the integration of close relationship science with relational leadership domain is a fruitful undertaking.

Firstly, Hypothesis 1 was supported across five serial multiple mediator models which feature different outcomes. This finding is in line with predictions by Thomas et al. (2013a) that LMX relationships are comparable with close personal relationships. Namely, commitment to relationship present in both high quality LMX relationships and committed close relationships facilitates the transformation of motivation and yields forgiveness.

Hypothesis 2 proposed that forgiveness will lead to follower's relational efforts. Consistent support was found for this hypothesis across five multiple mediator models and the findings confirm that mediating mechanisms operating in close relationships (Braithwaite et al., 2011) do occur in LMX relationships in an organisational context. Indeed, the more forgiving a follower is, the more willing he or she will be to invest efforts into the relationship with the leader. The implications of these findings are twofold. First, the leadership domain is enhanced by demonstrating the vulnerability of LMX relationships. Importantly, the results show that LMX relationships are vulnerable to offences and thus prone to deterioration, as was conceptualised by Scandura (1999). A secondary implication of these findings is that Braithwaite et al.'s (2011) model is extended by testing it in a different relationship context. In doing so, the close relationships literature is extended by demonstrating that applying its generic relationship knowledge to leader-follower relationship is relevant and a fruitful undertaking.

One of the objectives of this thesis was to identify the outcomes of forgiveness in LMX relationships. Findings showed support for Hypotheses 3a-d, which identified enhanced jobs satisfaction, state self-esteem, positive affect and decreased negative affect as the outcomes of relational efforts. Support was not found for Hypothesis 3e which predicted that satisfaction with life will be enhanced as a result of relational efforts. Nevertheless, the results showed a positive association between forgiveness and satisfaction with life, surpassing thus relational effort. This could be explained with the centrality of forgiveness to an individual's satisfaction with life. Namely, forgiveness may not require relational efforts in order to benefit one's satisfaction with life.

Another objective of the thesis was to investigate boundary conditions under which forgiveness in LMX relationships could be enhanced. Hypothesis 4 predicting that high levels of relationship self-efficacy and LMXSC will enhance forgiveness was supported. Furthermore, it was shown that forgiveness mediates the association between the interaction and relational efforts, supporting thus Hypothesis 5. Implications of these findings include the empirical testing of Rusbult et al.'s (2001) framework in leader-follower relationship, which reiterates the applicability of generic relationship knowledge to the leadership domain. Furthermore, it was empirically shown that factors both within and outside the actor can affect forgiveness. Finally, support was found for Hypotheses

7a-d which incorporated mediating and moderating mechanisms and predicted that the outcomes of LMX relationship will be enhanced via enhanced forgiveness and relational efforts. Taken together, the present findings support the view that the cross-fertilisation of close relationships domain with LMX research can enhance the understanding of LMX relationship development and the applicability of generic relationship knowledge. It is important to acknowledge the rich context in which the relationship occurs and its impact on forgiveness.

4.6 Towards demonstrating internal validity of the findings and the impact of forgiveness climate

This study has identified forgiveness as a relationship repair mechanism in LMX relationships. The study has delineated the mediating role of forgiveness and relational efforts in achieving positive outcomes, as well as the moderating role of relationship self-efficacy and LMXSC in the further enhancement of forgiveness. A pertinent critique of LMX research is that it frequently focuses on the dyad and neglects the wider context. Typically, links between leadership processes and organisational outcomes are investigated mostly in the context of the dyadic LMX relationships (Graen & Uhl-Bien, 1995). This critique could also be extended to the forgiveness literature. Namely, although forgiveness has only recently been studied in organisations, scholars have called for conceptualising forgiveness at the organisational level (Fehr & Gelfand, 2012; Palanski, 2012). Although it is important to understand how forgiveness unfolds in the context of leader-member relationship, understanding the impact of forgiveness climate on individual-level forgiveness might allow the more effective achievement of desired outcomes.

Therefore, the objective of the following study is to explore the influence of forgiveness climate on follower's forgiveness. In doing so, this thesis not only answers scholars' calls for studying forgiveness at the higher organisational levels (e.g., Fehr & Gelfand, 2012), but also shows the impact of social norms, the third category of interpersonal orientations (Rusbult & Van Lange, 1996), on the process of transformation of motivation. Therefore, the findings of the following study have the potential to inform the close relationships literature. As previously noted, the current study could not establish the causal relations between LMX and forgiveness. The intention of the following study is to

address this limitation by using experimental design and a different sample. Specifically, the study uses a scenario experiment in which LMX relationship quality and forgiveness climate are manipulated in order to investigate their impact on follower's forgiveness. As a result, the following study provides internal validity of the thesis findings and paves the way for further research.

Table 4.28: A summary of hypotheses

Hypothesis	Serial multiple mediation	Supported
H1	The quality of follower's LMX relationship will be positively related to follower's forgiveness.	Yes
H2	Greater levels of follower's forgiveness will be positively related to follower's efforts into maintaining the relationship with their leader.	Yes
H3a	Follower's efforts into maintaining the relationship with their leader will be positively related to follower's job satisfaction.	Yes
H3b	Follower's efforts into maintaining the relationship with their leader will be positively related to follower's self-esteem.	Yes
H3c	Follower's efforts into maintaining the relationship with their leader will be positively related to follower's positive affect.	Yes
H3d	Follower's efforts into maintaining the relationship with their leader will be negatively related to follower's negative affect.	Yes
H3e	Follower's efforts into maintaining the relationship with their leader will be positively related to follower's satisfaction with life.	No
H4a	The quality of follower's LMX relationship will indirectly influence follower's job satisfaction via forgiveness, which will in turn influence relationship effort.	Yes
H4b	The quality of follower's LMX relationship will indirectly influence follower's state self-esteem via forgiveness, which will in turn influence relationship effort.	Yes
H4c	The quality of follower's LMX relationship will indirectly influence follower's positive affect via forgiveness, which will in turn influence relationship effort.	Yes
H4d	The quality of follower's LMX relationship will indirectly influence follower's negative affect via forgiveness, which will in turn, influence relationship effort.	Yes
H4e	The quality of follower's LMX relationship will indirectly influence follower's satisfaction with life via forgiveness, which will in turn influence relationship effort.	No
Three-way interaction/moderated mediation		
H5	Follower's LMX relationship quality, relationship self-efficacy and LMXSC interact to affect follower's forgiveness in such a way that when follower's relationship self-efficacy and LMXSC are both high, LMX quality has the strongest positive relationship with follower's forgiveness.	Yes
H6	Follower's forgiveness mediates the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's relationship effort.	Yes

Conditional process modelling / Whole model

H7a	Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's job satisfaction in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's job satisfaction.	Yes
H7b	Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's state self-esteem in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's state self-esteem.	Yes
H7c	Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's positive affect in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's positive affect.	Yes
H7d	Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's negative affect in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest negative relationship with follower's negative affect.	Yes
H7e	Follower's forgiveness and relationship effort sequentially mediate the relationship between the joint influence of LMX relationship quality, relationship self-efficacy and LMXSC on follower's satisfaction with life in such a way that when follower's relationship self-efficacy and LMXSC are both high, the joint influence has the strongest positive relationship with follower's satisfaction with life.	No

CHAPTER 5: CONCEPTUAL MODEL FOR THE EXPERIMENTAL STUDY

The results of the field study confirmed most of the hypotheses and provided empirical support for the theoretical propositions of the current research. However, due to its cross-sectional nature, no definite claims about causality can be made. Thus, the primary aim of the experimental study is to provide a more in-depth examination of the causal relations between LMX and forgiveness. Furthermore, the experimental study aims to investigate the moderating influence of group-based interpersonal orientation, namely forgiveness climate, on forgiveness in LMX relationships. Additionally, the experimental study investigates whether forgiveness in LMX relationships occurs following different types of offences and magnitudes of offence severity. The chapter outlines hypotheses that address these aims. The chapter closes with a conceptual model and a summary of hypotheses.

The experimental study builds upon the findings of the field study as it aims to demonstrate the causal relationship between LMX and forgiveness. Hypothesis 1 was supported in the field study across five models featuring different outcomes. Therefore, the experimental study aims to replicate these findings in controlled settings. Hence,

Hypothesis 1: The quality of follower's LMX relationship will be positively related to follower's forgiveness.

Habitual transformational tendencies are affected by interpersonal orientations, relatively stable pattern-contingent and partner contingent solutions to specific interdependence patterns (Rusbult & Van Lange, 1996). The field study examined the impact of personal dispositions and relationship-specific motives on follower's transformation of motivation and forgiveness. The third category of interpersonal motivations involves social norms or group-based inclinations to respond to specific interdependence situations in a specific manner, either while interacting with various partners or within the context of a given relationship (Rusbult & Van Lange, 1996).

Rusbult and Van Lange (1996) noted that interdependence theory identifies three manifestations of the existence of norms: (1) regularity of behaviour can be observed; (2) when such

regularity is interrupted, the injured party frequently attempts to regain control by appealing to the norm, and (3) the norm-breaker often feels guilty about having broken the norm (Thibaut & Kelley, 1959). Interdependence principles are relevant to group processes since the analysis of individual-group relationships can be performed by characterising a group as the product of the preferences and behaviours of its members (Rusbult & Van Lange, 1996). As interdependence theory (Kelley & Thibaut, 1978) suggest that properties residing both *within* and *between* actors could explain behaviour, it is likely that social norms such as forgiveness climate in organisations will affect follower's forgiveness.

Forgiveness climate is defined as “the shared perception that emphatic, benevolent responses to conflict from victims and offenders are rewarded, supported and expected in organisations” (Fehr & Gelfand, 2012, p. 666). Like other climate constructs, forgiveness climate involves employee perceptions of the behaviours that are displayed every day and are supported by the organisation (Schneider et al., 2011). Fehr and Gelfand (2012) view climate as an “abstraction of the environment” based on employees' everyday experiences (Ostroff, Kinicki, & Tamkins, 2003, p. 572). According to Fehr and Gelfand (2012), forgiveness climates seem to emerge from three core cultural values, namely restorative justice, compassion and temperance. These values are institutionalised via attributes that leaders demonstrate and practices that the organisation implements.

Previous studies have shown that various conceptualisations of climate moderate the association between LMX and outcomes. For example, the relationship between LMX and workplace friendship was moderated by affective climate (Herman, Dasborough, & Ashkanasy, 2008). Furthermore, the association between LMX and subordinate safety citizenship role definitions was moderated by safety climate (Hofmann, Morgeson, & Gerras, 2003). Moreover, LMX and leadership climate interacted to influence individual empowerment (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007). Additionally, the indirect effect of LMX on OCB (via outcome favourability) was moderated by procedural fairness climate (Sun, Chow, Chiu, & Pan, 2013). Lastly, the level of a team's empowerment climate was positively related to subordinates' own sense of empowerment, which in turn negatively moderated the effects of LMX on negative feedback-seeking behaviour (Chen, Lam, & Zhong, 2007).

Considering the notion that interpersonal orientations influence habitual transformational tendencies (Rusbult & Van Lange, 1996), and the empirical findings that climate can enhance an outcome of LMX relationship, it is predicted that forgiveness climate can enhance follower's forgiveness in both high and low LMX relationships. Therefore,

Hypothesis 2: Forgiveness climate will moderate the association between LMX and forgiveness such that respondents exposed to high forgiveness climate will be more forgiving than respondents exposed to low forgiveness climate in both high and low LMX conditions.

The trust literature has examined the impact of competence- and integrity-based trust violations on trust repair (Dirks et al., 2011; Ferrin, Kim, Cooper, & Dirks, 2007; Kim, Cooper, Dirks, & Ferrin, 2013; Kim et al., 2006; Kim et al., 2004). Competence refers to the degree to which one possesses the technical and interpersonal skills required for a job (Butler Jr & Cantrell, 1984). Integrity refers to the degree to which one follows a set of principles that is considered acceptable (Mayer et al., 1995). Kim et al. (2004) note that a variety of targets, including leaders (Pancer, Brown, & Barr, 1999), are evaluated on the basis of these two dimensions, namely expectations of "technically competent role performance" and expectations of "the persistence and fulfilment of the natural and moral social orders" (Barber, 1983, p. 9). Integrity and competence-based offences have been adopted in forgiveness studies (e.g., Byrne et al., 2013). Importantly, it was found that the nature of transgression plays a vital role in granting forgiveness (Byrne et al., 2013) and thus these types of offence are used in the current study.

Dirks et al. (2011) draw on the schematic model of dispositional attribution which suggests that there are inherent differences in the way people evaluate positive vs. negative information about competence vs. integrity (Reeder & Brewer, 1979). In particular, the model suggests that people intuitively believe that those with high competence are able to display many levels of performance, depending on their motivation and task demands, whereas those with low competence can only perform at levels that are equal to or lower than their competence level. In contrast, people intuitively believe that those with high integrity will abstain from dishonest behaviour at any situation, whereas those with low integrity may display either dishonest or honest behaviour depending on their incentives and opportunities (Dirks et al., 2011). As a result, when it comes to making judgements

about a person's competence, positive information about competence tends to weight more heavily than negative information about competence. Nevertheless, when it comes to making judgements about a person's integrity, negative information about integrity tends to weight more heavily than positive information about integrity (Dirks et al., 2011; Kim et al., 2004).

Following the preceding discussion, it is proposed that follower's LMX relationship quality and forgiveness climate will interact to positively influence forgiveness after a competence-based offence. Nevertheless, considering the impact of the negative information about a person's integrity (Reeder & Brewer, 1979), it is proposed that there will be no interaction between follower's LMX relationship quality and forgiveness climate after an integrity-based offence. Hence,

Hypothesis3a: The interaction between LMX relationship quality and forgiveness climate will positively influence follower's forgiveness after a competence-based offence.

Hypothesis3b: There will be no interaction between LMX relationship quality and forgiveness climate after an integrity-based offence.

The conceptual model for the experimental study is presented in Figure 5.01. A list of hypotheses is provided in Table 5.01. The following chapter will discuss the results of the experimental study.

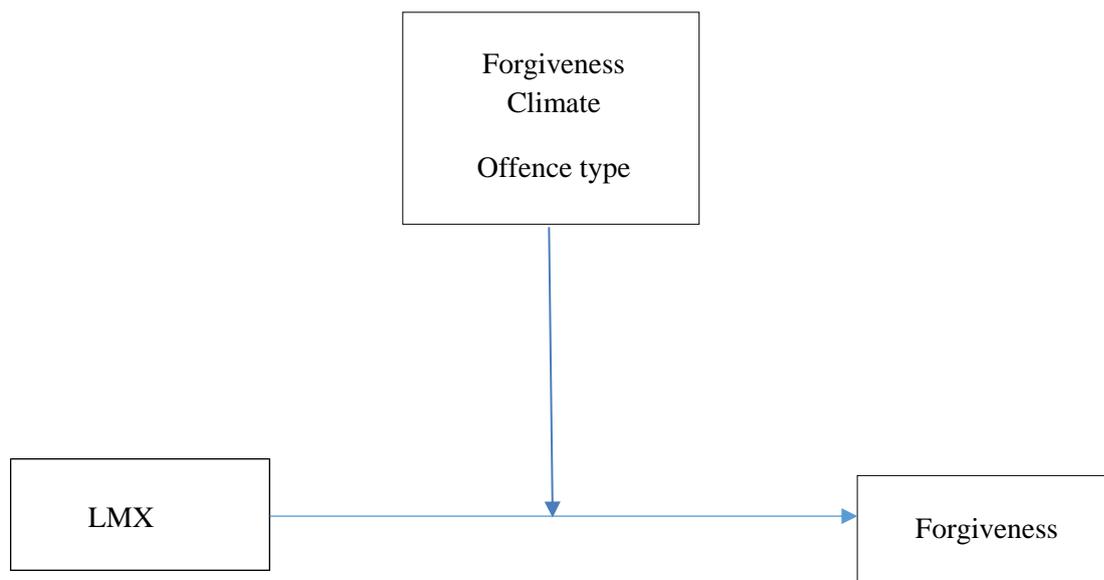


Figure 5.01: Conceptual model for the experimental study

Table 5.01: A list of hypotheses for the experimental study

Hypothesis	
H1	Follower's LMX relationship quality will be positively related to follower's forgiveness.
H2	Forgiveness climate will moderate the association between LMX and forgiveness such that respondents exposed to high forgiveness climate will be more forgiving than respondents exposed to low forgiveness climate in both high and low LMX conditions.
H3a	The interaction between LMX relationship quality and forgiveness climate will positively influence follower's forgiveness after a competence-based offence.
H3b	There will be no interaction between LMX and forgiveness climate after an integrity-based offence.

CHAPTER 6 - THE EXPERIMENTAL STUDY

This chapter begins with an overview of the experimental study which includes three scenario studies. The subsequent sections describe the method and results for each of the studies. Specifically, each section describes research design, sample, procedure, manipulations, and measures used in the respective study. The chapter ends with a discussion of findings.

6.1 Study overview

The primary objective of the experimental study was to establish the causal relationship between LMX and forgiveness identified in the field study. Using a different research methodology, the experimental study aims to provide answers to the following question: Under what circumstances can forgiveness be enhanced in LMX relationships? While the field study showed that forgiveness in LMX relationships can be enhanced with individual and dyad-level interpersonal orientations (Rusbult & Van Lange, 1996), the experimental study investigates the effect of a group-level orientation, namely forgiveness climate.

Furthermore, the experimental study addresses a question which has not been addressed in the field study: Is forgiveness in LMX relationships dependent on the type and severity of offence? Scenario methodology provided ample opportunities for changing the severity of offence from low to high, as well as the type of offence including a competence- and integrity-based offence. Three scenario studies addressed the above questions. Study 2a manipulates the independent variables of LMX relationship quality and forgiveness climate and depicts a low severity competence-based offence. These manipulations and offence type were subsequently used in study 2b which increased the severity of offence from low to high. Lastly, study 2c uses the same manipulations but depicts an integrity-based offence of high severity. Results complement the findings of the field study.

6.2 Study 2a

6.2.1 Research design

A 2 (LMX: high vs. low) X 2 (Forgiveness climate: high vs. low) independent groups full factorial design was used resulting in four conditions to test hypotheses regarding the effects of LMX relationship quality and forgiveness climate on forgiveness. Experimental conditions were manipulated using a scenario that depicted participants' relationship with their hypothetical manager. This was followed by the description of manager's offence and organisation's response to the incident. Independent variables are LMX relationship quality and forgiveness climates. Dependent variable is a participant's intention to forgive.

6.2.2 Sample and procedure

Participants were 95 undergraduate students of business and management at a public university in England. Although the focus of the study is organisational phenomena, it was not required that participants have any work experience since they drew conclusions based on descriptions of relationship quality, offence and forgiveness climate in the scenario. Responses of two participants were excluded from the sample due to concerns that they had not conscientiously completed the survey.

Of the 95 participants, 33 were male (35.5%), 60 were female (63.4%), and 2 did not report their gender. Participants had a mean age of 18.65 ($SD = .92$) and they identified their ethnic group as White 33.3% ($n=31$), Mixed 5.4% ($n=5$), Asian 45.2% ($n=42$), Black 15.1% ($n=14$), one participant, 1.1%, preferred not to reveal their ethnic group and two participants did not provide this information. Participants had a mean work experience of 9.6 months ($SD = 12.28$) which included part-time jobs, internships and a placement year.

