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The cost of contention: Subordinates' reactions to workplace conflict with their supervisor

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Abstract

Workplace conflict has substantial adverse effects for both employees and organizations. Given the difference in authority, workplace conflicts with supervisors are particularly taxing for employees. This research investigates how supervisors and subordinates deal with workplace conflict and examines the effects of supervisors' conflict management styles (CMS) on subordinates' behaviours, attitudes, and well-being. Study #1 (N = 505) validated measures of (1) subordinates' experience of conflict with their supervisor and (2) subordinates' perceptions of their supervisor's CMS. In study #2 (N = 506), subordinates' experience of conflict with their supervisor was associated with reduced job satisfaction and fewer prosocial workplace behaviours (organizational citizenship behaviours; OCB) as well as greater psychological distress and more harmful workplace behaviours (counterproductive work behaviours; CWB). The way in which supervisors manage conflict strongly affects subordinates' perceptions of fairness and emotional experiences and, in turn, significantly predicts subordinates' job satisfaction, psychological distress, and CWB/OCB. Some supervisor CMS weaken, others amplify, the adverse effect of supervisor-subordinate conflict on subordinates' outcomes. Particularly favourable effects on subordinates' outcomes are found when supervisors manage conflict by openly sharing information and by working together to achieve a mutually satisfactory resolution. This study demonstrates that workplace conflict not only has notable detrimental effects on employees' attitudes and well-being, but also, on employees' behaviours that are vital to organizations' success and that there are positive ways to dealing with conflict that can reduce the adverse effect of such conflict considerably. Implications for workplace conflict research and practice are discussed.

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CHAPTER I

Introduction

For many individuals, their work can be a great source of professional achievements, rewarding social relationships, and personal satisfaction. Workplaces can also be incredibly stressful, however, because working often involves working with people and this entails regularly having one's ideas, opinions, and choices being judged, evaluated, and criticized by others. For example, differences in employees' backgrounds and experiences often mean different – and occasionally, opposing – ideas and opinions about various issues. Researchers use the term *workplace conflict* to denote such disagreements between employees as a result of perceived incongruities in opinions, goals, or needs (Barki & Hartwick, 2004). Notably, the use of *conflict* in the empirical literature to describe divergent interests between two interdependent parties differs from its use in colloquial language where it is often applied to represent severe fighting and war. Interpersonal conflicts at work are a major source of stress for many employees (Narayanan, Menon, & Spector, 1999) and linked to a wide range of adverse individual and organizational outcomes, such as increased levels of anxiety and burnout and a higher propensity among employees to leave their organization (Frone, 2000; Spector & Jex, 1998; Van Dierendonck & Mevissen, 2002).

Workplace conflicts differ in their degree of severity. They are particularly threatening when individuals perceive their conflict opponent to be more powerful, thus rendering them less able to defend themselves and more vulnerable. Research indicates that, compared to workplace conflict with peers, workplace conflicts with a supervisor are particularly taxing for employees (e.g., Frone, 2000; Hershcovis & Barling, 2010).

Differences in organizational authority mean that supervisors determine many critical subordinate outcomes, such as evaluations of job performance and, consequently, pay raises and job promotions (Hershcovis & Barling, 2010). Importantly, in line with the current conventions of the industrial/organizational psychology literature, the terms *supervisor* and *subordinate* are used only to identify these differences in power and authority between employees of varying organizational ranks. The outcomes of such supervisor-subordinate conflicts are determined not only by the conflict itself, but also, by the way in which it is handled. Generally speaking, when supervisors manage such conflicts by sharing information openly and working together to come to a resolution, their subordinates report better outcomes (e.g., greater satisfaction with their supervisor) than when they manage conflict in a passive, evasive, or aggressive manner (Barbuto, Phipps, & Xu, 2010; Chan, Huang, & Ng, 2008; Rahim & Buntzman, 1989).

Given the supervisor-subordinate power difference, subordinates are unlikely to respond to such supervisor-subordinate conflict and their supervisors' conflict management approach in the same manner as they would to conflicts with peers, family, or friends. Empirical evidence confirms that subordinates are more inhibited in conflicts with a supervisor (Brewer, Mitchell, & Weber, 2002; de Reuver, 2006). Yet, it seems improbable that subordinates would just "take it on the chin" – especially considering that such disagreements can be threatening to individuals' dignity and self-image, often eliciting various defensive responses, including frustration, anger, and resentment (e.g., Shnabel & Nadler, 2008). This begs the question: How *do* subordinates and supervisors respond to workplace conflict with each other?

I argue that although subordinates' reactions *during* a conflict episode with their supervisor may be limited, they are nevertheless keen to compensate for any perceived sense of powerlessness and unjust treatment by engaging in behaviours that restore their sense of control and equity. It is unlikely, however, that employees would curb any behaviours that are closely tied to their job performance, because these behaviours are often carefully reviewed and thus strongly related to outcomes, such as pay, not to mention continued employment (Spector & Fox, 2002). Instead, workplace conflict with a supervisor is more likely to shape behaviours that are less obvious (and thus less likely to be noticed and evaluated), less likely to elicit severe (adverse) consequences, and over which subordinates have greater autonomy; namely, their discretionary behaviours.

Although the functioning of any organization is greatly determined by its employees' task performance, its success would be largely impossible without a variety of discretionary employee behaviours, because they define the larger organizational and social circumstances that promote essential task activities and processes (Organ & Ryan, 1995). Examples of discretionary behaviours that benefit the organization and other employees, commonly referred to as organizational citizenship behaviours (OCB), include voluntarily helping other employees, speaking well of the organization to outsiders, and attending non-mandatory company functions. Not all discretionary behaviours are favourable, however. Employees may also choose to engage in behaviours that harm the organization and/or its members. These counterproductive work behaviours (CWB) include spreading gossip, stealing office supplies, and spending time on personal matters.

It is argued that such discretionary workplace behaviours serve an important function for subordinates in that they provide an outlet for their conflict experiences with their supervisor. Specifically, it is expected that some types of supervisor-related conflicts and conflict management approaches instil a sense of injustice, and ultimately, feelings of anger and resentment, among subordinates. Thus, subordinates will not only feel less satisfied and more distressed, but also engage in more CWB (and fewer OCB) as a way of retaliating to such perceived inequities and powerlessness. In turn, some conflict experiences – for example, attempts by the supervisor to resolve the conflict collaboratively and ensure that both parties' interests are met – will lead subordinates to perceive a sense of fairness and contentment. Thus, subordinates are expected to reciprocate by engaging in more prosocial (and fewer antagonistic) behaviours.

Despite the considerable research interest in workplace conflict and conflict management over the past few decades, very little is known about how supervisor-subordinate conflict – and the manner in which supervisors generally manage such interactions – shape subordinates' attitudes, well-being, and, notably, their behaviour. Exploring these relationships is the fundamental line of inquiry of the present research.

CHAPTER II

Literature Review

Interpersonal Conflict as a Workplace Stressor

In the vernacular, the term *stress* is often used to describe feelings of being overwhelmed and anxious (i.e., feeling *stressed*). In a research context, however, *stress* is generally conceptualized as the interplay between a stimulus, an individual's perception thereof, and the individual's subsequent response (Kahn & Byosiere, 1992). This process view of stress is fundamental to numerous work stress theories and models. One of the most prominent perspectives, the transactional model of stress, conceptualizes stress as an interchange between personal and environmental variables (i.e., *stressors*) that lead to subjective *appraisal* and ultimately shape a number of cognitive, affective, and behavioural outcomes (i.e., *strains*; Lazarus & Folkman, 1984). Workplace stress has many sources; yet, interpersonal conflict is often cited as the most common workplace stressor for employees (Narayanan et al., 1999).

Defined as a disagreement between interdependent parties as a result of perceived incongruities in opinions, goals, or needs (Barki & Hartwick, 2004), workplace conflict has considerable adverse effects, including increased turnover intentions and reduced job satisfaction and organizational commitment among employees (e.g., Frone, 2000; Ismail, Richard, & Taylor, 2012). Workplace conflict is also associated with psychological distress, such as increased levels of depressive symptoms and emotional exhaustion, as well as a number of somatic problems, including gastrointestinal issues, fatigue, and sleep disturbances (e.g., Dijkstra, De Dreu, Evers, & van Dierendonck, 2009; Liu, Spector, & Shi, 2008; Spector & Jex, 1998).

Workplace conflict is usually distinguished by two types (e.g., Jehn, 1995, 1997). *Task conflict* pertains to interpersonal disagreements about work tasks, such as differences of opinions about the execution of a task (Barki & Hartwick, 2004; Jehn, 1995, 1997). *Relationship conflict* refers to interpersonal animosity, such as personality clashes and disagreements about personal issues (Barki & Hartwick, 2004; Jehn, 1995, 1997). Evidence, though limited, suggests that task and relationship conflict have unique associations with a number of health outcomes, with relationship conflict as the more detrimental conflict type (e.g., De Dreu, Van Dierendonck, & De Best-Waldhober, 2003).

The impact of workplace conflict also depends on the people involved (e.g., coworker vs. supervisor). As one's relationship with these parties is different, the nature and impact of these conflicts differ as well (Bruk-Lee & Spector, 2006). Supervisors' organizational authority means that they have considerable influence over subordinates' outcomes, such as their performance appraisals and continued employment. This renders subordinates vulnerable and makes conflicts with supervisors especially taxing (e.g., Hershcovis & Barling, 2010). For example, although conflicts with both supervisors and colleagues are adversely related to workers' attitudinal and psychological outcomes, these effects are stronger for conflicts with supervisors (Frone, 2000). Further, although conflict with supervisors is associated with reduced altruistic behaviours among subordinates, conflict with colleagues is not (Kacmar, Bachrach, Harris, & Noble, 2012).

These findings indicate that researchers should differentiate between different types and sources of workplace conflict. Yet, many existing studies have assessed workplace conflict only as a non-specific, one-dimensional construct, thereby limiting conclusions about any distinct effects of such conflict elements. In an organizational

context, different conflicts between different conflict parties may have distinct implications for organizational processes, such as personnel selection and training. For example, workplace training that focuses on strengthening employees' task-related skills may be most relevant for reducing task conflict, whereas training that enhances employees' skills related to managing their emotions may be most pertinent for reducing relationship conflict. Similarly, conflict that persistently involves a particular manager may be best addressed by providing individual coaching, whereas ongoing conflict among a group of peers may necessitate broader, team-based interventions. Thus, different conflict types and conflicts with different parties may necessitate unique organizational responses.

Conflict with different conflict parties may also demand different responses from an individual. Specifically, the difference in organizational status means that, in a conflict with a supervisor, subordinates may be more inhibited than they would be in a conflict with a colleague so as to avoid potential disciplinary actions for disrespectful or insubordinate behaviours. It is unlikely that such conflicts render subordinates completely apathetic, however. Instead, these conflicts are likely to shape behaviours that are inconspicuous (and thus less likely the subject of managerial scrutiny) and over which they have greater liberty; namely, subordinates' discretionary behaviours.

Discretionary Workplace Behaviours

Organizations have long recognized that their well-being depends on more than the activities that are part of their employees' formal role requirements (Organ & Ryan, 1995). Their effective functioning is also determined by the extent to which employees engage in discretionary behaviours that shape the organization's social systems and

workplace climate (Organ & Ryan, 1995). Such discretionary behaviours can undermine – or support – organizations' success to a considerable degree. When employees steal office supplies or purposefully damage equipment, organizations incur increased costs for materials and resources. Relatedly, employee aggression toward their peers undermines workplace relationships; this increases the likelihood that employees seek to leave their team or the organization altogether and, as a result, increases costs associated with recruiting and training new personnel (Yang, Caughlin, Gazica, Truxillo, & Spector, 2014). Not all discretionary behaviours are detrimental, however. For example, when employees support new team members by showing them the ropes, this strengthens team cohesion and leads to greater group performance (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). In turn, employees who work together in a more effective manner are better able to meet the needs of their clients, thereby enhancing customer satisfaction and, likely, increasing return business for their organization (Podsakoff et al., 2000). Researchers commonly use the terms *counterproductive work behaviours (CWB)* and *organizational citizenship behaviours (OCB)*[1] to distinguish between discretionary workplace behaviours that either harm or benefit the organization and its members.

Various CWB classifications have been proposed. The most commonly used system differentiates between CWB that target individuals (CWB-I) and CWB that target the organization (CWB-O; Robinson & Bennett, 1995). Although this differentiation is useful, several authors have argued that the behaviours encompassed in each of those

[1] There is some discussion in the OCB literature about the extent to which they are entirely discretionary. Early definitions (Organ, 1988) conceptualized OCB as entirely voluntary behaviours that are principally driven by cognitive factors (i.e., job satisfaction). Later work (e.g., Organ, 1997) conceptualized OCB as "mostly discretionary" instead. Specifically, researchers acknowledge that employees' OCB are shaped by broad organizational pressures and expectations. Researchers (e.g., George, 1991) also argued that OCB are strongly influenced by not just cognitive, but also affective factors.

dimensions are quite multifarious and proposed more fine-grained categories (e.g., Ho, 2012). Neuman and Baron's (1998) three-factor model is one of the most commonly used classifications of CWB-I. *Hostility* encompasses "behaviours that are primarily verbal or symbolic in nature" (Neuman & Baron, 1998, p. 397), such as giving someone dirty looks. *Obstructionism* refers to acts that "impede an individual's ability to perform his or her job", such as purposefully failing to return someone's phone call (Neuman & Baron, 1998, p. 398). *Aggression* is comprised of hostile and threatening behaviours, such as hitting another person (Neuman & Baron, 1998). Overtly aggressive acts, however, are the least common CWB-I (Bennett & Robinson, 2000; Spector et al., 2006). For example, a study of the incidence of CWB found that only 3% of respondents had physically assaulted someone at work, whereas 33% had talked badly about a colleague behind their back and 72% had given someone a dirty look (Glomb, 2002). Given the relatively low incidence of overt workplace aggression, the present study will focus on less aggressive acts that are engaged in by a greater portion of employees and on CWB-I that are most relevant to the supervisor-subordinate relationship; namely, hostility and obstructionism. In line with current research, the abbreviation *CWB-S* will be used to refer to CWB-I behaviours that are directed specifically at the supervisor.

Similar to CWB-I, several CWB-O categories have been proposed, including withdrawal, theft, and sabotage (e.g., Robinson & Bennett, 1995; Spector et al., 2006). The present study will focus on *withdrawal* and *theft*, because they are common to all categorizations of CWB-O. Additionally, research suggests that theft and withdrawal are somewhat common. For example, about half of employees (58%, Robinson & Bennett,

1995; 50%, Spector et al., 2006) have called in sick when they were not actually sick, whereas only 3% have sabotaged company equipment or property (Spector et al., 2006).

Similar to CWB, OCB have also been differentiated based on their target. OCB-I are directed at individuals (e.g., offering to help a coworker), whereas OCB-O are directed at the organization (e.g., speaking well of the organization to outsiders; Williams & Anderson, 1991). Several types of OCB-I have been identified, including altruism, courtesy, and interpersonal helping (Podsakoff et al., 2000). Recent work suggests that these types of OCB-I represent similar constructs and can thus be subsumed as *interpersonal helping* (e.g., Coleman & Borman, 2000; Lee & Allen, 2002; Podsakoff et al., 2000). Interpersonal helping is defined as behaviours aimed at assisting and supporting other organizational members; for example, helping others who have a heavy workload (Coleman & Borman, 2000; Podsakoff et al., 2000). In line with current research, the abbreviation *OCB-S* will be used to refer to OCB-I behaviours that are directed specifically at the supervisor.

With regard to OCB-O, researchers commonly differentiate between *civic virtue* and *organizational loyalty* (Podsakoff et al., 2000). *Civic virtue* includes behaviours that reflect an active interest and participation in one's company, such as attending non-mandatory meetings and staying abreast of organizational news (Konovsky & Organ, 1996; Moorman & Blakely, 1995). *Organizational loyalty* encompasses behaviours that champion the company's profile and image to non-members, such as encouraging family and friends to purchase the organization's products or services (Konovsky & Organ, 1996; Moorman & Blakely, 1995). Although other OCB-O categories have been

proposed (see Podsakoff et al., 2000 for a review), civic virtue and organizational loyalty are the most commonly noted categories and the focus of the present study.

Given the discretion that employees have over their CWB and OCB, these behaviours represent good barometers of how they feel about their work environment more generally. Further, in terms of behavioural responses to workplace conflict with a supervisor, these discretionary behaviours would seem more likely to be affected than subordinates' formally prescribed task-related behaviours (Raver, 2013). Yet, very few studies have investigated the effects of workplace conflict on employees' discretionary work behaviours; further, these studies have examined only very general relationships between conflict and CWB/OCB. For example, although a handful of investigations have found positive relationships between workplace conflict and overall CWB (e.g., Bowling & Eschleman, 2010; Fox, Spector, & Miles, 2001; Penney & Spector, 2005), their findings leave many unanswered questions about the relative importance of different conflict types and sources (Bruk-Lee & Spector, 2006). Studies about the relationship between workplace conflict and OCB are even fewer. One notable exception examined the effects of relationship conflict with supervisors and coworkers on employees' OCB-I and OCB-O (Kacmar et al., 2012). Whereas coworker conflict was unrelated to OCB, supervisor conflict was associated with a decrease in both OCB-I and OCB-O.

Conflict Management

Individual and organizational outcomes are determined not only by the workplace conflict in and of itself, but also, by the way in which such conflict is handled; that is, individuals' *conflict management style* (CMS). Broadly speaking, when conflict parties discuss the conflict issue respectfully, share information openly, and work together to

come to a resolution, they generally report better relationship quality and well-being (e.g., less anxiety and tension; De Dreu et al., 2003; Rognes & Schei, 2010). The opposite effects occur when individuals engage in passive, evasive, or aggressive conflict management behaviours (e.g., De Dreu et al., 2003). Aside from shaping their well-being and relationships within the organization, employees' conflict management styles also affect their relationships with external clients. For instance, customer complaints increase when employees respond to disagreements in an avoidant or confrontational manner (Van Dierendonck & Mevissen, 2002). The impact of employees' CMS on these organizational outcomes makes effective conflict management of notable interest to organizations.

The Dual-Concern Model postulates that individuals' conflict management styles are determined by (a) the extent to which they are concerned about their own outcomes and (b) the extent to which they are concerned about others' outcomes (Rahim, 1983; Thomas, 1976, 1992b). The combination of these two dimensions yields four distinct CMS. *Forcing* pertains to the propensity to assertively pursue one's own goals and interests with little regard for those of the other party (De Dreu, 2011). *Avoiding* reflects a general evasion of the conflict issue, such as dodging open discussions of differences (De Dreu, 2011). *Yielding* is a complaisant, accommodating style that encompasses giving in to the other's wishes (De Dreu, 2011). Finally, *problem-solving* is a cooperative stance characterized by open discussion and information sharing (De Dreu, 2011). Conflict management styles are conceptualized as reasonably stable patterns of behaviours; that is, they reflect individuals' general preferences for managing conflict (Ogilvie & Kidder, 2008). Although individuals' specific conflict behaviours are responsive to situational

demands, their overall CMS are quite consistent across contexts and situations (e.g., De Dreu et al., 2003; Sternberg & Soriano, 1984).

Given the unique power dynamics in supervisor-subordinate relationships, researchers are increasingly interested in the effects of supervisors' CMS. When supervisors collaborate with their subordinates to come up with a mutually acceptable decision (i.e., use a problem-solving CMS), subordinates are more satisfied with the quality of their supervision and their job, rate their supervisors as more effective, and comply with their supervisor's requests more willingly (Barbuto et al., 2010; Chan et al., 2008; Rahim & Buntzman, 1989). In turn, subordinates report lower job satisfaction and commitment to their organization when supervisors evade the conflict or assert their interests with little consideration for those of their subordinate (i.e., use an avoiding or forcing CMS) (e.g., de Reuver & van Woerkom, 2010; Weider-Hatfield & Hatfield, 1995). Supervisors' problem-solving CMS and yielding CMS are also associated with increased subordinate OCB, whereas supervisors' avoiding CMS and forcing CMS are associated with a decrease in such altruistic behaviours (Salami, 2010).

The antagonistic nature of a supervisor's forcing CMS echoes that of a number of related constructs, particularly that of abusive supervision and workplace bullying. Although similar, these constructs differ in a variety of ways, including their frequency, intent, and intensity. As noted, a forcing CMS is defined as the tendency to assert one's own goals irrespective of those of the other party and, particularly compared to bullying, involves low intensity behaviours with no explicit intent to harm. Abusive supervision, on the other hand, involves a ubiquitous and sustained hostility that is not just limited to interpersonal disagreements (Tepper, 2000). Bullying is defined as persistent and

repeated negative acts (once a week for minimum of 6 months) that are clearly identifiable as harmful (Zapf, 1999). The definition of bullying also allows for the involvement of more than one perpetrator and for perpetrators of equal and lower status (i.e., not just supervisors). Further, bullying is now associated with various legal implications in numerous countries and states/provinces. For example, British Columbia's *Workers Compensation Act* explicitly requires organizations to prevent and address workers' exposure to bullying. These same legal protections and ramifications do not apply to other experiences of workplace maltreatment. Finally, research indicates that the adverse effects of bullying on employees' physical and psychological well-being are stronger than those of conflict and abusive supervision (e.g., Hershcovis, 2011).

Workplace Justice

Investigating the effects of supervisors' CMS on subordinates' outcomes is a key task for researchers. Equally important, however, is the investigation of the routes (i.e., mediators) by which these stressors affect such strains. Specifically, the study of mediating variables goes beyond simply illustrating the presence of a relationship to elucidating its underlying processes (Shrout & Bolger, 2002). For organizations, mediating variables provides additional insights about workplace interventions. Using a hypothetical example, understanding that supervisors' aggressive conflict management tactics are related to decreased job satisfaction among subordinates may lead workplaces to provide their leadership team with training to enhance their interpersonal skills. However, understanding that such tactics lead to subordinates' emotional distress (i.e., the mediator), which brings about job dissatisfaction, allows for additional intervention efforts; for example, enhancing employees' skills in dealing with emotionally taxing

situations. Thus, the investigation of mediators is of considerable value in research and applied contexts for the understanding – and prevention – of employee strains.

The present study draws on work stress theory to identify potential mediators. Specifically, the transactional model of stress identifies *appraisal* as a mediating variable between stressors and strains (Lazarus & Folkman, 1984). Appraisal is defined as the cognitive evaluation of a demand's relative meaning and importance (Hart & Cooper, 2002; Kahn & Byosiere, 1992). A review of the literature suggests that individuals' appraisal of *justice* is a probable mediating variable between supervisors' CMS and subordinates' outcomes. Specifically, research indicates that individuals are likely to engage in evaluations of justice in situations that have a strong potential for a negative personal impact and in situations that are characterized by a difference in status, power, and authority (Greenberg, 2001). For example, perceptions of justice are a pivotal outcome of other supervisor-related stressors, such as abusive supervision (e.g., Tepper, 2000). Additionally, individuals' belief that they have been treated (un)justly is a key predictor of their CWB/OCB as well as their job-related attitudes and well-being (e.g., Colquitt et al., 2013; Elovainio, Kivimäki, & Helkama, 2001).

Justice refers to individuals' perceptions of fairness (Adams, 1965; Colquitt et al., 2013). *Distributive justice* – the perceived fairness of outcomes – is conceptualized as a perception of threat to one's economic resources and needs (Adams, 1965; Cohen-Charash & Spector, 2001; Nowakowski & Conlon, 2005). Individuals are also concerned with the process through which these outcomes are derived; that is, with *procedural justice* (Cohen-Charash & Spector, 2001; Nowakowski & Conlon, 2005). Processes are said to be procedurally fair if they are based on accurate information, ethically and

morally sound, free from bias, open to corrections, and representative of all parties' voices (Leventhal, 1980). Finally, *interactional justice* refers to the extent to which individuals are treated with respect and courtesy and the extent to which they receive honest, appropriate, and timely communication[2] (Cohen-Charash & Spector, 2001; Nowakowski & Conlon, 2005). Early justice research conceptualized distributive and procedural justice as organization-referenced justice and interactional justice as supervisor-referenced justice, but recent work suggests that employees' perceptions of distributive and procedural justice are also formed in reference to their supervisor (e.g., Karriker & Williams, 2009; Rupp & Cropanzano, 2002).

Employees' justice perceptions are linked to a large number of job-related attitudes and cognitions about their supervisor and organization, including their supervisor and job satisfaction, supervisor and organizational trust, and organizational commitment and support (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Colquitt et al., 2013). Perceptions of justice also affect employees' psychosomatic well-being (e.g., Elovainio et al., 2001; Francis & Barling, 2005; Robbins, Ford, & Tetrick, 2012). Further, perceptions of justice are negatively related to workers' CWB and positively related to OCB (Cohen-Charash & Spector, 2001; Colquitt et al., 2001). Notably, when employees perceive (in)justices at the hand of their supervisor, they reciprocate not only by directing their discretionary work behaviours back at their supervisor, but also, by engaging in CWB/OCB targeted at the organization (Colquitt et

[2] Some researchers further differentiate interactional justice into interpersonal and informational justice. Yet, evidence on the differential effects of these two types of interactional justice is sparse (i.e., in terms of the present study's variables of interest, interpersonal and informational justice tend to have the same relationships). Thus, in line with many previous investigations (e.g., Barclay et al., 2005), the present study will focus on the composite, *interactional justice*.

al., 2013). This supports the notion that workers regard their supervisors as agents of the larger organization; thus, when responding to managerial actions, employee behaviours – good or bad – will be directed at both the supervisor as well as the larger agency (de Reuver & van Woerkom, 2010).

Mediating effects of justice perceptions. Justice perceptions seem highly relevant to individuals' experience of – and response to – others' CMS. Specifically, CMS are fundamentally different in terms of the extent to which they produce the conflict parties' desired outcomes (i.e., distributive justice), the nature of the conflict tactics and strategies used (i.e., procedural justice), and the way in which the conflict parties communicate with and treat each other (i.e., interactional justice). Yet, to date, only one study has investigated the relationship between supervisors' CMS, subordinates' perceptions of justice, and subordinate outcomes. Its findings indicate that subordinates' perceptions of procedural justice mediate the impact of supervisors' CMS, such that supervisors' problem-solving CMS and yielding CMS are associated with greater perceptions of procedural justice and, in turn, with reduced sleep disturbance, job dissatisfaction, and action-taking cognitions (e.g., thoughts about seeking medical advice, taking a leave of absence from their job; Way, Jimmieson, & Bordia, 2014). This investigation provided valuable insights about the mediating role of subordinates' perceptions of fairness in the relationship between supervisors' CMS and subordinates' strains. However, this study only examined a subset of supervisor CMS, focussed only on the role of procedural justice, and only explored subordinates' well-being and job-related attitudes/cognitions as outcomes. Additionally, subordinates' perceptions of their

supervisor's CMS pertained only to the supervisor's involvement as a general third-party – not in the context of a supervisor-subordinate conflict with that particular employee.

Evidence from related research areas further supports the notion that subordinates' perceptions of justice are a key mediator between supervisor-related stressors and subordinate strains. For example, employees' perceptions of justice mediate the impact of abusive supervision on a variety of outcomes, including psychological well-being, job satisfaction, organizational commitment, and CBW/OCB (Tepper, 2000; Wang, Mao, Wu, & Liu, 2012; Zellars, Tepper, & Duffy, 2002). Although abusive supervision is a much more encompassing and persistent attribute of a supervisor-subordinate relationship, many of its fundamental characteristics are similar to those of the forcing CMS. Additional support for the relevance of subordinates' justice perceptions can also be found in research on supervisors' influence tactics. For example, supervisors' use of rational, cooperative tactics (similar to a problem-solving CMS) are positively related to subordinates' perceptions of interactional justice, whereas supervisors' coercive tactics (akin to a forcing CMS) are negatively related to subordinates' perceptions of interactional justice (Tepper, Eisenbach, Kirby, & Potter, 1998). Further, interactional justice mediates the effects of supervisors' influence tactics on subordinates' resistance to these tactics.

In sum, research indicates that subordinates appraise their supervisor's behaviours with respect to their distributive, procedural, and interactional fairness; in turn, these appraisals affect how subordinates think, feel, and behave. This suggests that perceptions of justice also play a role in subordinates' perceptions of their supervisor's CMS. Thus, in line with previous investigations that adopted a work stress perspective (e.g., Francis &

Barling, 2005), the present study conceptualizes perceptions of justice as subordinates' cognitive appraisal of their supervisor's CMS and examines the role of these perceptions of justice as a mediator between supervisor's CMS[3] and subordinates' strains.