Upon gaining ethical approval, participants were recruited in an amphitheatre after the lecture. The principal investigator briefly addressed the students and introduced the study. It was outlined that participating in the study is completely voluntary, that no incentives were provided for participation and that it would take around 10 minutes to complete the survey. The principal

investigator emphasised that the study had been approved on behalf of the Research Ethics Committee and that they would be asked to give their informed consent before participating in the study. Students who decided to participate in the study were asked to remain in the amphitheatre. After reading the information sheet and giving their informed consent to take part in the study, participants received a handout containing a scenario and a questionnaire. At the end of the scenario, participants provided information about their age, gender, ethnic group, and months of work experience.

6.2.3 Variable operationalisation

In order to test the hypothesised relationships, a scenario that includes LMX relationship manipulation, description of the offence and forgiveness climate manipulation was developed. Each condition contained two manipulations: participant LMX relationship quality (High, Low) and organisational forgiveness climate (High, Low). The scenario depicted an offence that enabled the introduction of forgiveness climate and subsequent assessment of participants' intended forgiveness. Instructions at the beginning of the study asked students to imagine being in the hypothetical situation and answer the questions accordingly:

In the following section you will read about a situation in an organisation. Please read the following description carefully and place yourself in the situation and imagine what this would be like for you. Please respond to the questions considering the information provided in the text and your own impressions, judgement, and intentions.

Leadership has been successfully manipulated using scenario/vignette methodology in several studies. Specifically, researchers have manipulated empowering leadership style (Chen, Sharma, Edinger, Shapiro, & Farh, 2011), transformational leadership style (Nübold, Muck, & Maier, 2013; van Dierendonck, Stam, Boersma, de Windt, & Alkema, 2014), servant leadership style (van Dierendonck et al., 2014), ethical leadership (Stouten, van Dijke, Mayer, De Cremer, & Euwema, 2013), and autocratic leadership (De Cremer, 2006). Interestingly, relationship closeness was also manipulated in a scenario (Hodgins & Liebeskind, 2003).

A couple of LMX manipulations have been developed and used in laboratory experiments. Pelletier (2012) examined the influence of LMX and target salience on perceptions of leader toxicity and intentions to challenge the leader. In-group and out-group status was manipulated with written scenarios that described the nature of the relationship between the leader and follower (Pelletier, 2012). Manipulations were tested with LMX-MDM scale (Liden & Maslyn, 1998). Omilion-Hodges and Baker (2013) examined the influence of LMX and distributive justice and co-worker LMX and distributive justice on co-worker exchange relationships. LMX was manipulated through manager's video message in which participant's annual performance is evaluated. The effectiveness of the manipulation was assessed using LMX-7 scale (Graen & Scandura, 1987). Nevertheless, these manipulations were designed to be used with other media such as bogus feedback on survival tasks, videos, coloured vests, and external performance reports. Therefore, it was necessary to develop an LMX manipulation for the current study, a scenario experiment.

LMX manipulation. Participants' LMX was manipulated through a description of their relationship with their hypothetical manager Pat Smith. The gender-neutral name Pat was borrowed from Palanski and Yammarino (2011) in order to avoid specifying the gender of the leader. That is, participants could freely interpret whether the name Pat was a short form of a male name Patrick or a female name Patricia. Even though examining the influence of gender on LMX dyad is of interest to LMX scholars, it was not the objective of the present study. Therefore, using a gender-neutral name prevented the inclusion of gender as the third factor in the scenario. The names of hypothetical co-workers were also borrowed from Palanski and Yammarino (2011). The scenario began by providing participants with a brief description of the study settings:

Please imagine that you are an employee in an international manufacturing company. You work in Marketing & Sales in a team that consists of 5 team members; Elizabeth, Bob, Steve and Susan. All of you are supervised by Pat Smith, the Sales Manager.

In order to effectively portray a hypothetical supervisor-subordinate relationship, the manipulation was based on the four dimensions of LMX, namely, contribution, loyalty, professional

respect and affect (Liden & Maslyn, 1998). Perceived contribution is defined as the “perception of the amount, direction, and quality of work-oriented activity each member puts forth toward the mutual goals (explicit or implicit) of the dyad” (Dienesch & Liden, 1986, p. 624). Liden and Maslyn (1998) note that members who impress the leader receive resources and support that further enhance job performance (Graen & Cashman, 1975; Liden & Graen, 1980). Furthermore, members in high LMX relationships perform tasks and duties that extend beyond what is specified by the formal employment contract (Liden & Graen, 1980). Therefore, a high quality LMX condition stated “Pat sees that you are willing to put extra effort in and do things that are over and beyond your job description. You often do tasks that help Pat meet work targets even if that requires working over the weekends or during holidays”. In contrast, a low quality LMX condition stated “Pat sees that you are not willing to put extra effort in and that you mainly stick to your job description. You never do tasks that help Pat meet work targets because that requires working over weekends or during holidays”.

Loyalty is defined as “the extent to which both members of the dyad publicly support each other’s actions and character” (Dienesch & Liden, 1986). Loyalty plays a vital role in the development and maintenance of LMX relationship (Dienesch & Liden, 1986). Liden and Maslyn (1998) note that loyal members are more likely to be delegated tasks that involve independent judgement and/or responsibility (Liden & Graen, 1980; Scandura, Graen, & Novak, 1986). Accordingly, a high LMX quality condition stated “Pat assigns you to do interesting tasks and gives you autonomy in decision-making. Recently you made an honest error and Pat defended you in front of senior management, even though Pat was not fully aware of the reasons behind the error when senior management asked for an explanation”. On the other hand, a low LMX quality condition stated “Pat assigns you to do less interesting tasks and expects you to get approval before making a decision. Recently you made an honest error and Pat did not defend you in front of senior management as Pat was not fully aware of the reasons behind the error when senior management asked for an explanation”.

Professional respect is defined as “perception of the degree to which each member of the dyad has built a reputation, within and/or outside the organization, of excelling at his or her line of work” (Liden & Maslyn, 1998, p. 50). Expectations of the other member’s competence strongly

predicted LMX in the earliest stage of the supervisor-subordinate relationship (Liden et al., 1993). Hence, a high LMX condition stated “In your opinion, Pat is one of the best salespeople in the company. Pat is willing to spend personal time giving you tips and tricks on how to acquire and manage clients. You admire Pat’s knowledge and competence. One day you hope to manage your own team of salespeople and would look to apply Pat’s marketing strategy”. In contrast, a low LMX condition stated “In your opinion, Pat is one of the poorest salespeople in the company. Pat is not willing to spend any personal time giving you tips and tricks on how to acquire and manage clients. You do not have much respect for Pat’s knowledge nor competence. One day you hope to manage your own team of salespeople and would look to apply a completely different marketing strategy”.

Affect is defined as “the mutual affection members of the dyad have for each other based primarily on interpersonal attraction rather than work or professional values” (Dienesch & Liden, 1986, p. 625). Mutual liking between leader and member is present in developing an on-going LMX relationship at different degrees (Dienesch & Liden, 1986). Thus, a high LMX condition outlined that “It seems that you and Pat get on really well. You often engage in informal chatting and you find working with Pat to be fun. Pat has a friendly, relaxed attitude. Pat often invites you to attend social events. Pat is the kind of person you would like to have as a friend and you are making efforts to get to know Pat better”. In contrast, a low LMX condition outlined “You and Pat do not seem to get on very well. You rarely engage in informal chatting and you do not find working with Pat to be fun. Pat has a formal, reserved attitude. Pat never invites you to attend social events. Pat is not the kind of person you would like to have as a friend and you are not making efforts to get to know Pat better”. LMX relationship quality manipulation is available in Appendix F. Following the description of their relationship with manager Pat participants were asked to answer several questions regarding their relationship with their manager Pat which were used as a manipulation check.

Offence. Participants then read a passage describing the offence they had experienced on behalf of their manager Pat: taking credit for others’ work. This particular offence was selected for two reasons. First, in his conceptual multi-level perspective on forgiveness in the workplace, Palanski (2012) discusses the practical implications of justice climate in an organisation where there is a history of taking one another’s ideas. Therefore, this type of offence seemed to be relevant for the

current study. Second, this type of offence was previously successfully used in a scenario experiment (Karelaia & Keck, 2013; study 2). Nevertheless, since this material was designed for another purpose, i.e., testing the interaction effect between the deviant status (leader vs. non-leader) and deviance severity (high vs. low) (Karelaia & Keck, 2013), it was necessary to modify it. Importantly, while the description of offence was used to manipulate independent variables in their study, the description of the offence in the current study was used as a stock story that would allow the subsequent manipulation of forgiveness climate. Several modifications were made to the material.

First, since the objective of the current study was manipulation of LMX relationship quality, leader status only was used (Mr. Rogers in the original scenario was modified to manager Pat Smith). In order to portray a dyadic relationship in the scenario, the deviance was directed toward the participant, the hypothetical subordinate, rather than towards the team. Accordingly, the storyline was slightly changed. Namely, rather than a team contributing to a project that brought the company several new clients, it was outlined that participant's innovative sales strategy contributed to the collaboration with the client which brought to the company valuable orders for the next few years.

Second, since the current study was not manipulating severity of the offence, stock story was based on the low-severity offence from the original study. Namely, Karelaia and Keck (2013) manipulated the severity of the deviance by changing the magnitude of harm that the victim experiences. Their low severity condition suggested that the team members were not rewarded in any way whereas the high severity condition suggested the two team members were denied their usual annual bonus since their performance was evaluated as inadequate by the top management (Karelaia & Keck, 2013). Therefore, the scenario in the current study outlined that the manager received a bonus while the participant was not rewarded in any way.

Third, the original scenario included explicit statements on intentionality of deviance in order to reduce the scope of intentionality interpretations (Karelaia & Keck, 2013). Namely, both high and low severity conditions specified that the manager intentionally took credit for the team member's work so as to increase his chances of getting the bonus and that he anticipated the possible consequences of his behaviour. The modified material suggested that manager Pat lacked the competence to do his work and thus unintentionally committed the offence. Namely, the scenario

stated that manager Pat was not aware of the new contribution reporting procedure and consequently did not include participant's name on the project contribution list. This modification enabled the depiction of a competence-based offence that was previously used in the trust literature (e.g., Kim et al., 2004).

Lastly, minor changes regarding the manager's bonus were made in order to reflect the cultural context of the study settings. Since the study was conducted in England, the amount and the currency of the bonus that the manager received was modified to be £5,000 rather than \$10,000.

Therefore, the description of the offence was:

You signed a contract with a client that turned out to be very profitable and brought to the company valuable orders for the next few years. You worked hard to make it happen. One of Pat's tasks was to write the final report on sales and send it to senior management. Recently, it has been uncovered that while working on the final report, Pat was unaware of the new procedure for indicating everyone's contribution on the project and did not include your name on the project contribution list. Consequently, it seemed as if the innovative sales strategy that had contributed to the collaboration with the client had all been Pat's doing.

Having submitted the report, Pat was congratulated by senior management and was given an extraordinary bonus of £5,000. Separate to this, you were not rewarded in any way. It became clear that Pat had inadequate knowledge of the contribution reporting procedure. Pat did not know that by omitting your name from the list you would be denied a chance to be rewarded.

Immediately after reading the description of the offence, participants were asked to rate the severity of offence. Following, participants read about how organisation reacted after this incident which allowed the introduction of forgiveness climate manipulation. The construct of climate was previously successfully manipulated in a scenario. For instance, scholars manipulated procedural justice climate (Aquino et al., 2006), mastery and performance climate (Cerne, Nerstad, Dysvik, & Škerlavaj, 2014). Furthermore, scholars manipulated organisational justice (Koivisto, Lipponen, & Platow, 2013), and restorative and retributive justice (Strelan, Feather, & McKee, 2008). Since restorative justice is one of the core cultural values of a forgiving organisation (Fehr & Gelfand, 2012) that was successfully manipulated in a scenario, it seemed appropriate to develop forgiveness climate manipulation for the purpose of the current study.

Forgiveness climate manipulation. Manipulation of forgiveness climate was based on the conceptualisation of forgiving organisation proposed by Fehr and Gelfand (2012). According to the authors, forgiveness climates are most likely to emerge from three core cultural values: restorative justice, compassion and temperance. These values are institutionalised through leader attributes and organisational practices. Fehr and Gelfand (2012, p. 669) define restorative justice as “a shared belief in the importance of resolving conflict multilaterally through the inclusion of victims, offenders and all other relevant stakeholders (Goodstein & Butterfield, 2010; Okimoto, Wenzel, & Feather, 2009)”.

A leader attribute that institute and maintain the value of restorative justice is restorative justice orientation. Indeed, restorative justice orientation involves reaching justice through consensus, shared understanding, and reaffirmation of shared values (Okimoto, Wenzel, & Feather, 2012). Some of behaviours associated with restorative justice are criticism of retribution, such as vengeful bad mouthing among co-workers (Fehr & Gelfand, 2012). Therefore, forgiveness climate manipulation began by stating that the HR director met with the senior management and discussed the offence. Furthermore, the scenario outlined that, acting as a representative of the senior management and the organisation, the HR director arranged a meeting with the victim and the offender in order to resolve the situation. The leader attribute of restorative justice orientation in high forgiveness climate condition was depicted as “The HR director stated that a mistake was made, but that anyone can make mistakes”. In contrast, low forgiveness climate condition stated “The HR director stated that a mistake was made, and that people should be held accountable for their mistakes”.

Organisational practices can refer to a wide range of procedures, policies and formalised routines which mediate the impact of culture on climate perceptions (Fehr & Gelfand, 2012). The practice of restorative dispute resolution aims to restore victim’s dignity and well-being through compensations and other reparations. Furthermore, efforts are made that offender be reintegrated into the community. Lastly, community healing is reached through the emphasis of victim forgiveness (Fehr & Gelfand, 2012). Therefore, a high forgiveness climate condition stated “As a result of the discussion between you, Pat and the HR director, it was decided that the £5,000 bonus be split amongst you and Pat. Also, it was decided that Pat would continue to manage the Sales team. The HR director emphasised the importance of forgiving and encouraged you and Pat to continue working

together”. In contrast, a low forgiveness climate condition stated “As a result of the discussion between you, Pat, and the HR director, it was decided that you would not be compensated for the work you did because there was not enough proof that you put in as much effort. Also, it was decided that Pat would be under disciplinary procedures for the time being. The HR director acknowledged that it may be hard to forgive and to work with Pat in the future”.

Fehr and Gelfand (2012) defined compassion, the second cultural value of forgiving organisation, as “a shared belief in the importance of easing others’ pain” (Rothschild, Abdollahi, & Pyszczynski, 2009). The attribute that institutionalise compassion value is servant leadership (Fehr & Gelfand, 2012). Servant leaders focus on “forming strong long-term relationships with employees” and “make a genuine effort to know, understand, and support others in the organisation” (Liden, Wayne, Zhao, & Henderson, 2008). Servant leaders build trust by putting their employees first and by attending to their growth and well-being (Fehr & Gelfand, 2012). Explicit behaviours demonstrated by servant leaders include asking employees about their concerns and directly helping them with their daily struggles (Fehr & Gelfand, 2012). Therefore, a high forgiveness climate condition stated “You were informed at this meeting that the senior management team has decided to introduce a new self-assessment system that more transparently shows everyone’s contribution to a project”. In contrast, a low forgiveness climate condition stated “You were informed at this meeting that the senior management team considered introducing a new self-assessment system that more transparently shows everyone’s contribution to a project. However, the senior management did not follow through this idea”.

Compassion values are institutionalised via employee support programmes (Fehr & Gelfand, 2012). Employee support systems are official organisational practices designed to ease the financial, emotional and physical well-being of employees that surpass the scope of standard HR programmes (Hartwell et al., 1996). Examples are child care programmes, retirement planning seminars, physical fitness programmes and ergonomic consultations (Fehr & Gelfand, 2012). Therefore, a high forgiveness climate condition read “The HR director offered for you to take part in the organisation’s employees support programme that is part of the organisation’s benefits to the employees which can help you overcome this situation and forgive Pat”. On the other hand, a low forgiveness climate

condition read “The HR director said that the organisation does not have its own employees’ support programme that could help you overcome this situation and forgive Pat. Instead, the HR director advised you to take part in other external support programmes but that the organisation cannot cover the cost of the programmes for you”.

Temperance, the third cultural value of a forgiving organisation, entails the development of a climate where egocentric biases and heated emotional reactions to conflict are replaced with expectations of patience and restraint (Fehr & Gelfand, 2012). According to Fehr and Gelfand (2012), self-control is the leader’s attribute that institutionalise temperance values. Indeed, self-control is one’s ability to override automatic behavioural responses so that actions which are more closely aligned with a desired state can prevail (Tangney, Baumeister, & Boone, 2004). Explicit behaviours that accompany self-control include patience when faced with complex organisational decisions and the termination of anger and rage when conflict erupts (Fehr & Gelfand, 2012). Therefore, a high forgiveness climate condition stated “During the discussions, everyone presented their views and remained patient and calm”. On the other hand, a low forgiveness climate condition stated “During the discussions, everyone presented their views and appeared to be impatient and tense”. Forgiveness climate manipulation is available in Appendix G. After reading about how the organisation responded to the offence, participants were asked to answer questions about their organisation which was used as a manipulation check. Finally, participants answered questions about their intention to forgive their hypothetical manager.

6.2.4 Measures

Leader-Member Exchange (LMX). Even though the manipulation was based on the four dimensions of LMX, namely, contribution, loyalty, respect and affect, LMX-7 scale (Graen & Uhl-Bien, 1995; Scandura & Graen, 1984), rather than LMX-MDM scale (Liden & Maslyn, 1998) was used as a manipulation check for two reasons. First, the use of LMX-7 scale enabled the consistency in measuring the construct across the field and experimental studies. Second, LMX-7 scale was more convenient for use in the time-constrained scenario study since it consists of 7 items compared to LMX-MDM scale which consists of 12 items. Nevertheless, LMX-7 scale was adopted for measuring

hypothetical LMX relationship quality. Namely, every item made a reference to Pat, gender-neutral name of the manager from the scenario, while the use of personal pronouns was avoided. An example item is “I feel I know where I stand with my manager Pat. I know how satisfied my manager Pat is with me”. The answers were recorded on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* and Cronbach’s alpha was .95. A full list of adjusted scale items is available in Appendix H.

Forgiveness climate. In order to measure forgiveness climate a seven item scale was developed based on the conceptualisation of forgiving organisation (Fehr & Gelfand, 2012). Specifically, the items were designed to measure the presence of cultural values of restorative justice, compassion and temperance, and their respective leader attributes and organisational practices. An example item is “This organisation encourages forgiveness”. Responses were recorded on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Therefore, a low score indicated low forgiveness climate whereas a high score indicated high forgiveness climate. Cronbach’s alpha was .91 indicating strong reliability.

Forgiveness. As in the field study, forgiveness was measured with a scale developed by Fincham et al. (2008; study 3). Nine items measured participants’ avoidance, benevolence and retaliation, which also feature in Marital Forgiveness Scale – Event (Fincham et al., 2004). The items were adjusted so as to reflect the hypothetical reaction based on the scenario. For example, the item “I find a way to make him/her regret it” was modified to “I would find a way to make my manager Pat regret it”. The items were rated on a 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*. Avoidance and retaliation items were reverse scored, Cronbach’s alpha was .83.

Offence severity. Offence severity was assessed with a single item that was used in previous forgiveness studies (e.g., Bradfield & Aquino, 1999) and was modified for the purpose of the experiment. The respondents were asked to rate the severity of the offence using a 9-point scale, 1 = *not severe*, 9 = *extremely severe*, “Please rate how severe you consider the offence that you experienced on behalf of your manager Pat.” $M= 6.85$, $SD=1.86$.

Offence realism. The realism of experimental design was assessed with the procedure used by Yi, Natarajan, and Gong (2011). Namely, participants were asked to respond to two items, “I

could imagine an actual workplace situation described in the scenario”, and “I believe that the described situation could happen in real workplace” on 7-point scales ranging from 1= *very unlikely* to 7= *very likely* (Wagner, Hennig-Thurau, & Rudolph, 2009). Cronbach’s alpha was .89. The results suggest that participants perceived the situation described in the scenario as realistic ($M_{\text{composite score}}=4.95, SD=1.60$).

6.2.5 Results

6.2.5.1 Pilot study

The sample for the pilot test comprised of 39 participants including PhD students and employees at a public university in England. Respondents did not receive any incentive to participate in the study. The alpha coefficients for LMX-7 scale was .97, and for forgiveness climate scale .94, demonstrating good reliability. An independent samples t-test was performed to investigate whether the mean for LMX differed significantly among the high ($N = 17$) and low ($N=22$) conditions. The high LMX condition was rated significantly higher ($M = 6.05, SD = .47$), compared to the low LMX ($M = 2.12, SD = .76$) condition, $t(37) = 18.70, p < .001, d = 13.40$. Furthermore, an independent samples t-test was conducted to investigate whether the mean for forgiveness climate differed significantly among the high ($N = 18$) and low ($N=21$) conditions. Participants rated forgiveness climate significantly higher in the high forgiveness climate ($M = 5.21, SD = .81$), than in the low forgiveness climate ($M = 3.08, SD = 1.51$) condition, $t(31) = 5.59, p < .001, d = 5.18$. Since the results of the pilot study indicated that both LMX and forgiveness climate manipulations were successful, these manipulations were used in the subsequent studies.

6.2.5.2 Data cleaning

The screening of the data using histograms and boxplots in SPSS identified two outliers which were removed from the dataset. Furthermore, none of the cases showed a consistently high skewness or kurtosis so no data transformation was performed. The results of the skewness and kurtosis values of the scales are presented in Table 6.01.

Table 6.01: Skewness and kurtosis for values of each scale in study 2a

Scale	Skewness	Kurtosis
LMX manipulation check	0.61	-1.52
Forgiveness climate manipulation check	-0.08	-1.2
Forgiveness	-0.56	0.13

6.2.5.3 Manipulation check

Participants were randomly assigned to one of four experimental conditions. Across all conditions there were 46 participants who were assigned to a high LMX condition and 47 who were assigned to a low LMX condition. Within high LMX condition, 23 participants were assigned to high forgiveness climate whereas 23 were assigned to low forgiveness climate. The similar allocation was in low LMX conditions, with 23 participants assigned to high forgiveness climate status and 24 assigned to low forgiveness climate status.

In order to determine whether manipulation of LMX relationship quality and forgiveness climate was successful, independent samples t-tests were conducted. As intended, participants rated the quality of their LMX relationship quality significantly higher in the high LMX ($M = 5.65$, $SD = .77$), than in the low LMX ($M = 2.41$, $SD = .75$) condition, $t(91) = 20.60$, $p < .001$, $d = 4.26$. Likewise, participants rated forgiveness climate significantly higher in the high forgiveness climate ($M = 5.41$, $SD = .88$), than in the low forgiveness climate ($M = 3.16$, $SD = .98$) condition, $t(91) = 11.76$, $p < .001$, $d = 2.41$. Therefore, both LMX and forgiveness climate manipulations were successful.

6.2.5.4 Statistical analysis

An independent samples t-test was conducted to evaluate mean differences in participants' forgiveness between high LMX and low LMX condition. Hypothesis 1 states that participants in a high LMX relationship will be more forgiving than participants in a low LMX relationship (Figure 5.01). The results supported this prediction $t(77) = 3.90, p < .001, d = 0.82$. The mean for high LMX relationship quality was 4.08 ($SD = .56$), and the mean for low LMX relationship quality was 3.46 ($SD = .91$).

Following, a 2 (LMX: High vs. Low) X 2 (Forgiveness climate: High vs. Low) between-subjects ANOVA test was performed. Descriptive statistics for forgiveness in the four conditions are presented in Table 6.02. The results showed a significant main effect of LMX relationship quality on participants' forgiveness $F(1, 89) = 20.9, p < .001$. The effect size (partial $\eta^2 = .19$) indicated that the quality of the leader-subordinate relationship explains 19% of the variance in forgiveness measure. Furthermore, the main effect of forgiveness climate was significant $F(1, 89) = 28.78, p < .001$, partial $\eta^2 = .24$. Therefore, forgiveness climate manipulation had effectively influenced participants' forgiveness. Moreover, the results showed a significant interaction effect of LMX and forgiveness climate, $F(1, 89) = 4.28, p < 0.05$, partial $\eta^2 = .05$, supporting Hypothesis 2. Namely, Hypothesis 2 states that forgiveness climate will moderate the association between LMX relationship quality and forgiveness such that respondents in high forgiveness climate condition will be more forgiving than respondents in low forgiveness climate condition irrespective of their LMX relationship quality. The interactive effect of LMX and forgiveness climate on forgiveness is displayed in Figure 6.01.

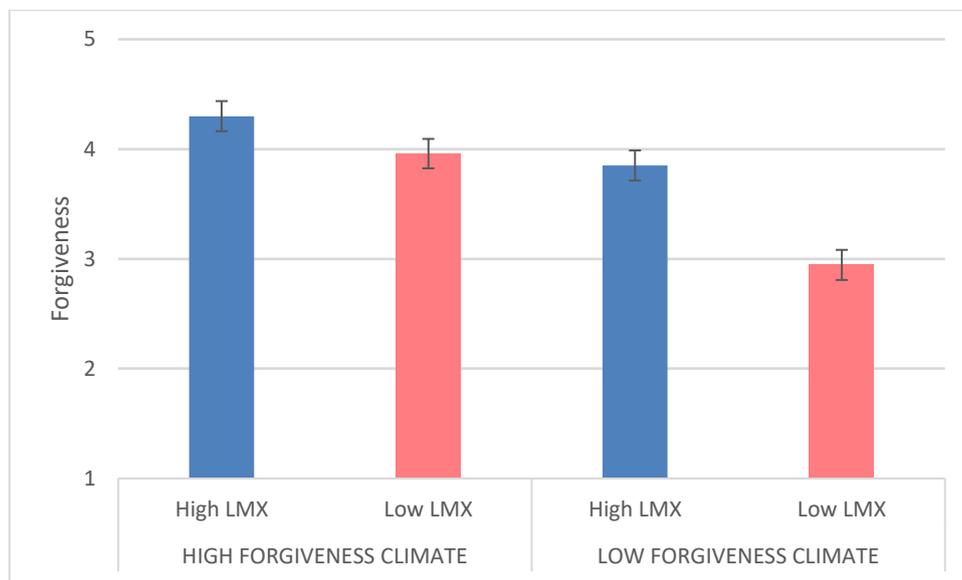
In order to test the specific hypothesis on the direction of effect of LMX simple effect analyses were conducted. The results showed that participants exposed to high forgiveness climate were more forgiving when they had a high LMX relationship quality ($M = 4.30, SD = .53$) than when they had a low LMX relationship quality ($M = 3.95, SD = .76$). Nevertheless, the contrast was not statistically significant $F(1, 89) = 3.17, p = .08, d = 0.54$. Participants exposed to low forgiveness climate were more forgiving when they had a high LMX ($M = 4.08, SD = .56$) than when they had a low LMX ($M = 2.95, SD = .75$), $F(1, 89) = 21.82, p < .001, d = 10.73$, as hypothesised.

Table 6.02: Descriptive statistics for respondents' forgiveness at the four conditions

LMX	Forgiveness climate					
	High			Low		
	Mean	STD	N	Mean	STD	N
High	4.30	0.53	23	3.85	0.52	23
Low	3.96	0.78	24	2.95	0.76	23

Note. N=93

Figure 6.01: The effect of LMX X forgiveness climate on forgiveness



Note. N=93.

The results of study 2a supported the prediction that LMX relationship quality positively influences forgiveness. Furthermore, the study supported the prediction that forgiveness climate moderates the association between LMX relationship quality and forgiveness. Even though it was hypothesised and shown that high forgiveness climate enhances respondents' forgiveness irrespective of their LMX, the increase in forgiveness seems to be statistically significant for respondents in low quality LMX relationships only. It is possible that the effect was not statistically significant for high LMX relationships because the very nature of a high quality LMX relationship had mitigated the

effects of offence. Namely, the fact that the manager benefitted because he or she unintentionally took credit for participant's work was offset by the benefits and resources provided in the high quality LMX relationship, irrespective of forgiveness climate. The following study investigates this possibility by increasing the severity of the offence in the scenario.

6.3 Study 2b

6.3.1 Research design

Study 2b was based on the design from study 2a, namely, a 2 (LMX: high vs. low) X 2 (Forgiveness climate: high vs. low) independent groups full factorial design.

6.3.2 Sample and procedure

The same procedure was followed as in study 2a. The sample consisted of 94 undergraduate students of business and management; 39 were male (41.5%) and 55 were female (58.5%). The age mean was 20.70 ($SD=4.52$) and the mean work experience including part-time jobs, internships and a placement year was 16.60 months ($SD= 29.87$). Participants identified their ethnic group as White 42.6% ($n=40$), Mixed 5.3% ($n=5$), Asian 42.6% ($n=40$), Black 8.5% ($n=8$), and one participant preferred not to reveal their ethnic group.

6.3.3 Variable operationalisation

Manipulations of LMX relationship quality and forgiveness climate developed for study 2a were used in the current study. The only modification refers to the severity of the offence, that is, to the magnitude of the harm inflicted on the participant. This procedure was borrowed from Karelaia and Keck (2013). As previously noted, study 2a depicts the offence of low severity since the participant was not rewarded in any way while the manager received an extraordinary bonus after taking credit for their work. The current study depicts the offence of high severity since the participant

experiences greater harm. Namely, participant's performance is evaluated as inadequate on behalf of top management and participant is denied an annual bonus. Therefore, the offence was depicted as:

You signed a contract with a client that turned out to be very profitable and brought to the company valuable orders for the next few years. You worked hard to make it happen. One of Pat's tasks was to write the final report on sales and send it to senior management. Recently, it has been uncovered that while working on the final report, Pat was unaware of the new procedure for indicating everyone's contribution on the project and did not include your name on the project contribution list. Consequently, it seemed as if the innovative sales strategy that had contributed to the collaboration with the client had been all of Pat's doing.

Having submitted the report, Pat was congratulated by senior management and was indeed given an extraordinary bonus of £5,000. Separate to this, your performance was evaluated as inadequate by senior management, and you were denied an annual bonus. It became clear that Pat had inadequate knowledge of the contribution reporting procedure. Pat did not know that by omitting your name from the list you would be denied a chance to get the bonus.

6.3.4 Measures

Constructs were assessed with the same scales as in study 2a. Cronbach's alpha for LMX scale was .95. Cronbach's alpha for forgiveness climate scale was .92. Forgiveness scale had a Cronbach's alpha of .85. Offence severity $M = 7.07$, $SD = 1.55$. Offence realism was assessed with the two items whose Cronbach's alpha was .83, $M_{\text{composite score}} = 5.20$, $SD = 1.42$.

6.3.5 Results

6.3.5.1 Data cleaning

Two outliers identified with boxplots in SPSS were removed from the dataset. Furthermore, none of the cases showed a consistently high skewness or kurtosis. The results of the skewness and kurtosis values of the scales in study 2b are presented in Appendix I.

6.3.5.2 Manipulation check

Participants were randomly assigned to one of four experimental conditions. Across all conditions 45 participants were assigned to a high LMX condition and 47 were assigned to a low

LMX condition. Within high LMX condition, 22 participants were assigned to high forgiveness climate whereas 23 were assigned to low forgiveness climate. The similar allocation was in low LMX conditions, with 24 participants assigned to high forgiveness climate status and 23 assigned to low forgiveness climate status.

Independent samples t-tests reaffirmed that LMX and forgiveness climate manipulations were successful. LMX relationship quality was rated significantly higher in the high LMX ($M = 5.77$, $SD = .56$), than in the low LMX ($M = 2.29$, $SD = .69$) condition, $t(90) = 26.42$, $p < .001$, $d = 5.57$. Equally, forgiveness climate was rated significantly higher in the high forgiveness climate ($M = 5.26$, $SD = .92$), than in the low forgiveness climate ($M = 3.05$, $SD = 1.05$) condition, $t(90) = 10.72$, $p < .001$, $d = 2.24$.

6.3.5.3 Statistical analysis

A 2 (LMX: High vs. Low) X 2 (Forgiveness climate: High vs. Low) between-subjects ANOVA test was conducted. The results showed a significant main effect of LMX relationship quality on participants' forgiveness $F(1, 88) = 10.99$, $p < .01$, partial $\eta^2 = .11$. Therefore, LMX relationship quality had effectively affected participants' forgiveness and Hypothesis 1 was supported. Furthermore, the main effect of forgiveness climate was significant $F(1, 88) = 17.14$, $p < .001$, partial $\eta^2 = .16$. Therefore, forgiveness climate manipulation had effectively influenced participants' forgiveness. Nevertheless, the results showed a non-significant interaction effect of LMX and forgiveness climate, $F(1, 88) = 2.23$, $p = 0.14$, partial $\eta^2 = .03$. Consequently, Hypothesis 2 was not supported.

The results of study 2b supported our prediction that LMX relationship quality positively influences forgiveness. Furthermore, the study showed that forgiveness climate positively influences forgiveness. Nevertheless, the study does not support the prediction that forgiveness climate moderates the association between LMX relationship quality and forgiveness. It seems that increased offence severity has precluded the interaction between LMX and forgiveness climate. The first two studies used the competence-based offence in the scenario and have found support for Hypothesis 1. Support for Hypothesis 2 and Hypothesis 3a was found in study 2a only which depicts the low

severity competence-based offence. In order to test Hypothesis 3, an integrity-based offence will be depicted in the last scenario. Therefore, study 2c aims to enhance the understanding of the role that offence type plays in granting forgiveness in LMX relationships.

6.4 Study 2c

6.4.1 Research design

The same design as in previous studies was used: a 2 (LMX: high vs. low) X 2 (Forgiveness climate: high vs. low) independent groups full factorial design.

6.4.2 Sample and procedure

Procedures used in previous studies were followed. The sample consisted of 90 undergraduate students of business and management; 37 were male (41.6%), 52 were female (58.4%), and one participant did not report their gender. Participants had a mean age of 21.62 ($SD = .96$) and they identified their ethnic group as White 47.1% ($n=42$), Mixed 2.3% ($n=2$), Asian 40.2% ($n=37$), Black 8% ($n=7$), one participant (1.1%) preferred not to reveal this information and the data for one participant was missing. Participants had a mean work experience of 19.33 months ($SD = 20.08$) which included part-time jobs, internships and a placement year.

6.4.3 Variable operationalisation

The first two studies examined the effects of LMX and forgiveness climate on forgiveness when participants experience a competence-based offence. This study aims to examine the effects of LMX and forgiveness climate on forgiveness when participants experience an integrity-based offence. This typology is borrowed from the trust literature which differentiates between competence- and integrity-based trust violations (Dirks et al., 2011; Ferrin et al., 2007; Kim et al., 2013; Kim et al., 2006; Kim et al., 2004).

Competence is defined as the extent to which one possesses the technical and interpersonal skills required for a job (Butler Jr & Cantrell, 1984). Integrity is defined as the extent to which one

follows a set of principles that is considered acceptable (Mayer et al., 1995). Importantly, research has shown that individuals evaluate a variety of targets, including leaders, on the bases of these dimensions (Pancer et al., 1999). Therefore, the offence depicted in the scenario occurs due to the lack of leader's integrity.

Kim et al. (2004) investigated the role of apology in repairing trust following competence- and integrity- based trust violations. In their study, participants watched a video of a recruiter interviewing an applicant for the role of a senior-level accountant. During the interview, the recruiter revealed to the job applicant that she was in touch with some of the applicant's references from the former employer. Furthermore, these references reported that the applicant had been involved with an accounting-related violation in the previous job. The study manipulation was based on the framing of this trust violation. In both conditions, the job applicant was accused of filing an incorrect tax return that devalued a client's capital gains income. Competence-based violation outlined that job applicant was accused of filing the incorrect return due to inadequate knowledge of the relevant tax codes. Integrity-based violation outlined that the job applicant was accused of filing the incorrect return intentionally (Kim et al., 2004).

Following this rationale, offence in the current study was modified so as to portray an integrity-based offence. Namely, it was outlined that the manager took the credit for participant's work in order to increase the chance of receiving a performance bonus. The inclusion of this explicit statement on intentionality of manager's behaviour reduced the scope of intentionality interpretations, as was the case in the original offence description (Karelaia & Keck, 2013; study 2). Furthermore, severity of offence which is operationalised through the magnitude of the harm inflicted upon the victim remained high since participant was denied an annual bonus. Therefore, the offence was described as follows:

You signed a contract with a client that turned out to be very profitable and brought to the company valuable orders for the next few years. You worked hard to make it happen. One of Pat's tasks was to write the final report on sales and send it to senior management. Recently, it has been uncovered that in the final report, Pat took all the credit for work done by you and presented the innovative sales strategy that contributed to the collaboration with the client as being all of Pat's doing.

Having submitted the report, Pat was congratulated by senior management and was indeed given an extraordinary bonus of £5,000. Separate to this, your performance was evaluated as inadequate by senior management, and you were denied an annual bonus. It became clear that Pat did this in order to increase the chances of receiving a performance bonus. Pat knew that by taking credit for your work you would be denied a chance to get the bonus.

6.4.4 Measures

The same measures were used as in previous studies. Cronbach's alpha for LMX-7 scale was .95, for forgiveness climate scale was .88, for forgiveness scale was .73. Offence severity $M = 8.12$, $SD = 1.39$. Cronbach's alpha for offence realism was .72 ($M_{\text{composite score}} = 5.35$, $SD = 1.47$).

6.4.5 Results

6.4.5.1 Data cleaning

Three outliers identified with boxplots in SPSS were removed from the dataset. Furthermore, none of the cases showed a consistently high skewness or kurtosis. The results of the skewness and kurtosis values of the scales in study 2c are presented in Appendix J.

6.4.5.2 Manipulation check

Participants were randomly assigned to one of four experimental conditions. Across all conditions 44 participants were assigned to a high LMX condition and 43 were assigned to a low LMX condition. Within high LMX condition, 22 participants were assigned to high forgiveness climate whereas 22 were assigned to low forgiveness climate. The similar allocation was in low LMX conditions, with 22 participants assigned to high forgiveness climate status and 21 assigned to low forgiveness climate status.

Independent samples t-tests showed that LMX manipulation was successful since participants rated the quality of their LMX relationship quality significantly higher in the high LMX ($M = 5.34$, $SD = 1.14$), than in the low LMX ($M = 2.28$, $SD = .80$) condition, $t(85) = 14.50$, $p < .001$, $d = 3.15$. Likewise, forgiveness climate manipulation was successful since it was rated significantly

higher in the high forgiveness climate ($M = 5$, $SD = .69$), than in the low forgiveness climate ($M = 3.05$, $SD = 1.11$) condition, $t(85) = 9.86$, $p < .001$, $d = 2.17$.