Emotional Responses

Thus far, individuals' conflict experiences have been discussed as though they are mostly rational, reasoned evaluations of stressors that lead to measured and sound responses. However, interpersonal conflict is also accompanied by a variety of emotional experiences. Emotions are defined as transient states of feeling with respect to a specific entity (e.g., supervisor) or situation (Weiss & Cropanzano, 1996) and recognized as a central initial response following the appraisal process (e.g., Lazarus, 1991).

Emotional experiences are a key feature of subordinates' interactions with their supervisor. For example, managers' use of a forcing CMS and, to a lesser extent, an avoiding CMS, is positively related to subordinates' experience of tension, anger, and nervousness, whereas managers' use of a problem-solving CMS is negatively related to these emotional responses (Römer, Rispens, Giebels, & Euwema, 2012). Similarly, supervisors' use of a passive, avoidant leadership approach is associated with an increase in subordinates' experiences of frustration, anger, and annoyance, whereas a collaborative and supportive leadership approach is associated with a decrease in subordinates' experience of these emotions (Kessler, Bruursema, Rodopman, & Spector, 2013).

Research consistently demonstrates strong links between employees' work-related emotions and work-related attitudes, including their job satisfaction, organizational

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[3] The focus of the present study is to assess subordinates' perceptions of their supervisor's conflict management styles, not to assess supervisors' CMS directly. For brevity, "supervisor's conflict management styles" or "supervisor's CMS" will be used henceforth.

commitment, and turnover intentions (Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003). Emotional experiences are also linked to psychological and physical problems, such as emotional exhaustion, headaches, and gastrointestinal issues (Everson-Rose & Lewis, 2005; Thoresen et al., 2003; Van Katwyk, Fox, Spector, & Kelloway, 2000). Further, emotions have been argued to induce action tendencies that increase the likelihood of associated behaviours (Spector & Fox, 2002). For example, positive and negative emotions are strongly associated with OCB and CWB (e.g., Rodell & Judge, 2009; Ziegler, Schlett, Casel, & Diehl, 2012).

Justice, Emotions, and Discretionary Behaviours

Employees' perceptions of justice are key predictors of their emotions, such as happiness and anger (Barsky & Kaplan, 2007; Cohen-Charash & Spector, 2001; Colquitt et al., 2013; Weiss, Suckow, & Cropanzano, 1999). Researchers have also investigated the interplay of justice, emotions, and discretionary behaviour. Their findings indicate that emotional experiences mediate the effects of subordinates' perceptions of justice on discretionary work behaviours (Colquitt et al., 2013). Yet, the relationship among these variables is far from straightforward and depends on the type (i.e., CWB vs. OCB) and target (i.e., supervisor vs. organization) of the behaviour. Researchers have drawn upon Affective Events Theory (Weiss & Cropanzano, 1996) to explain these findings.

Similar to the transactional model of stress, Affective Events Theory proposes that individuals appraise work events with respect to their overall meaning. In turn, these appraisals are argued to lead to a variety of emotional experiences that affect subsequent workplace behaviours in two main ways: First, emotional experiences have a direct effect on proximal, affect-driven behaviour (e.g., hostility). Second, emotional experiences

shape broader work attitudes (notably, job satisfaction), which, in turn, bring about more distal, judgment-driven behaviours (e.g., work withdrawal; Weiss & Cropanzano, 1996). The target of the behaviour (i.e., supervisor versus organization) is an important feature in distinguishing between affect-driven and judgement-driven behaviours, in that CWB-S and OCB-S represent direct, proximal outcomes of individuals' emotional experiences following their perceptions of supervisor (in)justice.

Although both CWB-S and OCB-S are directly affected by emotional experiences, CWB-S appear to be somewhat more emotional than OCB-S. Specifically, several studies have found that the effects of perceived injustice on CWB are fully explained by subordinates' emotional experiences (e.g., Colquitt et al., 2013; Fox et al., 2001; Judge, Scott, & Ilies, 2006), whereas emotional experiences appear to play a less central role in determining OCB-S (e.g., Lee & Allen, 2002). Instead, other variables, such as trust or the supervisor-subordinate relationship quality, partially account for the effects of justice perceptions on OCB-S (Colquitt et al., 2013). In turn, Affective Events Theory, as well as empirical evidence, suggests that CWB-O and OCB-O are more distal, judgement-driven behaviours, such that the link between *supervisor*-referenced emotional experiences and these *organization*-targeted behaviours is accounted for by additional cognitive and evaluative processes, notably, job satisfaction (e.g., Glasø, Vie, Holmdal, & Einarsen, 2011; Judge et al., 2006; Ziegler et al., 2012).

In sum, research indicates that individuals' emotional experiences play a central role in the relationship between their justice perceptions and their subsequent attitudes, well-being, and workplace behaviours. Additionally, theoretical and empirical work in related topic areas strongly suggests that emotional experiences are relevant to

individuals' experience of workplace conflict. To date, however, no investigation has examined whether – and how – emotional experiences pertain to the relationship between subordinates' experience of their supervisor's CMS and their subsequent strains.

Moderating Effects of Conflict Management Styles

As workplace conflict is generally considered to be inevitable and unlikely to be eliminated entirely, researchers have explored a range of variables that may buffer (or even amplify) these adverse effects, including individuals' own CMS. For example, as conflict with customers increases, employees' use of a forcing CMS or an avoiding CMS is associated with lower professional efficacy (Van Dierendonck & Mevissen, 2002). Similarly, as workplace conflict increases, individuals' yielding CMS and avoiding CMS are associated with greater psychological distress and emotional exhaustion, whereas the use of a problem-solving CMS buffers the impact of workplace conflict on psychological well-being (Dijkstra, Beersma, & Evers, 2011; Dijkstra et al., 2009). Though limited in number, these studies provide compelling evidence that individuals' own CMS can amplify – or buffer – the adverse effects of workplace conflict.

As noted earlier, however, workplace conflicts with supervisors are uniquely taxing for employees (e.g., Frone, 2000). Thus, in the context of workplace conflicts with a supervisor, the *supervisor's* CMS likely plays an important part in shaping subordinates' strains. Yet, to date, only one study has explored the moderating effects of supervisors' CMS. Its findings indicate that whereas supervisors' problem-solving CMS buffered the effects of workplace conflict on subordinates' distress, supervisors' forcing CMS and avoiding CMS amplified the impact of such conflict on subordinates' strain (Römer et al., 2012). This study provides a valuable account of the moderating effect of

supervisors' CMS, but it is limited in that it only examined the supervisors' CMS as a third-party to the conflict, did not consider the effects of supervisors' yielding CMS, and only explored subordinates' psychological distress as an outcome.

Limitations of Past Research

The past few decades of research have shed much light on the nature – and impact – of workplace conflict and conflict management. Yet, as noted throughout the literature review, a number of research gaps continue to characterize this area:

1. Although employees experience different types of conflict with different parties, many studies have only assessed conflict as a one-dimensional construct.
2. Very few studies have studied the impact of workplace conflict and conflict management on employees' discretionary workplace behaviours.
3. Research increasingly suggests that supervisors' CMS shape subordinates' strains, but few studies have explored the underlying mechanisms of this relationship.
4. Studies have not considered how supervisors' CMS moderate the relationship between supervisor-subordinate conflict and subordinates' strains.

An additional limitation in the workplace conflict and conflict management literature should be noted: Much of the work has been atheoretical (Rahim, 2001). Specifically, this area of research is often criticized for its limited theoretical efforts to explain and integrate existing research findings as well as guide future research endeavours (Tjosvold, 2008). The present study draws the Transactional Model of Stress (Lazarus & Folkman, 1984) to guide and define the current inquiry. This particular model was chosen because of its relevance to a wide range of work stress research and because of its flexibility for incorporating various conflict-related components.

Present Research

Impact of Supervisor-Subordinate Conflict

The present study investigates how subordinates' experience of task and relationship conflict with their supervisor relates to their job-satisfaction, psychological distress, and CWB and OCB (research aim #1; Figure 1). Based on existing research, it is expected that workplace conflict is adversely related to employees' strains and that the adverse effect of relationship conflict is stronger than the adverse effect of task conflict.

Hypothesis 1a-b: Task (1a) and relationship (1b) conflict with their supervisor are negatively related to subordinates' job satisfaction.

Hypothesis 2a-b: Task (2a) and relationship (2b) conflict with their supervisor are positively related to subordinates' psychological distress.

Hypothesis 3a-b: Task (3a) and relationship (3b) conflict with their supervisor are positively related to subordinates' counterproductive work behaviours; namely, hostility (i), obstructionism (ii), theft (iii), and withdrawal (iv).

Hypothesis 4a-b: Task (4a) and relationship (4b) conflict with their supervisor are negatively related to subordinates' organizational citizenship behaviours; namely, interpersonal helping (i), loyalty (ii), and civic virtue (iii).

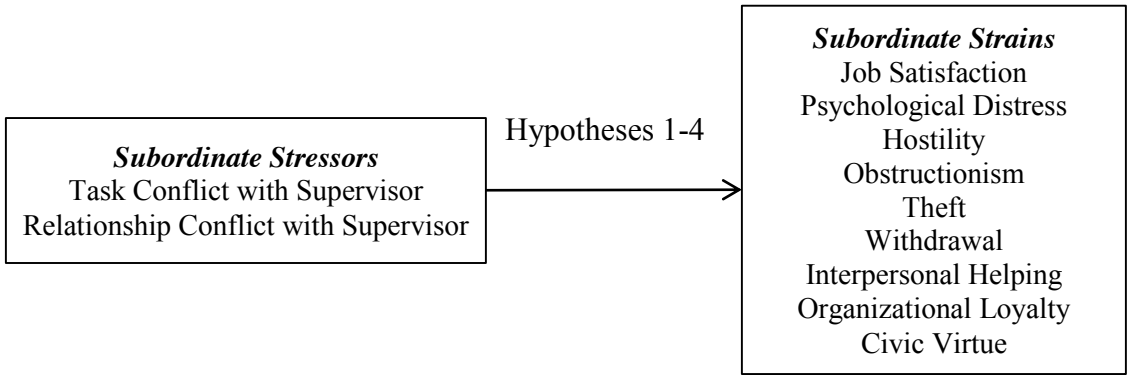


Figure 1. Research aim #1 and associated hypotheses

Mediators in Relationship Between Supervisors' CMS and Subordinates' Strains

The present research also considers the impact of supervisors' CMS on various subordinate outcomes. Further, it aims to elucidate the why and how of this relationship by examining the role of subordinates' perceptions of justice and emotional experiences as potential mediators (research aim #2; Figure 2). Supervisors' forcing CMS and avoiding CMS will likely lead subordinates to perceive few desired outcomes in their favour. Further, both of these CMS are expected to lead subordinates to perceive little voice in (and control over) the conflict interaction. Additionally, the dominating nature of a forcing CMS communicates disrespect and discourtesy, whereas the evasive nature of the avoiding CMS may lead subordinates to perceive their supervisors to be secretive, untrustworthy, and unreliable. Further, past research indicates that individuals perceive the forcing CMS to be relationally inappropriate and the avoiding CMS to be ineffective and indicative of incompetence (Gross & Guerrero, 2000). The avoiding CMS is considered a passive conflict management style that is characterized by an evasion of interpersonal interaction (Thomas, 1992b). Given the lack of interpersonal exchanges, it is expected that subordinates are unable to evaluate the relational fairness associated with this CMS. Thus, no relationship between supervisors' avoiding CMS and subordinates' perceptions of interactional justice is hypothesized.

Hypothesis 5a-c: Supervisors' forcing CMS is negatively related to subordinates' perceptions of distributive (5a), procedural (5b), and interactional justice (5c).

Hypothesis 6a-b: Supervisors' avoiding CMS is negatively related to subordinates' perceptions of distributive (6a) and procedural (6b) justice.

Supervisors' yielding CMS entails complaisant, accommodating behaviours and going along with the subordinate's wishes. As with a problem-solving CMS, this style should result in subordinates attaining their desired outcomes. Given the supervisor's organizational status, however, the yielding CMS may also be perceived as ineffectual, dismissive, and indicative of the supervisor's indifference (de Reuver & van Woerkom, 2010; Gross & Guerrero, 2000). In turn, the considerate and respectful nature of a problem-solving CMS is expected to lead subordinates to perceive being treated courteously and respectfully. The problem-solving CMS has been rated as the most relationally appropriate style and is positively related to fairness perceptions (Gross & Guerrero, 2000; Rognes & Schei, 2010). Similar to the avoiding CMS, the yielding CMS is considered to be a passive conflict management style involving very little interaction. Thus, it is expected that subordinates are unable to evaluate the relational fairness of this style. As a result, no relationship between supervisors' yielding CMS and subordinates' perceptions of interactional justice is hypothesized.

Hypothesis 7a-b: Supervisors' yielding CMS is positively related to subordinates' perceptions of distributive justice (7a) and negatively to perceptions of procedural justice (7b).

Hypothesis 8a-c: Supervisors' problem-solving CMS is positively related to subordinates' perception of distributive (8a), procedural (8b), and interactional justice (8c).

Individuals' perceptions of distributive, procedural, and interactional (in)justice are closely linked to their emotional experiences (e.g., Barclay, Skarlicki, & Pugh, 2005; Barsky & Kaplan, 2007; Weiss et al., 1999). Further, evidence indicates that supervisors'

treatment of subordinates is associated with a range of subordinate emotional responses (e.g., Kessler et al., 2013). The transactional model of stress proposes that the effects of stressors (i.e., supervisors' CMS) on outcomes (e.g., subordinates' emotional experiences) are mediated by individuals' appraisals (i.e., subordinates' perceptions of justice; Lazarus, 1991; Lazarus & Folkman, 1984).

Hypotheses 9a-b: Subordinates' perceptions of distributive, procedural, and interactional justice are positively related to positive emotional experiences (9a) and negatively related to negative emotional experiences (9b).

Hypotheses 10a-b: The effects of supervisors' forcing (i), avoiding (ii), yielding (iii), and problem-solving (iv) CMS on subordinates' positive (10a) and negative (10b) emotional experiences are mediated by subordinates' perceptions of justice.

Employees' emotional experiences are strongly related to their job satisfaction (e.g., Glasø et al., 2011; Judge et al., 2006; Ziegler et al., 2012) as well as their psychosomatic health and well-being (e.g., Thoresen et al., 2003; Van Katwyk et al., 2000). Job satisfaction is negatively related to individuals' psychological distress, such as symptoms of burnout and depression (e.g., Faragher, Cass, & Cooper, 2005).

Hypotheses 11a-b: Positive emotional experiences are positively related to job satisfaction (11a); Negative emotional experiences are negatively related to job satisfaction (11b).

Hypothesis 12a-b: Positive emotional experiences are negatively related to psychological distress (12a); Negative emotional experiences are positively related to psychological distress (12b).

Hypotheses 13a-c: Job satisfaction is negatively related to psychological distress (13a) and partially mediates the relationship between positive (13b) and negative (13c) emotional experiences and psychological distress.

Individuals' emotional experiences are a strong predictor of their CWB-S and OCB-S (e.g., Kessler et al., 2013). Further, emotional experiences mediate the effects of justice on these supervisor-directed behaviours (Colquitt et al., 2013; Lee & Allen, 2002). Evidence, however, suggests that CWB-S are more emotion-driven than OCB-S; that is, the effects of justice on supervisor-targeted CWB are fully accounted for by individuals' emotional experiences (Colquitt et al., 2013; Lee & Allen, 2002), whereas the effects of justice on supervisor-targeted OCB are only partially explained by emotional experiences (Colquitt et al., 2013; Lee & Allen, 2002).

Hypotheses 14a-d: Positive emotional experiences are negatively related to hostility (14a) and obstructionism (14b); Negative emotional experiences are positively related to hostility (14c) and obstructionism (14d).

Hypotheses 15a-b: The effects of distributive (i), procedural (ii), and interactional justice (iii) on hostility (15a) and obstructionism (15b) are mediated by subordinates' emotional experiences.

Hypotheses 16a-c: Distributive (16a), procedural (16b), and interactional (16c) justice are positively related to interpersonal helping.

Hypotheses 17a-b: Positive emotional experiences are positively related to interpersonal helping (17a); Negative emotional experiences are negatively related to interpersonal helping (17b).

Hypothesis 18a-b: The effects of distributive (i), procedural (ii), and interactional justice (iii) on interpersonal helping are partially mediated by subordinates' positive (18a) and negative (18b) emotional experiences.

Research has found a consistent link between employee job satisfaction and the extent to which they engage in CWB-O, such as theft and withdrawal (Crede, Chernyshenko, Stark, Dalal, & Bashshur, 2007; Kulas, McInnerney, DeMuth, & Jadwinski, 2007). Job satisfaction also predicts individuals' OCB-O, including civic virtue (e.g., Podsakoff et al., 2000) and organizational loyalty (e.g., Spieß, 2000). Further, job satisfaction mediates the effects of individuals' emotional experiences on the extent to which they engage in such organization-targeted behaviours (e.g., Glasø et al., 2011; Judge et al., 2006; Ziegler et al., 2012).

Hypothesis 19a-d: Job satisfaction is negatively related to theft (19a) and withdrawal (19b) and positively related to loyalty (19c) and civic virtue (19d).

Hypothesis 20a-d: The effects of positive (i) and negative (ii) emotional experiences on theft (20a), withdrawal (20b), civic virtue (20c), and loyalty (20d) are mediated by job satisfaction.

Past studies indicate that reports of job satisfaction, psychological distress, and CWB/OCB can vary by respondents' demographic and personality differences (e.g., Bradley & Cartwright, 2002; Jorm et al., 2005; Mitchell & Ambrose, 2007; Organ & Ryan, 1995). Additionally, individuals differ in the extent to which they are sensitive to violations of justice (Schmitt, Gollwitzer, Maes, & Arbach, 2005). Thus, age, gender, supervisor tenure, conscientiousness, justice sensitivity, and social desirability were included as control variables in the present study.

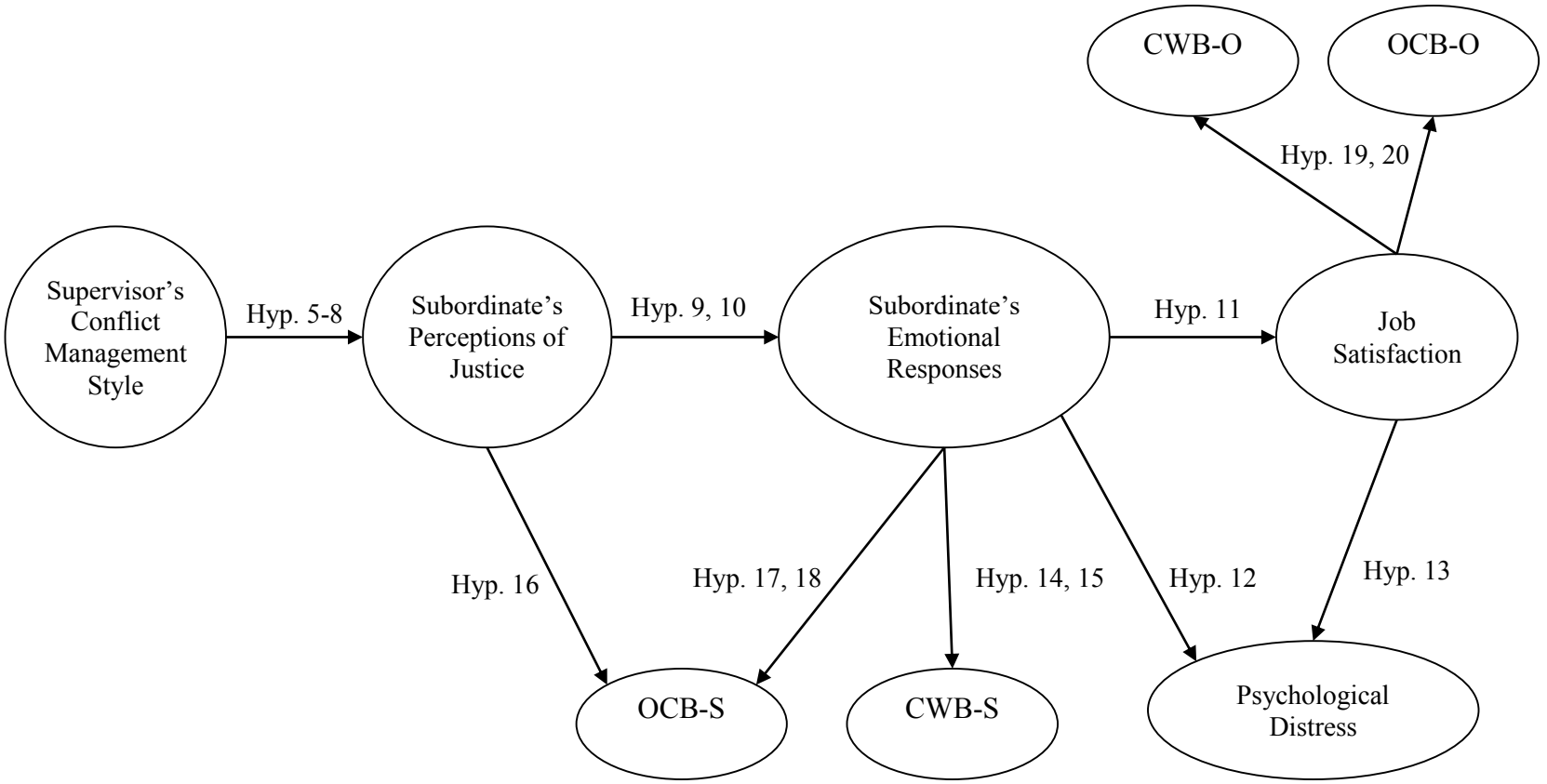


Figure 2. Research aim #2 and associated hypotheses

Note. OCB-S = organizational citizenship behaviour directed at the supervisor; OCB-O = organizational citizenship behaviour directed at the organization; CWB-S = counterproductive work behaviour directed at the supervisor; CWB-O = counterproductive work behaviour directed at the organization.

Moderating Effects of Supervisors' CMS

Finally, this study examines the moderating effects of supervisors' CMS on the stressor-strain relationship between subordinates' experience of workplace conflict with their supervisor and subordinates' strains (research aim #3; Figure 3). Supervisors' CMS are expected to have varying moderation effects (Figure 4 provides a summary of the expected moderation effects). Specifically, supervisors' problem-solving CMS is expected to buffer the effects of workplace conflict on subordinates' strains such that, as supervisors make greater use of a problem-solving CMS, the adverse effect of conflict on subordinates' strains decreases. In turn, supervisors' forcing CMS and avoiding CMS are expected to exacerbate the effects of workplace conflict, such that, as supervisors make greater use of a forcing CMS and avoiding CMS, the adverse effect of conflict on subordinates' strains *increases*. Some investigations have found that supervisors' yielding CMS is adversely associated with subordinates' strains (e.g., De Dreu et al., 2003). Yet, by definition, supervisors' yielding CMS likely results in subordinates' attainment of some desired goals. Thus, although subordinates may perceive their supervisor's yielding CMS as ineffectual or inefficient (Gross & Guerrero, 2000), this CMS may still be associated with some benefits for subordinates and thus not exacerbate the adverse effects of workplace conflict. Given the absence of compelling evidence, the direction of the moderation effects for a yielding CMS is unspecified.

As few investigations have previously examined the impact of different types and sources of workplace conflict on subordinate strains, the examination of the moderating effects of supervisors' CMS on this stressor-strain relationship is exploratory. To limit the number of exploratory analyses, the present study examines the potential moderating

effects of supervisors' CMS on the stressor-strain relationships that are most proximal and are thus expected to be the strongest; namely, the relationships between workplace conflict and discretionary behaviours directed at the supervisor.

Hypothesis 21a-d: Supervisors' forcing (21a), avoiding (21b), yielding (21c), and problem-solving (21d) CMS moderate the effects of workplace conflict on subordinates' interpersonal helping.

Hypothesis 22a-d: Supervisors' forcing (22a), avoiding (22b), yielding (22c), and problem-solving (22d) CMS moderate the effects of workplace conflict on subordinates' hostility.

Hypothesis 23a-d: Supervisors' forcing (23a), avoiding (23b), yielding (23c), and problem-solving (23d) CMS moderate the effects of workplace conflict on subordinates' obstructionism.

A general overview of the research hypotheses for the main study (study #2) is presented in Table 1.

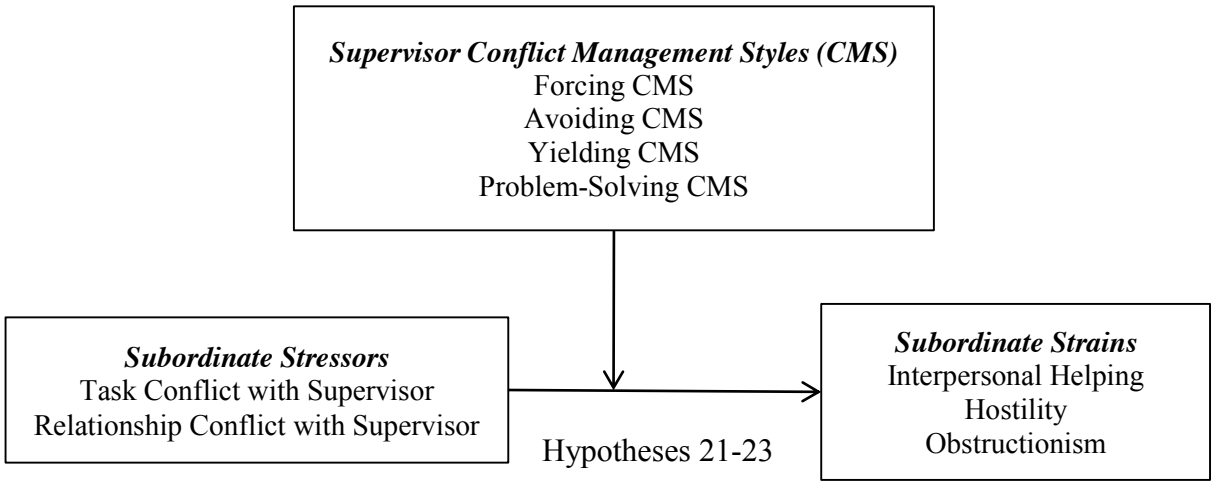


Figure 3. Research aim #3 and associated hypotheses

Figure 4. Summary of expected moderation effects

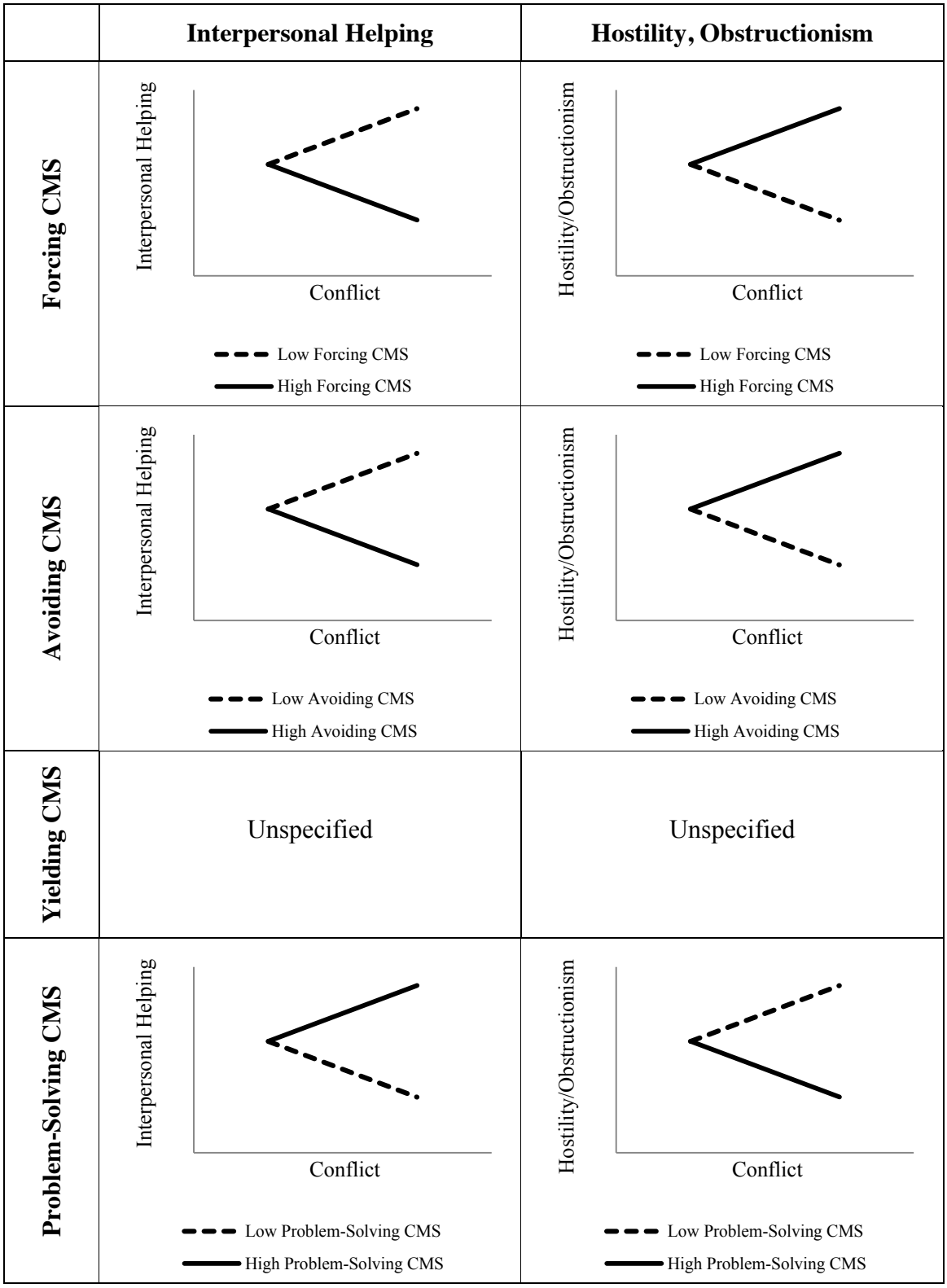


Table 1

Summary of Research Hypotheses (Study #2)

Research Aim	Hypothesis	Summary
1	1-4	Conflict with their supervisor relates to subordinates' job satisfaction, psychological distress, and CWB/OCB
2	5-8	Supervisors' CMS relate to subordinates' perceptions of justice
	9-10	Subordinates' perceptions of justice relate to their emotional experiences and mediate the effects of supervisors' CMS on subordinates' emotional experiences
	11-12	Subordinates' emotional experiences relate to their job satisfaction and psychological distress
	13	Subordinates' job satisfaction relates to their psychological distress and partially mediates the effects of emotional experiences on psychological distress
	14-15	Subordinates' emotional experiences relate to their hostility and obstructionism (CWB-S); Emotional experiences mediate the effects of perceptions of justice on CWB-S
	16-18	Subordinates' perceptions of justice and emotional experiences relate to their interpersonal helping (OCB-S); Emotional experiences partially mediate the effects of perceptions of justice on OCB-S
	19-20	Subordinates' job satisfaction relates to counterproductive work behaviours targeted at the organization (CWB-O) and to organizational citizenship behaviours targeted at the organization (OCB-O); Job satisfaction mediates the effects of emotional experiences on CWB-O and OCB-O
3	21-23	Supervisors' CMS moderate the relationship between subordinates' experience of workplace conflict and their interpersonal helping, hostility, and obstructionism

Note. CMS = conflict management styles.

Study #1

The purpose of study #1 was to validate (1) the measure for assessing subordinates' experience of workplace conflict with their supervisor and (2) the measure for assessing subordinates' perceptions of their supervisor's CMS. Despite the research interest in workplace conflict, there has been very little work on developing sound measures to assess this construct. Many studies simply adapt related measures, particularly the Intergroup Conflict Scale (ICS; Jehn, 1994; Jehn, 1995). Unfortunately, the exact structure and psychometric qualities of the ICS are unclear – an issue that is further complicated by its primary author's inconsistent report of the ICS item count and content throughout several publications (Jehn, 1995; Jehn, Greer, Levine, & Szulanski, 2008; Jehn & Mannix, 2001; Jehn, Northcraft, & Neale, 1999). Problematically, details of these changes and their effects in terms of the ICS' psychometric properties and validity are under- and unreported (A. W. Pearson, Ensley, & Amason, 2002). Thus, for the present research, a measure of workplace conflict was modified based on the ICS and its subsequent adaptations.

The research literature offers a number of measures to assess individuals' *own* CMS. Particularly the Dutch Test for Conflict Handling (DUTCH; De Dreu, Evers, Beersma, Kluwer, & Nauta, 2001) has been shown to be a valid instrument with solid psychometric properties. Unfortunately, this measure's focus on assessing individuals' own CMS does not entirely lend itself to the present study's focus on assessing employees' perceptions of their supervisor's CMS. Specifically, the DUTCH contains a number of items that refer to individuals' internal conflict management motivations/aims; however, such items would not be appropriate for assessing individuals' reports of

others' CMS. Thus, the DUTCH was modified to fit the present study's focus on assessing subordinates' perspectives of their supervisor's CMS by including a number of items from other empirically supported conflict management style measures (ROCI-II, Rahim, 1983; CSI, Weider-Hatfield & Hatfield, 1996).

Item-adaptation process: Workplace conflict. The adaptation of this workplace conflict measure proceeded as follows. First, a list of all the task and relationship conflict items from the ICS publications (Jehn, 1994, 1995; Jehn et al., 2008; Jehn & Mannix, 2001; Jehn et al., 1999) and publications that have articulated details regarding their ICS adaptations (i.e., Giebels & Janssen, 2005; A. W. Pearson et al., 2002; Römer et al., 2012) was compiled. Second, this list was reviewed for items that were exact – or very nearly exact – duplicates; redundant items were deleted. In cases where two or more items from different source scales were similar in content, only the item that was least wordy or convoluted was retained. For example, an item from Jehn and Mannix' three-item task conflict measure (2001) reads as follows: "how frequently do you have disagreements within your work group about the task of the project you are working on". This item was omitted in favour of a more succinct item from an earlier publication (Jehn, 1994): "disagreements about the task you are working on". The same item-elimination process was used for task and relationship conflict items. To verify this item elimination process, a psychology doctoral student who was not an investigator on this study repeated the task of deleting redundant items; the resultant items were the same as those attained by the present study's primary investigator.

The final task conflict measure included seven items: five were derived from Jehn's original ICS publications (Jehn, 1994, 1995; Jehn et al., 2008; Jehn & Mannix,

2001; Jehn et al., 1999); two additional items stemmed from Giebels and Jansen's (2005) ICS adaptation. The final relationship conflict measure also included seven items: six items from Jehn's original ICS publications, plus one self-developed item ("arguments due to personality differences"). Next, the target of each item was changed to refer to respondents' supervisor. For example, the item "how often do you and your colleagues have personality clashes?" was adapted to "how often do you and your supervisor have personality clashes?" When the task and relationship conflict subscales were compiled, the subscales were reviewed and compared to (1) the definitions of task and relationship conflict adopted in this study and (2) all original ICS and ICS-adaptation measures to ensure that they adequately represented the task and relationship conflict constructs. No additional changes were made as a result of these reviews. Finally, the conflict measure was reviewed by four laypersons to ensure its instructions and items were clear and understandable. Their feedback indicated that the items were clear and their interpretations were as intended by the study's primary investigator; thus, no changes were made as a result of these reviews.

Item-adaptation process: Supervisors' conflict management styles. The subscale assessing supervisors' forcing CMS included three items from the DUTCH and, drawing on recommendations about assessing supervisors' CMS from a subordinate perspective (Rahim, 1983), two additional items that allude to supervisors' use of their organizational power and authority. The subscale assessing supervisors' avoiding CMS included three items from the DUTCH as well as two additional items from Rahim's ROCI-II measure (1983). The subscale assessing supervisors' yielding CMS included four items from the DUTCH as well as one item each from the ROCI-II (Rahim, 1983)

and the CSI (Weider-Hatfield & Hatfield, 1996). Finally, the subscale assessing supervisors' problem-solving CMS included three items from the DUTCH as well as three additional items that allude to the collaborative and cooperative nature of this CMS (Rahim, 1983; Weider-Hatfield & Hatfield, 1996). As was done with the workplace conflict measure, the primary investigator's item adaptation process was repeated and confirmed by a senior doctoral student. Subsequently, each CMS subscale was reviewed and compared to (1) the definitions of their respective CMS and (2) the original CMS measures to ensure that they adequately represent the CMS constructs. No additional changes were made as a result of these reviews. The final measure of supervisors' CMS contained five items each for the forcing CMS and avoiding CMS subscales and six items each for the yielding CMS and problem-solving CMS subscales. Finally, the adapted conflict management style measure was reviewed by four laypersons for item clarity. The items were found to be clear and understandable; thus, no changes were made as a result of these reviews.

Study #1 tested the hypothesized factor structure of these modified measures of workplace conflict and supervisor CMS using confirmatory factor analysis. Further, the construct-related and criterion-related validity of these modified measures was examined. Finally, these measures were also assessed with respect to their psychometric properties and susceptibility to social desirability bias.

Expected variable relationships. Table 2 presents an overview of the expected variable relationships between the adapted measures and the validation measures for study #1. The composite score of the adapted task and relationship conflict measures was compared to a validated measure of conflict; namely, the Interpersonal Conflict at Work

Scale (ICAWS; Spector & Jex, 1998). The ICAWS score was expected to relate positively to the composite score of the adapted task and relationship conflict measure. However, as the adapted measure of workplace conflict only focuses on one source of workplace conflict (i.e., supervisor), correlations were expected to be moderate.

Reports of supervisor-subordinate conflict and supervisors' CMS were also expected to depend on subordinates' personality; notably, their agreeableness and negative affect. Agreeableness is the extent to which individuals are congenial, cooperative, and understanding (McCrae & Costa, 1987). In line with past research (e.g., Bowling & Eschleman, 2010), it was expected that highly agreeable individuals experience less task and relationship conflict with their supervisor. Negative affect reflects the extent to which individuals tend to have a persistently negative view of themselves and the world around them (Watson & Clark, 1984). Thus, it is possible that individuals with greater negative affect are more likely to perceive negative interpersonal interactions (and less likely to perceive positive interactions). Indeed, research has found that negative affect is positively related to reports of workplace conflict (e.g., Bowling & Eschleman, 2010). Thus, it was expected that subordinates' negative affect is positively related to task conflict, relationship conflict, and supervisors' forcing CMS and negatively related to supervisors' problem-solving CMS.

It was also expected that supervisors' CMS reflect their broader leadership approach. For example, supervisor support refers to the extent to which supervisors are considerate and supportive (Caplan, Cobb, French, Harrison, & Pinneau, 1980). Highly supportive supervisors were expected to manage conflict in a cooperative, collaborative manner (i.e., using a problem-solving CMS and yielding CMS), whereas unsupportive

supervisors were expected to use non-cooperative CMS (i.e., using a forcing CMS and avoiding CMS). In turn, autocratic leaders are often described as despots; that is, as domineering individuals who demand complete control over everything and everyone (Shaw, Erickson, & Harvey, 2011). This controlling and dominating leadership approach was expected to be positively related to supervisors' forcing CMS, whereas autocratic leaders are unlikely to adopt a yielding CMS or an avoiding CMS. Finally, a passive leadership style is one in which supervisors leave much of the decision-making to their subordinates (Pearce & Sims, 2002). Passive leadership reflects a hands-off leadership approach, where little feedback, input, or directive is given to employees. Thus, passive leadership is conceptually related to the avoiding CMS and yielding CMS (positive relationship) and to the problem-solving CMS and forcing CMS (negative relationship).

Past research has also linked supervisor-subordinate conflict and supervisors' CMS to employees' attitudes and well-being. Notably, subordinates' job satisfaction is, in part, shaped by the quality of the relationship with their supervisor. Based on existing evidence (e.g., Chan et al., 2008; Liu et al., 2008; Penney & Spector, 2005; Weider-Hatfield & Hatfield, 1995), it was expected that workplace conflict and supervisors' forcing CMS are negatively related to subordinates' job satisfaction and that supervisors' problem-solving CMS is positively related to subordinates' job satisfaction. Workplace conflict is also related to employees' emotional exhaustion (e.g., Dijkstra et al., 2009); that is, the degree to which individuals feel fatigued, drained, and burnt out by their jobs (Wilk & Moynihan, 2005). Based on this existing evidence, it was expected that supervisor-subordinate conflict is associated with increased emotional exhaustion among subordinates.

Table 2

Summary of Expected Variable Relationships (Study #1)

	Validation variables							
Variables to validate	ICAWS	Agreeableness	Negative affect	Supervisor support	Autocratic leadership	Passive leadership	Job satisfaction	Emotional exhaustion
Task conflict		-	+				-	+
Relationship conflict		-	+				-	+
Conflict composite	+							
Forcing CMS			+	-	+	-	-	
Avoiding CMS				-	-	+		
Yielding CMS				+	-	+		
Problem-solving CMS			-	+		-	+	

Note. ICAWS = Interpersonal Conflict at Work Scale; CMS = conflict management style.
+ = positive relationship; - = negative relationship.

CHAPTER III

Study #1 – Method

Sample

Power analysis (desired power of .95) estimated the minimum required sample size to be $N = 199$. A total of 505 individuals participated in this study. On average, participants were 35.08 years old ($SD = 11.09$, Range = 18 - 69 years), had been in their jobs for 6.91 years ($SD = 4.36$, Range = 6 months - 31 years), and had worked with their current supervisor for 3.34 years ($SD = 3.34$, Range = 6 months - 31 years). The majority of participants were male (56.8%), White/Caucasian (79.0%), and resided in the United States of America (99.6%). Detailed information about participants' demographic information can be found in Table 26 (Appendix A).

Recruitment

Participants were recruited using *Amazon Mechanical Turk* (AMT). AMT is an online service that connects *workers* (individuals who complete tasks) with *requesters* (individuals who require completion of tasks). Workers complete tasks called *HIT*s (short for Human Intelligence Tasks) in return for a financial reward. Payment for participation can be as little as a few cents and is generally no greater than $1-$2, except for very long studies (Paolacci, Chandler, & Ipeirotis, 2010). Studies using AMT participant recruitment have been published in several peer-reviewed journals (e.g., Jonason, Luevano, & Adams, 2012; Phillips, Gully, McCarthy, Castellano, & Kim, 2014). AMT has become a popular source of participant recruitment. Several recent investigations have demonstrated that the socio-economic and ethnic diversity of AMT workers is much greater than that of participants recruited through university participant pools and various

social media recruitment options (e.g., Casler, Bickel, & Hackett, 2013; Paolacci et al., 2010). Researchers have also compared the results of identical studies conducted with participants recruited from AMT, participant pools, and social media and found no significant differences across these samples (e.g., Casler et al., 2013).

The requester-worker transaction on AMT is structured as follows: Requesters post their available HITs on the AMT website. Requesters can limit the visibility of these HITs to workers who fit certain characteristics. For both study #1 and study #2, the study HITs were only made available to workers with the following qualifications: Adults who (1) are 18 years or older, (2) currently hold a full-time job, (3) have worked with their current supervisor for at least 6 months, (4) currently reside and work in Canada/United States, and (5) speak English as one of their primary languages (i.e., they speak English fluently). Workers can read a brief description of each HIT before choosing to accept or decline the HIT. Once the worker has completed the HIT, requesters can review the completed task. If the HIT has been completed to the requester's satisfaction, the worker is paid for their services. If the HIT was done poorly or disingenuously, requesters may choose to not approve payment. Unapproved HITs negatively affect workers' HIT approvals, which are akin to employee performance ratings. In addition to the required qualifications outlined above, for both study #1 and study #2, the study HITs were only made available to workers with 98% or greater HIT approval ratings and at least 1,000 completed HITs to reduce the number of possible scammer workers.

Procedure

The research materials and procedure received clearance from the University of Windsor's Research Ethics Board (REB). Following REB approval, the study was

advertised to eligible participants on the AMT website. A brief study description was provided (Appendix B). Similar to other AMT studies of comparable length, participants were offered US$1 for their participation. When a worker chose to accept the study HIT, they were asked to open the survey link in a new browser page to be taken to the online survey (Appendix C). The survey was hosted through FluidSurvey, an online survey software supported by the University of Windsor. The initial survey page presented participants with the study's consent form. After giving their consent to participate, participants were asked to provide their anonymous AMT worker ID # to ensure that (1) each worker would be paid after completing the study HIT and (2) participants did not complete the survey more than once (and thus get paid more than once). At the end of the survey, a debriefing page outlined additional details about the study.

Measures

Demographics. Participants were asked to provide basic demographic information, including their gender, age, ethnicity, marital status, level of education, primary country of residence, occupational group, job title, and job tenure. Participants were also asked whether they hold a full-time job and how long they had worked with their current supervisor. Further, participants were asked to indicate their supervisor's number of supervisees, the approximate number of company employees, and whether their job was a management and/or union position.

Workplace conflict. Subordinates' task and relationship conflict with their supervisor was assessed with the conflict measure adapted for this study. The subscales for task and relationship conflict contain 7 items each. Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *all the time*). Internal consistency for the task conflict

(Cronbach's α = .94), relationship conflict (Cronbach's α = .89), and conflict composite (Cronbach's α = .94) subscales was good. Higher scores represent greater supervisor-subordinate conflict.

Supervisors' conflict management styles. Supervisors' forcing (5 items), avoiding (5 items), yielding (6 items), and problem-solving (6 items) CMS were assessed with the measure adapted for this study. Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *all the time*). Internal consistency for the forcing (Cronbach's α = .92), avoiding (Cronbach's α = .82), yielding (Cronbach's α = .92), and problem-solving (Cronbach's α = .96) CMS subscales was good. Higher scores represent greater use of the respective CMS by the participant's supervisor.

Interpersonal Conflict at Work Scale (ICAWS). Overall workplace conflict was assessed with the 4-item Interpersonal Conflict at Work Scale (ICAWS; Spector & Jex, 1998). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *very often*). Past research has reported a Cronbach's α value of .74 for this measure (Spector & Jex, 1998). In the present study, internal consistency was good, Cronbach's α = .83. Higher scores represent more frequent workplace conflict.

Agreeableness. Subordinates' agreeableness was assessed with the 10-item agreeableness subscale from the International Personality Item Pool (Goldberg et al., 2006). Each item was rated using a 5-point Likert scale (1 = *very inaccurate* to 5 = *very accurate*). Past research has reported a Cronbach's α value of .82 for this measure (Goldberg et al., 2006). In the present study, internal consistency was excellent, Cronbach's α = .91. Higher scores represent greater agreeableness.

Negative affect. Subordinates' negative affect was assessed with the 5-item negative affect subscale from the Positive and Negative Affect Schedule (Thompson, 2007). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *always*). Past research has reported a Cronbach's α value of .76 for this measure (Thompson, 2007). In the present study, internal consistency was good, Cronbach's α = .83. Higher scores represent greater negative affect.

Supervisor support. Supervisor support was assessed with the 4-item Social Support Scale (Caplan et al., 1980). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *always*). Past research has reported Cronbach's α values ranging from .86 to .91 for this measure (Fields, 2002). In the present study, internal consistency was good, Cronbach's α = .88. Higher scores represent greater supervisor support.

Autocratic leadership. Supervisors' autocratic leaderships was assessed with the 7-item autocratic leadership subscale of the Destructive Leadership Questionnaire (Shaw et al., 2011). Each item was rated using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Past research has reported a Cronbach's α value of .83 for this measure (Shaw et al., 2011). In the present study, internal consistency was excellent, Cronbach's α = .93. Higher scores represent greater autocratic leadership.

Passive leadership. Supervisors' passive leadership was assessed with the 5-item passive leadership subscale of the Team Effectiveness Scale (Pearce & Sims, 2002). Each item was rated using a 5-point Likert scale (1 = *definitely not true* to 5 = *definitely true*). Past research has reported a Cronbach's α value of .81 for this measure (Pearce & Sims, 2002). In the present study, internal consistency was good, Cronbach's α = .86. Higher scores represent greater passive leadership.

Job satisfaction. Subordinates' job satisfaction was assessed with the 3-item Job Satisfaction Scale (Cammann, Fichman, Jenkins, & Klesh, 1983). Each item was rated using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Past research has reported Cronbach's α values ranging from .67 to .95 for this measure (Fields, 2002). In the present study, internal consistency was excellent, Cronbach's α = .95. Higher scores represent greater job satisfaction.

Emotional exhaustion. Subordinates' emotional exhaustion was assessed with the 4-item Measure of Emotional Exhaustion (Wilk & Moynihan, 2005). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *all the time*). Past research has reported a Cronbach's α value of .78 for this measure (Wilk & Moynihan, 2005). In the present study, internal consistency was excellent, Cronbach's α = .93. Higher scores represent greater emotional exhaustion.

Social desirability. To assess the extent to which the adapted workplace conflict and conflict management scales are susceptible to social desirable responding, participants were asked to complete the 16-item Social Desirability Scale (Stöber, 2001). Each item was rated using a true-false scale. Past research has reported a Cronbach's α value of .75 for this measure (Stöber, 2001). In the present study, internal consistency was good, Cronbach's α = .82. Higher scores represent greater social desirability bias.

Open-ended questions. Three open-ended questions allowed participants to provide additional information about their job and their relationship with their supervisor as well as their overall experience in completing the online questionnaire.

CHAPTER IV

Study #1 – Results

Data Screening & Cleaning

Using SPSS, the data (N = 505) were inspected visually for overall soundness and integrity prior to all analyses. Twelve cases were deleted due to suspicious data patterns (e.g. unreasonably fast survey completion time, participants indicated that they were only "somewhat careful" in completing the survey and/or "somewhat doubtful" about the accuracy of their responses). A Missing Values Analysis (MVA) indicated that less than 5% of data were missing and that these data were missing completely at random (Little's MCAR test, $\chi^2 = 7243.38$, $p > .05$). Missing data were replaced using the EM-maximization method (Tabachnick & Fidell, 2001). Residual scatterplots indicated that the assumptions of linearity and homoscedasticity were met. Skewness and kurtosis indices were found to be within acceptable ranges (skewness < |3|, kurtosis < |7|; Finney & DiStefano, 2006; Khine, 2013), indicating that the data met the assumption of normality. The data were screened for univariate outliers using a cut-off of z = +/- 3.29, for multivariate outliers using Mahalanobis' distance using a cut-off of $p < .001$, and for influential observations using Cook's distance with a cut-off of 1 and using standardized DFFITS with a cut-off of 2 (Stevens, 2002; Tabachnick & Fidell, 2001). Eight multivariate outliers and/or influential cases were deleted. Tolerance (none < .01) and VIF (none > 10) scores (Cohen, Cohen, West, & Aiken, 2003) indicated an absence of multicollinearity. An inspection of the Durbin-Watson statistic (value should be between 1 and 3; Field, 2005) suggested an independence of errors. After data screening and cleaning, a total of 485 cases were retained for the main analyses.

Approach to Confirmatory Factor Analyses

Using AMOS, confirmatory factor analyses (CFA) were used to verify the hypothesized factor structure of (1) the modified measure of workplace conflict and (2) the modified measure of supervisors' CMS. Each model was assessed using Maximum Likelihood Estimation. The latent factors (i.e., task and relationship conflict; supervisors' forcing, avoiding, yielding, and problem-solving CMS) were allowed to correlate. Following the recommendations of Byrne (2010) as well as Meyers and colleagues (2005), the following fit indices were considered: the Root Mean Square Error of Approximation (RMSEA; cut-off: < .80), the Comparative Fit Index (CFI; cut-off: > .95), the Goodness of Fit Index (GFI; cut-off: > .90), and the Tucker-Lewis index (TLI; cut-off: > .90). The chi-square test (χ^2) was examined cursorily, but was not considered in assessing model fit, because it is highly sensitive to sample size and will almost always be significant in samples with more than 200 cases (Meyers et al., 2005).

The initial models for both measures were a mediocre fit for the data (Tables 3 and 5). Modification indices were reviewed for possible adjustments that would improve model fit. The modification indices indicated that allowing a number of correlated error terms would enhance model fit. Correlated errors represent the notion that the associated items share another (unmeasured) common cause. To avoid capitalizing on chance, allowing for correlated error terms must be carefully considered and should be based on reasonable and sound empirical or methodological grounds (Kline, 2011). Methodologically, errors may be correlated when items are similarly worded, when items are similar in content, and when scales contain both positively and negatively worded items (e.g., Crawford & Henry, 2004). Thus, error terms were allowed to correlate one at

a time when items were very similar in content and wording. Fit indices of the model were reviewed after each modification. Notably, allowing for these correlated error terms did not substantially change the correlation between the factors nor the factor loadings of their respective items.

Confirmatory Factor Analysis – Workplace Conflict

The results of the confirmatory factor analysis can be found in Table 3. After allowing for four pairs of correlated errors, the values for the RMSEA (.076), CFI (.963), GFI (.921), and TLI (.953) fit indices were well within their acceptable ranges. Standardized factor loadings for all task conflict and relationship conflict items were statistically significant ($p < .001$; Table 4). The task conflict and the relationship conflict subscales were internally consistent (Cronbach's $\alpha = .94$, Cronbach's $\alpha = .89$, respectively) and correlated at $r = .72$ ($p < .01$). This correlation coefficient raised concerns that the two conflict factors may not be distinct. Thus, the hypothesized 2-factor workplace conflict measure (i.e., task conflict and relationship conflict) was compared to an alternative 1-factor model. The findings indicated that the hypothesized 2-factor model of workplace conflict is a better fit for the data than this alternative 1-factor model, $\Delta\chi^2 (1) = 146.46$, $p < .001$. Additionally, previous empirical and theoretical work (Barki & Hartwick, 2004; Jehn, 1995, 1997) supports the distinction between task and relationship conflict; thus, the 2-factor conflict measure was retained for study #2.

Table 3

Confirmatory Factor Analysis for Measure of Workplace Conflict – Study #1

Model	χ^2	df	χ^2/df	RMSEA (90% CI)	CFI	GFI	TLI
Initial 2-factor model	652.11***	76	8.58	.125 (.116 to .134)	.893	.834	.872
Modified 2-factor model (with correlated error terms, "E")							
$E_{RC4} \leftrightarrow E_{RC5}$	497.46***	75	6.63	.108 (.099 to .117)	.922	.867	.905
$E_{RC6} \leftrightarrow E_{RC7}$	397.46***	74	5.37	.095 (.086 to .104)	.940	.892	.926
$E_{RC5} \leftrightarrow E_{RC6}$	335.62***	73	4.60	.086 (.077 to .096)	.951	.902	.939
$E_{TC2} \leftrightarrow E_{TC3}$ (final model)	272.16***	72	3.78	.076 (.066 to .085)	.963	.921	.953
1-factor comparison model	418.62***	73	5.73	.099 (.090 to .108)	.936	.893	.920

Note. RMSEA = Root mean square error of approximation; CFI = Comparative Fit Index; GFI = Goodness of Fit Index; TLI = Tucker-Lewis Index; RC = relationship conflict; TC = task conflict.
***$p < .001$.

Table 4

Standardized Factor Loadings & Factor Correlations for Measure of Workplace Conflict – Study #1

Item	Task conflict	Relationship conflict	R^2
1. Differences of opinions regarding work tasks	.87		.76
2. Disagreements about the work being done	.85		.72
3. Disagreements about the task you are working on	.84		.70
4. Disagreements about ideas regarding work tasks	.87		.76
5. Different viewpoints on task-related decisions	.83		.68
6. Divergent ideas about the execution of work tasks	.81		.66
7. Different beliefs about the cause and solution of work-related problems	.79		.62
8. Personality clashes		.83	.69
9. Relationship tensions		.87	.76
10. Interpersonal frictions		.90	.81
11. Differences of opinions about personal issues		.60	.36
12. Disagreements about non-work things		.41	.17
13. Quarrels about personal matters		.61	.37
14. Arguments due to personality differences		.70	.50
	Factor correlations		
Task conflict	*.94*		
Relationship conflict	.72	*.89*	

Note. All parameters are significant at $p < .001$. Cronbach's α values are presented in italics on the diagonal.

Confirmatory Factor Analysis – Conflict Management Styles

The results of the confirmatory factor analysis for the measure of supervisors' CMS can be found in Table 5. After allowing for three pairs of correlated error terms, the values for the RMSEA (.070), CFI (.948), GFI (.886), and TLI (.940) fit indices were within (or very close to) their acceptable ranges. Standardized factor loadings for all CMS items were statistically significant (Table 6). Factor correlations are presented in Table 7. The correlation between the problem-solving CMS and yielding CMS factors (r = .79) indicated that these may not be distinct factors. The hypothesized 4-factor CMS measure was thus compared to an alternative 3-factor model in which problem-solving and yielding items all load onto one factor. The findings indicated that the hypothesized 4-factor model of CMS is a better fit for the data than this alternative 3-factor model, $\Delta\chi^2$ (1) = 74.52, $p < .001$. Additionally, previous empirical and theoretical work support the distinction between the problem-solving CMS and the yielding CMS (e.g., De Dreu et al., 2001; Rahim & Magner, 1995); thus, the 4-factor CMS measure was retained for study #2.