6.4.5.3 Statistical analysis

A 2 (LMX: High vs. Low) X 2 (Forgiveness climate: High vs. Low) between-subjects ANOVA test was conducted. The results showed a non-significant main effect of LMX relationship quality on participants' forgiveness $F(1, 87) = .92$, $p = n.s.$ LMX relationship quality had not effectively affected participants' forgiveness and thus Hypothesis 1 was not supported. The main effect of forgiveness climate was significant $F(1, 87) = 4.20$, $p < .01$, partial $\eta^2 = .05$. Therefore, forgiveness climate manipulation had effectively influenced participants' forgiveness. The results showed a non-significant interaction effect of LMX and forgiveness climate, $F(1, 87) = 1.06$, $p = n.s.$ Therefore, Hypothesis 2 was not supported. According to Hypothesis 3b, there will be no interaction between LMX and forgiveness climate after an integrity-based offence. Hence, Hypothesis 3b was supported.

6.5 Discussion of findings

The results of the experimental study addressed the question asked at the beginning of the thesis: Is forgiveness in LMX relationships dependent on the type and severity of offence? This was performed through the manipulation of forgiveness climate which represented social norms, the third type of interpersonal orientations (Rusbult & Van Lange, 1996) and through the depiction of varying types and severities of offence using a scenario methodology.

The three scenario studies tested conceptual model outlined in Chapter 6. Hypothesis 1 stated that the quality of follower's LMX relationship will be positively related to follower's forgiveness. This is the core hypothesis of the thesis and aims to provide internal consistency to the field study findings. The hypothesis was supported in study 2a and study 2b, both of which depict the competence-based offence. Nevertheless, Hypothesis 1 was not supported in study 2c which depicts

the integrity-based offence. It seems that the positive effects of LMX on forgiveness do not occur universally but are conditional upon the type of the offence that the victim experiences.

Hypothesis 2 predicted that forgiveness climate will moderate the association between LMX and forgiveness such that respondents exposed to high forgiveness climate will be more forgiving than respondents exposed to low forgiveness climate in both high and low LMX conditions. This hypothesis was partially supported in study 2a which depicts a low severity competence-based offence. Namely, even though high forgiveness climate enhanced respondents' forgiveness irrespective of their LMX, the increase in forgiveness was statistically significant for respondents in low quality LMX relationships only. It is possible that the nature of LMX relationships and all the benefits that come with it had mitigated the effects of offence for participants in high quality LMX relationships. Hypothesis 2 was not supported in study 2b which depicted a high severity competence-based offence. Offence severity was operationalised as the harm that the victim experiences following the offence. It seems that the high magnitude of harm that participants experienced precluded the interaction of the effects. Accordingly, Hypothesis 3a which stated that the interaction between LMX and forgiveness climate will positively influence respondent's forgiveness after a competence-based offence was supported in study 2a and not supported in study 2b.

Hypothesis 3b stated that there will be no interaction between LMX and forgiveness climate after an integrity-based offence. The results of study 2c which depicted an integrity-based offence showed support for this hypothesis. It seems that the lack of manager's integrity coupled with high volume of harm that the victim experienced precluded any positive effects of LMX and forgiveness climate. A summary of hypotheses is provided in Table 6.03. The following chapter provides a general discussion of the thesis findings.

Table 6.03: A summary of hypotheses for the experimental study

Hypothesis		Supported		
		Study 2a	Study 2b	Study 2c
H1	The quality of follower's LMX relationship will be positively related to follower's forgiveness.	Yes	Yes	No
H2	Forgiveness climate will moderate the association between LMX and forgiveness such that respondents exposed to high forgiveness climate will be more forgiving than respondents exposed to low forgiveness climate in both high and low LMX conditions.	Yes	No	No
H3a	The interaction between LMX relationship quality and forgiveness climate will positively influence follower's forgiveness after a competence-based offence	Yes	No	N/A
H3b	There will be no interaction between LMX and forgiveness climate after an integrity-based offence.	N/A	N/A	Yes

N/A - non-applicable

CHAPTER 7: GENERAL DISCUSSION

This chapter draws together the findings of the current thesis. First, the chapter summarises the main findings from both studies and outlines their strengths. Following, the key theoretical and practical implications of the findings are discussed. A number of potential limitations are subsequently discussed, as well as avenues for further research. This is followed by a brief summary of the thesis objectives with the intended contributions to the knowledge. The chapter closes with a conclusion of the thesis.

7.1 Summary of empirical findings and study strengths

The main aim of the current thesis was to integrate knowledge from the close relationships literature with LMX literature, due to the recognised potential for theoretical integration (Thomas et al., 2013a). In order to achieve this, a field and an experimental study examined follower's forgiveness in the context of LMX relationships. The current thesis outlined two conceptual models that encompass both mediating and moderating mechanisms, and tested a number of proposed hypotheses. The following sections provide a discussion of the key findings, the theoretical contributions which can be garnered from the research and a discussion of the studies' strengths.

Drawing on the principles of commitment and relationship maintenance mechanisms (Rusbult et al., 2001), which represent the extension of interdependence theory (Kelley & Thibaut, 1978) and investment model (Rusbult, 1980), the current research proposed that the leader and member in a high-quality exchange relationship become increasingly dependent on one another due to high levels of relationship satisfaction, high investments and a lack of alternatives. As their dependence upon the relationship increases, their commitment to the relationship becomes stronger since it involves intent to persist, long-term orientation and psychological attachment. Consequently, the motives of self and the partner in high-quality LMX relationships become compatible which enables pro-relationship efforts. Thus, a leader and a member are willing to surrender their immediate short-term interests in order to achieve long-term interests of both the self and the relationship. These

broader considerations facilitate the transformation of motivation process and lead to the behavioural relationship maintenance act of forgiveness.

Additionally, the current research drew on the notion that the transformation of motivation in close relationships is influenced by interpersonal orientations which may be embodied in dispositions, relationship-specific motives and social norms (Rusbult & Van Lange, 1996). Therefore, it was proposed that the transformation of motivation and subsequent forgiveness in LMX relationships are likely to be influenced by follower's relationship self-efficacy, by dyad-specific feature of Leader-Member Exchange Social Comparison (LMXSC), and lastly, by social norms of the forgiveness climate. Namely, it was anticipated that even though high-quality LMX relationships embody high levels of commitment that facilitate follower's forgiveness, a follower who is high on both relationship self-efficacy and LMXSC is likely to be even more forgiving of the transgressing leader. In a similar vein, it was expected that forgiveness climate would facilitate follower's forgiveness in both high and low LMX relationships.

The field study adopted a cross-sectional design and tested an individual-level model suggesting that LMX relationship quality is positively associated with follower's forgiveness, which in turn leads to greater relationship effort and ultimately enhances follower's job satisfaction and subjective well-being. Furthermore, the model proposed that relationship self-efficacy and LMXSC act as boundary conditions that enhance the impact of follower's forgiveness. The majority of the hypotheses associated with the field study were supported. Notably, the results showed that LMX relationship quality was positively associated with follower's forgiveness. This finding supports the notion that dependence and commitment embodied in close relationships do transcend the relationship type and are relevant for the domain of leader-follower relationships (Thomas et al., 2013a). Interestingly, this association can be enhanced when followers are high on both relationship self-efficacy and LMXSC.

Moreover, the results demonstrated that follower's forgiveness was positively associated with follower's relational efforts, as is the case in the close relationships context (Braithwaite et al., 2011). Overall, the results showed support for the indirect effects of LMX relationship quality on job satisfaction and most dimensions of subjective well-being, namely state self-esteem, positive affect

and negative affect. This pattern of results was also observed when the indirect effects were flowing from the three-way interaction. Interestingly, predictions regarding the indirect effects of LMX relationship quality on satisfaction with life were not supported. Nevertheless, it was shown that LMX enhances follower's forgiveness, which in turn leads to satisfaction with life, bypassing thus relational efforts. This finding was also observed in the presence of the three-way interaction. That is, followers high on relationship self-efficacy and LMXSC are likely to be more forgiving, which subsequently enhances their satisfaction with life.

The above offers one explanation for the present finding. However, an alternative explanation for this result may be found in the conceptualisation of life satisfaction. Namely, life satisfaction refers to a cognitive judgement process that involves comparison of one's circumstances to what is considered to be an appropriate standard (Diener et al., 1985). It is important to note that evaluations of how satisfied people are with the current state of affairs is established by a comparison with a standard which each individual sets for himself or herself, not upon some criterion that is judged to be important by the researcher (Diener, 1984). For example, although health, energy, and the like may be anticipated, particular individuals may place different values on them (Diener et al., 1985). Therefore, it may be possible that forgiveness as an *intra*-personal process is sufficient for enhancing satisfaction with life and therefore, does not require effort into improving the relationship with the transgressor. Even though the support for the indirect influence of LMX on satisfaction with life was not found, it seems that LMX does indirectly impact follower's subjective well-being by increasing follower's state self-esteem and positive affect and by decreasing negative affect.

The strength of the field study lies with the sample which included eight organisations from a host of different countries including; Serbia, UK, Australia and Greece operating in different industries. Therefore, the sample reflected both individualistic and collectivistic cultural contexts. As a result, the field study provides the external validity of the integration of relationship maintenance mechanisms framework (Rusbult et al., 2001) with LMX theory (Dansereau et al., 1975), both of which were developed in the Western context. By providing empirical evidence for forgiveness in LMX relationships, the field study demonstrates that this integration is a fruitful lens for studying relationship maintenance process in the leadership domain.

Furthermore, the field study provides empirical evidence that high quality LMX relationships are similar to those of close non-work relationships, in that commitment to the relationship is reflected in the way that relationship quality enhances forgiveness. Moreover, the study demonstrates the impact of individual and dyad-level interpersonal orientations on follower's forgiveness. The boundary conditions of forgiveness not only included an interpersonal orientation from the close relationship literature, namely relationship self-efficacy, but also an interpersonal orientation from the LMX literature, namely LMXSC. The inclusion of these two moderators, from distinct literatures, not only demonstrates the applicability of close relationship science to the leadership domain, but also highlights the compatibility of constructs from the LMX literature with the framework from the close relationships literature.

The field study achieved a number of the core objectives of the current thesis and provided the basis for the second study. The primary objective of the experimental study was to test the causal relations between LMX and forgiveness and thus address the inherent limitation of the cross-sectional design of study one. Furthermore, the experimental study aimed to investigate the moderating influence of social norms, namely forgiveness climate, on forgiveness in LMX relationships. Lastly, the experimental study investigated whether forgiveness in LMX relationships occurs following different types of offences and differing magnitude of offence severity.

The above mentioned objectives were achieved by adopting a scenario experimental design in three studies which used a student sample from a business and management programme. The same theoretical framework by Rusbult et al. (2001) was used to investigate whether high quality LMX relationships lead to enhanced forgiveness. The positive association between LMX quality and forgiveness was found in study 2a and study 2b which involve a competence-based offence. Nevertheless, LMX relationship quality did not significantly influence forgiveness after an integrity-based offence. It seems that negative information about integrity weighs more heavily than negative information about competence. Not only does this finding inform both the leadership and forgiveness literatures, but also provides insights to the schematic model of dispositional attribution (Reeder & Brewer, 1979) used in the trust literature.

Furthermore, drawing on the categorisation of interpersonal orientations (Rusbult & Van Lange, 1996) and its influence on the transformation of motivation (Rusbult et al., 2001), it was investigated whether forgiveness climate moderates the association between LMX and forgiveness. This prediction was supported in study 2a which depicts a low severity competence-based offence, nevertheless, the increase in forgiveness was statistically significant for respondents in low quality LMX relationships only. These findings suggest that organisations can reach out and facilitate the repair of low-quality LMX relationships through the forgiveness climate fostered within their organisation. It is possible that the nature of high-quality LMX relationships, and all the benefits that come with it, mitigated the effects of the offence and thus the presence of high forgiveness climate was not required for extending forgiveness in high quality LMX relationships. Nevertheless, the prediction was not supported in study 2b which depicted a high severity competence-based offence. It is possible that the significantly higher magnitude of harm that respondents experienced (i.e., being denied an annual bonus) precluded the interaction of the effects. Therefore, it was shown that forgiveness climate enhances forgiveness in a low LMX relationship, but only after a low severity competence-based offence.

The prediction that there will be no interaction between LMX and forgiveness climate after an integrity-based offence was supported in study 2c which depicted a high severity integrity-based offence. This finding is not surprising since the schematic model of dispositional attribution (Reeder & Brewer, 1979) suggests that negative information about integrity tends to weigh more heavily than positive information about integrity. The experimental study did achieve its primary objective of establishing the causal relationship between LMX relationship quality and forgiveness.

The main strength of the experimental study is the development of an LMX relationship quality experimental manipulation – a novel achievement in the literature. Furthermore, the study is among the first to test the moderating effects of forgiveness climate on follower's forgiveness. Lastly, the study demonstrates that forgiveness in a simulated organisational context is influenced by the severity of offence, as is the case in close relationships (e.g., Stanton & Finkel, 2012). Therefore, the experimental study also demonstrates that frameworks and mechanisms from close relationships operate in the leader-follower relationships.

Although the field and experimental study adopted different methodological approaches, they both fundamentally tested the same causal link between LMX and forgiveness, as well as the boundary conditions of interpersonal orientations. To summarise, the theorised mediational pathway from LMX to forgiveness was strongly supported by theory (Thomas et al., 2013a) and now by the empirical research included in the current thesis. The current thesis also provides empirical evidence of the role of interpersonal orientations in the process of forgiveness. Confidence in the findings was increased by the fact that the two studies differed considerably in terms of the context and the sample.

7.2 Implications for theory

The current research makes a number of theoretical contributions to both the LMX and forgiveness literatures. The thesis provides a richer understanding of forgiveness within the leader-member relationships, and how follower's forgiveness of leader's transgression influences important outcomes. Theoretically, the current research draws on the close relationships literature and cross-fertilises these insights with our understanding of relationship-based approach to leadership. In doing so, the current research provides empirical evidence for the proposition that LMX relationships are similar to close non-work relationships and thus answers the calls for the integration of the two literatures (Thomas et al., 2013a). This thesis has drawn upon three key theoretical frameworks, namely LMX theory (Dansereau et al., 1975), the model of forgiveness in close relationships (Braithwaite et al., 2011) and commitment and relationships maintenance mechanisms framework (Rusbult et al., 2001). These three models provided a solid theoretical basis for extending our understanding of forgiveness as a relationship maintenance mechanism. Overall, it was found that high-quality LMX relationships lead to enhanced forgiveness, which, in turn, results in positive outcomes. Additionally, the three types of interpersonal orientations (Rusbult & Van Lange, 1996) included operate as boundary conditions which bolster forgiveness in leader-follower relationships. In addition to theoretical integration, the current thesis has contributed to each of these frameworks in isolation, which will be elaborated on below.

The rationale for adopting the framework of commitment and relationship maintenance mechanisms (Rusbult et al., 2001) was that it represents one of the most influential extensions of interdependence theory (Kelley & Thibaut, 1978) and the investment model (Rusbult, 1980). In particular, the framework delineates that dependence on a relationship is generated as a result of high levels of relationship satisfaction, high investments and poor quality of alternatives. Greater dependence leads to enhanced commitment to a relationship since it involves intention to persist, long-term orientation and psychological attachment. As a result, the motives of the self and the partner in committed relationships become inseparable, which facilitates pro-relationship motivations. Furthermore, the framework identifies three types of interpersonal orientations which enhance the process of transformation of motivation, namely personal dispositions, relationship-specific motives and social norms. Moreover, the framework classifies forgiveness as a behavioural maintenance mechanism which is activated following a more serious offence or an offence that has a moral character. In contrast, cognitive maintenance mechanisms are applicable to minor offences.

The current research contributes to the framework by Rusbult et al. (2001) in a number of ways. First, it was empirically shown that high quality LMX relationships are comparable to committed close relationships. This finding is not surprising given that both LMX theory and interdependence theory are extensions of social exchange theory (Blau, 1964) which posits that the motivation for any exchange relationship is reflected in either social or economic principles. Second, the current research demonstrates the positive effects of individual, dyad- and group-level interpersonal orientations on the process of forgiveness. Importantly, interpersonal orientations are drawn from both the close relationships literature (i.e., relationship self-efficacy) and the leadership literature (i.e., LMXSC, forgiveness climate), demonstrating thus the suitability for their amalgamation. Lastly, even though the framework suggests that forgiveness is an appropriate response for more serious violations, the current research extends this understanding by showing that integrity-based offences of high severity are not as easily forgiven in the organisational context.

A model of forgiveness in close relationships by Braithwaite et al. (2011) was selected due to its unique conceptualisation of forgiveness as a dual process. Namely, even though most forgiveness conceptualisations emphasise a motivational change that leads to a decrease in negative response

tendencies, a decline in negative motivation only is insufficient for maintaining the relationship with a partner since it returns to the state of neutrality rather than positivity (Braithwaite et al., 2011). On the other hand, Fincham (2000) proposed increased positive transformation (goodwill) toward the offender as an additional component of forgiveness. As a result, both of these dimensions influenced the framework by Braithwaite et al. (2011) which examines mediators of the association between tendency to forgive and relationship satisfaction. In particular, the framework depicts in parallel the mediating role of interpersonal conflict tactics as a negative dimension and the mediating role of behavioural efforts as a positive dimension. The framework showed that forgiveness was positively associated with offended partner's relationship efforts which, in turn, was positively associated with relationship satisfaction (Braithwaite et al., 2011). Moreover, it was found that forgiveness leads to a decrease in negative tactics which undermine relationship satisfaction (Braithwaite et al., 2011).

The current research extends Braithwaite et al.'s (2011) framework by focusing on the positive dimension only, which has been under-represented in prior empirical studies. Specifically, the research investigated, and found support for, the mediating role of forgiveness and relational efforts in LMX relationships in a diverse organisational context. Furthermore, the current research identified novel outcomes of this mediational process, including enhanced follower's job satisfaction and subjective well-being. Moreover, the framework was extended by demonstrating its compatibility with classification of interpersonal orientations (Rusbult & Van Lange, 1996). Namely, the field study showed that the mediation process was enhanced by a three-way interaction of LMX, a dispositional interpersonal orientation (i.e., relationship self-efficacy) and dyad-level motivation (i.e., LMXSC). The experimental study showed that a group-level interpersonal orientation (i.e., forgiveness climate) moderates the link between LMX and forgiveness. The testing of Braithwaite et al.'s (2011) framework within the organisational context reaffirms the proposition that there are more similarities than differences between LMX and close non-work relationships (Thomas et al., 2013a).

The examination of forgiveness in the context of LMX relationships demonstrates that LMX relationships are vulnerable to interpersonal transgressions. Furthermore, this examination suggests that forgiveness could be used as a relationship maintenance mechanism. Thus, another theoretical implication of the current thesis is that it addresses the evolution of LMX theory by tapping into

Graen and Uhl-Bien's (1995) third stage of LMX research, namely, the depiction of dyadic partnership building. This was accomplished through a cross-sectional, individual-level model which identifies forgiveness as a key LMX relationship maintenance mechanism following an interpersonal transgression. In doing so, the current research demonstrates that LMX relationships do have their ups and downs, reiterating thus the presence of the "black box" of LMX research (Rousseau, 1998). Additionally, the current research addresses the fourth stage of LMX development which acknowledges that LMX relationships do not evolve in isolation but as a part of a network of relationships within the organisation. Indeed, the examination of the moderating influence of LMXSC and forgiveness climate is possible only when the referent is a group and an organisation, respectively. Likewise, Boyd and Taylor (1998) investigated how effective, as opposed to ineffective, LMX relationships are dependent on the presence of friendship. Their developmental model incorporates both the literature on developing friendships from social psychology and the literature on LMX which yielded significant insights. These integrative approaches which allow the scholars to borrow from related literatures seem to be a tool for further advancements in LMX theory.