Table 5

Confirmatory Factor Analysis for Measure of Supervisors' CMS – Study #1

Model	χ^2	df	χ^2/df	RMSEA (90% CI)	CFI	GFI	TLI
Initial 4-factor model	946.73***	203	4.66	.087 (.081 to .093)	.919	.835	.908
Modified 4-factor model (with correlated error terms, "E")							
$E_{avoid4} \leftrightarrow E_{avoid5}$	797.63***	202	3.95	.078 (.072 to .084)	.935	.865	.926
$E_{yield1} \leftrightarrow E_{yield6}$	717.37***	201	3.57	.073 (.067 to .079)	.944	.879	.935
$E_{ps1} \leftrightarrow E_{ps2}$ (final model)	675.15***	200	3.38	.070 (.064 to .076)	.948	.886	.940
3-factor comparison model	749.67***	201	3.73	.075 (.069 to .081)	.940	.884	.931

Note. RMSEA = Root mean square error of approximation; CFI = Comparative Fit Index; GFI = Goodness of Fit Index; TLI = Tucker-Lewis Index; avoid = avoiding CMS; yield = yielding CMS; ps = problem-solving CMS.
***$p < .001$.

Table 6

Standardized Factor Loadings for Measure of Supervisors' CMS – Study #1

Item	Force	Avoid	Yield	P-S	R^2
1. Pushes for his/her own point of view	.70				.50
2. Does everything to win	.76				.58
3. Uses his/her authority to make a decision in his/her favour	.94				.88
4. Uses his/her power to get his/her way	.95				.91
5. Pursues his/her own goals without concern for my goals	.84				.70
6. Avoids confrontations about our differences		.87			.75
7. Make differences appear less severe		.69			.48
8. Avoids confrontations with me		.86			.73
9. Avoids being "put on the spot"		.55			.30
10. Avoids open discussion of our differences		.43			.19
11. Gives in to my wishes			.71		.51
12. Concurs with me			.80		.64
13. Accommodates me as much as possible			.81		.66
14. Adapts to my goals and interests			.86		.75
15. Goes along with my suggestions			.85		.71
16. Lets me have my way			.73		.54
17. Examines ideas from both sides to find a mutually acceptable solution				.86	.74
18. Works out a solution that serves both of our interests as best as possible				.89	.79
19. Investigates the issue together with me				.87	.76
20. Collaborates with me to come up with a decision jointly				.92	.84
21. Does whatever is needed to satisfy both of us				.89	.79
22. Works with me to come up with a solution that's acceptable to both of us				.92	.85

Note. All parameters are significant at $p < .001$. Force = forcing; Avoid = avoiding; Yield = yielding; P-S = problem-solving.

Table 7

Factor Correlations for CMS Measure Subscales – Study #1

	Forcing CMS	Avoiding CMS	Yielding CMS	Problem-solving CMS
Forcing CMS	*.92*			
Avoiding CMS	-.08	*.82*		
Yielding CMS	-.54***	.35***	*.92*	
Problem-solving CMS	-.62***	.29***	.79***	*.96*

Note. Cronbach's α values are presented in italics on the diagonal; CMS = conflict management style.
***$p < .001$.

Descriptive Statistics & Hypotheses Testing

The possible ranges, Cronbach's α values, means, and standard deviations of all variables in study #1 are summarized in Table 8. Variable correlations are presented in Table 9. As predicted (see Table 2), the Interpersonal Conflict at Work Scale (ICAWS; Spector & Jex, 1998) is positively related to the composite score of task and relationship conflict. Task and relationship conflict also relate to subordinates' agreeableness, negative affect, job satisfaction, and emotional exhaustion as predicted. Overall, the results support the expected relationships between supervisors' CMS and the validation variables. Notably, contrary to expectations, supervisors' avoiding CMS is unrelated to supervisor support and supervisors' autocratic leadership. Additionally, supervisors' passive leadership is negatively – rather than positively – related to the yielding CMS (r = -.30, p < .01) and positively – rather than negatively – related to the forcing CMS (r = .40, p < .01).

Both the revised workplace conflict and CMS measures are relatively unaffected by socially desirable responding. Specifically, the correlations between social desirability and the revised measures of workplace conflict and supervisors' CMS are all well below r = |.30|, the recommended cut-off for what is considered to be significant social desirability bias (Aquino, Lewis, & Bradfield, 1999; Mitchell & Ambrose, 2007). None of the correlations between social desirability and the individual items from the conflict and CMS measures exceeded r = |.14| (p < .01). Past research on the relationship between social desirability and workplace conflict measures could not found; however, the correlations between social desirability and the CMS subscales in the present study are equal to – or lower than – those reported by previous investigations (e.g., Davis,

Capobianco, & Kraus, 2004; Rahim, 1983; Utley, Richardson, & Pilkington, 1989). A summary of the research findings in study #1 is provided in Table 10.

Invariance Across Gender, Age, and Supervisor Tenure

Some previous investigations have found that reports of workplace conflict and CMS differ across respondents' gender, age, and the number of years they have worked with their supervisor (e.g., Holt & DeVore, 2005; Ismail et al., 2012). Thus, the workplace conflict and CMS measures were examined with respect to their invariance across these demographic variables. Independent t-tests were used to investigate potential differences in men and women's reports of task and relationship conflict as well as reports of their supervisors' CMS. Male participants reported their supervisors to make significantly more use of a forcing CMS than female participants, $t(483) = 2.03$, $p < .05$. The effect size of this analysis (Cohen's $d = .18$) was small (Cohen, 1992). Relationship conflict was significantly correlated with age ($r = -.11$, $p < .05$). Finally, supervisor tenure (in years) is positively correlated with reports of supervisors' use of a yielding CMS ($r = .09$, $p < .05$) and a problem-solving CMS ($r = .09$, $p < .05$). Although the findings with respect to gender and age differences are consistent with some existing research (Dijkstra et al., 2009), other studies have found no such gender and age differences (Fox et al., 2001; Römer et al., 2012; Salami, 2010).

Table 8

Descriptive Information – Study #1

Variable	Possible range	Cronbach's α	*M*	*SD*
Task conflict	1-5	.94	2.34	.76
Relationship conflict	1-5	.89	1.74	.65
Conflict composite	1-5	.94	2.04	.64
ICAWS	1-5	.83	1.57	.61
Forcing CMS	1-5	.92	2.74	.93
Avoiding CMS	1-5	.82	2.99	.85
Yielding CMS	1-5	.92	2.89	.72
Problem-solving CMS	1-5	.96	3.35	.91
Agreeableness	1-5	.91	3.94	.75
Negative affect	1-5	.83	1.93	.63
Supervisor support	1-5	.88	3.51	.91
Autocratic leadership	1-5	.93	2.25	.98
Passive leadership	1-5	.86	2.38	.93
Job satisfaction	1-5	.95	3.78	1.01
Emotional exhaustion	1-5	.93	2.51	1.01
Social desirability	0-16	.82	9.32	3.85

Note. ICAWS = Interpersonal Conflict at Work Scale; CMS = conflict management style.

Table 9

Variable Correlations – Study #1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Task conflict	*.94*	.67**	.93**	.40**	.48**	.01	-.31**	-.41**	-.11*	.26**	-.44**	.54**	.41**	-.40**	.48**	-.14**	-.09	-.04	-.05
2. Relationship conflict		*.89*	.90**	.52**	.49**	.01	-.30**	-.45**	-.11*	.34**	-.49**	.54**	.43**	-.40**	.48**	-.11*	-.05	-.11*	.01
3. Conflict composite			*.94*	.50**	.53**	.01	-.33**	-.47**	-.12**	.33**	-.51**	.60**	.46**	-.43**	.52**	-.14**	-.08	-.08	-.02
4. ICAWS				*.83*	.38**	.05	-.22**	-.31**	-.18**	.39**	-.35**	.36**	.41**	-.39**	.44**	-.15**	-.01	-.10*	-.11*
5. Forcing CMS					*.92*	.06	-.51**	-.61**	-.09*	.17**	-.60**	.68**	.40**	-.41**	.40**	-.09	-.09*	-.00	-.02
6. Avoiding CMS						*.82*	.19**	.12**	.03	-.02	.00	-.06	.15**	-.02	.09	.04	.04	.02	.01
7. Yielding CMS							*.92*	.73**	.06	-.15**	.63**	-.52**	-.30**	.42**	-.32**	.07	.01	-.01	.09*
8. Problem-solving CMS								*.96*	.15**	-.21**	.77**	-.65**	-.47**	.53**	-.43**	.13**	.04	.01	.09*
9. Agreeableness									*.91*	-.14**	.15**	-.08	-.22**	.18**	-.20**	.28**	.28**	.11*	.10*
10. Negative affect										*.83*	-.24**	.25**	.29**	-.32**	.47**	-.35**	.14**	-.12**	-.13**
11. Supervisor support											*.88*	-.65**	-.51**	.56**	-.46**	.09	.01	.00	.14**
12. Autocratic leadership												*.93*	.52**	-.51**	.47**	-.01	-.08	-.03	-.09*
13. Passive leadership													*.86*	-.51**	.47**	-.13**	-.12**	-.05	-.03
14. Job satisfaction														*.95*	-.79**	.12**	.01	.05	.15**
15. Emotional exhaustion															*.93*	-.22**	.05	-.12**	-.14**
16. Social desirability																*.82*	.01	.12*	.02
17. Gender																	-	.10*	.08
18. Age																		-	.25**
19. Supervisor tenure																			-

Note. Cronbach's α values are presented in italics on the diagonal; ICAWS = Interpersonal Conflict at Work Scale; CMS = conflict management style.
* $p < .05$. ** $p < .01$.

Table 10

Summary of Research Findings – Study #1

	Validation variables							
Variables to validate	ICAWS	Agreeableness	Negative affect	Supervisor support	Autocratic leadership	Passive leadership	Job satisfaction	Emotional exhaustion
Task conflict		-	+				-	+
Relationship conflict		-	+				-	+
Conflict composite	+							
Forcing CMS			+	-	+	+*	-	
Avoiding CMS				n.s.	n.s.	+		
Yielding CMS				+	-	-*		
Problem-solving CMS			-	+		-	+	

Note. ICAWS = Interpersonal Conflict at Work Scale; CMS = conflict management style.
+ = positive relationship; - = negative relationship
* Direction of relationship is significant, but opposite to what was predicted; n.s. = relationship is not significant.

CHAPTER V

Study #1 – Discussion

Despite considerable research interest in workplace conflict and conflict management during the past few decades, there has been very little work on developing and testing sound measures to assess these constructs. Study #1 pilot-tested modified measures that assessed (1) subordinates' experience of workplace conflict with their supervisor and (2) subordinates' perception of their supervisor's CMS. The hypothesized factor structure for both measures was supported. Specifically, confirmatory factor analyses support the distinction between task and relationship conflict and the distinction between forcing, avoiding, yielding, and problem-solving CMS. Both instruments are internally consistent and relatively unaffected by socially desirable responding and, on the whole, demographic differences.

Overall, the conflict and CMS measures are related to the validation instruments as expected. Specifically, the different conflict types and CMS assessed by these two instruments relate to subordinates' personality characteristics (e.g., agreeableness, negative affect), subordinates' evaluation of their supervisor (e.g., passive leadership, supervisor support), and subordinate job satisfaction and emotional exhaustion in a manner that is consistent with theoretical and empirical work to date. Notably, although supervisors' conflict management styles correlated with leadership styles, these correlations were moderate in size. Thus, although leadership styles were used in this study to validate the measure of supervisors' conflict management styles, leadership and conflict management styles are indeed distinct constructs. Together, these findings strongly suggest that both measures are valid instruments for use in study #2.

CHAPTER VI

Study #2 – Method

Sample

Power analysis (desired power of .95) estimated the minimum required sample size to be $N = 300$. A total of 506 individuals participated in this study. On average, participants were 33.33 years old ($SD = 9.71$, Range 19 - 70 years), had been in their jobs for 4.20 years ($SD = 3.87$, Range = 6 months - 35 years), and had worked with their current supervisor for 3.15 years ($SD = 2.92$, Range = 6 months - 20 years). The majority of participants were male (58.9%), White/Caucasian (79.4%), and resided in the United States of America (99.6%). Detailed information about participants' demographic information can be found in Table 25 (Appendix A).

Recruitment Method & Procedure

The research materials and procedure received clearance from the University of Windsor's Research Ethics Board (REB). The sample for study #2 was also recruited using *Amazon Mechanical Turk* (AMT). The AMT survey description can be found in Appendix D. The sample characteristics and the study administration procedure were identical to that in study #1. Similar to other AMT studies of comparable length, participants were offered US$2 for their participation. The survey instrument for this study can be found in Appendix E.

Measures

Demographics. Participants were asked to provide basic demographic information, including their gender, age, ethnicity, marital status, level of education, primary country of residence/work, occupational group, job title, and job tenure.

Participants were also asked whether they hold a full-time job and how long they had worked with their current supervisor. Further, participants were asked to indicate their supervisor's number of supervisees, the approximate number of company employees, and whether their job was a management and/or union position. Employees' age, gender, and tenure with their supervisor have been shown to be related to several outcomes of interest, including psychological distress and CWB/OCB (e.g., Berry, Ones, & Sackett, 2007; Liu et al., 2008); therefore, these demographic variables were included as covariates.

Workplace conflict. Subordinates' task and relationship conflict with their supervisor was assessed with the measure adapted in study #1. The subscales for task and relationship conflict contain 7 items each. Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *all the time*). Internal consistency for the task conflict (Cronbach's $\alpha = .92$) and relationship conflict (Cronbach's $\alpha = .90$) subscales was excellent. Higher scores represent greater supervisor-subordinate conflict.

Supervisors' conflict management styles. Supervisors' forcing (5 items), avoiding (5 items), yielding (6 items), and problem-solving (6 items) CMS were assessed with the measure adapted in study #1. Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *all the time*). Internal consistency for the forcing (Cronbach's $\alpha = .90$), avoiding (Cronbach's $\alpha = .85$), yielding (Cronbach's $\alpha = .91$), and problem-solving (Cronbach's $\alpha = .95$) CMS subscales was good. Higher scores represent greater use of the respective CMS by the participant's supervisor.

Distributive justice. Subordinates' appraisal of the distributive justice associated with their supervisor's CMS was assessed with 6 items from the Distributive Justice

Index (Sousa & Vala, 2002). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *always*). Past research has reported a Cronbach's α value of .90 for this measure (Sousa & Vala, 2002). In the present study, internal consistency was excellent, Cronbach's α = .94. Higher scores represent greater perceptions of distributive justice.

Procedural justice. Subordinates' appraisal of the procedural justice associated with their supervisor's CMS was assessed with the 7-item procedural justice measure (Moorman, 1991). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *always*). Past research has reported a Cronbach's α value of .94 for this measure (Moorman, 1991). In the present study, internal consistency was excellent, Cronbach's α = .93. Higher scores represent greater perceptions of procedural justice.

Interactional justice. Subordinates' appraisal of the interactional justice associated with their supervisor's CMS was assessed with nine items from Colquitt's (2001) organizational justice measure. Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *always*). Past research has reported a Cronbach's α value of .88 for this measure (Barclay & Kiefer, 2014). In the present study, internal consistency was excellent, Cronbach's α = .94. Higher scores represent greater perceptions of interactional justice.

Emotional experiences. Subordinates' emotional experiences were assessed with the 20-item Job-Related Affect Scale (Van Katwyk et al., 2000). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *extremely often*). Past research has reported a Cronbach's α value of .94 for the positive emotions subscales and .88 for the negative emotions subscales (Van Katwyk et al., 2000). In the present study, internal consistency for both the positive emotion subscale (Cronbach's α = .94) and the negative emotion

subscale (Cronbach's α = .92) was excellent. Higher scores represent more frequent emotional experiences.

Interpersonal helping. Subordinates' interpersonal helping targeted at the supervisor was assessed with five items from the Interpersonal Helping Scale (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). One of the scale's original items ("help orient new people even though it is not required") was not included in the present study, because it did not refer to behaviours targeted at the supervisor. In its place, an additional item ("I volunteer to do things for my supervisor") was included (Buch, Kuvaas, & Dysvik, 2010). Each item was rated using a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Past research has reported a Cronbach's α value of .85 for this measure (Podsakoff et al., 1990). In the present study, internal consistency was excellent, Cronbach's α = .92. Higher scores represent a greater tendency to engage in interpersonal helping behaviours.

Organizational loyalty. Subordinates' organizational loyalty was assessed with the 5-item Loyalty measure (Moorman & Blakely, 1995). Each item was rated using a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Past research has reported a Cronbach's α value of .86 for this measure (Moorman & Blakely, 1995). In the present study, internal consistency was excellent, Cronbach's α = .93. Higher scores represent greater tendency to engage in behaviours that reflect loyalty to the organization.

Civic virtue. Subordinates' civic virtue was assessed with the 4-item Civic Virtue measure (Podsakoff et al., 1990). Each item was rated using a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Past research has reported a Cronbach's α value of .70 for this measure (Podsakoff et al., 1990). In the present study, internal

consistency was good, Cronbach's α = .85. Higher scores represent a greater tendency to engage behaviours that reflect an active interest and participation in the organization.

Hostility. Subordinates' hostility was assessed with 13 items from the Workplace Aggression Scale (Ho, 2012; Neuman & Baron, 1998). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *very often*). Past research has reported a Cronbach's α value of .74 for this measure (Ho, 2012). In the present study, internal consistency was good, Cronbach's α = .87. Higher scores represent greater hostility.

Obstructionism. Subordinates' obstructionism was assessed with the 11-item obstructionism subscale of the Workplace Aggression Measure (Ho, 2012; Neuman & Baron, 1998). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *very often*). Past research has reported a Cronbach's α value of .79 this measure (Ho, 2012). In the present study, internal consistency was good, Cronbach's α = .82. Higher scores represent greater obstructionism.

Theft. Subordinates' theft was assessed with 25 items from the theft index (Jensen, Opland, & Ryan, 2010). Ten items were omitted from the original scale, because they were highly occupation-specific and unlikely to be relevant to a large number of respondents (e.g., "taking tips that are left on other waiters' tables"). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *very often*). Past research has reported a Cronbach's α value of .85 this measure (Jensen et al., 2010). In the present study, internal consistency was good, Cronbach's α = .86. Higher scores represent greater theft.

Withdrawal. Subordinates' work withdrawal was assessed with the 8-item Withdrawal scale (Lehman & Simpson, 1992). Each item was rated using a 7-point Likert scale (1 = *never* to 7 = *very often*). Past research has reported Cronbach's α values

ranging from .70 to .84 (Fields, 2002). In the present study, internal consistency was good, Cronbach's α = .81. Higher scores represent a greater tendency to engage work withdrawal behaviours.

Job satisfaction. Subordinates' job satisfaction was assessed with the 3-item Job Satisfaction Scale (Cammann et al., 1983). Each item was rated using a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Past research has reported Cronbach's α values ranging from .67 to .95 for this measure (Fields, 2002). In the present study, internal consistency was excellent, Cronbach's α = .95. Higher scores represent greater job satisfaction.

Psychological distress. Subordinates' psychological distress was assessed with the 8-item General Health Questionnaire (Kalliath, O'Driscoll, & Brough, 2004). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *all the time*). Past research has reported a Cronbach's α value of .91 this measure (Kalliath et al., 2004). In the present study, internal consistency was excellent, Cronbach's α = .90. Higher scores represent greater psychological distress.

Sensitivity to injustice. Individuals' threshold for feeling treated unfairly differs greatly; some individuals are more sensitive to – others more tolerant of – perceived slights and injustices (Schmitt et al., 2005). Thus, sensitivity to injustice was included as a covariate. Subordinates' sensitivity to injustice was assessed with the 10-item Justice Sensitivity Scale (Schmitt et al., 2005). Each item was rated using a 5-point Likert scale (1 = *never* to 5 = *all the time*). Past research has reported a Cronbach's α value of .89 this measure (Schmitt et al., 2005). In the present study, internal consistency was excellent, Cronbach's α = .93. Higher scores represent greater sensitivity to perceived injustice.

Conscientiousness. Individuals' level of conscientiousness has been shown to be related to the extent to which they engage in CWB and OCB (e.g., Konovsky & Organ, 1996; Organ & Ryan, 1995); thus, conscientiousness was included as a covariate. Subordinates' conscientiousness was assessed with the 10-item Conscientiousness subscale from the International Personality Item Pool (Goldberg et al., 2006). Each item was rated using a 5-point Likert scale (1 = *very inaccurate* to 5 = *very accurate*). Past research has reported a Cronbach's α value of .81 this measure (Goldberg et al., 2006). In the present study, internal consistency was excellent, Cronbach's α = .91. Higher scores represent greater conscientiousness.

Social desirability. Some participants may be inclined to respond in a socially desirable manner; for example, they may report less CWB and more OCB. Thus, social desirability was included as a covariate. To assess socially desirable responding, participants were asked to complete the 16-item Social Desirability Scale (Stöber, 2001). Each item was rated using a true-false scale. Past research has reported a Cronbach's α value of .75 for this measure (Stöber, 2001). In the present study, internal consistency was good, Cronbach's α = .83. Higher scores represent greater social desirability bias.

Open-ended questions. Three open-ended questions allowed participants to provide additional information about their job and their relationship with their supervisor as well as their overall experience in completing the online questionnaire.

CHAPTER VII

Study #2 – Results

Data Screening & Cleaning

Using SPSS, the data ($N = 506$) were inspected visually for overall soundness and integrity prior to all analyses. Eleven cases were deleted due to suspicious data patterns (e.g. rote responding, unreasonably fast survey completion time, participants indicated that they were only "somewhat careful" in completing the survey and/or "somewhat doubtful" about the accuracy of their responses). A Missing Values Analysis (MVA) indicated that less than 5% of data was missing and that these data were missing completely at random (Little's MCAR test, $\chi^2 = 29541.86$, $p > .05$). Missing data were replaced using the EM-maximization method (Tabachnick & Fidell, 2001). Residual scatterplots indicated that the assumptions of linearity and homoscedasticity were met.

For almost all variables, skewness and kurtosis indices were found to be within acceptable range (skewness < |3|, kurtosis < |7|; Finney & DiStefano, 2006; Khine, 2013), indicating that the data met the assumption of normality; however, moderate skewness and kurtosis was found for obstructionism and theft. This presence of non-normality was not considered a serious threat because parameter estimates as a result of non-normality have been shown to stabilize (i.e., converge to true values) in samples of 200 or more cases (Tabachnick & Fidell, 2001). Thus, given the large sample size in the present study, the estimates are expected to be essentially unaffected. Additionally, the path model was evaluated using bootstrapping, a resampling technique that does not depend on the normality assumption (Byrne, 2010; Kline, 2011). Nevertheless, to examine the potential impact of this non-normality, the data were converted using logarithmic transformations.

Following this transformation, the data were found to be well within acceptable skewness and kurtosis ranges. All analyses were run using both transformed and non-transformed data; the patterns of results for the transformed data were found to be the same as the patterns of results for the non-transformed data. Thus, for ease of interpretation, results are reported for non-transformed data.

The data were screened for univariate outliers using a cut-off of z = +/- 3.29, for multivariate outliers using Mahalanobis' distance using a cut-off of $p < .001$, and for influential observations using Cook's distance with a cut-off of 1 and using standardized DFFITS with a cut-off of 2 (Stevens, 2002; Tabachnick & Fidell, 2001). The search for outliers and influential cases resulted in the deletion of 16 additional cases. Tolerance (none < .01) and VIF (none > 10) scores indicate an absence of multicollinearity (Cohen et al., 2003). An inspection of the Durbin-Watson statistic (value should be between 1 and 3; Field, 2005) suggested an independence of errors. After data screening and cleaning, a total of 479 cases were retained for the main analyses.

Confirmatory Factor Analysis – Workplace Conflict

The approach to conducting confirmatory factor analyses on the conflict and supervisors' CMS measures was identical to that in study #1. The results of the confirmatory factor analysis for workplace conflict can be found in Table 11. After allowing for four pairs of correlated error terms, the values for the RMSEA (.075), CFI (.958), GFI (.925), and TLI (.947) fit indices were well within their acceptable ranges. Notably, these pairs of correlated errors are identical to those identified in study #1. Standardized factor loadings for all task conflict and relationship conflict items are statistically significant ($p < .001$; Table 12). The task and relationship conflict subscales

are internally consistent (Cronbach's $\alpha = .92$, Cronbach's $\alpha = .90$, respectively) and correlate at $r = .64$, $p < .01$. This correlation coefficient raises concerns that the two conflict factors may not be distinct. Thus, as done in study #1, the hypothesized 2-factor workplace conflict model was compared to an alternative 1-factor model. The findings indicated that the hypothesized 2-factor model of workplace conflict is a considerably better fit for the data than this alternative 1-factor model of workplace conflict, $\Delta\chi^2 (1) = 187.19$, $p < .001$. Further, past empirical and theoretical work supports the distinction between task and relationship conflict (Barki & Hartwick, 2004; Jehn, 1995, 1997); thus, the 2-factor model was retained.

Table 11

Confirmatory Factor Analysis for Workplace Conflict – Study #2

Model	χ^2	df	χ^2/df	RMSEA (90% CI)	CFI	GFI	TLI
Initial 2-factor model	630.60***	76	8.30	.124 (.115 to .133)	.881	.841	.858
Modified 2-factor model (with correlated error terms, "E")							
$E_{RC4} \leftrightarrow E_{RC5}$	416.64***	75	5.56	.098 (.089 to .107)	.927	.886	.911
$E_{RC6} \leftrightarrow E_{RC7}$	361.01***	74	4.88	.090 (.081 to .099)	.939	.905	.924
$E_{RC5} \leftrightarrow E_{RC6}$	304.56***	73	4.17	.081 (.072 to .091)	.950	.915	.938
$E_{TC2} \leftrightarrow E_{TC3}$ (final model)	266.81***	72	3.71	.075 (.066 to .085)	.958	.925	.947
1-factor comparison model	454.00***	73	6.22	.104 (.095 to .114)	.918	.892	.898

Note. RMSEA = Root mean square error of approximation; CFI = Comparative Fit Index; GFI = Goodness of Fit Index; TLI = Tucker-Lewis Index; RC = relationship conflict; TC = task conflict.
***$p < .001$.

Table 12

Standardized Factor Loadings & Factor Correlations for Workplace Conflict – Study #2

Item	Task conflict	Relationship conflict	R^2
1. Differences of opinions regarding work tasks	.79		.62
2. Disagreements about the work being done	.78		.60
3. Disagreements about the task you are working on	.81		.65
4. Disagreements about ideas regarding work tasks	.83		.68
5. Different viewpoints on task-related decisions	.78		.61
6. Divergent ideas about the execution of work tasks	.79		.62
7. Different beliefs about the cause and solution of work-related problems	.72		.52
8. Personality clashes		.83	.69
9. Relationship tensions		.90	.81
10. Interpersonal frictions		.91	.83
11. Differences of opinions about personal issues		.59	.34
12. Disagreements about non-work things		.47	.22
13. Quarrels about personal matters		.58	.34
14. Arguments due to personality differences		.76	.58
		Factor correlations	
Task conflict	*.92*		
Relationship conflict	.64	*.90*	

Note. All parameters are significant at $p < .001$. Cronbach's α values are presented in italics on the diagonal.

Confirmatory Factor Analysis – Conflict Management Styles

The results of the confirmatory factor analysis can be found in Table 13. After allowing for three pairs of correlated error terms, the values for the RMSEA (.067), CFI (.948), GFI (.892), and TLI (.940) fit indices were within (or very close to) their acceptable ranges. Notably, these pairs of correlated errors are identical to those identified during the CFA of the CMS measure in study #1. Standardized factor loadings for all CMS items are statistically significant and can be found in Table 14. Factor correlations are presented in Table 15. The correlation between the problem-solving and yielding factors (r = .70) indicates that they may not be distinct factors. As was done in study #1, the hypothesized 4-factor CMS measure was thus compared to an alternative 3-factor model of CMS in which problem-solving and yielding items all load onto one factor, alongside the forcing and avoiding factors. The findings indicated that the hypothesized 4-factor model of CMS is a better fit for the data than this alternative 3-factor model, $\Delta\chi^2$ (1) = 94.94, p < .001. Additionally, previous empirical and theoretical work supports the distinction between the problem-solving CMS and yielding CMS (e.g., De Dreu et al., 2001; Rahim & Magner, 1995); thus, the 4-factor model was retained.

Table 13

Confirmatory Factor Analysis for Measure of Supervisors' CMS – Study #2

Model	χ^2	df	χ^2/df	RMSEA (90% CI)	CFI	GFI	TLI
Initial 4-factor model	858.69***	203	4.23	.082 (.077 to .088)	.921	.851	.910
Modified 4-factor model (with correlated error terms, "E")							
$E_{avoid4} \leftrightarrow E_{avoid5}$	767.94***	202	3.80	.077 (.071 to .082)	.931	.869	.922
$E_{yield1} \leftrightarrow E_{yield6}$	699.97***	201	3.48	.072 (.066 to .078)	.940	.880	.931
$E_{psolve1} \leftrightarrow E_{psolve2}$ (final model)	627.81***	200	3.14	.067 (.061 to .073)	.948	.892	.940
3-factor comparison model	722.75***	201	3.60	.074 (.068 to .080)	.937	.885	.927

Note. RMSEA = Root mean square error of approximation; CFI = Comparative Fit Index; GFI = Goodness of Fit Index; TLI = Tucker-Lewis Index; avoid = avoiding CMS; yield = yielding CMS; psolve = problem-solving CMS.
***$p < .001$.

Table 14

Standardized Factor Loadings for Measure of Supervisors' CMS – Study #2

Item	Force	Avoid	Yield	P-S	R^2
1. Pushes for his/her own point of view	.64				.40
2. Does everything to win	.74				.55
3. Uses his/her authority to make a decision in his/her favour	.92				.84
4. Uses his/her power to get his/her way	.92				.85
5. Pursues his/her own goals without concern for my goals	.80				.64
6. Avoids confrontations about our differences		.85			.72
7. Make differences appear less severe		.72			.52
8. Avoids confrontations with me		.92			.85
9. Avoids being "put on the spot"		.64			.40
10. Avoids open discussion of our differences		.45			.20
11. Gives in to my wishes			.71		.51
12. Concurs with me			.74		.55
13. Accommodates me as much as possible			.82		.67
14. Adapts to my goals and interests			.84		.70
15. Goes along with my suggestions			.83		.69
16. Lets me have my way			.73		.54
17. Examines ideas from both sides to find a mutually acceptable solution				.82	.67
18. Works out a solution that serves both of our interests as best as possible				.85	.72
19. Investigates the issue together with me				.88	.78
20. Collaborates with me to come up with a decision jointly				.91	.83
21. Does whatever is needed to satisfy both of us				.87	.76
22. Works with me to come up with a solution that's acceptable to both of us				.91	.83

Note. All parameters are significant at $p < .001$. Force = forcing CMS; Avoid = avoiding CMS; Yield = yielding CMS; P-S = problem-solving CMS.

Table 15

Factor Correlations for CMS Measure Subscales – Study #2

	Forcing CMS	Avoiding CMS	Yielding CMS	Problem-solving CMS
Forcing CMS	*.90*			
Avoiding CMS	-.03	*.85*		
Yielding CMS	-.45***	.19***	*.91*	
Problem-solving CMS	-.64***	.11	.70***	*.95*

Note. Cronbach's α values are presented in italics on the diagonal; CMS = conflict management style.
***$p < .001$.

Invariance Across Gender, Age, and Supervisor Tenure

As was done in study #1, the workplace conflict and CMS measures were examined with respect to their invariance across gender, age, and supervisor tenure. Independent t-tests indicated that male participants reported more task conflict with their supervisor than female participants, $t(477) = 2.27$, $p < .05$. The effect size of this analysis (Cohen's $d = .21$) was small (Cohen, 1992). Participants' age and the length of time they had worked with their supervisor (supervisor tenure) are unrelated to reports of workplace conflict with their supervisor and to reports of their supervisor's CMS.

Descriptive Statistics & Variable Correlations

Scale ranges, Cronbach's α values, means, and standard deviations of all variables are summarized in Table 16. Variable correlations are presented in Table 17. In line with hypotheses 1 and 2, task and relationship conflict with their supervisor are associated with decreased job satisfaction and increased psychological distress among subordinates. Supporting hypothesis 3, task and relationship conflict with their supervisor are positively related to subordinates' counterproductive work behaviours; namely, hostility, obstructionism, theft, and withdrawal. Supporting hypothesis 4, task and relationship conflict with their supervisor are negatively related to subordinates' organizational citizenship behaviours; namely, interpersonal helping, organizational loyalty, and civic virtue. As expected, the relationships between relationship conflict and these outcomes are generally stronger than the relationships between task conflict and these outcomes.

Table 16

Descriptive Information – Study #2

Variable	Possible range	Cronbach's α	*M*	*SD*
Task conflict	1-5	.92	2.32	.67
Relationship conflict	1-5	.90	1.69	.67
Forcing CMS	1-5	.90	2.70	.88
Avoiding CMS	1-5	.85	2.98	.91
Yielding CMS	1-5	.91	2.91	.70
Problem-solving CMS	1-5	.95	3.40	.89
Distributive justice	1-5	.94	3.43	.77
Procedural justice	1-5	.93	3.57	.87
Interactional justice	1-5	.94	4.01	.80
Negative emotions	1-5	.92	1.62	.67
Positive emotions	1-5	.94	2.88	.88
Interpersonal helping	1-7	.92	5.54	1.17
Organizational loyalty	1-7	.93	4.62	1.51
Civic virtue	1-7	.85	5.00	1.31
Hostility	1-5	.87	1.26	.36
Obstructionism	1-5	.82	1.18	.27
Theft	1-5	.86	1.24	.28
Withdrawal	1-5	.81	2.31	.60
Job satisfaction	1-7	.95	5.20	1.58
Psychological distress	1-5	.90	2.08	.70
Justice sensitivity	1-5	.93	2.87	.84
Conscientiousness	1-5	.91	4.08	.68
Social desirability	0-16	.83	8.94	3.94

Note. CMS = conflict management style.

Table 17

Variable Correlations – Study #2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1. TC	*.92*	.60**	.43**	.06	-.23**	-.39**	-.35**	-.41**	-.49**	.52**	-.33**	-.12**	-.21**	-.10*	.43**	.30**	.13**	.21**	-.38**	.30**	.13**	-.12**	-.12*	.03	-.10*	.02
2. RC		*.90*	.43**	-.01	-.29**	-.46**	-.47**	-.47**	-.58**	.61**	-.36**	-.27**	-.26**	-.17**	.55**	.39**	.15**	.19**	-.41**	.35**	.15**	-.14**	-.17**	-.02	.03	.02
3. Force			*.90*	.06	-.39**	-.62**	-.54**	-.56**	-.54**	.56**	-.50**	-.21**	-.28**	-.15**	.38**	.20**	.04	.17**	-.45**	.31**	.11*	-.06	-.07	.05	-.06	.02
4. Avoid				*.85*	.11*	-.01	.01	-.02	.00	-.00	.01	.02	.01	.03	-.02	-.03	.01	-.03	-.01	.01	.06	.02	.05	.07	.03	.02
5. Yield					*.91*	.64**	.59**	.54**	.52**	-.37**	.51**	.40**	.36**	.30**	-.27**	-.14**	-.03	-.19**	.42**	-.30**	-.13**	.05	.19**	.03	-.04	.03
6. PS						*.95*	.70**	.79**	.78**	-.59**	.66**	.48**	.49**	.40**	-.42**	-.28**	-.10*	-.23**	.63**	-.47**	-.15**	.22**	.19**	-.02	-.01	.04
7. DJ							*.94*	.73**	.69**	-.56**	.61**	.44**	.43**	.35**	-.46**	-.28**	-.10*	-.18**	.56**	-.43**	-.17**	.20**	.14**	.04	.02	.05
8. PJ								*.93*	.83**	-.64**	.67**	.47**	.51**	.41**	-.43**	-.30**	-.05	-.21**	.64**	-.51**	-.16**	.29**	.18**	.06	.01	.07
9. IJ									*.94*	-.69**	.66**	.48**	.47**	.38**	-.52**	-.36**	-.10*	-.22**	.64**	-.50**	-.16**	.24**	.20**	.03	.02	.03
10. NE										*.92*	-.49**	-.28**	-.35**	-.22**	.56**	.39**	.17**	.34**	-.62**	.55**	.24**	-.25**	-.13**	.01	.08	-.08
11. PE											*.94*	.47**	.59**	.49**	-.41**	-.23**	-.06	-.25**	.65**	-.49**	.18**	.30**	.20**	.06	.01	.09
12. Help												*.92*	.47**	.51**	-.33**	-.32**	-.12**	-.14**	.40**	-.33**	-.10*	.37**	.20**	.11*	.09*	.14**
13. Loy													*.93*	.64**	-.23**	-.21**	-.06	-.28**	.67**	-.46**	-.16**	.38**	.23**	.16**	.09*	.16**
14. Civic														*.85*	-.23**	-.19**	-.08	-.21**	.46**	-.39**	-.17**	.40**	.20**	.18**	.06	.14**
15. Host															*.87*	.66**	.37**	.34**	-.39**	.34**	.18**	-.26**	-.22**	-.02	-.04	-.04
16. Obst																*.82*	.47**	.29**	-.27**	.27**	.14**	-.30**	-.17**	-.05	-.10*	-.08
17. Theft																	*.86*	.38**	-.03	.16**	.11*	-.22**	-.22**	.07	.04	.07
18. With																		*.81*	-.31**	.35**	.26**	-.38**	-.36**	-.02	-.02	-.05
19. JobS																			*.95*	-.65**	-.21**	.39**	.22**	.04	.00	.12**
20. PsyD																				*.90*	.32**	-.57**	-.32**	-.08	.07	-.14**
21. JS																					*.93*	-.19**	-.36**	-.06	.04	-.04
22. Cons																						*.91*	.37**	.15**	.10*	.11*
23. SocD																							*.83*	-.00	-.00	.05
24. Age																									.18**	.43**
25. Gender																										.05
26. SupT																										-

Note. Cronbach's α values are presented in italics on the diagonal; TC = task conflict; RC = relationship conflict; Force = forcing CMS; Avoid = avoiding CMS; Yield = yielding CMS; PS = problem-solving CMS; DJ = distributive justice; PJ = procedural justice; IJ = interactional justice; NE = negative emotions; PE = positive emotions; Help = interpersonal helping; Loy = organizational loyalty; Civic = civic virtue; Host = hostility; Obst = obstructionism; With = withdrawal; JobS = job satisfaction; PsychD = psychological distress; JS = justice sensitivity; Cons = conscientiousness; SocD = social desirability; SupT = supervisor tenure.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Evaluation of Hypothesized Model – Path Analysis

Path analysis was used to examine the extent to which the data support hypotheses 5-20. AMOS was used to test the hypothesized path model. The full path model can be found in Figure 12 (Appendix F). In line with recommendations to reduce common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) as well as current research practices (e.g., Barclay & Kiefer, 2014), the error terms of subscales of related constructs (i.e., justice, emotional experiences, OCB, CWB) were allowed to correlate. The overall model fit was assessed using the χ^2 test as well as the RMSEA, CFI, and TLI fit indices. The χ^2 test of the hypothesized model was significant, $\chi^2\,(124) = 421.91$, $p < .001$; however, this test is highly sensitive to sample size and will almost always be significant in samples with more than 200 cases (Meyers et al., 2005). The remaining fit indices indicate that the hypothesized model fit the data reasonably well: RMSEA = .071 [.064, .078], CFI = .948, TLI = .884 (Table 18).

Table 18

Hypothesized Path Model Fit

Model	χ^2	df	χ^2/df	RMSEA (90% CI)	CFI	TLI
Model 1: Hypothesized model	421.91***	124	3.403	.071 (.064 to .078)	.948	.884

Note. RMSEA = Root mean square error of approximation; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index.
***$p < .001$.

Evaluation of Hypothesized Model – Hypothesis Testing

Justice sensitivity, conscientiousness, social desirability, supervisor tenure, age, and gender were included as covariates in the path model (Table 19). Standardized regression weights provide support for many of the proposed hypotheses (Table 20). Based on the guidance of Shrout and Bolger (2002) as well as Kenny (2015), the criteria used to assess effect sizes are presented in Table 21. Several hypotheses involved the estimation of indirect, direct, and total effects. In line with the latest recommendations (e.g., Hayes, 2009; Rucker, Preacher, Tormala, & Petty, 2011; Shrout & Bolger, 2002), mediation effects were tested using bootstrapping (with replacement). Total indirect effects, total direct effects, and total effects are summarized in Tables 27 through 35 (Appendix F). Although indirect effects tests demonstrate the presence of a mediation effect, they do not allow for any insights about the relative magnitude of a mediator's unique effect in the presence of multiple mediators (Preacher & Hayes, 2004, 2008). Thus, Preacher and Hayes' (2008) bootstrapping macro was used to estimate these specific indirect effects. This macro assesses path models with several mediating variables by calculating 95% confidence intervals (CI). Mediation effects are significant when the 95% CI do not contain zero (Preacher & Hayes, 2004, 2008). Mediation tests for specific indirect effects are summarized in Table 36 (Appendix F). An overview of the path model results is presented in Figure 5.

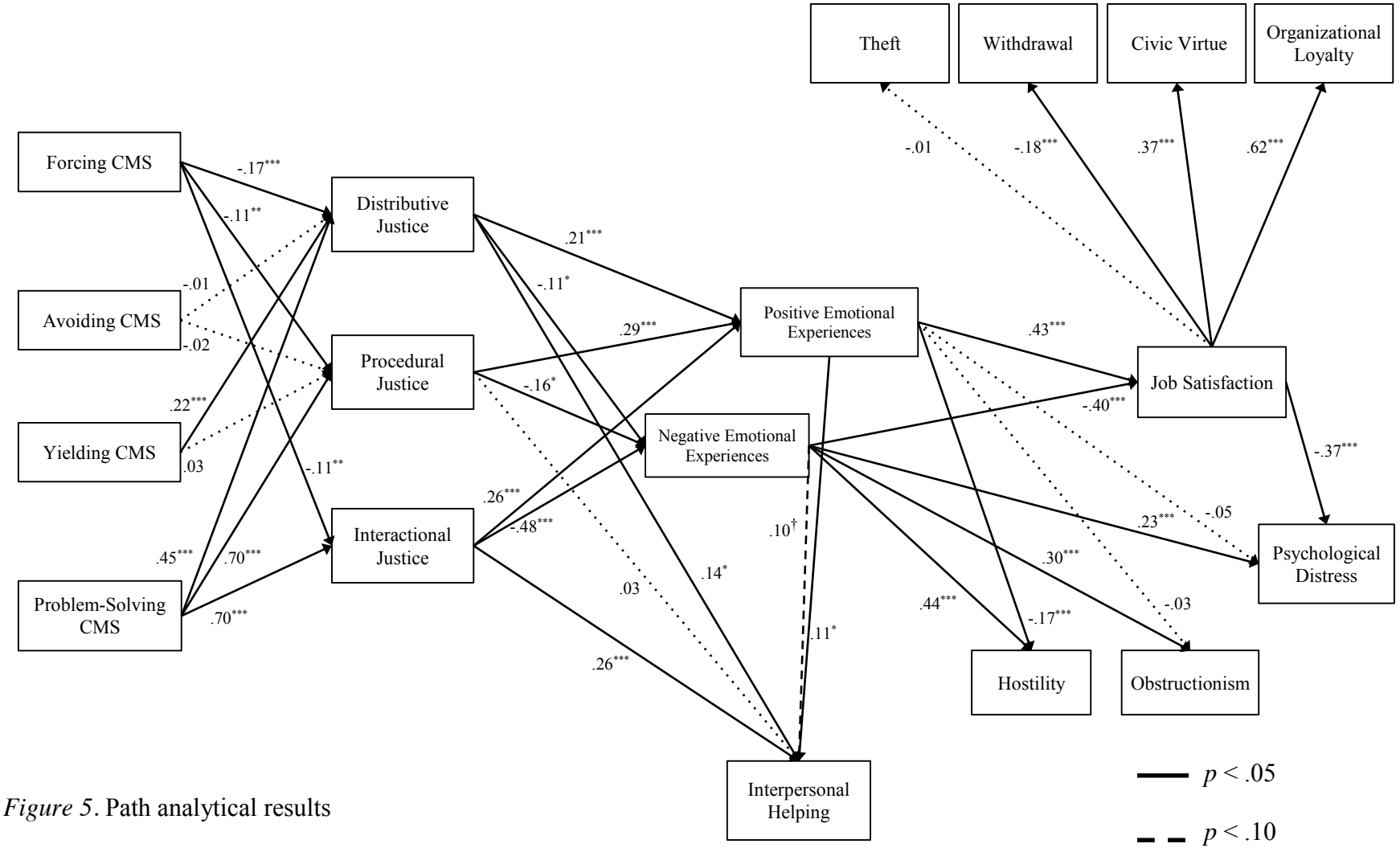


Figure 5. Path analytical results

Conflict management, justice, and emotional experiences. Supporting hypothesis 5, supervisors' forcing CMS is negatively related to subordinates' perceptions of distributive, procedural, and interactional justice ($p < .01$). Hypothesis 6 is not supported; supervisors' avoiding CMS is unrelated to subordinates' perceptions of distributive and procedural justice. Supporting hypothesis 7a, supervisors' yielding CMS is positively related to subordinates' perceptions of distributive justice ($\beta = .22$, $p < .001$), but contrary to hypothesis 7b, unrelated to subordinates' perceptions of procedural justice. Supporting hypothesis 8, supervisors' problem-solving CMS is positively related to subordinates' perceptions of distributive, procedural, and interactional justice ($p < .001$). Supporting hypothesis 9, subordinates' perceptions of distributive, procedural, and interactional justice are positively related to positive emotional experiences ($p < .001$) and negatively related to negative emotional experiences ($p < .05$).

Supporting hypotheses 10a(i) and 10a(iv), the effects of supervisors' forcing CMS and problem-solving CMS on subordinates' positive emotional experiences are mediated by subordinates' perceptions of distributive, procedural, and interactional justice. Partially supporting hypotheses 10b(i) and 10b(iv), the effects of supervisors' forcing CMS and problem-solving CMS on subordinates' negative emotional experiences are mediated by subordinates' perceptions of interactional justice, but not by distributive or procedural justice. Supporting hypotheses 10a(iii) and 10b(iii), the effects of supervisors' yielding CMS on subordinates' positive and negative emotional experiences are mediated by subordinates' perceptions of distributive and procedural justice. Hypotheses 10a(ii) and 10b(ii) are not supported; the effects of supervisors' avoiding CMS on subordinates' emotional experiences are not mediated by subordinates' perceptions of justice.

Emotional experiences, job satisfaction, and psychological distress. Supporting hypotheses 11b and 12b, negative emotional experiences are negatively related to job satisfaction ($\beta = -.40$, $p < .001$) and positively related to psychological distress ($\beta = .23$, $p < .001$). Supporting hypothesis 11a, positive emotional experiences are positively related to job satisfaction ($\beta = .43$, $p < .001$), but contrary to hypothesis 12a, unrelated to psychological distress.

Supporting hypothesis 13a, job satisfaction is negatively related to psychological distress ($\beta = -.37$, $p < .001$). Hypothesis 13b was not supported; positive emotional experiences do not have a direct effect on psychological distress. Nonetheless, positive emotional experiences have a significant indirect effect on psychological distress through job satisfaction. That is, job satisfaction fully – rather than partially – mediates the relationship between positive emotional experiences and psychological distress. Both the direct effect of negative emotional experiences on psychological distress as well as the indirect effect of negative emotional experiences on psychological distress through job satisfaction are significant. That is, supporting hypothesis 13c, job satisfaction partially mediates the effects of negative emotional experiences on psychological distress.

Justice, emotional experiences, and OCS-S/CWB-S. Consistent with hypothesis 14a, positive emotional experiences are negatively related to hostility ($\beta = -.17$, $p < .001$), but contrary to hypothesis 14b, unrelated to obstructionism. Consistent with hypothesis 14c-d, negative emotional experiences are positively related to hostility ($\beta = .44$, $p < .001$) and obstructionism ($\beta = .30$, $p < .001$).

Supporting hypotheses 15a(i) and 15a(ii), the effects of distributive and procedural justice on hostility are mediated by positive and negative emotional

experiences. The effects of interactional justice on hostility are mediated by negative emotional experiences, but not by positive emotional experiences, partially supporting hypothesis 15a(iii). Partially supporting hypotheses 15b(i), 15b(ii), and 15b(iii), the effects of distributive, procedural, and interactional justice on obstructionism are mediated by negative emotional experiences, but not by positive emotional experiences.

Consistent with hypotheses 16a and 16c, perceptions of distributive justice ($\beta = .14$, $p < .05$) and interactional justice ($\beta = .26$, $p < .001$) are positively related to interpersonal helping. Contrary to hypothesis 16b, procedural justice is unrelated to interpersonal helping. Supporting hypothesis 17a, positive emotional experiences are positively related to interpersonal helping ($\beta = .11$, $p < .05$). Contrary to hypothesis 17b, negative emotional experiences are unrelated to interpersonal helping ($p = .075$).

In addition to their direct effects, both distributive and interactional justice also have significant specific indirect effects on interpersonal helping through positive emotional experiences. That is, supporting hypotheses 18a(i) and 18a(iii), positive emotional experiences partially mediate the effects of distributive and interactional justice on interpersonal helping. Hypothesis 18a(ii) is not supported: procedural justice does not have a direct effect on interpersonal helping. Nonetheless, procedural justice has a significant specific indirect effect on interpersonal helping through positive emotional experiences. That is, positive emotional experiences fully – rather than partially – mediate the relationship between procedural justice and interpersonal helping. No support was found for hypothesis 18b: negative emotional experiences do not mediate the relationship between perceptions of justice and interpersonal helping.

Job satisfaction and OCB-O/CWB-O. Supporting hypothesis 19b-d, job satisfaction is negatively related to withdrawal ($\beta = -.18$, $p < .001$) and positively related to civic virtue ($\beta = .37$, $p < .001$) and organizational loyalty ($\beta = .62$, $p < .001$). Supporting hypotheses 20b-d, the effects of positive and negative emotional experiences on withdrawal, civic virtue, and organizational loyalty are mediated by job satisfaction. Contrary to hypotheses 19a and 20a, job satisfaction is unrelated to theft and does not mediate the relationship between positive emotional experiences and theft nor the relationship between negative emotional experiences and theft.

Table 19

Relationships Between Covariates and Endogenous Variables

Endogenous variable	Justice sensitivity	Conscientiousness	Social desirability	Supervisor tenure	Age	Gender
Distributive justice	-.06†	-	-.01	-	.05	.02
Procedural justice	-.02	-	.03	-	.08**	-.01
Interactional justice	-.03	-	.04	-	.05†	.01
Pos. emot. experiences	-	-	.07*	-	.03	-.01
Neg. emot. experiences	-	-	.01	-	.02	.09**
Job satisfaction	-	-	.08*	-	-.01	.03
Psychol. distress	-	-	-.08*	-	-.08*	.07†
Interpers. helping	-	.25***	-.21***	.09*	-.00	.05†
Hostility	-	-.06	-.11**	.01	.00	-.07†
Obstruction.	-	-.19***	-.06	-.05	.02	-.11*
Theft	-	-.20***	-.14**	-	.09	.04
Withdrawal	-	-.22***	-.24***	-	.02	-.00
Civic virtue	-	.23***	.04	-	.13*	.01
Org. loyalty	-	.10*	.07*	-	.12*	.06†

Note. Entries represent standardized path coefficients (β). Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences; Psychol. distress = psychological distress; Interpers. helping = interpersonal helping; Obstruction. = obstructionism; Org. loyalty = organizational loyalty.
$^{\dagger}p = .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 20

Path Coefficients for Hypothesized Model

Path	*B*	*SE*	β
Forcing CMS → Distributive justice	-.15***	.04	-.17
Forcing CMS → Procedural justice	-.11**	.04	-.11
Forcing CMS → Interactional justice	-.10**	.03	-.11
Avoiding CMS → Distributive justice	-.01	.03	-.01
Avoiding CMS → Procedural justice	-.02	.02	-.02
Yielding CMS → Distributive justice	.24***	.04	.22
Yielding CMS → Procedural justice	.03	.04	.03
Problem-solving CMS → Distributive justice	.39***	.04	.45
Problem-solving CMS → Procedural justice	.69***	.04	.70
Problem-solving CMS → Interactional justice	.63***	.03	.70
Distributive justice → Positive emotional experiences	.24***	.06	.21
Distributive justice → Negative emotional experiences	-.10*	.04	-.11
Procedural justice → Positive emotional experiences	.29***	.06	.29
Procedural justice → Negative emotional experiences	-.12*	.05	-.16
Interactional justice → Positive emotional experiences	.29***	.07	.26
Interactional justice → Negative emotional experiences	-.40***	.05	-.48
Distributive justice → Interpersonal helping	.21*	.08	.14
Procedural justice → Interpersonal helping	.04	.10	.03
Interactional justice → Interpersonal helping	.37***	.10	.26
Positive emotional experiences → Interpersonal helping	.14*	.07	.11
Negative emotional experiences → Interpersonal helping	.16†	.09	.10
Positive emotional experiences → Hostility	-.07***	.02	-.17
Positive emotional experiences → Obstructionism	-.01	.01	-.03
Negative emotional experiences → Hostility	.23***	.02	.44
Negative emotional experiences → Obstructionism	.12***	.02	.30
Positive emotional experiences → Job satisfaction	.78***	.07	.43
Negative emotional experiences → Job satisfaction	-.93***	.08	-.40
Positive emotional experiences → Psychological distress	-.04	.03	-.05
Negative emotional experiences → Psychological distress	.23***	.04	.23
Job satisfaction → Psychological distress	-.16***	.02	-.37
Job satisfaction →Theft	.00	.01	-.01
Job satisfaction → Withdrawal	-.07***	.04	-.18
Job satisfaction → Civic virtue	.30***	.03	.37
Job satisfaction → Loyalty	.58***	.03	.62

Note. CMS = conflict management style.

†$p = .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 21

Effect Size Criteria

	Small effect	Medium effect	Large effect
Direct effect	.10	.30	.50
Indirect effect	.01	.09	.25

Moderated Hierarchical Multiple Regressions

Moderated hierarchical multiple regressions (MHMRs) were used to test the interactions between workplace conflict and supervisors' CMS and their effect on subordinates' interpersonal helping, hostility, and obstructionism (Tables 22 to 24). The presence of a moderating effect indicates that the regression of the outcome variable (Y) on the predictor (X) depends on the level of a moderating variable (Z) (Aiken & West, 1991). A total of six regressions were conducted (two separate regressions with task and relationship conflict for each of the three outcome variables). Prior to these analyses, all predictor (task conflict, relationship conflict) and moderator (supervisors' forcing, avoiding, yielding, and problem-solving CMS) variables were mean centered. Interaction terms were then created from the product of the centered predictor and moderator variables. Based on previous research, a number of variables (i.e., age, gender, conscientiousness, social desirability, supervisor tenure) were entered on Step 1 of each MHMR to control for their potential effects on the outcome variables. The main effects of conflict and supervisors' CMS were entered on Steps 2 and 3, respectively. Their product terms were entered on Step 4 of each regression equation.

Interpersonal Helping. The results of the MHMRs for task conflict are presented in Table 22. The interaction terms in Step 4 resulted in a significant ΔR^2 of .01 ($p < .05$) and explain a total of 37% of the variance in interpersonal helping ($p < .001$). The interaction between task conflict and the yielding CMS is significant ($\beta = .13$, $p < .05$). To better understand this interaction, unstandardized beta values were used to plot this interaction using procedures outlined by Aiken and West (1991). Figure 6 indicates that,

when task conflict is high, higher levels of supervisors' yielding CMS are associated with greater levels of subordinates' interpersonal helping behaviours (buffering effect).

The results of the MHMRs for relationship conflict are also presented in Table 22. The interaction terms in Step 4 resulted in a significant ΔR^2 of .02 ($p < .01$) and explain a total of 37% of variance in interpersonal helping ($p < .001$). The interaction between relationship conflict and the yielding CMS is significant ($\beta = .18$, $p < .01$). Figure 7a indicates that, when relationship conflict is high, higher levels of supervisors' yielding CMS are associated with greater levels of subordinates' interpersonal helping behaviours (buffering effect). The interaction term between relationship conflict and the avoiding CMS approaches significance[4], $p < .10$ (Figure 7b). Specifically, when relationship conflict is high, higher levels of supervisors' avoiding CMS are associated with lower levels of subordinates' interpersonal helping behaviours (amplification effect).