In addition to extending theories of forgiveness and LMX, the findings of the current thesis also contribute to the understanding of social exchange. Namely, social exchange theory (Blau, 1964) provides the theoretical basis for the key constructs of the thesis. In spite of its significance, empirical studies have not explained well the content of social exchanges. It is known that social exchanges involve a series of interactions between two *interdependent* parties which depend on the actions of another person (Blau, 1964). Furthermore, obligations between the partners are unspecified; when one partner does another a favour, a return is expected in the future although it is not clear when exactly and in what form it will occur (Gouldner, 1960). Investments produce returns which, over time, create stable patterns of exchange between leaders and members, based on the ratios of investments to returns by both parties. As a result, these interdependent transactions can generate high-quality relationships. Nevertheless, the behaviours which support this process have not been specifically identified. The findings of the current thesis suggest that relationship maintenance acts, operationalised as forgiveness and subsequent relational efforts, could facilitate social exchange by indicating to a dyadic partner whether to remain committed and continue to engage in subsequent

investment cycles. This information would enable the expansion of social exchanges. Indeed, forgiveness and relational efforts in particular provide both the victim and the transgressor with the relevant information which informs their willingness to remain a part of the interdependence structure and yet be vulnerable to transgressions in the future. The risks stemming from social exchanges within working relationships prompts individuals to continually monitor the relational efforts of the partner before engaging in further investment cycles. If a harmed party demonstrates a lack of forgiveness and relational efforts, this will lead to less investment on behalf of the transgressor, thus eradicating social exchange. Eventually, the absence of relational efforts may negatively impact social exchanges which will ultimately be reflected in LMX quality so that a previously high LMX relationship may deteriorate to low quality. On the other hand, if relational efforts, which were initially perceived as scarce, are repeatedly demonstrated, social exchange processes will thrive and the LMX relationship could grow higher in quality.

Another notable point regarding the theoretical insight into LMX theory involves our understanding of the follower's role in LMX. Namely, the LMX literature has paid minimal attention to the role that members may assume in the development of LMX relationship. Therefore, the focus on member's relational efforts represents a significant departure from mainstream LMX research. Consistent with the recent tendency towards followership approaches (Barling, Christie, & Hopton, 2010; Uhl-Bien, Riggio, Lowe, & Carsten, 2014), the current research provides a novel insight into the relationship maintenance acts of followers. The findings demonstrate that the member in the dyad has the power to shape their relationship quality through forgiving interpersonal offences and engaging in relational efforts. Researchers are increasingly recognising the potentially key role of members in determining organisational effectiveness (Shamir & Lapidot, 2003), and this thesis provides insights into this stimulating line of inquiry.

The current research considers the member's perspective which has theoretical implications for the forgiveness literature. The findings suggest that followers in high LMX relationships are likely to forgive leader's transgressions and engage in relational efforts. It is possible that the findings would be different if the leader's perspective was considered. The rationale for such a suggestion is derived from the notion of power differentials in LMX relationships. Namely, leader's status implies that they

are less dependent upon the follower, and thus less vulnerable. Furthermore, the nature of the organisational context provides the leader with resources, information, tasks, and decision making power regarding hiring, promoting and laying off subordinates. Consequently, it may be that leaders are less willing to forgive follower's transgression and engage in relational efforts. For instance, the leader may decide to redirect investments into high quality relationships with other members, rather than making efforts to maintain the relationship with the transgressing follower due to limited time and resources (Martin et al., 2010). These findings reflect the tendency of partners to maintain a close relationship; a partner who is more dependent upon the relationship due to high satisfaction levels, high investments and poor alternatives, is more likely to experience the transformation of motivation and forgive transgression than the partner who is less dependent upon the relationship due to availability of attractive alternatives, smaller size of investment or moderate levels of satisfaction with relationship. Consequently, it is theorised that due to the nature of their position within the dyad, members are more likely to be forgiving compared to leaders. Testing this proposition represents an interesting avenue for future research.

Another contribution of the thesis involves the investigation of how forgiveness leads to important individual outcomes. Braithwaite et al. (2011) identified relational efforts as a mediating mechanism through which forgiveness leads to positive outcome in close relationships. The current research showed that the influence of forgiveness on job satisfaction (Cox, 2011) and subjective well-being (Karremans et al., 2003) is indirect, operating via relational efforts. To my knowledge, this is the first study to empirically test this mediating mechanism in LMX relationships. Therefore, the research contributes to the close relationships literature by demonstrating that mechanisms from Rusbult et al.'s (2001) framework operate in the leader-follower domain. Further, the research contributes to the LMX literature by showing that positive outcomes are achievable even when LMX relationships have been damaged. In particular, this implies that LMX relationships are vulnerable to interpersonal transgressions and that forgiveness could be used as a superior relationship maintenance strategy.

Finally, there is evidence for generic processes of forgiveness that generalises across different kinds of close relationships (including LMX relationships). Nevertheless, it should be

recognised that the forgiveness context in this thesis was the workgroup, and thus social comparisons with coworkers also played an important role in determining when and how forgiveness unfolds in LMX relationships. Namely, the perception that one's LMX relationship is better compared to the average relationship within the group coupled with high dispositions regarding one's relationship efficacy is likely to yield greater forgiveness. Furthermore, high forgiveness climate was found to positively influence low-quality LMX relationships. The specificities of organisational context impact forgiveness in leader-follower relationships, and this impact could inform the close relationship literature. For example, social comparisons with other close relationships and other's norms of forgiveness may also influence forgiveness in one's own romantic relationship. Therefore, the current study is not only informed by relationship science, but, in turn, informs the close relationship literature.

The experimental study made a methodological contribution to the extant literature by developing an LMX manipulation for scenario study. Several studies have manipulated LMX in laboratory experiments. Nevertheless, since these manipulations were designed to be used with other media it was necessary to develop a manipulation for the use in a scenario study. Therefore, the current research is among the first studies to develop an LMX relationship quality manipulation for a scenario experiment. Additionally, the experimental study investigated offence-specific forgiveness in LMX relationships. In particular, forgiveness was examined across different types of offences including a competence- and integrity-based offence and across low and high severity of offence. As a result, the current research addressed both dispositional and offence-specific forgiveness. In doing so, the understanding of how forgiveness could be enhanced is gained.

7.3 Implications for practice

Since conflict is a ubiquitous part of life in organisations (Fehr & Gelfand, 2012), learning about how forgiveness could be used as a relationship maintenance strategy is a key practical implication of the current research. The findings of this thesis describe mechanisms and outcomes of forgiveness in the leader-follower relationships. Becoming aware of these findings through training and development programmes will not only enable leaders to use forgiveness as a superior

relationship maintenance strategy in the aftermath of transgression, but will also allow them to enhance follower's job satisfaction and subjective well-being. These outcomes might have long-term effects on the organisations in terms of undesired turnover rates and increased health-related costs (Cameron & Caza, 2002; Exline & Baumeister, 2000). Therefore, repairing relationships through forgiveness should be of interest to individuals, teams and organisations alike.

In general, organisations should implement training and LMX interventions to encourage leaders and members to build high quality social exchange relationships (e.g., Scandura & Graen, 1984). Nevertheless, since transgressions are inevitable, organisations should promote forgiveness as a coping strategy. Specifically, managers and HR representatives should facilitate forgiveness by adopting interventions from psychotherapy and family therapy to their organisational context. For instance, Enright's 20-step process model of forgiveness (Enright & Fitzgibbons, 2000), Worthington's Recall-Empathize-Altruism-Commit and Hold (REACH) model and the Forgiveness and Reconciliation through Experiencing Empathy (FREE) model (Worthington, 2006) have been shown to effectively teach adults how to forgive (Worthington, Jennings, & DiBlasio, 2010). Procedures from these models could be adapted and incorporated into LMX training or other more general skills trainings.

Furthermore, HR managers could capitalise on the finding that follower's dispositions and relationship-specific features additionally enhance follower's forgiveness. Namely, leaders could raise follower's awareness of their relational self-efficacy and the effects it might have on their relationship management through skills training. Additionally, leaders could be trained to effectively manage follower's LMXSC, specifically following the transgression. For instance, a leader might invest additional resources into relationship that has been damaged. These efforts would be beneficial since even slightly higher levels of forgiveness can have positive effects above and beyond a particular situation (Karremans et al., 2005).

The finding that forgiveness climate significantly enhances forgiveness of subordinates in low-quality LMX relationships is particularly important as it is something the organisation can meaningfully and tangibly target through policies and practices which are supportive of forgiveness. Indeed, the plight of low LMX followers has been frequently neglected by organisations

(Bolino & Turnley, 2009). While interventions and training might be available to a select few, organisational climate as an overarching mechanism of values, attributes and practices reaches out to all employees irrespective of their position in the organisation. Therefore, it is in an organisation's interest to create environments that encourage forgiveness and relationship repair across all levels of their hierarchy. This is vital because not only may offences be fewer in a forgiving organisation but also because once offences occur, victims will be more likely to forgive, repair the relationship with the transgressor, and benefit from employee support programmes. Thus, instilling a forgiving climate could prevent the negative employee responses and undesired outcomes of damaged relationships.

Despite the above suggestions, caution is needed. Organisational climates should not encourage individuals to be forgiving without holding the offenders to a certain level or standard of accountability (Cox, 2011). While it is noble to be forgiving of others' transgressions, taking it to the extreme could lead to overall negative consequences (Worthington, 2006). Indeed, willingness to forgive was found to be correlated with poor performance (Cox, 2011). According to Cox (2011), forgiveness does not imply forgoing punishment since a victim can grant forgiveness and yet the organisation can still administer the punishment for the same offence.

When it comes to managers' promotion of forgiveness, Palanski (2012) suggests that organisational groundwork for forgiveness needs to be laid long before a particular incident occurs. Palanski (2012) illustrates this point by considering a situation in which there is little context for forgiveness. For instance, in an organisation where there is a history of taking credit for other's ideas with no serious consequences, a more experienced employee may criticise a colleague's contribution on a major project, only to later take credit for the contribution when it is presented to senior management. In such a situation it would be detrimental if the manager encouraged the victim to consider forgiving the transgressor. Furthermore, it would be equally distressing if the manager encouraged the victim and the transgressor to sit down and talk through the situation and make effort to reconcile. The victim's immediate response is likely to be anger for being asked to resolve the problem which he or she did not cause. Consequently, the transgressor's belief that the offence is acceptable is likely to be enforced because the obligation of relationship repair is placed on the victim.

In such a situation, the notion that management should be encouraging forgiveness is likely to be perceived as intrusive, misguided and offensive (Palanski, 2012).

On the other hand, Palanski (2012) considers the same situation occurring in an organisation in which there is a tradition of forgiveness. For instance, the organisation might have provided training about the benefits of such actions or uses the services of experienced mediators to help both parties overcome such situations. Furthermore, the organisation might have a climate or culture in which interpersonal offences and responses to them are taken seriously. In other words, through word and deed the organisation has emphasised the idea that revenge is not an acceptable response, but that asking for forgiveness is expected. Moreover, the organisation has established procedurally just protocols for managing such incidents (Aquino et al., 2006). In such a context, initiating the process of forgiveness would be the norm, not an offensive and awkward effort to deal with the issue (Palanski, 2012).

Importantly, Palanski (2012) proposes that the multi-level nature of forgiveness may have a “good-better-best” range of outcomes, with good outcomes occurring at the individual level of analysis, better outcomes occurring at the individual *and* dyad levels of analysis, and best outcomes occurring at individual, dyad *and* collective levels of analysis. Examples of good outcomes include the extension of forgiveness by the victim and the act of seeking forgiveness by the transgressor. A better outcome is achieved when forgiveness has been *both* sought *and* extended. Likewise, a better outcome occurs when the victim and the perpetrator reconcile. The best outcome may be achieved when such two-way forgiveness is norm throughout the organisation and when the organisation deals with inevitable offences proactively and positively (Palanski, 2012). As suggested by Fehr and Gelfand (2012), forgiveness climate should emerge from core cultural values and be demonstrated through leader attributes and organisational practices. Only then will responses to conflicts be proactive and employee behaviours positive.

Even though forgiveness research has been focused on its positive outcomes, it is important for the field to be aware of potential adverse effects of forgiveness (Fincham, 2015). Increased relationship motivation through forgiveness may be one of the mechanisms for maintaining intimate partner violence. For instance, women at the domestic violence shelter who were more forgiving

reported being more likely to reunite with their abusive partners (Gordon et al., 2004). Likewise, McNulty (2010) found that more forgiving spouses experienced stable or increasing levels of psychological and physical aggression over the first five years of marriage, whereas less forgiving partners experienced declines in partner transgression (McNulty & Fincham, 2012). Therefore, more attention should be devoted to contextualising forgiveness and understanding its negative impact (Fincham, 2015). In a similar vein, organisations should consider the ways in which forgiveness climate can operate at its optimum level without harnessing its negative effects, such as a decline in performance (e.g., Cox, 2011).

7.4 Limitations

The potential impact of the present findings for theory and practice should be considered in light of its limitations. The limitations regarding the field study will be discussed, which will be followed by a consideration of the limitations associated with the experimental study. It will be pointed out when the design of the one study complemented the weakness of another.

A pertinent limitation of the field study is the cross-sectional design. Cross-sectional designs are a concern as they preclude inferences of the causal relationship between LMX and forgiveness. For example, rather than a high-quality LMX relationship influencing forgiveness, it could be the case that subordinates who forgive their leader's transgression are more likely to subsequently develop a high-quality LMX relationship. This alternative explanation as to the direction of the effects is plausible since it has been shown that forgiveness promotes restoration of closeness and commitment in relationships (Tsang et al., 2006), and that forgiveness predicts later marital satisfaction (Fincham & Beach, 2007). Nevertheless, the findings of study one are consistent with the commitment and relationship maintenance mechanisms framework (Rusbult et al., 2001) that underpinned the research. The issue of causality was addressed by the experimental study which demonstrated that LMX quality does lead to forgiveness following a competence-based offence.

Another limitation of the field study is the possibility of common method biases since the data collected was single source, and, at one point in time (Podsakoff, MacKenzie, Lee, & Podsakoff,

2003). Common method variance may have inflated the relationships between the variables as they were collected from the single source. Nevertheless, it should be noted that common method variance in fact undermines interaction effects, making them more difficult to detect (Busemeyer & Jones, 1983). Although perceptual and subjective nature of concepts such as LMX, forgiveness, job satisfaction and subjective well-being cannot be meaningfully assessed using other sources than focal respondents, future studies should separate the measurements across different points in time. Nevertheless, it should be noted that common method bias is a limitation pertinent to numerous LMX studies (e.g., Harris, Wheeler, & Kacmar, 2011). Since leadership is a perceptual phenomenon that allows the members to observe the leader's actions and interpret their meanings (Epitropaki & Martin, 2005), it is not surprising that similar approaches were taken by authors that aimed to assess member's cognition and leadership outcomes (e.g., Giessner, Knippenberg, & Sleebos, 2009).

Furthermore, studies could also collect data from both leaders and members so as to examine whether forgiveness in LMX relationships is affected by the position. Namely, since followers are more dependent on leaders for a number of resources, it would be interesting to observe whether this dependence translates into follower's greater tendency to forgive leader. It would be interesting to investigate the extent to which the processes illuminated in the thesis could apply to leaders, in addition to followers. For instance, it could be that the lowering of self-esteem that results from being transgressed against may be less apparent in leaders, who occupy a position of enhanced power relative to followers (Snodgrass et al., 1998) and thus benefit from some of the psychological buffering effects associated with high power. This does not imply that the process of forgiveness would not be initiated or implemented to the same extent as in followers trying to repair a relationship, but the underlying motivations may be more related to instrumental concerns than related to self-evaluation maintenance.

Even though the random assignment in the experimental study provided strong internal validity of the findings, the proposed relationships were examined in a hypothetical setting, where both LMX and forgiveness climate were manipulated using scenarios. Indeed, the use of scenarios could limit the realism of events for participants, particularly regarding the experience of a workplace offence. Nevertheless, the results suggested that participants perceived the offence as realistic. On a

scale 1 = *very unlikely* to 7 = *very likely* participants rated offence realism as follows: study 2a $M_{\text{composite score}} = 4.95$, $SD = 1.60$; study 2b $M_{\text{composite score}} = 5.20$, $SD = 1.42$; study 2c $M_{\text{composite score}} = 5.35$, $SD = 1.47$, indicating that the offence depicted in the scenario was realistic. Scholars often rely on scenario methodology for investigating leadership processes and its outcomes (e.g., Chen, DeWall, Poon, & Chen, 2012; Cianci, Hannah, Roberts, & Tsakumis, 2014; De Cremer, 2006; Stouten et al., 2013; van Dierendonck et al., 2014).

A further limitation of the experimental study relates to the manipulation of offence severity. Namely, study 2a intended to depict a low severity competence-based offence while study 2b intended to depict a high severity competence-based offence. Manipulation was operationalised as the magnitude of harm that the victim experienced, that is, in a low severity offence the subordinate is not rewarded in any way whereas in a high severity offence the subordinate is denied an annual bonus. However, this manipulation did not seem to be successful since on a scale 1 = *not severe* to 9 = *extremely severe* study 2a offence severity was $M = 6.85$, $SD = 1.86$ while study 2b offence severity was $M = 7.07$, $SD = 1.55$. Future research could address this limitation by developing more refined offence severity manipulations.

Another limitation of the experimental study concerns the use of an undergraduate student sample, rather than employees. Nevertheless, even though the study design did not require participants to have any work experience, most of the students reported that they did have work experience which included part-time jobs, internships, and a placement year (study 2a $M = 9.6$ months, $SD = 12.28$; study 2b $M = 16.6$ months, $SD = 29.87$; study 2c $M = 19.33$ months, $SD = 20.08$). It should be noted that the use of student sample in scenario studies is a common practice (e.g., Cerne et al., 2014; Chen et al., 2011; Chen et al., 2012; De Cremer, 2006; Hodgins & Liebeskind, 2003; Koivisto et al., 2013; Nübold et al., 2013; Stouten & Tripp, 2009; Strelan et al., 2008; van Dierendonck et al., 2014). Leadership research has shown that the results are replicated when both student and field samples were used (Van Knippenberg & Van Knippenberg, 2005). Importantly, the findings of the scenario study compliment the findings of the field study which has drawn upon a diverse organisational sample.

Lastly, the interaction hypothesis on page 73 (Hypothesis3b) predicts a null effect, and therefore support for this hypothesis, and the subsequent null finding, need to be interpreted with all the caution and caveats that come with null effects. In their critical assessment of null hypothesis significance testing (NHST), Levine, Weber, Hullett, Park, and Lindsey (2008) note that the null (H_0) and the alternative (H_1) statistical hypotheses are mutually exclusive. The alternative hypothesis generally represents a researcher's predictions whereas the null hypothesis involves the negation of the alternative hypothesis. For instance, if a researcher predicts a difference between two means, the alternative hypothesis is that the two means are different and the null is that the means are exactly equal.

Levine et al. (2008) observe that one of the most commonly acknowledged limitation in NHST is its sensitivity to sample size (e.g., Boster, 2002; Cohen, 1990). Namely, when the sample size is small, a researcher is likely to make Type II error since strong and important effects may be nonsignificant. On the other hand, large sample sizes could lead a researcher to acknowledge large p values of even trivial effects. Therefore, a researcher could reject potentially relevant findings when a sample is small and interpret trivial effects with large samples. A second common criticism of NHST, according to Levine et al. (2008) is the inherent falsity of a point or nil-null hypothesis, irrespective of the plausibility of the substantive hypothesis (e.g., Cohen, 1994; Meehl, 1978). A third criticism of NHST concerns researcher's high Type II error rates (Boster, 2002; Hunter, 1997; Schmidt, 1996). This argument implies that studies in social science research often lack adequate statistical power (e.g., Cohen, 1962; Sedlmeier & Gigerenzer, 1989). A final common criticism of NHST is that it is often misunderstood and abused (Kline, 2004; Nickerson, 2000).

Levine et al. (2008) suggest that, when considered independently, each of the above mentioned issues could be addressed to some extent. For example, the first two criticisms could be largely overcome by interpreting NHST in conjunction with estimates of effect size (e.g., Kirk, 1996). Indeed, effect size informs a researcher of how strongly two or more variables are related or how large is the (mean) difference between groups (Levine et al., 2008). Furthermore, researchers could reach acceptable Type II error rates by conducting power analyses in advance and collecting large enough sample sizes, in addition to having highly reliable measures, strong manipulations, and

robust applications. Lastly, misunderstanding and abuse could be corrected with education (Levine et al., 2008).

7.5 Directions for future research

An important avenue for future research would be the examination of boundary conditions under which forgiveness unfolds in LMX relationships. The current research examined the moderating role of relationship self-efficacy, an individual-level category of interpersonal motivations (Rusbult & Van Lange, 1996). Nevertheless, there might be other key dispositions affecting the process of forgiveness, such as an individual's beliefs about how relationships develop. Implicit Theories of Relationships (ITRs) involve specific beliefs about the nature and stability of relationships which partly determine one's goals and motivations in relationships (Knee, 1998). Destiny theorists believe that the quality of relationships are basically fixed or destined and that one cannot do much to alter the natural course of their development. In contrast, growth theorists believe that relationships are malleable and can be improved as a result of hard work and effort (Knee, 1998). These implicit beliefs have influence on relationship behaviour and implications for relationship maintenance and development (Knee, 1998). Namely, growth theorists engage in long-term approaches to relationship development and relationship maintenance strategies since they consider relationships as a work in progress. In contrast, destiny theorists engage in strategies that reflect disengagement and restraint from maintenance attempts. Based on these differences, it is possible that growth theorists are more likely to reach the transformation of motivation and forgive leader's transgression than destiny theorists. Investigating potential influence of dispositional interpersonal orientations will enhance the understanding of their role in the process of transformation of motivation.

Another fruitful area for research would be the inclusion of objective data. Namely, future studies should investigate whether follower's forgiveness impacts leader-ratings of counterproductive work behaviour (CWB), organisational citizenship behaviour (OCB) and task performance, which have received considerable scholarly attention in the LMX literature (Dulebohn et al., 2012; Gerstner & Day, 1997; Martin et al., 2016). Specifically, field studies could examine the mediating role of conflict tactics. Braithwaite et al. (2011) showed that forgiveness was positively associated with the

absence of negative conflict tactics, which in turn lead to enhanced relationship satisfaction. Shapiro et al. (2011) found psychological withdrawal and turnover intention to be the outcomes of leader-transgression dynamics, which could be perceived as indices of CWB. Fox, Spector, and Miles (2001) identified CWB as a behavioural strain response to interpersonal conflict. Furthermore, De Dreu and Weingart (2003) showed the association between conflict and performance. Recent research on forgiveness in organisational context found that willingness to forgive positively influence OCB and negatively influence performance scores (Cox, 2011). Therefore, investigating whether forgiveness influences CWB, OCB and performance via negative tactics might generate valuable insights for both scholars and practitioners. Obtaining leader-ratings of these outcomes will not only enhance our understanding of the dynamics of forgiveness in LMX relationships but will also address the issue of common source bias.

The dependent variable of forgiveness in the experimental study was measured by asking each respondent about their *intention* to forgive rather than actual forgiveness. Future research could use critical incident technique which instructs respondents to recall an offence that they had forgiven or an offence that they had not forgiven (see Karremans & Van Lange, 2004, 2008; Karremans et al., 2003). The advantage of this methodology is that it does not enforce predetermined concepts on the respondents. Additionally, offence severity could also be manipulated using critical incident technique (e.g., Pronk, Karremans, Overbeek, Vermulst, & Wigboldus, 2010). Doing so would allow the investigation of the outcomes of actual forgiveness.

Other potential avenues for future research include examining the proposed relationships when other types and severities of offences are depicted in a scenario. For example, Karellaia and Keck (2013) examined the impact of hypothetical deviances on recommended punishment in a scenario. The deviances were adopted from the categorisation proposed by Robinson and Bennett (1995) and were grouped by resulting harm into less severe (e.g., “being late for meetings”) and more severe (e.g., “withholding important work-related information”). Furthermore, Aquino et al. (2006) examined the impact of three broad categories of workplace offence on forgiveness, namely: (a) goal obstruction; (b) violation of rules, norms, and promises; and (c) status and power derogation proposed

by Bies and Tripp (2004). Depicting additional types and severities of offence in a scenario would strengthen the causal relationship between LMX and forgiveness.

Another topic for further research involves the use of laboratory experiments to replicate the results of the scenario experiment, as well as to examine the mediating role of forgiveness on outcomes. Namely, laboratory studies have successfully measured the outcomes of performance (Bono & Judge, 2003; Connelly & Ruark, 2010; Grant, Gino, & Hofmann, 2011; Grant & Hofmann, 2011; Kirkpatrick & Locke, 1996; Nübold et al., 2013; Porath & Erez, 2007; Tee, Ashkanasy, & Paulsen, 2013), organisational citizenship behaviour (Bono & Judge, 2003; Grant et al., 2011), and prosocial behaviour (Karremans & Van Lange, 2004; Porath & Erez, 2007; Winterich, Aquino, Mittal, & Swartz, 2013). Offence has also been used in laboratory settings in the form of leader mistreatment (Mayer, Thau, Workman, Dijke, & Cremer, 2012), leader toxicity (Pelletier, 2012) and rudeness towards the participant (Porath & Erez, 2007). Insights from these studies could be used to examine the impact of forgiveness on respondent's performance, OCB and CWB.

An important area for further research would be measuring forgiveness at different points in time. Fincham et al. (2005) suggest that the forgiveness process is not essentially or typically instantaneous. Even though most theoretical analyses suggest that forgiveness is a *process* that requires victim's prosocial *change*, majority of empirical studies measure forgiveness at one point in time (see McCullough & Root, 2005). McCullough et al. (2003) pioneered an experimental study which showed that the nature of forgiveness process cannot fully be assessed using single assessments. Instead, they suggest that forgiveness should be measured with regards to change over time in prosocial motivation (McCullough et al., 2003). According to them, forgiveness includes two components: forbearance, which described the extent to which a victim initially displays forgiveness; and trend forgiveness which described the extent to which a victim becomes increasingly forgiving over time. These two components are shown to account for a unique variance in forgiveness and may be influenced by opposite causes.

Even though Fincham et al. (2005) endorse this analysis, they suggest that construct of forbearance involves two separate processes which they term *restraint* and *forbearance*. In line with interdependence standpoint, restraint, one facet of psychological transformation, ensues in the seconds

following the offence and involves suppressing gut-level urges for vengeance. Forbearance, a second facet of psychological transformation, ensues in the minutes and hours following an offence, involves conscious and active meaning analysis and leads to developing increased prosocial motivation, which parallels the analysis of McCullough et al. (2003). The last phase involves *extended forgiveness*, which roughly parallels trend forgiveness, except that this stage involves a period from several hours to several days and months following the offence. This temporal operationalisation of forgiveness has been very influential. Indeed, forgiveness has increasingly been measured over time in a number of studies (e.g., Bono et al., 2008; Braithwaite et al., 2011; Fincham et al., 2007; Luchies, Finkel, McNulty, & Kumashiro, 2010; Luchies et al., 2013; Maio et al., 2008; McCullough et al., 2007; McNulty, 2011; McNulty & Russell, 2016; Paleari et al., 2005; Pronk et al., 2010; Tsang et al., 2006). Therefore, future studies could adopt longitudinal design in order to assess forgiveness over time.

In their review, Fincham et al. (2016) note that interventions can help facilitate forgiveness in romantic relationships. An initial meta-analysis of 14 studies involving 393 participants (Worthington, Sandage, & Berry, 2000) showed a linear relationship between the intervention's duration and its efficacy. Another meta-analysis of 27 studies (Wade, Worthington, & Meyer, 2005) demonstrated that even though the intervention duration influenced efficacy, intervention status (full vs. partial vs. no intervention) predicted outcomes over and beyond intervention length. A subsequent meta-analysis of 16 studies of process models of forgiveness, which guide individuals to achieve forgiveness through several different phases or steps (Lundahl, Taylor, Stevenson, & Roberts, 2008), showed that intervention increased forgiveness ($ES=0.82$) and positive affect ($ES=0.81$) while negative affect was decreased ($ES=0.54$). In a recent meta-analysis using 53 posttreatment effect sizes involving 2,323 participants who were exposed to a forgiveness intervention for a particular transgression, Wade et al. (2014) showed that compared to nonparticipants, participants experienced greater forgiveness and hope and fewer depressive symptoms and anxiety symptoms.

Even though Lundahl et al. (2008) concluded that general forgiveness interventions do not enhance the relationship with the transgressor, the above findings reveal the link between relationship health and mental health. Indeed, Worthington et al. (2010) detected 11 couple intervention studies, several of which demonstrated improvements on relationship (e.g., intimacy, satisfaction,

communication) and individual mental health outcomes (e.g., anger, anxiety, depression and global symptoms). Even though the studies use small sample sizes and thus are underpowered, the conclusion that interventions consistently help couples is reflected in the findings of a couple of a few recent and adequately powered intervention studies included in Wade et al.'s (2014) meta-analysis, such as Baskin, Rhody, Schoolmeesters, and Ellingson (2011) and Greenberg, Warwar, and Malcolm (2010).

Critiques pertinent to intervention refers to the nature of experimental design and the need to perform a component analysis in order to determine what actually causes forgiveness (Fincham et al., 2016). Second, the diversity of issues addressed in forgiveness interventions regarding the couples such as relatively minor hurts, hurt by partners' abortion decision, and extramarital affairs, as well as the diversity of samples including community and clinical samples demonstrate the need to generate greater homogeneity in issues addressed and greater specificity of treatment populations (Fincham et al., 2016). Lastly, the danger of decontextualising the study and facilitation of forgiveness was shown by the intention of women in domestic violence shelters to reunite with their abusive partners, and thus exposing themselves to the risk of experiencing domestic violence again (Gordon et al., 2004). Nevertheless, forgiveness interventions do seem to be an effective tool for overcoming interpersonal transgression and could be adapted in the organisational context.

7.5.1 Qualitative methods

The insights of the current thesis may be extended by adopting alternative techniques. Further research could rely on qualitative methods for identifying latent assumptions regarding mechanisms of forgiveness in LMX relationships which could be generated through interview-based methodologies (Uhl-Bien, 2006) or diary methodology (Pond Jr et al., 2012). Qualitative methods can inform scholarly understanding through an iterative process of exploration. The advantage of qualitative methods is that they allow researchers to be in close proximity of the lived experiences of subjects and provide access to narratives and other artefacts associated with forgiveness (Sandage & Williamson, 2005). Further, interviews may offer a more profound qualitative interpretation (Lee & Lings, 2008). In their review of forgiveness research in cultural context, Sandage and Williamson

(2005) noted that Park and Enright (1997) used an understanding-forgiveness interview to assess the responses of Korean adolescent participants to moral dilemmas regarding forgiveness. The use of diary accounts, on the other hand, may provide detailed analysis regarding the temporal evolution of LMX and forgiveness (Bolger, Davis, & Rafaeli, 2003). The use of diary methodology in particular would be appropriate for examining forgiveness as a relationship maintenance strategy. Close relationships research has found that commitment, relationship quality, forgiveness, relationship closeness, conflict and well-being fluctuate over time (Bono et al., 2008; Fincham et al., 2007; Paleari et al., 2005; Tsang et al., 2006). Daily reports of employees' interactions with their managers which involve interpersonal transgressions, forgiveness and relational efforts would allow the exploration of whether incremental changes in forgiveness occur over time, and establish the extent to which forgiveness operates as a relationship maintenance strategy. Therefore, it is possible that changes in both LMX and forgiveness could be tracked with diary methodology.

7.6 Conclusion

At the beginning of the thesis, six objectives were postulated that were intended to contribute to theory and research across both the leadership and forgiveness domains. These objectives will be discussed in light of the thesis findings.

The first objective was to investigate the role of forgiveness as an important relationship maintenance mechanism. This was achieved by providing an empirical test of the model of forgiveness in LMX relationships. Both studies supported the proposition that high-quality LMX relationships yield greater forgiveness. As a result, the current thesis has contributed to the LMX literature by demonstrating that leader-follower relationships are vulnerable to interpersonal offences. Doing so has provided insights into the third stage of LMX research development by showing that once established, LMX relationships do not plateau but tend to fluctuate, and are prone to deterioration if they are not maintained. Importantly, it was shown that the positive outcomes of LMX relationships are achievable even after relationships were damaged but subsequently maintained via forgiveness. The findings have also contributed to the close relationships literature by showing that key features of the organisational context (i.e., LMXSC, forgiveness climate, type of transgression)

influence forgiveness in close work relationships. Three key theoretical frameworks (i.e., Braithwaite et al., 2011; Dansereau et al., 1975; Rusbult et al., 2001) were extended and tested in this new context. Therefore, the empirical findings supported the value of integrating the LMX and close relationships literatures (Thomas et al., 2013a).

The second objective was to investigate the outcomes of forgiveness in LMX relationships. The close relationships literature has identified a number of positive outcomes of forgiveness. Drawing on these findings, the current research has identified job satisfaction and subjective well-being (enhanced state self-esteem, enhanced positive affect, reduced negative affect) as the outcomes of forgiveness in the LMX relationships. While the previous LMX studies have identified these outcomes, the current research investigates the constructs in the new context, demonstrating thus that the positive outcomes are achievable even following interpersonal transgressions. This finding implies that forgiveness is an effective and arguably superior relationship maintenance strategy.

The third objective was to investigate the mediating mechanisms of forgiveness in LMX relationships. Braithwaite et al.'s (2011) framework was extended and tested in the leader-follower context. It was found that the underlying mediating mechanism of forgiveness in close relationships operates in LMX relationships. Namely, high-quality LMX relationships lead to greater forgiveness, which in turn yield greater relational efforts. The current thesis provides one of the first empirical tests of how the forgiveness process unfolds in LMX relationships.

The fourth objective was to investigate the boundary conditions of forgiveness in LMX relationships. The moderating role of a dispositional factor, relationship-specific motives, and social norms were examined using a multi-method approach. In particular, the studies have tested the moderating influence of follower's relationship self-efficacy, LMXSC and forgiveness climate. The results demonstrated that high levels of follower's relationship self-efficacy and LMXSC enhance follower's forgiveness in high quality LMX relationships. Interestingly, it was found that forgiveness climate enhances forgiveness in low-quality LMX relationships, whereas it did not have significant influence on high-quality LMX relationships. Since the categorisation of interpersonal orientations (Rusbult & Van Lange, 1996) originates from the close relationships literature while the dyad and

group-level moderators were borrowed from the leadership literature, the empirical test of boundary conditions further supports cross-fertilisation of the two domains.

An ancillary objective was to develop LMX relationship quality manipulation for scenario experiment. The experimental study demonstrated that LMX manipulation was successful and thus provides the basis for testing other relationship-based processes and outcomes using this manipulation in scenario methodology.

The final objective was to investigate both dispositional and offence-specific forgiveness in LMX relationships. Doing so strengthened the finding that high-quality LMX relationships lead to greater forgiveness. Nevertheless, it was found that offence-specific forgiveness in LMX relationships is granted following a competence-based violation only. This finding informs the close relationships literature which suggests that forgiveness is a behavioural maintenance mechanism appropriate for more serious offences, or offences that have a moral character. The findings of the thesis emphasise that the context in which the relationship operates can significantly impact the process of forgiveness. Therefore, while forgiveness in close relationships may be granted following a serious offence or an offence that violates relationship norms, this may not be the case in the leader-follower context.

In conclusion, the current thesis demonstrates that even though forgiveness is often viewed as an abstract concept with strong associations with religion, it certainly merits its place in the domain of organisational behaviour and LMX research, in particular. Importantly, the findings demonstrate that forgiveness is a superior relationship maintenance strategy due to its *intra*-personal nature (i.e., forgiveness is granted without expecting apologies, amends, etc.), its dual nature that incorporates both positive and negative dimension, and its numerous positive outcomes. Importantly, forgiveness can be trained, developed and maintained in organisations. The understanding of how forgiveness could be enhanced and the ways in which it unfolds is beneficial for leaders, followers, and organisations. As such, it represents a significant advancement in our knowledge of both leadership and forgiveness.

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APPENDICES

APPENDIX A: Scales

LMX scale (Graen & Uhl-Bien, 1995)

1 = *Strongly disagree*, 7 = *Strongly agree*

- I feel I know where I stand with my team leader. I know how satisfied my team leader is with me.
- I feel that my team leader understands my problems and needs.
- My team leader recognises my potential.
- Regardless of how much formal authority he/she has built in his/her position, my team leader would use his/her power to help to solve problems in my work.
- Regardless of how much formal authority my team leader has, he/she would “bail me out,” at his/her expense.
- I have enough confidence in my team leader that I would defend and justify his/her decision if he/she were not present to do so.
- I would characterise my working relationship with my team leader as very good.

Adjusted relationship self-efficacy scale (Bradbury, 1989)

1 = *Strongly disagree*, 7 = *Strongly agree*

- I have little control over the conflicts that occur between me and my team leader.
- There is no way I can solve some of the problems in my relationship with my team leader.
- When I put my mind to it I can resolve just about any disagreement that comes up between me and my team leader.

- I often feel helpless in dealing with the problems that may come up in my relationship with my team leader.
- Sometimes I feel that I have no say over issues that cause conflict between us.
- I am able to do things needed to settle our conflicts.
- There is little I can do to resolve many of the important conflicts that occur between me and my team leader.

LMXSC scale (Vidyarathi et al., 2010)

1 = *Strongly disagree*, 7 = *Strongly agree*

- I have a better relationship with my team leader than most others in my work group.
- When my team leader cannot make it to an important meeting, it is likely that s/he will ask me to fill in.
- Relative to the others in my work group, I receive more support from my team leader.
- The working relationship I have with my team leader is more effective than the relationships most members of my group have with my team leader.
- My team leader is more loyal to me compared to my co-workers.
- My team leader enjoys my company more than he/she enjoys the company of other group members.

Adjusted forgiveness scale (Fincham, Beach, Lambert, Stillman, & Braithwaite, 2008; study 3)

1 = *Strongly disagree*, 6 = *Strongly agree*

When my team leader wrongs me:

- I tend to give him/her the cold shoulder.
- I don't want to have anything to do with him/her.
- I tend to withdraw from him/her.