Together, these findings support hypothesis 21c.

[4] MHMRs tend to experience power problems because the computation of the interaction terms amplifies any measurement errors within the predictors from which they are calculated (Aiken & West, 1991). Thus, in line with the recommendations advocated by several scholars (e.g., Champoux & Peters, 1987; Inness, LeBlanc, & Barling, 2008), interaction effects of $p < .10$ are examined.

Table 22

Moderated Hierarchical Multiple Regression for Effects of Workplace Conflict and Supervisors' CMS on Subordinates' Interpersonal Helping

			Steps			
Conflict type	Step	Variable entered	1	2	3	4
Task conflict	1	Gender	.05	.05	.08*	.09*
		Age	.01	.01	.02	.02
		Supervisor tenure	.10*	.10*	.08*	.07†
		Conscientiousness	.33***	.32***	.27***	.27***
		Social desirability	.09†	.08†	.03	.03
	2	Task conflict (TC)		-.07	.08†	.08†
	3	Forcing CMS			.09†	.11*
		Avoiding CMS			-.01	-.02
		Yielding CMS			.19***	.21***
		Problem-solving CMS			.37***	.36***
	4	TC x Forcing CMS				-.02
		TC x Avoiding CMS				-.01
		TC x Yielding CMS				.13*
		TC x Problem-solving CMS				-.01
		R^2	.16***	.16***	.35***	.37***
		ΔR^2		.01	.19***	.01*
Relationship conflict	1	Gender	.05	.06	.08*	.07†
		Age	.01	-.00	.01	.02
		Supervisor tenure	.10*	.11*	.09†	.07†
		Conscientiousness	.33***	.30***	.26***	.27***
		Social desirability	.09†	.06	.02	.03
	2	Relationship conflict (RC)		-.22***	-.08†	-.05
	3	Forcing CMS			.13*	.16**
		Avoiding CMS			-.01	-.04
		Yielding CMS			.20***	.22***
		Problem-solving CMS			.33***	.32***
	4	RC x Forcing CMS				.04
		RC x Avoiding CMS				-.08†
		RC x Yielding CMS				.18**
		RC x Problem-solving CMS				.01
		R^2	.16***	.20***	.35***	.37***
		ΔR^2		.05***	.15***	.02**

Note. The displayed coefficients are standardized beta weights at each step. CMS = conflict management style.
†$p = .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Figure 6. Supervisors' yielding CMS as a moderator between subordinates' experience of task conflict and subordinates' interpersonal helping

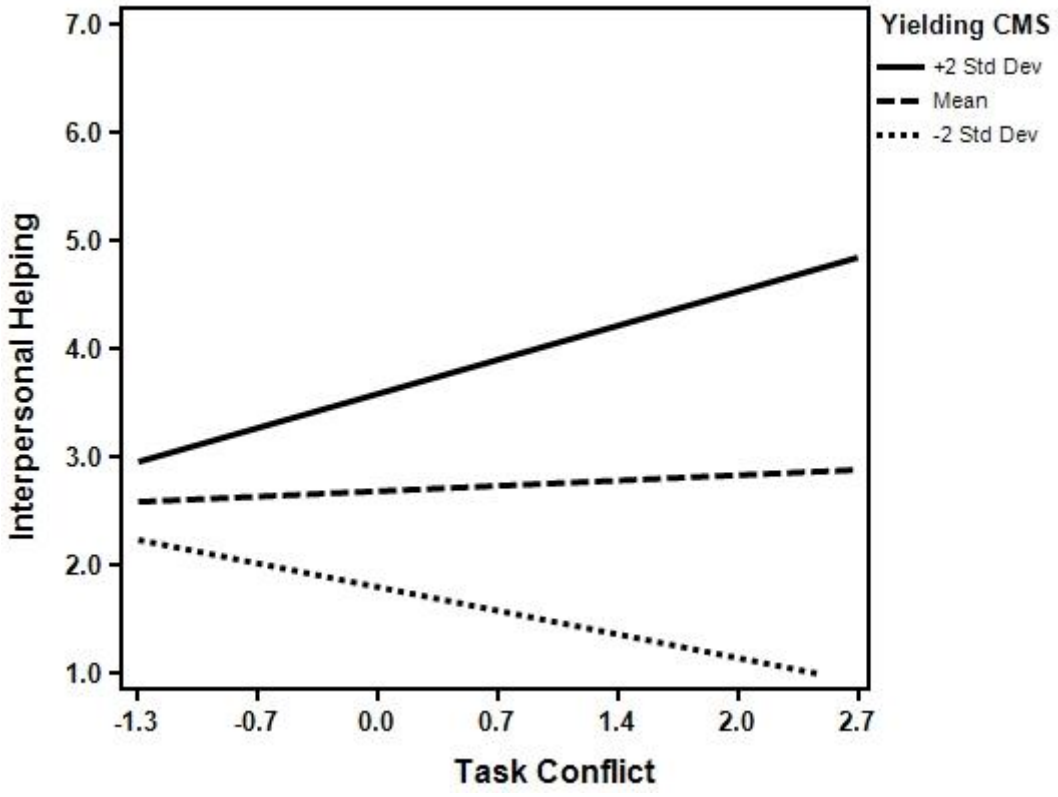


Figure 7. Supervisors' CMS as a moderator between subordinates' experience of relationship conflict and subordinates' interpersonal helping

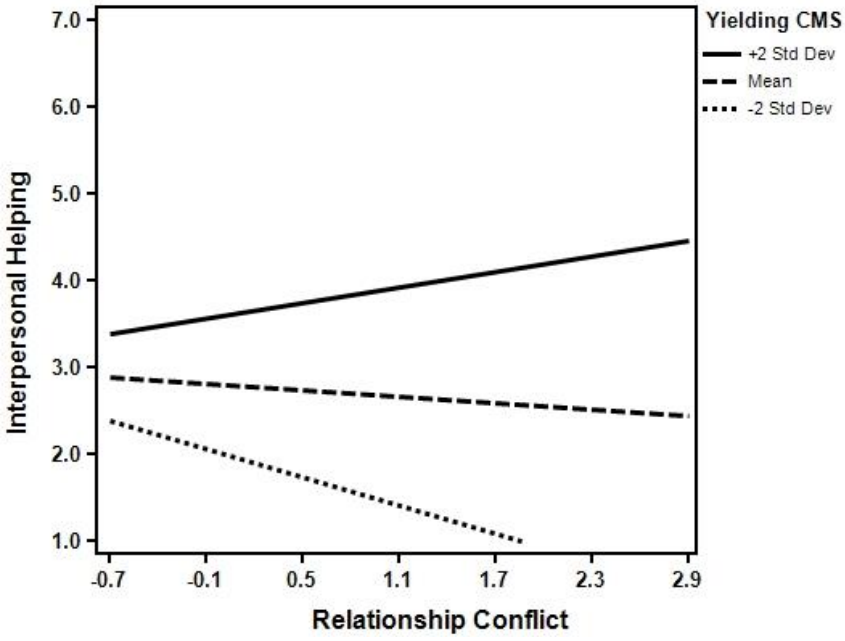


Figure 7a: Supervisors' yielding CMS

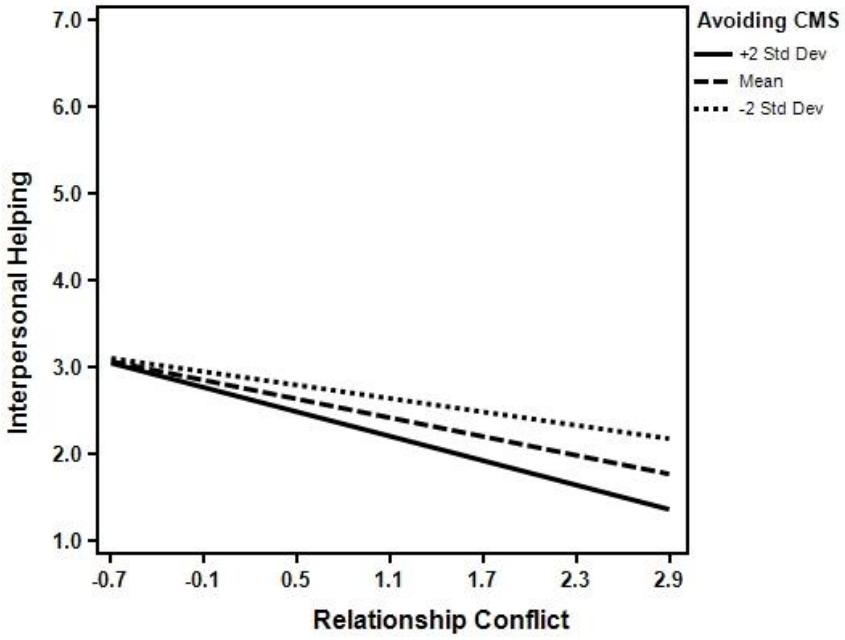


Figure 7b: Supervisors' avoiding CMS

Hostility. The results of the MHMRs for task conflict are presented in Table 23. The interaction terms in Step 4 resulted in a significant ΔR^2 of .03 ($p < .01$) and explain a total of 33% of the variance ($p < .001$). The interaction between task conflict and the problem-solving CMS is significant ($\beta = -.26$, $p < .001$). Figure 8a indicates that, when task conflict is high, higher levels of supervisors' problem-solving CMS are associated with lower levels of subordinate hostility (buffering effect). The interaction term between task conflict and the yielding CMS approaches significance, $p < .10$ (Figure 8b). Specifically, when task conflict is high, higher levels of supervisors' yielding CMS are associated with higher levels of subordinate hostility (amplification effect).

The results of the MHMRs for relationship conflict are also presented in Table 23. The interaction terms in Step 4 did not result in a significant ΔR^2, $p > .05$. The interaction term between relationship conflict and the problem-solving CMS approaches significance, $p < .10$ (Figure 9). The figure indicates that, when relationship conflict is high, higher levels of supervisors' problem-solving CMS are associated with lower levels of subordinate hostility (buffering effect).

Together, these findings support hypothesis 22d.

Table 23

Moderated Hierarchical Multiple Regression for Effects of Workplace Conflict and Supervisors' CMS on Subordinates' Hostility

Conflict type	Step	Variable entered	Steps 1	2	3	4
Task conflict	1	Gender	-.03	.10	.00	-.01
		Age	.03	.02	.01	.00
		Supervisor tenure	-.04	-.04	-.03	-.01
		Conscientiousness	-.21***	-.17***	-.15**	-.18***
		Social desirability	-.14**	-.11*	-.08†	-.08†
	2	Task conflict (TC)		.40***	.28***	.25***
	3	Forcing CMS			.14**	.12*
		Avoiding CMS			-.04	-.03
		Yielding CMS			-.02	-.01
		Problem-solving CMS			-.16*	-.16*
	4	TC x Forcing CMS				-.08
		TC x Avoiding CMS				-.07
		TC x Yielding CMS				.11†
		TC x Problem-solving CMS				-.26***
		R^2	.09***	.24***	.31***	.33***
		ΔR^2		.16***	.07***	.03**
Relationship conflict	1	Gender	-.03	-.05	-.04	-.05
		Age	.03	.05	.04	.03
		Supervisor tenure	-.04	-.05	-.04	-.04
		Conscientiousness	-.21***	-.15***	-.14**	-.15***
		Social desirability	-.14**	-.07†	-.06	-.06
	2	Relationship conflict (RC)		.52***	.42***	.40***
	3	Forcing CMS			.12*	.11*
		Avoiding CMS			-.01	-.02
		Yielding CMS			-.03	-.01
		Problem-solving CMS			-.09	-.11†
	4	RC x Forcing CMS				-.07
		RC x Avoiding CMS				-.04
		RC x Yielding CMS				.09
		RC x Problem-solving CMS				-.16†
		R^2	.09***	.34***	.38***	.38***
		ΔR^2		.26***	.03***	.01

Note. The displayed coefficients are standardized beta weights at each step. CMS = conflict management style.
†$p = .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Figure 8. Supervisors' CMS as a moderator between subordinates' experience of task conflict and subordinates' hostility

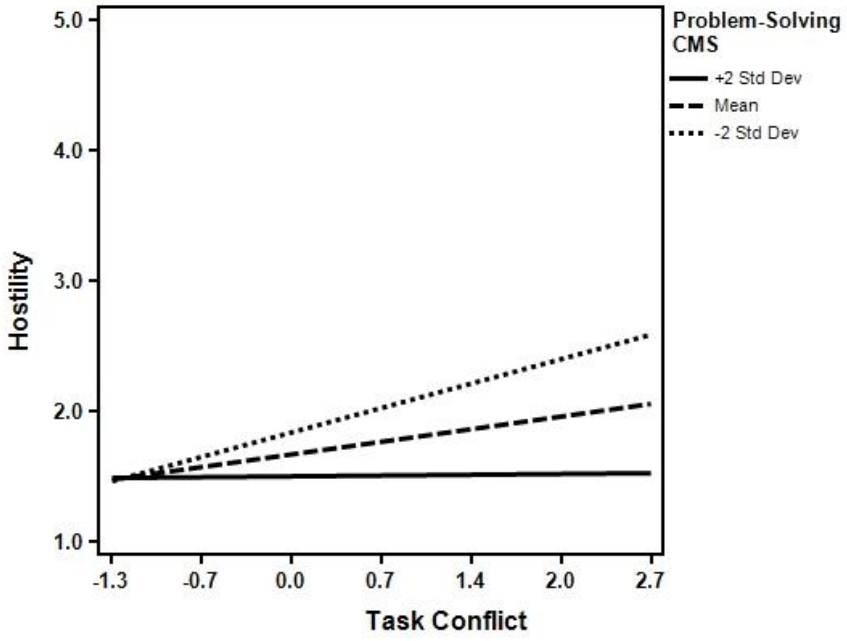


Figure 8a: Supervisors' problem-solving CMS

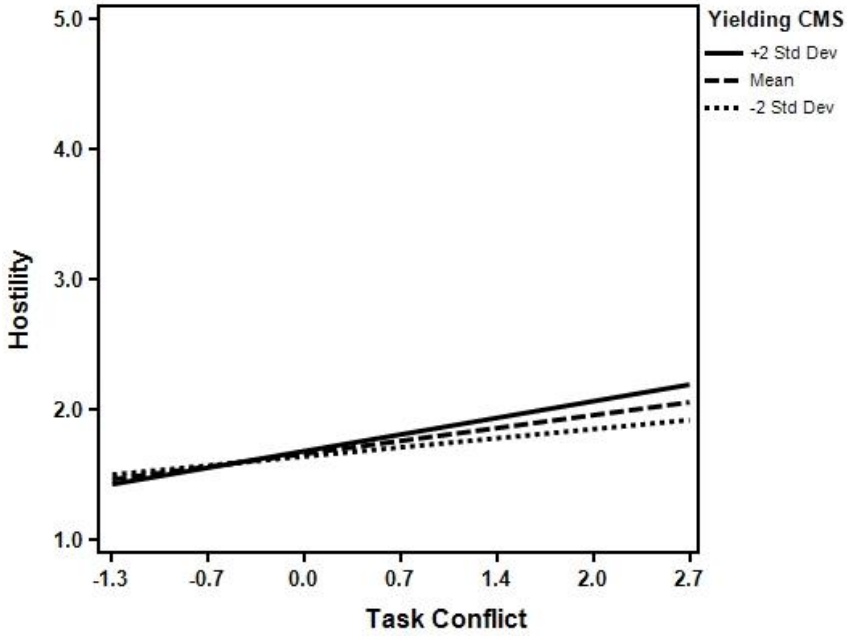
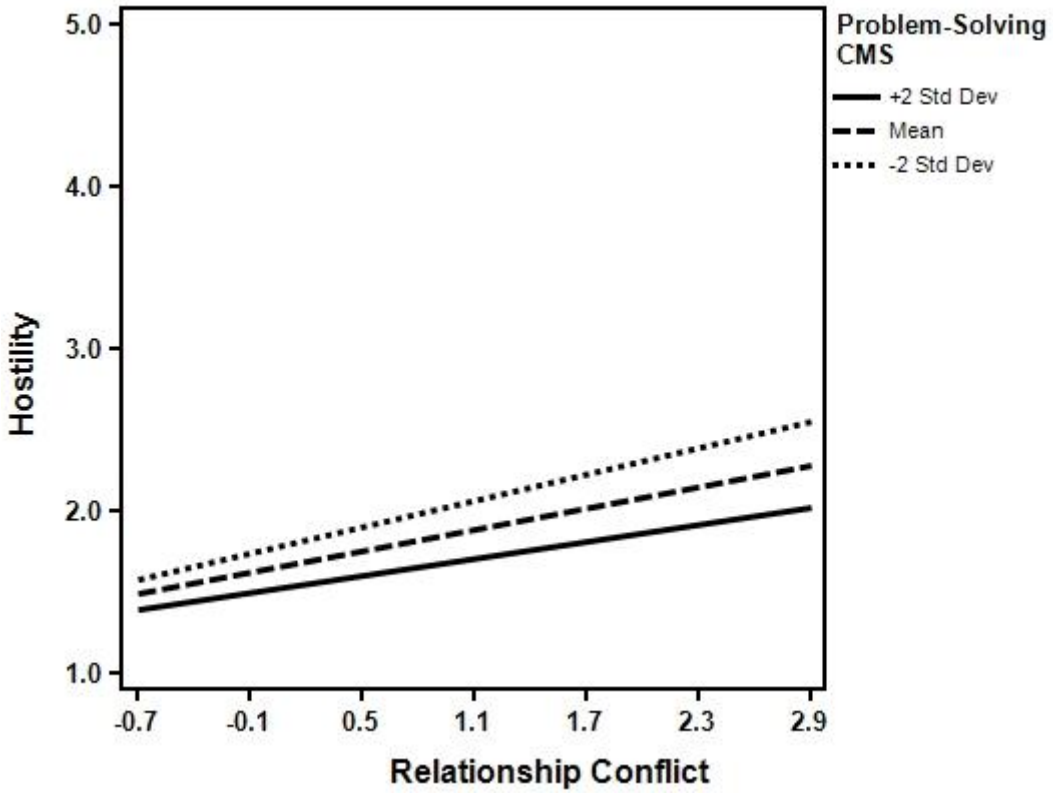


Figure 8b: Supervisors' yielding CMS

Figure 9. Supervisors' problem-solving CMS as a moderator between subordinates' experience of relationship conflict and subordinates' hostility



Obstructionism. The results of the MHMRs for task conflict are presented in Table 24. The interaction terms in Step 4 resulted in a significant ΔR^2 of .02 ($p < .05$) and explain a total of 21% of the variance ($p < .001$). The interaction between task conflict and the forcing CMS is significant ($\beta = -.14$, $p < .05$). Figure 10a indicates that, when task conflict is high, higher levels of supervisors' forcing CMS are associated with lower levels of subordinate obstructionism (buffering effect). The interaction between task conflict and the problem-solving CMS is also significant ($\beta = -.20$, $p < .05$). Figure 10b indicates that, when task conflict is high, higher levels of supervisors' problem-solving CMS are associated with lower levels of subordinate obstructionism (buffering effect).

The results of the MHMRs for relationship conflict are also presented in Table 24. The interaction terms in Step 4 resulted in a significant ΔR^2 of .02 ($p < .01$) and explain a total of 25% of the variance in obstructionism ($p < .001$). The interaction between relationship conflict and the forcing CMS is significant ($\beta = -.20$, $p < .01$). Figure 11a indicates that, when relationship conflict is high, higher levels of supervisors' forcing CMS are associated with lower levels of subordinate obstructionism (buffering effect). The interaction between relationship conflict and the problem-solving CMS is also significant ($\beta = -.30$, $p < .01$). Figure 11b indicates that, when relationship conflict is high, higher levels of supervisors' problem-solving CMS are associated with lower levels of subordinate obstructionism (buffering effect).

Together, these findings support hypothesis 23d. Table 25 provides a summary of all research hypotheses and outlines the extent to which they were supported by the findings.

Table 24

Moderated Hierarchical Multiple Regression for Effects of Workplace Conflict and Supervisors' CMS on Subordinates' Obstructionism

Conflict type	Step	Variable entered	Steps 1	2	3	4
Task conflict	1	Gender	-.08†	-.06	-.06	-.07
		Age	.04	.02	.02	.01
		Supervisor tenure	-.06	-.06	-.05	-.04
		Conscientiousness	-.27***	-.25***	-.22***	-.24***
		Social desirability	-.06	-.04	-.02	-.03
	2	Task conflict (TC)		.27***	.22***	.21***
	3	Forcing CMS			-.01	-.03
		Avoiding CMS			-.03	-.03
		Yielding CMS			.03	.02
		Problem-solving CMS			-.17*	-.16*
	4	TC x Forcing CMS				-.14*
		TC x Avoiding CMS				-.07
		TC x Yielding CMS				.04
		TC x Problem-solving CMS				-.20*
		R^2	.10***	.17***	.19***	.21***
		ΔR^2		.07*	.02*	.02*
Relationship conflict	1	Gender	-.08†	-.10*	-.10*	-.10*
		Age	.04	.05	.04	.04
		Supervisor tenure	-.06	-.07	-.06	-.05
		Conscientiousness	-.27***	-.23***	-.22***	-.24***
		Social desirability	-.06	-.02	-.01	-.01
	2	Relationship conflict (RC)		.35***	.32***	.30***
	3	Forcing CMS			-.03	-.05
		Avoiding CMS			-.01	-.02
		Yielding CMS			.02	.04
		Problem-solving CMS			-.12†	-.14*
	4	RC x Forcing CMS				-.20**
		RC x Avoiding CMS				-.06
		RC x Yielding CMS				.11
		RC x Problem-solving CMS				-.30**
		R^2	.10***	.22***	.23***	.25***
		ΔR^2		.12***	.01	.02**

Note. The displayed coefficients are standardized beta weights at each step. CMS = conflict management style.
$^{\dagger}p = .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Figure 10. Supervisors' CMS as a moderator between subordinates' experience of task conflict and subordinates' obstructionism

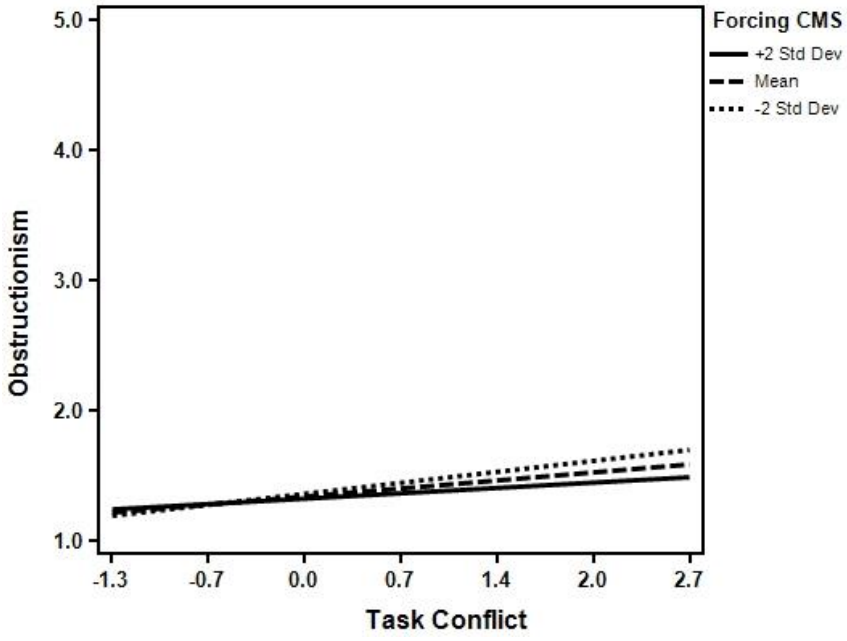


Figure 10a: Supervisors' forcing CMS

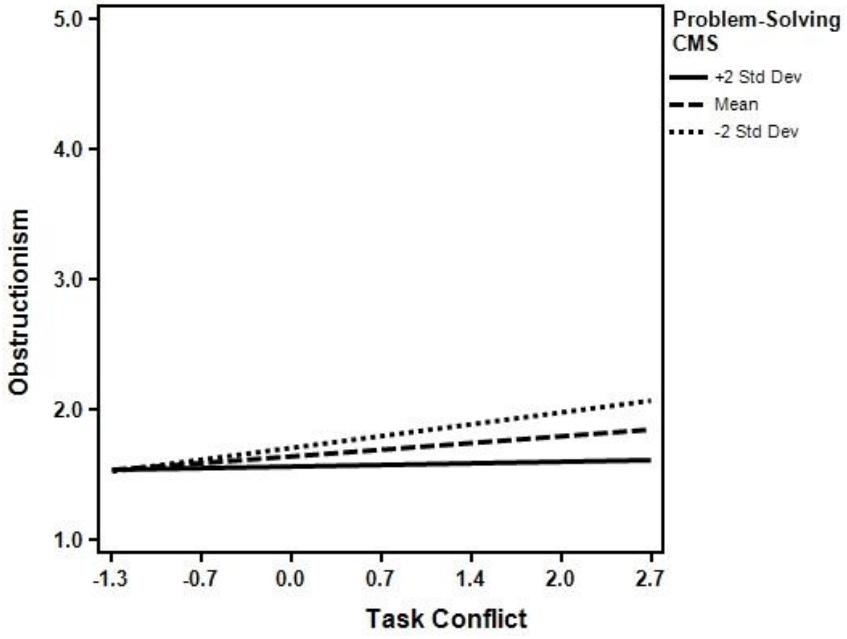


Figure 10a: Supervisors' problem-solving CMS

Figure 11. Supervisors' CMS as a moderator between subordinates' experience of relationship conflict and subordinates' obstructionism

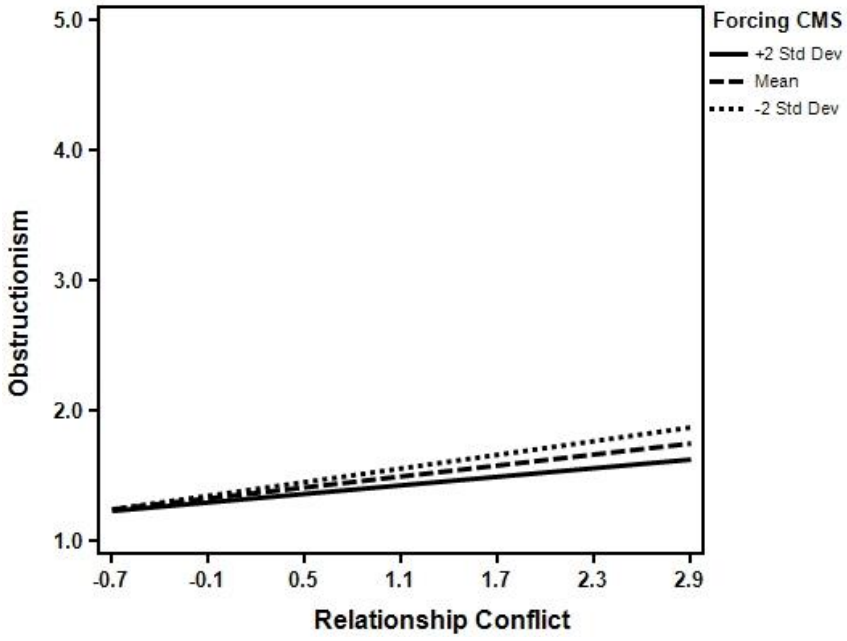


Figure 11a: Supervisors' forcing CMS

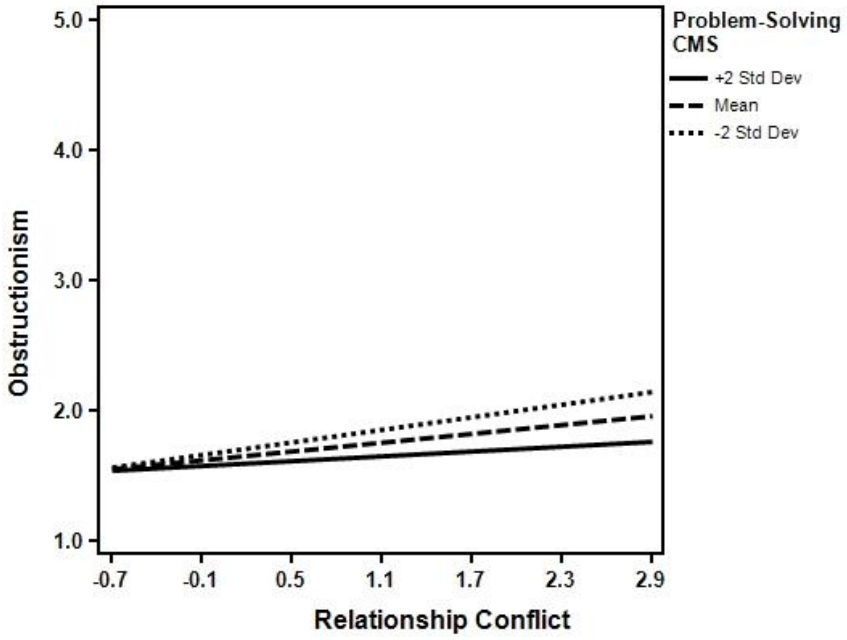


Figure 11a: Supervisors' problem-solving CMS

Table 25

Summary of Research Findings – Study #2

Hypothesis	Hypothesis summary	Results
1a-b	Task (1a) and relationship (1b) conflict with their supervisor are negatively related to subordinates' job satisfaction	Supported
2a-b	Task (2a) and relationship (2b) conflict with their supervisor are positively related to subordinates' psychological distress	Supported
3a-b	Task (3a) and relationship (3b) conflict with their supervisor are positively related to subordinates' CWB; namely, hostility (i), obstructionism (ii), theft (iii), and withdrawal (iv)	Supported
4a-b	Task (4a) and relationship (4b) conflict with their supervisor are negatively related to subordinates' OCB; namely, interpersonal helping (i), loyalty (ii), and civic virtue (iii)	Supported
5a-c	Supervisors' forcing CMS is negatively related to subordinates' perceptions of distributive (5a), procedural (5b), and interactional justice (5c)	Supported
6a-b	Supervisors' avoiding CMS is negatively related to subordinates' perceptions of distributive (6a) and procedural (6b) justice	Not supported
7a-b	Supervisors' yielding CMS is positively related to subordinates' perceptions of distributive justice (7a) and negatively related to perceptions of procedural justice (7b)	7a supported 7b not supported
8a-c	Supervisors' problem-solving CMS is positively related to subordinates' perception of distributive (8a), procedural (8b), and interactional justice (8c)	Supported

Note. CMS = conflict management style.

Hypothesis	Hypothesis summary	Results
9a-b	Supervisors' distributive, procedural, and interactional justice are positively related to subordinates' positive emotional experiences (9a) and negatively related to negative emotional experiences (9b)	Supported
10a-b	The effects of supervisors' forcing (i), avoiding (ii), yielding (iii), and problem-solving (iv) CMS on subordinates' positive (10a) and negative (10b) emotional experiences are mediated by subordinates' perceptions of justice	10a partially supported 10b partially supported
11a-b	Subordinates' positive emotional experiences are positively related to job satisfaction (11a); Negative emotional experiences are negatively related to job satisfaction (11b)	Supported
12a-b	Subordinates' positive emotional experiences are negatively related to psychological distress (12a); Negative emotional experiences are positively related to psychological distress (12b)	12a not supported 12b supported
13a-c	Subordinates' job satisfaction is negatively related to psychological distress (13a) and partially mediates the relationship between positive (13b) and negative (13c) emotional experiences and psychological distress	13a, c supported 13b not supported
14a-d	Subordinates' positive emotional experiences are negatively related to hostility (14a) and obstructionism (14b); Negative emotional experiences are positively related to hostility (14c) and obstructionism (14d)	14a, c, d supported 14b not supported
15a-b	The effects of distributive (i), procedural (ii), and interactional justice (iii) on hostility (15a) and obstructionism (15b) are mediated by subordinates' emotional experiences	15a partially supported 15b partially supported
16a-c	Distributive (16a), procedural (16b), and interactional (16c) justice are positively related to subordinates' interpersonal helping	16a, c supported 16b not supported

Note. CMS = conflict management style.

Hypothesis	Hypothesis summary	Results
17a-b	Subordinates' positive emotional experiences are positively related to interpersonal helping (17a); Negative emotional experiences are negatively related to interpersonal helping (17b)	17a supported 17b not supported
18a-b	The effects of distributive (i), procedural (ii), and interactional justice (iii) on interpersonal helping are partially mediated by subordinates' positive (18a) and negative (18b) emotional experiences	18a partially supported 18b not supported
19a-d	Subordinates' job satisfaction is negatively related to theft (19a) and withdrawal (19b) and positively related to organizational loyalty (19c) and civic virtue (19d)	19b, c, d supported 19a not supported
20a-b	The effects of subordinates' positive (i) and negative (ii) emotional experiences on theft (20a), withdrawal (20b), civic virtue (20c), and organizational loyalty (20d) are mediated by job satisfaction	20b, c, d supported 20a not supported
21a-d	Supervisors' forcing (21a), avoiding (21b), yielding (21c), and problem-solving (21d) CMS moderate the effects of workplace conflict on subordinates' interpersonal helping	21c supported 21a, b, d not supported
22a-d	Supervisors' forcing (22a), avoiding (22b), yielding (22c), and problem-solving (22d) CMS moderate the effects of workplace conflict on subordinates' hostility	22d supported 22a, b, c not supported
23a-d	Supervisors' forcing (23a), avoiding (23b), yielding (23c), and problem-solving (23d) CMS moderate the effects of workplace conflict on subordinates' obstructionism	23d supported 23a, b, c not supported

Note. CMS = conflict management style.

CHAPTER VIII

Study #2 – Discussion

The present study had three main goals:

1. Investigate how supervisor-subordinate conflict and the way in which supervisors generally handle such conflict (i.e., the supervisor's conflict management style, CMS[5]) affect subordinates' outcomes; namely, their job satisfaction, psychological distress, and desirable (OCB) and undesirable (CWB) discretionary behaviours.
2. Examine how subordinates' perceptions of justice and emotional experiences explain the way in which supervisors' CMS shape these subordinate outcomes.
3. Explore how the stressor-strain relationship between subordinates' experience of conflict with their supervisor and their subsequent strains are strengthened or weakened by the way in which their supervisor generally manages such conflict.

Many of the proposed hypotheses were supported. The findings demonstrate that supervisor-subordinate conflict is not only associated with decreased job satisfaction and increased psychological distress among subordinates, but also, with changes in the extent to which they engage in discretionary workplace behaviours – behaviours that are of vital importance to organizations' success and prosperity. Specifically, as workplace conflict with their supervisor increases, subordinates are more likely to engage in behaviours that harm the supervisor/organization (i.e., CWB) and less likely to engage in behaviours that benefit the supervisor/organization (i.e., OCB). These subordinate outcomes are affected

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[5] As noted in the literature review, the present study assessed subordinates' perceptions of their supervisor's conflict management style, rather than assessing supervisor's conflict management style directly. For brevity, "supervisor's conflict management style" or "supervisor's CMS" is used.

not only by the supervisor-subordinate conflict, but also, by the way in which supervisors generally manage such conflict (i.e., supervisors' CMS). This relationship is accounted for in large part by the extent to which subordinates perceived these CMS to be fair and equitable and the extent to which such perceptions of justice lead subordinates to experience positive and negative emotions. Subordinates' emotional experiences influence how much they engage in desirable (e.g., helping) and undesirable (e.g., hostility, obstructionism) behaviours directed at their supervisor as well as their psychological distress. These emotional experiences also play a strong role in shaping subordinates' job satisfaction, which, in turn, predicts the extent to which they withdraw from their work, actively engage with their workplace, and are loyal to their organization.

Impact of Conflict and Supervisors' Conflict Management Styles (CMS)

Answering recent calls for the integration of the literature on conflict and discretionary workplace behaviours (Raver, 2013), this research extends the current understanding about the impact of workplace conflict and conflict management by examining a comprehensive set of relationships between different types of workplace conflict – and the way in which supervisors generally manage such conflict – and subordinates' discretionary behaviours at work. The findings demonstrate that discretionary work behaviours are not created equal. That is, different types of workplace conflict and supervisor CMS have differing effects on the way in which employees engage in behaviours that either harm or help their supervisor and organization.

The findings indicate that the adverse effects of relationship conflict on behaviours directed at the supervisor (i.e., CWB-S, OCB-S) are stronger than the adverse effects of task conflict. This denotes that subordinates perceive the threat and toll of

relationship conflict to be worse. Specifically, the personal nature of relationship conflict means that such conflicts are more closely tied to individuals' identity (Römer et al., 2012). Thus, relationship conflicts – particularly with a higher-ranking supervisor – represent a greater threat to employees' self-esteem and therefore elicit a stronger retaliatory response in an attempt to even the score. Although the present study is the first to demonstrate these differing effects on subordinates' discretionary behaviours, past research has demonstrated that the detrimental effects of relationship conflict on employees' well-being are stronger than those of task conflict (e.g., De Dreu et al., 2003)

Further, the findings indicate that task and relationship conflict are both more likely to elicit subordinate behaviours that undermine the supervisor (e.g., hostility) than supress behaviours that support their supervisor (e.g., interpersonal helping). In other words, when responding to antagonistic workplace conflict with their supervisors, subordinates are more likely to respond in kind by engaging in similarly antagonistic behaviours than by decreasing their helpful behaviours. This is notable for two reasons. First, increasing one's antagonistic behaviours toward a supervisor is a much more active and effortful manoeuvre compared to reducing one's supportive behaviours. Second, an increase in supervisor-directed antagonism is much more risky for subordinates, because such behaviours are more likely to result in potential sanctions (formal and informal) than a reduction in altruistic behaviours that are not formally required in the first place. Thus, when considering subordinates' behaviours in response to workplace conflict with their supervisor, it appears that curbing support and help directed at the supervisor is not enough. Instead, subordinates' behavioural response matches their own adverse experience of such disagreements – even if such acts involve greater effort and risk.

The extent to which subordinates engage in discretionary workplace behaviours is determined not only by the nature of the supervisor-subordinate conflict, but also, by the way in which a supervisor generally manages such discord. Similar to the impact of supervisor-subordinate conflict, the impact of supervisors' CMS on subordinates' *supervisor*-directed behaviours is stronger than the impact on subordinates' *organization*-directed behaviours. Thus, when responding to conflict with their supervisor and their supervisor's CMS, subordinates do not engage in aimless retaliatory behaviours; instead, they are more likely to retaliate against the primary source of their chagrin – that is, their supervisor rather than their organization.

Nevertheless, the fact that *supervisor*-related conflict experiences elicit altruistic and antagonistic actions directed at the *organization* suggests that two mechanisms may be at work. First, subordinates may perceive the organization to be partially responsible for their experience of conflict with the supervisor and the supervisor's CMS (Kessler et al., 2013); for example, because their competitive workplace culture fosters interpersonal strife or because they selected an individual for a supervisory role whom subordinates deem ineffective at managing such disagreements. Thus, organizations are seen as somewhat accountable for subordinates' conflict experiences and reap the consequences – both good and bad – along with the supervisor. Second, supervisor-directed acts are more obvious, and thus more risky (i.e., in terms of sanctions). For instance, acting rudely to a supervisor is more immediately obvious and identifiable as being committed by a certain individual than stealing a case of printer paper from the organization. Similarly, supervisors are more likely to notice a drop in subordinate helpfulness than a decrease in the extent to which subordinates champion the organization's product and services to

their family and friends. Thus, to avoid the potential adverse consequences of unfavourable supervisor-directed behaviours, subordinates may chose to broaden the target of their retaliation to include the organization (Spector & Fox, 2002).

Together, these findings demonstrate that disagreements with a supervisor can have considerable adverse effects on subordinates' well-being and functioning. However, even though subordinates' range of behavioural responses *during* a conflict episode with their supervisor may be limited given the supervisor-subordinate status difference, subordinates do reciprocate by engaging in behaviours over which they have more autonomy; namely, by engaging in more or fewer altruistic behaviours and by engaging in more or fewer antagonistic behaviours. Essentially, when subordinates respond to their overall conflict experiences with a supervisor, supervisors get what they give. These results converge with those in related research areas (e.g., the impact of abusive supervision) that indicate that antagonistic interactions with supervisors strongly determine how employees think, feel, and behave at work (e.g., Zellars et al., 2002).

Mediating Paths Between Supervisors' CMS and Subordinates' Outcomes

The present study demonstrates that subordinates' experience of workplace conflict with their supervisor and their supervisor's CMS have a considerable impact on subordinates' discretionary work behaviours. Engaging in such discretionary behaviours can have notable implications for employees. For example, altruistic behaviours, such as staying late to help out their supervisor or defending their organization to disapproving outsiders, may come at a considerable inconvenience for the employee and may never be acknowledged or rewarded. In turn, counterproductive behaviours, such as spreading rumours or stealing office supplies, involve considerable risk (e.g., in the form of

sanctions, termination of employment) for employees if they are caught. Given these inconveniences and risks, why do employees engage in these behaviours in response to their supervisor's CMS? The present study hypothesized that employees engage in CWB/OCB as a way of reciprocating any perceived (in)justice they experienced as a result of the way in which their supervisor managed conflict. Specifically, it was proposed that subordinates' perceptions of justice (and subsequent emotional experiences) would explain the effects of supervisors' CMS on subordinates' strains.

By and large, the effects of supervisors' CMS on subordinates' strains are accounted for by subordinates' perceptions of justice and emotional experiences. For example, when supervisors manage conflict by asserting their own will above all else (i.e., use a forcing CMS), subordinates feel that none or few of their desired outcomes are met, that they are not able to participate in the conflict management process, and that they are being treated disrespectfully. This sense of injustice induces subordinates to feel angry and anxious (and less calm and content). Together, this sense of injustice and increased emotional agitation leads subordinates to even the score by curtailing how much they assist their supervisor and by impeding their supervisor's work efforts. Subordinates' anger and frustration also amplify their psychological distress and decrease their job satisfaction. In turn, diminished job satisfaction leads subordinates to reduce their work effort and the extent to which they engage with their workplace.

The opposite effects are observed for supervisors' problem-solving CMS, and, to a lesser degree, yielding CMS. Specifically, supervisors' problem-solving CMS provides subordinates with the opportunity to achieve a mutually satisfactory outcome: Subordinates feel that their interests are being met, that they are a valued participant in

resolving the disagreement, and that they are being treated with respect and consideration. This sense of justice prompts subordinates to feel content and satisfied and, in turn, leads them to return the favour by offering more assistance to their supervisor (and not hindering their work efforts). These positive emotional experiences are also associated with reduced psychological distress and greater job satisfaction. In turn, increased job satisfaction leads subordinates to be less likely to disengage from their work and more likely to champion – and be involved in – their organization. The following sections discuss these individual relationships in greater detail.

Conflict management and justice. As expected, supervisors' problem-solving CMS (positive relationships) and forcing CMS (negative relationships) were related to subordinates' perceptions of distributive, procedural, and interactional justice. Supervisors' yielding CMS was positively related to subordinates' perceptions of distributive justice. Both the problem-solving CMS and the forcing CMS are considered active conflict management strategies (Thomas, 1992b) that are characterized by obvious, manifest interactions between the conflict parties. Given the dynamic nature of these two CMS, it is not surprising that subordinates are able to evaluate the fairness of their associated outcomes (distributive justice), the extent to which these CMS allow subordinates to have an active voice in the conflict management process (procedural justice), and the extent to which they communicate courtesy and respect (interactional justice). In turn, when supervisors manage conflict by obliging to the wishes of the subordinate (i.e., using a yielding CMS), subordinates may reasonably appraise the conflict outcome as favourable, but may be unable to assess the fairness of the overall

conflict management process or interpersonal treatment given the relative absence of interaction and communication inherent in this conflict management approach.

Notably, the favourable effect of a problem-solving CMS on perceptions of justice is stronger than the unfavourable effect of a forcing CMS. Stated differently, supervisors' use of a collaborative conflict management approach makes subordinates feel treated fairly to a much greater degree than supervisors' use of a domineering conflict management approach makes them feel treated unfairly. Thus, employees deem some degree of authoritarian supervisor behaviour as appropriate and in line with the in-role behaviour of someone in a supervisory position (de Reuver, 2006). Specifically, supervisors' authoritarian conflict management strategies may be perceived as somewhat unfair, but have a diminished negative impact because such behaviour is deemed legitimate supervisor conduct. In turn, when supervisors manage conflict with their subordinates by listening to their opinions and working with them to come up with a joint solution, this may be deemed exceptional – rather than "to be expected" – behaviour. As a result, subordinates perceive such a collaborative conflict approach as particularly fair because of the fundamental nature of such behaviour *and* the fact that the supervisor does not have to, but nevertheless chooses to, act in such a considerate manner. In sum, the beneficial effects of "good" conflict management are greater than the detrimental effects of "bad" conflict management. As will be discussed later, this has notable implications for identifying – and prioritizing – training needs in the workplace.

Similar to what has been discussed by other researchers (e.g., Barclay et al., 2005), these findings indicate that the nature of supervisor-subordinate interactions provides subordinates with information about how they are regarded by their supervisor.

When supervisors listen to subordinates' wishes and work with them to come up with a joint resolution, they essentially demonstrate a concern for subordinates' dignity, welfare, and outcomes. In other words, subordinates feel that their opinions are valued, that they have some say in managing the disagreement, and that the supervisor is concerned about meeting their needs – that, despite their disagreement, the employee is a respected contributor. In turn, when supervisors assert their will with little consideration for the opinions and goals of the subordinate, subordinates feel powerless, neglected, and belittled. This information not only shapes subordinates' emotional well-being and attitudes, but also determines how much they are willing to go above and beyond themselves, how much they might curb any extra-role contributions at work, or how much they will engage in counterproductive behaviours to make up for perceived inequities. Although this is the first study to investigate how different supervisor CMS shape subordinates' perceptions of justice, these findings resonate with empirical work in related research areas. For example, existing studies have demonstrated that abusive supervision and supervisors' influence tactics are significant predictors of subordinates' justice perceptions (e.g., Tepper et al., 1998; Wang et al., 2012; Zellars et al., 2002).

Conflict management, justice, and emotional experiences. The findings indicate that emotions are a key component of subordinates' response to the way in which their supervisor manages such conflict. Supervisors' problem-solving CMS, and, to a lesser extent, yielding CMS, are associated with an increase in subordinates' positive emotional experiences and a decrease in subordinates' negative emotional experiences; the exact opposite occurs when supervisors manage conflict in a domineering way (i.e., using a forcing CMS). The relationships between supervisors' CMS and subordinates'

emotional experiences are mediated by the extent to which subordinates perceive their supervisor's CMS to be fair and equitable. In other words, subordinates' appraise their supervisor's CMS with respect to their fairness; in turn, these perceptions of (in)equity lead subordinates to experience a variety of emotional responses.

Justice, emotional experiences, and OCB-S/CWB-S. The effect of subordinates' perceptions of procedural justice on their helping behaviours is fully mediated by positive emotional experiences. That is, when their supervisor's CMS provides subordinates with a voice in – and some control over – the conflict management process, they feel more calm, content, and enthusiastic; in turn, these positive emotional experiences lead them to be more helpful and supportive. The effects of distributive and interactional justice on helping behaviours are only partially explained by subordinates' positive emotional experiences. That is, feelings of ease and content explain some – but not all – of the impact of perceptions of fair conflict outcomes and fair interpersonal treatment on the extent to which subordinates engage in helping behaviours. Other processes also account for these relationships. For example, perceptions of distributive and interactional justice may increase subordinates' liking of – and trust in – their supervisor and consequently increase subordinates' willingness to help and support them (Colquitt et al., 2013). Together, these findings indicate that different perceptions of (in)justice affect helping behaviours through somewhat different mechanisms.

These full mediation findings related to procedural justice are counter to those reported in some past research, including a recent meta-analytic review (Colquitt et al., 2013). However, the variables assessed in the present study are target-specific in terms of the source of procedural justice (supervisor) and the target of the OCB (supervisor),

whereas the mediation analysis in the meta-analysis focused on general procedural justice and general OCB. Thus, it is plausible that the procedural justice, positive emotional experiences, and OCB-S variables in the present study are a better conceptual match than those in previous investigations – with no unexplained variance left to account for.

Subordinates' emotional experiences also play a large part in determining counterproductive behaviours targeted at their supervisor. However, whereas both positive and negative emotional experiences relate to subordinates' hostility, only negative emotional experiences relate to subordinates' obstructionism. These findings may be explained by a difference in emotional composition between hostility and obstructionism. Specifically, hostility appears to be a more personal and impassioned attack than obstructionism. Thus, the more emotional nature of hostility means that it is more sensitive to – and elicited by – both the presence of hurt and anger *and* the absence of any positive feeling, whereas obstructionism is only brought about by negative emotions. The overall impact of subordinates' perceptions of justice on subordinates' hostility and obstructionism is accounted for by subordinates' emotional experiences. That is, subordinates who feel that their supervisors' conflict management strategies are fair and equitable experience less negative emotions (e.g., anger, frustration), leading them to engage in fewer hostile and obstructing behaviours targeted at their supervisor.

This study is the first to examine the relationships among subordinates' perceptions of justice, emotional experiences, and discretionary work behaviours in the context of supervisor-subordinate conflict; however, some of these findings converge with existing research. First, comparing supervisor-directed CWB and OCB, past research suggests that counterproductive behaviours such as hostility and the obstruction

of someone else's work are more emotional than prosocial helping behaviours (Colquitt et al., 2013). Specifically, whereas CWB-S is driven exclusively by "hot" and spontaneous emotional experiences, other variables – such as relationship quality – also contribute to altruistic actions such as interpersonal helping. Second, the present findings indicate that whereas positive emotional experiences are solely responsibly for driving subordinates' helping behaviours, negative emotional experiences play the predominant role in explaining subordinates antagonistic behaviours. Similar findings are reported in a number of past investigations (e.g., Fisher, 2002; George, 1991). Together, these results indicate that supervisor-directed CWB and OCB are activated by different emotional states such that positive emotional experiences do not necessarily promote behaviour in a way that is opposite to the effects of negative emotional experiences.

Emotional experiences, job satisfaction, and CWB-O/OCB-O. As expected, subordinates' job satisfaction predicts their discretionary work behaviours directed at the organization. Subordinates who are satisfied with their job are less likely to withdraw from their work and more likely to be actively engaged with – and a champion for – their workplace. Further, the effects of subordinates' emotional experiences on CWB-O and OCB-O are mediated by their job satisfaction such that more positive (and less negative) emotional experiences are associated with greater job satisfaction and, in turn, fewer behaviours that harm the organization and more behaviours that support and promote the organization. Although this is the first study to demonstrate these relationships in the context of supervisor-subordinate conflict, these results converge with existing research that has demonstrated strong links between individuals' emotional experiences, their job satisfaction, and their discretionary workplace behaviours (e.g., Ziegler et al., 2012).

Unexpectedly, subordinates' job satisfaction was unrelated to theft. Some researchers have distinguished counterproductive work behaviours by their severity. Whereas employee withdrawal is considered to be undesirable, but comparatively minor CWB, employee theft is regarded as a severe misconduct (Lawrence & Robinson, 2007). Other research has found that relatively minor sources of workplace frustration fail to predict serious organizational deviance, such as theft (Fox & Spector, 1999). Instead, theft is more likely to be predicted by gross violations of justice (Spector et al., 2006). Thus, subordinates' experience of their supervisors' CMS may simply not have been strong enough to have an effect on such a serious transgression against their employer.

Supervisors' CMS, job satisfaction, and psychological distress. A number of studies have previously linked supervisors' CMS to subordinates' job satisfaction and psychological distress (e.g., Chan et al., 2008; Weider-Hatfield & Hatfield, 1995). The present study extends the current understanding by examining the underlying mechanisms of these relationships and tracing their effects through subordinates' perceptions of justice and emotional experiences. As noted, when supervisors manage workplace conflict using a problem-solving CMS, and, to a lesser extent, a yielding CMS, subordinates perceive a greater sense of justice, resulting in more positive – and fewer negative – emotional experiences. The opposite effects are found when supervisors manage such conflict using a forcing CMS. In turn, more positive emotional experiences (and fewer negative emotional experience) lead to subordinates being more satisfied with their job. Further, fewer negative emotional experiences and greater job satisfaction lead subordinates to experience less psychological distress. In sum, these findings demonstrate

that the impact of such specific day-to-day conflict interactions with a supervisor are strong enough to shape employees' broader organizational attitudes and well-being.

The non-significant relationship between subordinates' positive emotions and psychological distress is inconsistent with past research. However, existing studies have generally found weaker relationships between employees' positive emotional experiences and psychological distress than between the negative emotional experiences and psychological distress (Thoresen et al., 2003). Additionally, previous investigations have generally assessed subordinates' total emotional experiences at work, whereas the present study focussed only on subordinates' emotional experiences with reference to their supervisor. These supervisor-referenced positive emotional experiences may not have been powerful enough to have a direct effect on subordinates' psychological distress.

Though notable in and of themselves, the finding about the impact of workplace conflict and supervisors' CMS are even more salient given the relationship between job satisfaction and psychological distress and a number of other outcomes. For example, job satisfaction is strongly linked to employees' job performance and their desire to seek employment elsewhere (e.g., Fried, Shirom, Gilboa, & Cooper, 2008; Judge, Thoresen, Bono, & Patton, 2001). In turn, employees' ill health is associated with significant financial expenditures through increased insurance premiums and worker replacement costs (Schabracq, Winnubst, & Cooper, 2009). Together, these findings indicate that workplace conflict and supervisors' conflict behaviours can come at considerable cost to employees' well-being, and subsequently, an organization's bottom line.

Moderating Effects of Supervisors' Conflict Management Styles

Supervisors' CMS both buffer and amplify the adverse effects of supervisor-subordinate conflict on subordinates' strains. This highlights how much supervisors' conflict behaviours can change – for better or worse – the impact of such conflict and how important it is that conflict is managed well.

Moderating effects of supervisors' problem-solving and avoiding CMS. As expected, the adverse effects of workplace conflict are buffered by supervisors' problem-solving CMS and amplified (albeit to a limited degree) by supervisors' avoiding CMS. In other words, when supervisors manage workplace conflict by collaborating with their subordinate to resolve the dispute in a mutually satisfactory manner, the experience of such conflict is less likely to lead subordinates to engage in hostile and obstructive behaviours (buffering effect); in turn, when supervisors respond to workplace conflict by ignoring and evading the conflict issue, the experience of such conflict leads subordinates to be even more likely to suppress voluntary helping behaviours (amplification effect).

Viewed more broadly, these findings exemplify effective versus ineffective managerial behaviours. When supervisors use a problem-solving CMS, they listen to and acknowledge their subordinate's input, openly share insights and information, talk through opinions and ideas, and involve their subordinate in coming up with a joint resolution. Essentially, this collaborative and cooperative interaction is aimed not just at influencing their conflict partner, but also, at making sure they are content and satisfied (de Reuver & van Woerkom, 2010). This consideration for the needs of others – rather than solely their own – is effective not only in resolving the conflict, but also reinforces interpersonal communication and respect, thereby strengthening the supervisor-

subordinate relationship quality. Such an enhanced supervisor-subordinate relationship is beneficial not only for their own dyad (e.g., by reducing the likelihood of future conflicts), but is also likely to have benefits that extend to other organizational members. For example, when supervisors model such a collaborative conflict management approach, this sets the tone for other conflicts that subordinates are involved in (Doucet, Poitras, & Chenevert, 2009). In sum, by relying on a problem-solving CMS, a supervisor does what a supervisor is supposed to do – they effectively manage others.

In turn, when supervisors avoid all discussion about the conflict issue, pretend that the disagreement does not exist, or are reluctant to make any decisions, they shut down the supervisor-subordinate dialogue. Not only does this evasive conflict approach leave the conflict issue unresolved indefinitely and festering, but likely gives rise to resentment and future frictions – especially if the subordinate wants to talk about (and solve) the issues at hand. Thus, rather than contributing to organizational effectiveness and functioning, supervisors' use of an avoiding CMS hinders this process.

Work stress theory and research suggests a number of ways by which these moderating effects may operate. First, supervisors' CMS may change the way in which subordinates evaluate the conflict stressor. Thus, when supervisors manage conflict in a cooperative manner, subordinates appraise it as less intimidating and threatening. Specifically, the open sharing of information and active collaboration to come up with a mutually satisfactory solution make the conflict stressor appear less ambiguous and thus, less overwhelming, for subordinates. In turn, when supervisors ignore or evade the conflict issue, subordinates are essentially left in limbo and thus experience an increased sense of uncertainty about when – and how – this issue may be settled.