- I soon forgive him/her.
- It is easy to feel warmly again toward him/her.
- I am able to act as positively toward him/her as I was before it happened.
- I find a way make him/her regret it.
- I tend to do something to even the score.
- I retaliate or do something to get my own back.

Adjusted Behavioural Self-Regulation for Effective Relationships Scale – Effort Scale

(BSRERS-Effort). (Wilson, Charker, Lizzo, Halford, & Kimlin, 2005)

1 = *Not true at all*, 2 = *Somewhat untrue*, 3 = *Neutral*, 4 = *Somewhat true*, 5 = *Very true*

- If my team leader does not appreciate the change efforts I am making in our relationship, I tend to give up.
- Even when I know what I can do differently to improve things in the relationship with my team leader, I cannot seem to change my behaviour.
- I tend to fall back on what is comfortable for me in the relationship with my team leader, rather than trying new ways of relating.
- If things go wrong in the relationship with my team leader, I tend to feel powerless.
- I tend to put off doing anything about problems in the relationship with my team leader in the hope that things will get better by themselves.
- When I have difficulty making a change, I tend not to ask for support from my team leader.

Job satisfaction scale. (Cammann, Fichman, Jenkins, & Klesh, 1979)

1 = *Strongly disagree*, 7 = *Strongly agree*

- All in all, I am satisfied with my job.
- In general, I don't like my job.

- In general, I like working here.

Satisfaction with life scale (Diener, Emmons, Larsen, & Griffin, 1985)

1 = *Strongly disagree*, 7 = *Strongly agree*

- In most ways my life is close to my ideal.
- The conditions of my life are excellent.
- I am satisfied with my life.
- So far I have gotten important things I want in life.
- If I could live my life over, I would change almost nothing.

Positive Affect Negative Affect Scale (PANAS) (Watson, Clark, & Tellegen, 1988)

1 = *Very slightly or not at all*, 2 = *A little*, 3 = *Moderately*, 4 = *Quite a bit*, 5 = *Extremely*

_ interested	_ irritable
_ distressed	_ alert
_ excited	_ ashamed
_ upset	_ inspired
_ strong	_ nervous
_ guilty	_ determined
_ scared	_ attentive
_ hostile	_ jittery
_ enthusiastic	_ active
_ proud	_ afraid

The state self-esteem scale (Heatherton & Polivy, 1991)

1 = *Not at all*, 5 = *Extremely*

- I feel confident about my abilities.
- I am worried about whether I am regarded as a success or failure.
- I feel satisfied with the way my body looks right now.
- I feel frustrated or rattled about my performance.
- I feel that I am having trouble understanding things that I read.
- I feel that others respect and admire me.
- I am dissatisfied with my weight.
- I feel self-conscious.
- I feel as smart as others.
- I feel displeased with myself.
- I feel good about myself.
- I am pleased with my appearance right now.
- I am worried about what other people think of me.
- I feel confident that I understand things.
- I feel inferior to others at this moment.
- I feel unattractive.
- I feel concerned about the impression I am making.
- I feel that I have less scholastic ability right now than others.
- I feel like I'm not doing well.
- I am worried about looking foolish.

Control variables.

Culture scale (Dorfman & Howell, 1988) 1 = *Strongly disagree*, 5 = *Strongly agree*

Power distance

- Managers should make most decisions without consulting subordinates.
- It is frequently necessary for a manager to use authority and power when dealing with subordinates.
- Managers should seldom ask for the opinions of employees.
- Managers should avoid off-the-job social contacts with employees.
- Employees should not disagree with management decisions.
- Managers should not delegate important tasks to employees.

Collectivism

- Group welfare is more important than individual awards.
- Group success is more important than individual success.
- Being accepted by members of your work group is very important.
- Employees should only pursue their goals after considering the welfare of the group.
- Managers should encourage group loyalty even if individuals suffer.
- Individuals may be expected to give up their goals in order to benefit group success.

Uncertainty avoidance

- It is important to have job requirements and instructions spelled out in detail so that employees always know what they are expected to do.
- Supervisors expect employees to closely follow instructions.
- Rules and regulations are important because they inform employees what the organization expects of them.

- Standard operating procedures are helpful to employees on the job.
- Instructions for operations are important for employees on the job.

Social desirability. A short form of Marlowe-Crowne Social Desirability Scale by Strahan and Gerbasi (1972). Responses recorded as true and false.

- I'm always willing to admit it when I make a mistake.
- I always try to practice what I preach.
- I never resent being asked to return a favour.
- I have never been irked when people expressed ideas very different from my own.
- I have never deliberately said something that hurt someone's feelings.
- I like to gossip at times.
- There have been occasions when I took advantage of someone.
- I sometimes try to get even rather than forgive and forget.
- At times I have really insisted on having things my own way.
- There have been occasions when I felt like smashing things.

APPENDIX B: Algebra for developing Mplus syntax

Model equations:

$$Y = b_0 + b_1M_1 + b_2M_2 + c_1'X$$

$$M_1 = a_0 + a_1X + a_2W + a_3Z + a_4XW + a_5XZ + a_6WZ + a_7XWZ$$

$$M_2 = d_0 + d_2X + d_1M_1$$

Algebra to calculate indirect and conditional effects by writing the model as: $Y = a + b X$.

$$Y = b_0 + b_1M_1 + b_2M_2 + c_1'X$$

$$M_1 = a_0 + a_1X + a_2W + a_3Z + a_4XW + a_5XZ + a_6WZ + a_7XWZ$$

$$M_2 = d_0 + d_2X + d_1M_1$$

Hence substituting in equation for M_1 and M_2 :

$$Y = b_0 + b_1(a_0 + a_1X + a_2W + a_3Z + a_4XW + a_5XZ + a_6WZ + a_7XWZ) + b_2(d_0 + d_2X + d_1M_1) + c_1'X$$

$$Y = b_0 + a_0b_1 + a_1b_1X + a_2b_1W + a_3b_1Z + a_4b_1XW + a_5b_1XZ + a_6b_1WZ + a_7b_1XWZ + b_2d_0 + b_2d_2X +$$

$$b_2d_1(a_0 + a_1X + a_2W + a_3Z + a_4XW + a_5XZ + a_6WZ + a_7XWZ) + c_1'X$$

$$Y = b_0 + a_0b_1 + a_1b_1X + a_2b_1W + a_3b_1Z + a_4b_1XW + a_5b_1XZ + a_6b_1WZ + a_7b_1XWZ + b_2d_0 + b_2d_2X + a_0$$

$$b_2d_1 + a_1b_2d_1X + a_2b_2d_1W + a_3b_2d_1Z + a_4b_2d_1XW + a_5b_2d_1XZ + a_6b_2d_1WZ + a_7b_2d_1XWZ + c_1'X$$

$$Y = (b_0 + a_0b_1 + a_2b_1W + a_3b_1Z + a_6b_1WZ + b_2d_0 + a_0b_2d_1 + a_2b_2d_1W + a_3b_2d_1Z + a_6b_2d_1WZ) + (a_1b_1 + a_4$$

$$b_1W + a_5b_1Z + a_7b_1WZ + b_2d_2 + a_1b_2d_1 + a_4b_2d_1W + a_5b_2d_1Z + a_7b_2d_1WZ + c_1')X$$

Hence, one indirect effect of X on Y , conditional on W and Z :

$$a_1b_1 + a_4b_1W + a_5b_1Z + a_7b_1WZ + b_2d_2 + a_1b_2d_1 + a_4b_2d_1W + a_5b_2d_1Z + a_7b_2d_1WZ$$

$$= b_1(a_1 + a_4W + a_5Z + a_7WZ) + b_2(d_2 + a_1d_1 + a_4d_1W + a_5d_1Z + a_7d_1WZ)$$

One direct effect of X on Y : c_1'

APPENDIX C: Mplus syntax

DEFINE:

XW=X*W;
XZ=X*Z;
WZ=W*Z;
XWZ=X*W*Z;

ANALYSIS:

TYPE=GENERAL;
ESTIMATOR=ML;
BOOTSTRAP=10000;

MODEL:

[Y] (b0);
Y ON M2 (b2);
Y ON M1 (b1);
Y ON X (cdash1); !Direct effect of X on Y

[M2] (d0);
M2 ON M1 (d1);
M2 ON X (d2);

[M1] (a0);
M1 ON X (a1);
M1 ON W (a2);
M1 ON Z (a3);
M1 ON XW (a4);
M1 ON XZ (a5);
M1 ON WZ (a6);
M1 ON XWZ (a7);

Model constraint

NEW(LOW_W MED_W HIGH_W LOW_Z MED_Z HIGH_Z ILOW_LOZ IMEW_LOZ
IHIW_LOZ ILOW_MEZ IMEW_MEZ IHIW_MEZ ILOW_HIZ IMEW_HIZ IHIW_HIZ
TLOW_LOZ TMEW_LOZ THIW_LOZ TLOW_MEZ TMEW_MEZ THIW_MEZ TLOW_HIZ
TMEW_HIZ THIW_HIZ);

LOW_W = -1;
MED_W = 0;
HIGH_W = 1;
LOW_Z = -1;
MED_Z = 0;
HIGH_Z = 1;

! Calculate conditional indirect effects for each of combinations of values of W and Z.

$$\text{ILOW_LOZ} = a_1b_1 + a_4 b_1\text{LOW_W} + a_5 b_1\text{LOW_Z} + a_7 b_1\text{LOW_W LOW_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{LOW_W} + a_5 b_2d_1\text{LOW_Z} + a_7 b_2d_1\text{LOW_W LOW_Z};$$

$$\text{IMEW_LOZ} = a_1b_1 + a_4 b_1\text{MED_W} + a_5 b_1\text{LOW_Z} + a_7 b_1\text{MED_W LOW_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{MED_W} + a_5 b_2d_1\text{LOW_Z} + a_7 b_2d_1\text{MED_W LOW_Z};$$

$$\text{IHIW_LOZ} = a_1b_1 + a_4 b_1\text{HIGH_W} + a_5 b_1\text{LOW_Z} + a_7 b_1\text{HIGH_W LOW_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{HIGH_W} + a_5 b_2d_1\text{LOW_Z} + a_7 b_2d_1\text{HIGH_W LOW_Z};$$

$$\text{ILOW_MEZ} = a_1b_1 + a_4 b_1\text{LOW_W} + a_5 b_1\text{MED_Z} + a_7 b_1\text{LOW_W MED_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{LOW_W} + a_5 b_2d_1\text{MED_Z} + a_7 b_2d_1\text{LOW_W MED_Z};$$

$$\text{IMEW_MEZ} = a_1b_1 + a_4 b_1\text{MED_W} + a_5 b_1\text{MED_Z} + a_7 b_1\text{MED_W MED_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{MED_W} + a_5 b_2d_1\text{MED_Z} + a_7 b_2d_1\text{MED_W MED_Z};$$

$$\text{IHIW_MEZ} = a_1b_1 + a_4 b_1\text{HIGH_W} + a_5 b_1\text{MED_Z} + a_7 b_1\text{HIGH_W MED_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{HIGH_W} + a_5 b_2d_1\text{MED_Z} + a_7 b_2d_1\text{HIGH_W MED_Z};$$

$$\text{ILOW_HIZ} = a_1b_1 + a_4 b_1\text{LOW_W} + a_5 b_1\text{HIGH_Z} + a_7 b_1\text{LOW_W HIGH_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{LOW_W} + a_5 b_2d_1\text{HIGH_Z} + a_7 b_2d_1\text{LOW_W HIGH_Z};$$

$$\text{IMEW_HIZ} = a_1b_1 + a_4 b_1\text{MED_W} + a_5 b_1\text{HIGH_Z} + a_7 b_1\text{MED_W HIGH_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{MED_W} + a_5 b_2d_1\text{HIGH_Z} + a_7 b_2d_1\text{MED_W HIGH_Z};$$

$$\text{IHIW_HIZ} = a_1b_1 + a_4 b_1\text{HIGH_W} + a_5 b_1\text{HIGH_Z} + a_7 b_1\text{HIGH_W HIGH_Z} + b_2d_2 + a_1 b_2d_1 + a_4 b_2d_1\text{HIGH_W} + a_5 b_2d_1\text{HIGH_Z} + a_7 b_2d_1\text{HIGH_W HIGH_Z};$$

! Calculate conditional total effects

$$\text{TLOW_LOZ} = \text{ILOW_LOZ} + \text{cdash1};$$

$$\text{TMEW_LOZ} = \text{IMEW_LOZ} + \text{cdash1};$$

$$\text{THIW_LOZ} = \text{IHIW_LOZ} + \text{cdash1};$$

$$\text{TLOW_MEZ} = \text{ILOW_MEZ} + \text{cdash1};$$

$$\text{TMEW_MEZ} = \text{IMEW_MEZ} + \text{cdash1};$$

$$\text{THIW_MEZ} = \text{IHIW_MEZ} + \text{cdash1};$$

$$\text{TLOW_HIZ} = \text{ILOW_HIZ} + \text{cdash1};$$

$$\text{TMEW_HIZ} = \text{IMEW_HIZ} + \text{cdash1};$$

$$\text{THIW_HIZ} = \text{IHIW_HIZ} + \text{cdash1};$$

OUTPUT:

STAND CINT (bcbootstrap);

APPENDIX D: Algebra for developing Mplus syntax for the model with four outcomes

Indirect effects:

The indirect effect of X on Y1, conditional on W and Z:

$$b_1 (a_1 + a_4 W + a_5 Z + a_7 WZ) + b_2 (d_2 + a_1 d_1 + a_4 d_1 W + a_5 d_1 Z + a_7 d_1 WZ)$$

The indirect effect of X on Y2, conditional on W and Z:

$$c_1 (a_1 + a_4 W + a_5 Z + a_7 WZ) + c_2 (d_2 + a_1 d_1 + a_4 d_1 W + a_5 d_1 Z + a_7 d_1 WZ)$$

The indirect effect of X on Y3, conditional on W and Z:

$$e_1 (a_1 + a_4 W + a_5 Z + a_7 WZ) + e_2 (d_2 + a_1 d_1 + a_4 d_1 W + a_5 d_1 Z + a_7 d_1 WZ)$$

The indirect effect of X on Y4, conditional on W and Z:

$$f_1 (a_1 + a_4 W + a_5 Z + a_7 WZ) + f_2 (d_2 + a_1 d_1 + a_4 d_1 W + a_5 d_1 Z + a_7 d_1 WZ)$$

Direct effects:

The direct effect of X on Y1: c_1'

The direct effect of X on Y2: c_2'

The direct effect of X on Y3: c_3'

The direct effect of X on Y4: c_4'

APPENDIX E: Mplus syntax for the model with four outcomes

DEFINE:

XW=X*W;
XZ=X*Z;
WZ=W*Z;
XWZ=X*W*Z;

ANALYSIS:

TYPE=GENERAL;
ESTIMATOR=ML;
BOOTSTRAP=10000;

MODEL:

! Outcome Y1

[Y1] (b0);
Y1 ON M2 (b2);
Y1 ON M1 (b1);
Y1 ON X (c1dash); ! Direct effect of X on Y1

! Outcome Y2

[Y2] (c0);
Y2 ON M2 (c2);
Y2 ON M1 (c1);
Y2 ON X (c2dash); ! Direct effect of X on Y2

! Outcome Y3

[Y3] (e0);
Y3 ON M2 (e2);
Y3 ON M1 (e1);
Y3 ON X (c3dash); ! Direct effect of X on Y3

! Outcome Y4

[Y4] (f0);
Y4 ON M2 (f2);
Y4 ON M1 (f1);
Y4 ON X (c4dash); ! Direct effect of X on Y4

[M2] (d0);
M2 ON M1 (d1);
M2 ON X (d2);

[M1] (a0);
M1 ON X (a1);
M1 ON W (a2);
M1 ON Z (a3);
M1 ON XW (a4);
M1 ON XZ (a5);
M1 ON WZ (a6);
M1 ON XWZ (a7);

Model constraint

NEW(LOW_W MED_W HIGH_W LOW_Z MED_Z HIGH_Z ILW_LZ1 IMW_LZ1 IHW_LZ1
ILW_MZ1 IMW_MZ1 IHW_MZ1 ILW_HZ1 IMW_HZ1 IHW_HZ1 TLW_LZ1 TMW_LZ1
THW_LZ1 TLW_MZ1 TMW_MZ1 THW_MZ1 TLW_HZ1 TMW_HZ1 THW_HZ1 ILW_LZ2
IMW_LZ2 IHW_LZ2 ILW_MZ2 IMW_MZ2 IHW_MZ2 ILW_HZ2 IMW_HZ2 IHW_HZ2
TLW_LZ2 TMW_LZ2 THW_LZ2 TLW_MZ2 TMW_MZ2 THW_MZ2 TLW_HZ2 TMW_HZ2
THW_HZ2 ILW_LZ3 IMW_LZ3 IHW_LZ3 ILW_MZ3 IMW_MZ3 IHW_MZ3 ILW_HZ3
IMW_HZ3 IHW_HZ3 TLW_LZ3 TMW_LZ3 THW_LZ3 TLW_MZ3 TMW_MZ3 THW_MZ3
TLW_HZ3 TMW_HZ3 THW_HZ3 ILW_LZ4 IMW_LZ4 IHW_LZ4 ILW_MZ4 IMW_MZ4
IHW_MZ4 ILW_HZ4 IMW_HZ4 IHW_HZ4 TLW_LZ4 TMW_LZ4 THW_LZ4 TLW_MZ4
TMW_MZ4 THW_MZ4 TLW_HZ4 TMW_HZ4 THW_HZ4);

LOW_W = -1;
MED_W = 0;
HIGH_W = 1;
LOW_Z = -1;
MED_Z = 0;
HIGH_Z = 1;

! Calculate conditional indirect effects for each of combinations of values of W and Z.

! Y1

ILW_LZ1= a1*b1 + a4*b1*LOW_W+ a5*b1*LOW_Z+ a7*b1*LOW_W*LOW_Z+ b2*d2+
a1*b2*d1+a4*b2*d1*LOW_W+ a5*b2*d1*LOW_Z+ a7*b2*d1*LOW_W*LOW_Z;

IMW_LZ1 = a1*b1 + a4*b1*MED_W+a5*b1*LOW_Z+ a7*b1*MED_W*LOW_Z+
b2*d2+a1*b2*d1+a4*b2*d1*MED_W+ a5*b2*d1*LOW_Z+ a7*b2*d1*MED_W*LOW_Z;

IHW_LZ1 = a1*b1 + a4*b1*HIGH_W+a5*b1*LOW_Z+a7*b1*HIGH_W*LOW_Z+b2*d2+
a1*b2*d1+a4*b2*d1*HIGH_W+a5*b2*d1*LOW_Z+ a7*b2*d1*HIGH_W*LOW_Z;

ILW_MZ1 = a1*b1 + a4*b1*LOW_W+ a5*b1*MED_Z+a7*b1*LOW_W*MED_Z+b2*d2+
a1*b2*d1+a4*b2*d1*LOW_W+ a5*b2*d1*MED_Z+ a7*b2*d1*LOW_W*MED_Z;

$$IMW_MZ1 = a1*b1 + a4*b1*MED_W + a5*b1*MED_Z + a7*b1*MED_W*MED_Z + b2*d2 + a1*b2*d1 + a4*b2*d1*MED_W + a5*b2*d1*MED_Z + a7*b2*d1*MED_W*MED_Z;$$

$$IHW_MZ1 = a1*b1 + a4*b1*HIGH_W + a5*b1*MED_Z + a7*b1*HIGH_W*MED_Z + b2*d2 + a1*b2*d1 + a4*b2*d1*HIGH_W + a5*b2*d1*MED_Z + a7*b2*d1*HIGH_W*MED_Z;$$

$$ILW_HZ1 = a1*b1 + a4*b1*LOW_W + a5*b1*HIGH_Z + a7*b1*LOW_W*HIGH_Z + b2*d2 + a1*b2*d1 + a4*b2*d1*LOW_W + a5*b2*d1*HIGH_Z + a7*b2*d1*LOW_W*HIGH_Z;$$

$$IMW_HZ1 = a1*b1 + a4*b1*MED_W + a5*b1*HIGH_Z + a7*b1*MED_W*HIGH_Z + b2*d2 + a1*b2*d1 + a4*b2*d1*MED_W + a5*b2*d1*HIGH_Z + a7*b2*d1*MED_W*HIGH_Z;$$

$$IHW_HZ1 = a1*b1 + a4*b1*HIGH_W + a5*b1*HIGH_Z + a7*b1*HIGH_W*HIGH_Z + b2*d2 + a1*b2*d1 + a4*b2*d1*HIGH_W + a5*b2*d1*HIGH_Z + a7*b2*d1*HIGH_W*HIGH_Z;$$

! Y2

$$ILW_LZ2 = a1*c1 + a4*c1*LOW_W + a5*c1*LOW_Z + a7*c1*LOW_W*LOW_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*LOW_W + a5*c2*d1*LOW_Z + a7*c2*d1*LOW_W*LOW_Z;$$

$$IMW_LZ2 = a1*c1 + a4*c1*MED_W + a5*c1*LOW_Z + a7*c1*MED_W*LOW_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*MED_W + a5*c2*d1*LOW_Z + a7*c2*d1*MED_W*LOW_Z;$$

$$IHW_LZ2 = a1*c1 + a4*c1*HIGH_W + a5*c1*LOW_Z + a7*c1*HIGH_W*LOW_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*HIGH_W + a5*c2*d1*LOW_Z + a7*c2*d1*HIGH_W*LOW_Z;$$

$$ILW_MZ2 = a1*c1 + a4*c1*LOW_W + a5*c1*MED_Z + a7*c1*LOW_W*MED_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*LOW_W + a5*c2*d1*MED_Z + a7*c2*d1*LOW_W*MED_Z;$$

$$IMW_MZ2 = a1*c1 + a4*c1*MED_W + a5*c1*MED_Z + a7*c1*MED_W*MED_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*MED_W + a5*c2*d1*MED_Z + a7*c2*d1*MED_W*MED_Z;$$

$$IHW_MZ2 = a1*c1 + a4*c1*HIGH_W + a5*c1*MED_Z + a7*c1*HIGH_W*MED_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*HIGH_W + a5*c2*d1*MED_Z + a7*c2*d1*HIGH_W*MED_Z;$$

$$ILW_HZ2 = a1*c1 + a4*c1*LOW_W + a5*c1*HIGH_Z + a7*c1*LOW_W*HIGH_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*LOW_W + a5*c2*d1*HIGH_Z + a7*c2*d1*LOW_W*HIGH_Z;$$

$$IMW_HZ2 = a1*c1 + a4*c1*MED_W + a5*c1*HIGH_Z + a7*c1*MED_W*HIGH_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*MED_W + a5*c2*d1*HIGH_Z + a7*c2*d1*MED_W*HIGH_Z;$$

$$IHW_HZ2 = a1*c1 + a4*c1*HIGH_W + a5*c1*HIGH_Z + a7*c1*HIGH_W*HIGH_Z + c2*d2 + a1*c2*d1 + a4*c2*d1*HIGH_W + a5*c2*d1*HIGH_Z + a7*c2*d1*HIGH_W*HIGH_Z;$$

! Y3

$$\text{ILW_LZ3} = a1*e1 + a4*e1*\text{LOW_W} + a5*e1*\text{LOW_Z} + a7*e1*\text{LOW_W}*\text{LOW_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{LOW_W} + a5*e2*d1*\text{LOW_Z} + a7*e2*d1*\text{LOW_W}*\text{LOW_Z};$$

$$\text{IMW_LZ3} = a1*e1 + a4*e1*\text{MED_W} + a5*e1*\text{LOW_Z} + a7*e1*\text{MED_W}*\text{LOW_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{MED_W} + a5*e2*d1*\text{LOW_Z} + a7*e2*d1*\text{MED_W}*\text{LOW_Z};$$

$$\text{IHW_LZ3} = a1*e1 + a4*e1*\text{HIGH_W} + a5*e1*\text{LOW_Z} + a7*e1*\text{HIGH_W}*\text{LOW_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{HIGH_W} + a5*e2*d1*\text{LOW_Z} + a7*e2*d1*\text{HIGH_W}*\text{LOW_Z};$$

$$\text{ILW_MZ3} = a1*e1 + a4*e1*\text{LOW_W} + a5*e1*\text{MED_Z} + a7*e1*\text{LOW_W}*\text{MED_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{LOW_W} + a5*e2*d1*\text{MED_Z} + a7*e2*d1*\text{LOW_W}*\text{MED_Z};$$

$$\text{IMW_MZ3} = a1*e1 + a4*e1*\text{MED_W} + a5*e1*\text{MED_Z} + a7*e1*\text{MED_W}*\text{MED_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{MED_W} + a5*e2*d1*\text{MED_Z} + a7*e2*d1*\text{MED_W}*\text{MED_Z};$$

$$\text{IHW_MZ3} = a1*e1 + a4*e1*\text{HIGH_W} + a5*e1*\text{MED_Z} + a7*e1*\text{HIGH_W}*\text{MED_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{HIGH_W} + a5*e2*d1*\text{MED_Z} + a7*e2*d1*\text{HIGH_W}*\text{MED_Z};$$

$$\text{ILW_HZ3} = a1*e1 + a4*e1*\text{LOW_W} + a5*e1*\text{HIGH_Z} + a7*e1*\text{LOW_W}*\text{HIGH_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{LOW_W} + a5*e2*d1*\text{HIGH_Z} + a7*e2*d1*\text{LOW_W}*\text{HIGH_Z};$$

$$\text{IMW_HZ3} = a1*e1 + a4*e1*\text{MED_W} + a5*e1*\text{HIGH_Z} + a7*e1*\text{MED_W}*\text{HIGH_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{MED_W} + a5*e2*d1*\text{HIGH_Z} + a7*e2*d1*\text{MED_W}*\text{HIGH_Z};$$

$$\text{IHW_HZ3} = a1*e1 + a4*e1*\text{HIGH_W} + a5*e1*\text{HIGH_Z} + a7*e1*\text{HIGH_W}*\text{HIGH_Z} + e2*d2 + a1*e2*d1 + a4*e2*d1*\text{HIGH_W} + a5*e2*d1*\text{HIGH_Z} + a7*e2*d1*\text{HIGH_W}*\text{HIGH_Z};$$

! Y4

$$\text{ILW_LZ4} = a1*f1 + a4*f1*\text{LOW_W} + a5*f1*\text{LOW_Z} + a7*f1*\text{LOW_W}*\text{LOW_Z} + f2*d2 + a1*f2*d1 + a4*f2*d1*\text{LOW_W} + a5*f2*d1*\text{LOW_Z} + a7*f2*d1*\text{LOW_W}*\text{LOW_Z};$$

$$\text{IMW_LZ4} = a1*f1 + a4*f1*\text{MED_W} + a5*f1*\text{LOW_Z} + a7*f1*\text{MED_W}*\text{LOW_Z} + f2*d2 + a1*f2*d1 + a4*f2*d1*\text{MED_W} + a5*f2*d1*\text{LOW_Z} + a7*f2*d1*\text{MED_W}*\text{LOW_Z};$$

$$\text{IHW_LZ4} = a1*f1 + a4*f1*\text{HIGH_W} + a5*f1*\text{LOW_Z} + a7*f1*\text{HIGH_W}*\text{LOW_Z} + f2*d2 + a1*f2*d1 + a4*f2*d1*\text{HIGH_W} + a5*f2*d1*\text{LOW_Z} + a7*f2*d1*\text{HIGH_W}*\text{LOW_Z};$$

$$ILW_MZ4 = a1*f1 + a4*f1*LOW_W + a5*f1*MED_Z + a7*f1*LOW_W*MED_Z + f2*d2 + a1*f2*d1 + a4*f2*d1*LOW_W + a5*f2*d1*MED_Z + a7*f2*d1*LOW_W*MED_Z;$$

$$IMW_MZ4 = a1*f1 + a4*f1*MED_W + a5*f1*MED_Z + a7*f1*MED_W*MED_Z + f2*d2 + a1*f2*d1 + a4*f2*d1*MED_W + a5*f2*d1*MED_Z + a7*f2*d1*MED_W*MED_Z;$$

$$IHW_MZ4 = a1*f1 + a4*f1*HIGH_W + a5*f1*MED_Z + a7*f1*HIGH_W*MED_Z + f2*d2 + a1*f2*d1 + a4*f2*d1*HIGH_W + a5*f2*d1*MED_Z + a7*f2*d1*HIGH_W*MED_Z;$$

$$ILW_HZ4 = a1*f1 + a4*f1*LOW_W + a5*f1*HIGH_Z + a7*f1*LOW_W*HIGH_Z + f2*d2 + a1*f2*d1 + a4*f2*d1*LOW_W + a5*f2*d1*HIGH_Z + a7*f2*d1*LOW_W*HIGH_Z;$$

$$IMW_HZ4 = a1*f1 + a4*f1*MED_W + a5*f1*HIGH_Z + a7*f1*MED_W*HIGH_Z + f2*d2 + a1*f2*d1 + a4*f2*d1*MED_W + a5*f2*d1*HIGH_Z + a7*f2*d1*MED_W*HIGH_Z;$$

$$IHW_HZ4 = a1*f1 + a4*f1*HIGH_W + a5*f1*HIGH_Z + a7*f1*HIGH_W*HIGH_Z + f2*d2 + a1*f2*d1 + a4*f2*d1*HIGH_W + a5*f2*d1*HIGH_Z + a7*f2*d1*HIGH_W*HIGH_Z;$$

! Calculate conditional total effects

! Y1

$$TLW_LZ1 = ILW_LZ1 + c1dash;$$

$$TMW_LZ1 = IMW_LZ1 + c1dash;$$

$$THW_LZ1 = IHW_LZ1 + c1dash;$$

$$TLW_MZ1 = ILW_MZ1 + c1dash;$$

$$TMW_MZ1 = IMW_MZ1 + c1dash;$$

$$THW_MZ1 = IHW_MZ1 + c1dash;$$

$$TLW_HZ1 = ILW_HZ1 + c1dash;$$

$$TMW_HZ1 = IMW_HZ1 + c1dash;$$

$$THW_HZ1 = IHW_HZ1 + c1dash;$$

! Y2

$$TLW_LZ2 = ILW_LZ2 + c2dash;$$

$$TMW_LZ2 = IMW_LZ2 + c2dash;$$

$$THW_LZ2 = IHW_LZ2 + c2dash;$$

$$TLW_MZ2 = ILW_MZ2 + c2dash;$$

$$TMW_MZ2 = IMW_MZ2 + c2dash;$$

$$THW_MZ2 = IHW_MZ2 + c2dash;$$

$$TLW_HZ2 = ILW_HZ2 + c2dash;$$

$$TMW_HZ2 = IMW_HZ2 + c2dash;$$

$$THW_HZ2 = IHW_HZ2 + c2dash;$$

! Y3

TLW_LZ3 = ILW_LZ3 + c3dash;
TMW_LZ3 = IMW_LZ3 + c3dash;
THW_LZ3 = IHW_LZ3 + c3dash;

TLW_MZ3 = ILW_MZ3 + c3dash;
TMW_MZ3 = IMW_MZ3 + c3dash;
THW_MZ3 = IHW_MZ3 + c3dash;

TLW_HZ3 = ILW_HZ3 + c3dash;
TMW_HZ3 = IMW_HZ3 + c3dash;
THW_HZ3 = IHW_HZ3 + c3dash;

!Y4

TLW_LZ4 = ILW_LZ4 + c4dash;
TMW_LZ4 = IMW_LZ4 + c4dash;
THW_LZ4 = IHW_LZ4 + c4dash;

TLW_MZ4 = ILW_MZ4 + c4dash;
TMW_MZ4 = IMW_MZ4 + c4dash;
THW_MZ4 = IHW_MZ4 + c4dash;

TLW_HZ4 = ILW_HZ4 + c4dash;
TMW_HZ4 = IMW_HZ4 + c4dash;
THW_HZ4 = IHW_HZ4 + c4dash;

OUTPUT:

STAND CINT(bcbootstrap);

APPENDIX F: LMX relationship quality manipulation

Please imagine that you are an employee in an international manufacturing company. You work in Marketing & Sales in a team that consists of 5 team members; Elizabeth, Bob, Steve and Susan. All of you are supervised by Pat Smith, the Sales Manager.

High LMX quality

You and your manager Pat have a very good working relationship. Pat sees that you are willing to put extra effort in and do things that are over and beyond your job description. You often do tasks that help Pat meet work targets even if that requires working over the weekends or during holidays. Pat seems to trust you and rely on you in difficult situations. For that reason, you are willing to work your hardest for Pat. Pat assigns you to do interesting tasks and gives you autonomy in decision-making. Recently you made an honest error and Pat defended you in front of senior management, even though Pat was not fully aware of the reasons behind the error when senior management asked for an explanation.

In your opinion, Pat is one of the best salespeople in the company. Pat is willing to spend personal time giving you tips and tricks on how to acquire and manage clients. You admire Pat's knowledge and competence. One day you hope to manage your own team of salespeople and would look to apply Pat's marketing strategy. It seems that you and Pat get on really well. You often engage in informal chatting and you find working with Pat to be fun. Pat has a friendly, relaxed attitude. Pat often invites you to attend social events. Pat is the kind of person you would like to have as a friend and you are making efforts to get to know Pat better.

Low LMX quality

You and your manager Pat do not have a very good working relationship. Pat sees that you are not willing to put extra effort in and that you mainly stick to your job description. You never do tasks that help Pat meet work targets because that requires working over weekends or during holidays. Pat does not seem to trust you nor rely on you in difficult situations. For that reason, you are not

willing to work your hardest for Pat. Pat assigns you to do less interesting tasks and expects you to get approval before making a decision. Recently you made an honest error and Pat did not defend you in front of senior management as Pat was not fully aware of the reasons behind the error when senior management asked for an explanation.

In your opinion, Pat is one of the poorest salespeople in the company. Pat is not willing to spend any personal time giving you tips and tricks on how to acquire and manage clients. You do not have much respect for Pat's knowledge nor competence. One day you hope to manage your own team of salespeople and would look to apply a completely different marketing strategy. You and Pat do not seem to get on very well. You rarely engage in informal chatting and you do not find working with Pat to be fun. Pat has a formal, reserved attitude. Pat never invites you to attend social events. Pat is not the kind of person you would like to have as a friend and you are not making efforts to get to know Pat better.

APPENDIX G: Forgiveness climate manipulation

High forgiveness climate

After learning about this offence, the HR director had a meeting with the senior management team and discussed the issue. Acting as the representative of the senior management team and the organisation, the HR director arranged a special meeting with you and Pat in order to resolve the situation. During the discussions, everyone presented their views and remained patient and calm. The HR director stated that a mistake was made, but that anyone can make mistakes. You were informed at this meeting that the senior management team has decided to introduce a new self-assessment system that more transparently shows everyone's contribution to a project.

As a result of the discussion between you, Pat and the HR director, it was decided that the £5,000 bonus be split amongst you and Pat. Also, it was decided that Pat would continue to manage the Sales team. The HR director emphasised the importance of forgiving and encouraged you and Pat to continue working together. The HR director offered for you to take part in the organisation's employees support programme that is part of the organisation's benefits to the employees which can help you overcome this situation and forgive Pat.

Low forgiveness climate

After learning about this offence, the HR director had a meeting with the senior management team and discussed the issue. Acting as the representative of the senior management team and the organisation, the HR director arranged a special meeting with you and Pat in order to resolve the situation. During the discussions, everyone presented their views and appeared to be impatient and tense. The HR director stated that a mistake was made, and that people should be held accountable for their mistakes. You were informed at this meeting that the senior management team considered introducing a new self-assessment system that more transparently shows everyone's contribution to a project. However, the senior management did not follow through this idea.

As a result of the discussion between you, Pat, and the HR director, it was decided that you would not be compensated for the work you did because there was not enough proof that you put in as

much effort. Also, it was decided that Pat would be under disciplinary procedures for the time being. The HR director acknowledged that it may be hard to forgive and to work with Pat in the future. The HR director said that the organisation does not have its own employees' support programme that could help you overcome this situation and forgive Pat. Instead, the HR director advised you to take part in other external support programmes but that the organisation cannot cover the cost of the programmes for you.

APPENDIX H: Scales used in the experimental study

Adjusted LMX-7 scale (Graen & Uhl-Bien, 1995)

Based on what you read and considering your relationship with **your manager Pat**, please indicate how strongly you agree with each statement. Please circle the answer (1 = *Strongly disagree*, 7 = *Strongly agree*).

- I feel I know where I stand with my manager Pat. I know how satisfied my manager Pat is with me.
- I feel that my manager Pat understands my problems and needs.
- My manager Pat recognises my potential.
- Regardless of how much formal authority my manager Pat has, Pat would use this power to help solve problems in my work.
- Regardless of how much formal authority my manager Pat has, Pat would “bail me out,” even at Pat’s own expense.
- I have enough confidence in my manager Pat that I would defend and justify Pat’s decision if Pat were not present to do so.
- I would characterise my working relationship with my manager Pat as very good.

Forgiveness climate scale (developed)

Based on how the organisation handled the dispute between your manager Pat and yourself please indicate to what extent you agree with the following statements. (1 = *Strongly disagree*, 7 = *Strongly agree*).

This organisation:

- Encourages the employees to remain patient and in self-control.
- Encourages forgiveness.
- Facilitates relationship repair.
- Shows interest in employees' concerns and helped them with their struggles.
- Restores the victim's dignity through compensation, apology and other reparations.
- Reintegrates the offender into the organisation.
- Provides employee support programmes that facilitate forgiveness.

Adjusted forgiveness scale (Fincham, Beach, Lambert, Stillman, & Braithwaite, 2008; study 3)

Please consider how you would feel after this event with your manager Pat. Please indicate to what extent you agree with the following statements. (1= *Strongly disagree*, 6 = *Strongly agree*).

- I would not want to have anything to do with my manager Pat.
- I would soon forgive my manager Pat.
- I would find a way to make my manager Pat regret it.
- I would give my manager Pat the cold shoulder.
- I would withdraw from my manager Pat.
- I would do something to even the score.
- It would be easy to feel warmly again toward my manager Pat.
- I would retaliate or do something to get my own back.
- I would be able to act as positively toward my manager Pat as I was before it happened.

APPENDIX I: Skewness and kurtosis for values of each scale in study 2b

Scale	Skewness	Kurtosis
LMX manipulation check	-0.01	-1.71
Forgiveness climate manipulation check	-0.19	-1.01
Forgiveness	0.02	-0.56

APPENDIX J: Skewness and kurtosis for values of each scale in study 2c

Scale	Skewness	Kurtosis
LMX manipulation check	0.08	-1.51
Forgiveness climate manipulation check	-0.32	-0.95
Forgiveness	0.09	-0.16