Second, supervisors' conflict management approach may affect subordinates' coping competencies by changing the extent to which they feel confident and competent in dealing with this demand. That is, the cooperative and participative nature of a supervisor's problem-solving CMS enhances subordinates' sense of control and accomplishment and thereby results in reduced strain, whereas the opposite effect (i.e., reduced sense of control and decreased confidence leading to greater strain) would be expected in cases where supervisors employ an avoiding CMS. Indeed, the valuable role of perceptions of control is strongly supported by work stress theory and research (e.g., the Job Demand-Control Model; Karasek, 1979). Generally speaking, the evidence indicates that when job control allows the individual to better address the demand, job control buffers the adverse effects of these demands on employee strains, for example, psychological well-being (van der Doef & Maes, 1999).

Moderating effects of supervisors' forcing CMS. Unexpectedly, when supervisors manage conflict in an authoritarian and domineering manner, subordinates are less – rather than more – likely to engage in obstructive behaviours. Such buffering effects run counter to the adverse outcomes (e.g., reduced job satisfaction and organizational commitment) that have been reported for this CMS in previous studies (de Reuver & van Woerkom, 2010; Weider-Hatfield & Hatfield, 1995). Three possible explanations might account for these findings. First, as noted earlier, supervisors' organizational status may legitimize their authoritarian conflict behaviours to some degree. Specifically, a domineering CMS may not violate subordinates' expectations of what are reasonable supervisor behaviours and thus fail to amplify the adverse effects of workplace conflict (de Reuver, 2006). Second, past and present findings demonstrate that

conflicts with supervisors are a taxing experience for subordinates – one that may lead them to feel quite unsettled and vulnerable (Frone, 2000). In the context of such vulnerability, a decisive and firm handling of the conflict by the supervisor – even if it is unnecessarily assertive – may not be entirely unwelcome by subordinates because it signals an end to the conflict situation. From a subordinate's perspective, a supervisor's forcing CMS may certainly be less desirable than a cooperative conflict management approach (as is demonstrated by the greater buffering effects of the problem-solving CMS compared to those of the forcing CMS), but it may be more desirable than an avoidant CMS that leaves the conflict situation up in the air. Third, a supervisor's tendency to manage conflict in a forceful manner may reflect their broader supervisory style. That is, a manager who tends to manage interpersonal conflict in a domineering way would also seem more likely to have a high-handed and punitive leadership style more generally. When subordinates work with such a supervisor, the potential costs of engaging in any counterproductive behaviours may simply be too high. A domineering supervisor may still adversely affect employees' private attitudes and well-being, yet, in terms of overt behaviours, subordinates may simply aim their retaliation elsewhere, for example, toward their colleagues, their own subordinates, or their home environment.

Moderating effects of supervisors' yielding CMS. Supervisors' use of a yielding CMS weakens (i.e., buffers) the adverse effect of conflict on subordinates' interpersonal helping behaviours (OCB-S), but strengthens (i.e., amplifies) the adverse effects of conflict on subordinates' hostile behaviours (CBW-S). These bidirectional moderating effects might be explained by the unique implications of a supervisor's use of such an obliging conflict management approach. Specifically, by definition, when a

supervisor employs a yielding CMS, the subordinate essentially gets their way. Presumably, attaining their conflict goals would lead subordinates to be more inclined to reciprocate in kind and thus increase the extent to which they voluntarily help and support their supervisor. This reasoning is supported by the postulations of the social exchange theory and the associated norm of reciprocity, which contend that relationships are built on the reciprocal exchange of rewards, favours, and benefits (Blau, 1964; Gouldner, 1960). Similar effects in response to supervisors' obliging behaviours have also been observed in other studies. For example, when supervisors give in to their subordinates during disagreements, subordinates are more likely to speak positively about their them in conversations with coworkers (Dijkstra, Beersma, & van Leeuwen, 2014).

However, the obliging and compliant nature of a yielding CMS is also inconsistent with most supervisors' organizationally prescribed role; that is, giving in to their subordinates may not be in line with subordinates' expectations for their supervisors' hierarchical position. From a subordinate's perspective, a supervisor's tendency to use such an obliging CMS may make the supervisor seem timid and weak – leading subordinates to perceive their supervisor as ineffectual and incompetent. In turn, subordinates may use hostility to voice their frustration over such seeming managerial incompetence and lack of directive leadership. These findings converge with related research that suggests that, when faced with a submissive supervisor, subordinates are inclined to respond using dominant and assertive behaviours (de Reuver, 2006).

Theoretical Implications

Past conflict and conflict management research has been criticized for its lack of theoretical foundations (Rahim, 2001). One of the key strengths of the present

investigation is that it is strongly rooted in theory. Specifically, the study's grounding in work stress theory offers a systematic way of examining and explaining individuals' conflict-related experiences and responses. Additionally, the present study examines a rich model of evaluative, affective, attitudinal, and behavioural components and thus allows for a number of unique connections that have not been made in past research.

Subordinates' conflict experiences and discretionary work behaviours. The present study integrates research on conflict and conflict management with research on discretionary work behaviours – areas that seem highly complementary, but have garnered little research attention to date (Raver, 2013). This integration not only enriches theoretical and empirical work in both areas by providing a new lens for explaining results, but also yields compelling directions for future research. For example, the findings indicate that the strength of the impact of different types of conflict on subordinate strains varies considerably (i.e., the adverse effect of relationship conflict is stronger than that of task conflict; supervisor-subordinate conflict is more strongly related to subordinates' CWB than OCB; conflict is more strongly related to subordinates' CWB/OCB directed at the supervisor than to CWB/OCB directed at the organization). In other words, different types of supervisor-subordinate conflict have a unique impact on subordinates' discretionary behaviours that varies depending on the target and nature of these behaviours. Together, these findings highlight the importance of differentiating between different types of conflict as well as different types and targets of employees' discretionary behaviours in future theory and research.

The present study also demonstrates that supervisors' CMS elicit a range of subordinate responses in the form of both desirable and undesirable workplace

behaviours. Moreover, the findings indicate that subordinates engage in hostile responses that may be considered somewhat harsher than the original conflict management tactics of their supervisor – particularly given the subordinates' lower organizational status. Research on counterproductive work behaviours provides a compelling explanation for these findings. Specifically, research on incivility and aggression suggests that such an intensification of behaviours may be the first step in an escalating supervisor-subordinate conflict spiral, wherein perceived slights bring about increasingly sharp and unkind responses during successive interactions (Andersson & Pearson, 1999).

Roles of subordinates' justice perceptions and emotional experiences.

Focussing on the unique supervisor-subordinate relationship, this study considers how subordinates' perceptions of justice and emotional experiences may account for the impact of the supervisors' CMS on subordinates' strains. Thus, it goes beyond simply demonstrating the presence of a relationship between these variables to actually investigating the underlying mechanisms of how they are related. The findings indicate that supervisors' CMS are strongly related to subordinates' perceptions of fairness in terms of the extent to which they yield fair outcomes, provide subordinates with a voice and sense of control, and demonstrate consideration and respect for the subordinate. In other words, perceptions of justice are a key component of subordinates' appraisal of their supervisor's CMS. In turn, these evaluations of justice are closely related to subordinates' positive and negative emotional experiences. Together, subordinates' perceptions of justice and emotional experiences determine their subsequent job-satisfaction, well-being, and discretionary work behaviours.

The study's emphasis on including both cognitive and affective elements is a key strength derived from the integration of research on conflict/conflict management and discretionary work behaviours. Although researchers often refer to workplace conflict and conflict management as emotional experiences, in practice, they have been studied from a primarily cognitive perspective wherein rational evaluations of the conflict issue trigger rational responses thereto (Raver, 2013). In turn, research on discretionary work behaviours, particularly CWB, generally gives greater consideration to "hot" emotions that trigger responses such as incivility and physical violence. Thus, by integrating cognitive and affective elements, this study fosters greater understanding of how subordinates' experience of – and response to – their supervisors' CMS can be both "hot" and "cold" (Raver, 2013).

Determinants of subordinates' OCB and CWB. Comparing the determinants of OCB, the findings indicate that OCB-S (i.e., interpersonal helping) represent direct, proximal outcomes of individuals' emotional experiences in response to perceived supervisor (in)justice. In turn, the impact of subordinates' emotional experiences on OCB-O (i.e., civic virtue, organizational loyalty) is accounted for by additional cognitive processes; namely, job satisfaction. Similar results have been reported in other studies (e.g., Lee & Allen, 2002; Ziegler et al., 2012). Comparing the determinants of OCB-S and CWB-S, subordinates' emotional experiences fully account for the impact of perceived fairness on the extent to which subordinates engaged in hostile and obstructive behaviours (i.e., CWB-S), whereas subordinates' emotional experiences only explain part of the effects of such perceptions of justice on the extent to which subordinates' voluntarily assisted and supported their supervisor (i.e., OCB-S).

These results contribute to OCB and CWB theory in two ways. First, they support ongoing efforts to reconcile the OCB literature by providing new insights about the relative importance of emotional and cognitive predictors. Specifically, as noted previously, early research (Organ, 1988) conceptualized OCB as primarily cognitively-driven behaviour (i.e., through job satisfaction). Later work (George, 1991) argued that affective elements may be more important in determining OCB. Drawing on Affective Events Theory (Weiss & Cropanzano, 1996), the present findings demonstrate that the target of the behaviour (i.e., supervisor vs. organization) is an important feature in distinguishing between affect-driven and judgement-driven OCB. Second, the findings indicate that OCB and CWB directed at the supervisor are rooted in somewhat different antecedents and thus support the view that "OCB and CWB are not merely opposite ends of the same discretionary continuum" (Colquitt et al., 2013, p. 215). Specifically, although both CWB-S and OCB-S are directly affected by emotional experiences, counterproductive behaviours such as hostility and obstructionism are somewhat more emotional than helping behaviours (OCB-S).

These findings indicate that subordinates' experience of workplace conflict with a supervisor and their supervisor's CMS not only predict subordinates' workplace behaviours directed at their supervisor, but also, albeit it to a lesser degree, their discretionary behaviours targeted at the organization. This denotes that experiences of – and responses to – supervisor-subordinate conflict are rooted not only in their dyadic relationship, but also, the larger organizational context. Thus, when responding to managerial actions, employee behaviours – good or bad – will be directed at both the supervisor as well as the larger agency (de Reuver & van Woerkom, 2010).

Moderating effects of conflict management styles. The adverse effects of workplace conflict on subordinates' discretionary work behaviours are lessened when supervisors manage such conflict in a cooperative and collaborative manner and amplified when supervisors evade and sidestep the issue. These particular findings are in line with the fundamental rationale of the Dual-Concern Model (DCM; Rahim, 1983; Thomas, 1976), which suggests that a high concern for both parties' conflict outcomes (i.e., a problem-solving CMS) will be associated with positive conflict outcomes for both parties, whereas a low concern for both parties' conflict outcomes (i.e., an avoiding CMS) will lead to adverse outcomes for both conflict parties.

Further, when supervisors yield to their subordinates, subordinates are more likely to voluntarily help and support their supervisor. At the same time, supervisors' use of such an obliging style is also associated with an *increase* in subordinates' hostility. Moreover, subordinates engage in *less* obstructionism when their supervisor manages conflict in a domineering and authoritarian manner. These amplification effects of supervisors' yielding CMS and buffering effects of supervisors' forcing CMS run counter to the fundamental premise of the DCM. They also highlight limitations in the application of the Dual-Concern Model for studying the impact of CMS in supervisor-subordinate relationships and for predicting the impact of CMS outside of a specific conflict episode. Specifically, the assumption that a forcing CMS would amplify the adverse effects of conflict was predicated on the DCM's postulation that a low concern for others' outcomes (coupled with a high concern for one's own outcomes) violate social expectations for courteous and considerate relationships and lead to interpersonal issues, such as increased distrust and resentment. However, these expectations may not hold in

the context of a supervisor-subordinate conflict; for example, as noted earlier, such a decisive – albeit domineering – conflict management approach may actually be perceived by subordinates as having one key benefit in that it puts a quick end to a difficult and unpleasant conflict situation.

Similarly, the concurrent amplifying and buffering effects of supervisors' yielding CMS suggest that CMS do not always have uniformly desirable or undesirable outcomes. In the context of the present study, the unique dynamic of a supervisor-subordinate relationship may be responsible for this. Specifically, on the one hand, subordinates reciprocate to getting their way during the conflict by subsequently giving back through increased helping behaviours. However, at the same time, subordinates also engage in more hostility in response to their supervisor's obliging approach. Based on past research that has found similarly assertive subordinate reactions in response to complaisant supervisor behaviours (de Reuver, 2006), it is surmised that this obliging CMS makes the supervisor appear weak and ineffective and that subordinates voice their frustration about such seemingly incompetent leadership through increased antagonistic behaviours. Further, these findings indicate that individuals' initial responses to others' CMS (i.e., favourable or unfavourable) during the conflict episode may not be the same as their responses later down the road: That is, whereas subordinates' may initially be pleased about getting their way, their later response (i.e., increased hostility) conveys considerably less enthusiasm for their supervisor's use of such an obliging CMS.

The present study is one of an increasing number of investigations with findings that are inconsistent with the postulations of the Dual-Concern Model. For example, past studies found that, compared to high-status employees, low-status individuals who use a

problem-solving CMS experience *more* incivility and aggression at the hand of their coworkers (Aquino, 2000). These types of findings have led researchers to call for theoretical refinements to models of conflict management that will allow for the consideration of issues such as differences in status/power between the conflict parties, different time horizons (short-term versus long-term outcomes), and cross-cultural variations in the prediction of the outcomes of various conflict management styles (Kim, Lee, Kim, & Hunter, 2004; Lewicki, Weiss, & Lewin, 1992; Thomas, 1992a).

Practical Implications

When subordinates are faced with adverse conflict experiences involving their supervisors, they not only experience reduced job satisfaction and greater psychological distress, but also seek to balance perceived slights and inequities at the hand of their supervisor by engaging in harmful and obstructive workplace behaviours and by curbing their altruistic workplace behaviours. These results highlight the importance of reducing aggressive and evasive conflict interactions – and increasing collaborative and cooperative conflict interactions – among supervisors and subordinates in the workplace.

Recruitment and selection. Personnel recruitment and selection processes can be one of the avenues through which to reduce adverse conflict experiences among workers. Essentially, the aim is to hire individuals who are likely to manage conflict effectively (and engage in OCB) and to not hire individuals who are likely to manage conflict ineffectively (and engage in CWB; Spector, 1997). Research indicates that personality traits predict individuals' conflict management preferences. For example, individuals low in neuroticism and high in agreeableness, conscientiousness, and extraversion gravitate toward a problem-solving CMS, whereas individuals high in agreeableness and

neuroticism and low in conscientiousness and extraversion prefer an avoiding CMS (e.g., Barbuto et al., 2010; Moberg, 2001). Further, evidence indicates that integrity tests are valid predictors of counterproductive work behaviours, such as withdrawal, theft, and violence (Ones, Viswesvaran, & Schmidt, 1993). Thus, personality and integrity tests could be used to select individuals – both at the subordinate and managerial level – for their conflict management effectiveness and their propensity to engage in desirable and undesirable discretionary behaviours. This link between individual differences and on-the-job behaviours demonstrates why such personality and integrity tests are predictive and this capacity for assessing historically underappreciated aspects of job performance indicates that such test have greater value and utility than they are often given credit for. The present study also highlights the key role of employees' emotional experiences in translating perceived conflict-related slights and inequities into poor well-being and harmful workplace behaviours. For particularly conflict-prone roles and jobs, organizations might consider using personnel selection to appoint individuals based on their ability to manage highly emotional conflicts (i.e., individuals high in emotion regulation ability, high emotional stability).

Development of supervisory competencies. Being a supervisor is often associated with a number of unexpected, people-related challenges. This highlights the importance of ensuring that supervisors – particularly those who have recently transitioned into such a managerial role – understand and are prepared for the difficult task that is managing people. For example, given a supervisor's higher status, a conflict with an employee may merely be an annoying hassle; from a subordinate's perspective, however, such a dispute may be immensely intimidating. Further, individuals in higher-

level positions are less likely to consider the perspectives of their lower-status counterparts and reflect on the impact of their interactions on others (Galinsky, Magee, Inesi, & Gruenfeld, 2006). Thus, some managers may simply not be cognizant of the extent to which supervisor-subordinate conflicts adversely affect their employees. They may also be unaware of some of the potential side effects of their conflict management strategies. For example, supervisors may yield to their employees during workplace conflicts in the hopes of maintaining harmonious relationships, but, as the results indicate, thereby unwittingly increase subordinate hostility because such obliging behaviours at the hand of a supervisor lead subordinates to perceive their supervisor as weak and ineffective. Similarly, other studies have linked the use of a forcing CMS to outcomes that may also not be apparent to the supervisor, such as increased malicious employee gossip behind their manager's back (Dijkstra et al., 2014).

This denotes that supervisors would benefit from a solid understanding of how the unique power-dynamics in supervisor-subordinate relationships affect their employees – particularly in contexts that are especially intimidating for subordinates (i.e., workplace conflicts). A sound understanding of these relationships dynamics would enhance supervisors' competencies in navigating their workplace relationships and decrease the possibility of inadvertent side effects of their supervisory actions. For example, a large component of effective supervision involves building trusting and cooperative relationships with one's subordinates – this requires supervisors to be mindful and reflective of their actions (Podsakoff et al., 1990). Thus, organizations might consider providing their leadership staff with training that will enhance their ability to build high-

quality relationships with others, including training to enhance skills such as social and self-awareness and being sensitive to the needs of others.

Conflict management training. Certainly, enhancing supervisors' understanding of the impact of workplace conflict and their CMS is important. Nevertheless, it seems even more important to help all workers – supervisors and subordinates alike – engage in more favourable – and fewer detrimental – conflict management behaviours. Dealing with interpersonal conflict is awkward and uncomfortable for most, if not all, individuals. People have a fundamental need to be liked and to belong. Interpersonal conflict threatens these social needs (Baumeister & Leary, 1995); thus, individuals may, for example, be inclined to avoid any actions that might rock the boat. Yet, both past and present research indicate that both such evasive – as well as domineering and authoritarian – actions in response to workplace conflict are, on the whole, associated with considerable adverse individual, interpersonal, and organizational outcomes. Thus, organizations have a vested interest in enhancing employees' conflict management skills.

A number of studies have reported promising findings with regards to the effectiveness of conflict management training. Workshops that are aimed at enhancing employees' conflict understanding (e.g., understanding possible motivations behind different conflict behaviours), self-awareness, and reflective listening skills strengthen participants' conflict-related confidence and competence, increase the extent to which participants try to collaborate with others to achieve a mutually satisfactory solution, and decrease the extent to which participants use avoiding behaviours (Brinkert, 2011; Haraway & Haraway, 2005; Zweibel, Goldstein, Manwaring, & Marks, 2008). This suggests that conflict management training is a beneficial avenue for enhancing workers'

conflict management effectiveness and for reducing the potential adverse effects of (poorly managed) conflict. At an individual level, and particularly in situations where specific supervisors are known to not work well with others, there may also be some benefit in providing these individuals with one-on-one coaching that enhances their conflict-related competencies, such as their active and respectful listening skills, their ability to effectively engage and persuade others, and their ability to adapt to various situational demands requiring different managerial responses.

One of the most notable results is the strong positive impact of supervisors' problem-solving CMS. Other research has found similarly beneficial effects on a variety of other outcomes, including subordinates' satisfaction with their supervision, their evaluation of the supervisor's leadership effectiveness, and their organizational commitment (Barbuto et al., 2010; de Reuver & van Woerkom, 2010; Rahim & Buntzman, 1989). Thus, when supervisors manage conflicts by actively sharing information and involving their subordinate in finding a mutually satisfactory resolution, they enhance the interpersonal bonds between themselves and their staff, increase employees' engagement, and promote larger organizational effectiveness. Supervisors who employ such a collaborative CMS also act as role models for other supervisors and their employees, thereby communicating – and demonstrating – organizational expectations for considerate workplace interactions. This suggests the following: One, the value of increasing employees' use of a problem-solving CMS through training and two, the importance of recognizing and rewarding such collaborative conflict behaviours. Specifically, managing interpersonal conflict in such a collaborative manner can take considerable time and effort – when supervisors could just get what they want without the

extra work of engaging their subordinate (i.e., by using a forcing CMS), such a cooperative conflict management approach may, at times, seem onerous. Thus, the effort of using a problem-solving CMS should be rewarded appropriately.

The present findings also highlight the adverse effect of conflict situations on employees' emotional experiences. The importance of these findings is reinforced by research that has linked individuals' emotional experiences to a variety of other outcomes. For example, positive emotional experiences are an important determinant of individuals' ability to effectively cope with stressful situations (Perrewé & Zellars, 1999; Tugade, Fredrickson, & Feldman Barrett, 2004). Thus, a decrease in subordinates' positive emotions as a result of their supervisors' CMS may conceivably weaken their ability to deal with other stressful situations at work, including future interpersonal conflicts. Although the present research only assessed *subordinates'* emotional experiences, their supervisors are no doubt susceptible to similar adverse effects. Together, these findings indicate that employees – particularly those working in conflict-prone and emotionally-charged occupations – may benefit from training that enhances their capacity to evaluate and manage their emotions. Specifically, individuals who are better at regulating their emotions experience fewer conflicts and are better able to identify effective responses to stressful conflict situations (Lopes et al., 2011).

Workplace interventions. Individuals' experience of workplace conflict is rooted not only in intrapersonal and interpersonal elements, but also, in broader workplace influences. More specifically, employees' conflict management behaviours are rooted in – and perpetuated by – organizational conflict climates (Gelfand, Leslie, Keller, & de Dreu, 2012). This highlights the importance of organizations' commitment to setting and

communicating organizational expectations surrounding employee interactions and to facilitating a civil and respectful workplace climate. For example, only 1-6% of employees who experience incivility at the hand of their colleagues actually report such adverse treatment by colleagues (Cortina & Magley, 2009). In light of organizational power differences, the percentage of employees who report pervasive aggressive conflict behaviours at the hand of their supervisors is likely much lower. As a result, supervisors' poor conflict management behaviours may often go undisclosed. To address these issues, organizations should offer employees a safe way of providing feedback to their supervisors and encourage supervisors to be responsive to such feedback (Dijkstra et al., 2014). To ease the intrapersonal strain derived from adverse conflict experiences, organizations should also provide workplace supports such as Employee Assistance Programs and counselling services. Finally, workplaces must ensure that organizational policies, practices, and procedures effectively communicate expectations for employee conduct and interactions (C. M. Pearson, Andersson, & Porath, 2000; Spector & Fox, 2002). Specifically, evidence suggests that explicit civility promotion policies not only discourage incidents of uncivil interpersonal interactions, but also promote courteous and respectful social interactions (Leiter, Laschinger, Day, & Oore, 2011; Yang et al., 2014).

Limitations and Future Directions

The reliance on subordinates' self-reports in studies #1 and #2 may be of concern. However, self-reports were appropriate because they convey participants' perceptions of their work demands and these perceptions are essential components of their stress experience (Spector & Jex, 1998). Additionally, several of the research variables pertain to affective experiences and attitudes and are thus most feasibly assessed with self-reports

(Spector & Jex, 1998). Although CWB and OCB may be more publicly observable, these behaviours may not be reliably witnessed by others – either because others are not present to witness these behaviours on a regular basis or because these behaviours are often carried out surreptitiously to avoid sanctions – and are thus also appropriate for assessments through self-reports. The exclusive use of self-report measures may also raise concerns about inflated variable correlations due to common-method bias. However, several non-significant correlations among study variables – as well as distinct factor structures obtained in CFA analyses in both studies – support the notion that the threat of common-method bias in this study is low. Further, all measures demonstrated high internal reliability and, overall, variables correlated as expected based on previous empirical and theoretical reasoning (Conway & Lance, 2010). Finally, scholars (e.g., Spector, 2006) have argued that the risk of common-method bias are overstated in organizational research. Future research should nevertheless replicate the present findings using different measurement sources and tools.

The second limitation pertains to the possibility that the assessment of subordinates' reports of their supervisor's CMS differs from supervisors' actual conflict management behaviours. For example, given their lower organizational status and thus, greater sensitivity to perceived threats, subordinates may overreport the extent to which their supervisor uses a forcing CMS. However, as noted, individuals' perceptions are a central mechanism for understanding their stress experience. Further, a number of past investigations (e.g., De Dreu et al., 2001) have found strong overlap in the reports of conflict behaviours between individuals who engaged in these behaviours, individuals who were the targets of these behaviours, and uninvolved third-party observers.

Additionally, an evaluation of the relationship between subordinates' reports of their supervisors' CMS and a social desirability measure indicates that subordinates' reports are essentially unaffected by socially desirable responding. Finally, given the completely anonymous nature of both studies, participants had little external incentive to misrepresent their supervisor's conflict behaviours. Nonetheless, future research should consider assessing supervisors' conflict behaviours more directly.

Third, the cross-sectional nature of the present research precludes any conclusions about causality – or the extent to which subordinates' strains (particularly their CWB/OCB) may reciprocally affect the manner in which their supervisors generally manage supervisor-subordinate conflicts. However, the investigated linkages are strongly rooted in theoretical foundations and empirical evidence, supporting the notion that the directions of these relationships are properly identified. Even so, future research should examine these links using different research designs (e.g., longitudinal studies).

Fourth, virtually all of the hypothesized relationships for supervisors' avoiding CMS were not supported. Notably, issues pertaining to the assessment of the avoiding CMS style have been repeatedly reported in past investigations. Numerous studies encountered psychometric problems with their avoiding CMS measure and excluded this CMS from their analyses altogether; others report weak or non-significant relationships for the avoiding CMS (e.g., Tjosvold, XueHuang, Johnson, & Johnson, 2008; Way et al., 2014). These non-significant results may have been magnified by the focus on *supervisors'* use of such an obliging conflict management strategy. Specifically, by definition, behaviours associated with this CMS may be highly ambiguous and vague. From a subordinate's perspective, observing and evaluating such a conflict management

approach in a supervisor may be very difficult in that the evasive nature of this CMS makes it more difficult to identify it as clearly avoidant. Further, the nature of the avoiding CMS may also make it more difficult to ascertain the conflict party's motives and intentions – the almost clandestine characteristic of this strategy allows for a considerable range of other reasonable explanations for this behaviour (e.g., supervisor is involved in another critical issue that prevents their full engagement with this particular conflict). Thus, supervisors' avoiding CMS may be difficult to be assessed reliably from a subordinate's perspective. Instead, when encountering such ambiguous conflict behaviours, employees may simply suspend judgement, thereby preventing any impact – positive or negative – on their cognitive, emotional, or behavioural outcomes.

Fifth, the study did not assess the broader supervisor-subordinate relationship quality. It is possible that the supervisor and subordinate have a highly deteriorated relationship, for example, as a result of past workplace bullying at the hand of one of the parties. Such frictions may lead to very minimal contact – and thus, very few opportunities for conflict – between a subordinate and their supervisor. Contrary to the presumption that low levels of conflict are good, in this context, low levels of conflict are indicative of significant interpersonal difficulties that are not captured in the present study. The existence of such a deteriorated relationship may also account for the non-significant findings related to the avoiding CMS. Specifically, although avoidant behaviours generally have negative implications when it comes to dealing with conflict, in the context of a highly deteriorated supervisor-subordinate relationship, avoidant behaviours may be advantageous in that they avert further antagonistic interpersonal interactions and thereby offset the negative impacts normally associated with this evasive

conflict management style. Future research should consider assessing the broader supervisor-subordinate relationship quality to control for these potential effects.

Relatedly, the study also did not assess the wider team or workplace climate. As the most front-and-center and influential employees, leaders not only oversee various organizational policies and practices, but also model what are deemed to be proper and acceptable workplace behaviours (Doucet et al., 2009). For example, leaders' behaviours are significant predictors of workplace safety climates and, in turn, safe behaviours and workplace accidents (Zohar, 2010). Leaders' conflict behaviours are also related to team-level conflict cultures, that is, the shared perceptions of normative conflict behaviours (Gelfand et al., 2012). These findings indicate that supervisors' conflict behaviours likely mould subordinates' conflict behaviours, including their actions during a specific conflict episode as well as their more distal responses (e.g., the extent to which they engage in hostility directed at their supervisor). It is also possible that the vicarious exposure to a supervisor's hostile conflict behaviours directed at a colleague shapes subordinates' workplace actions and experiences. This notion is supported by research that indicates that the second-hand exposure to workplace violence predicts employees' physical and psychological well-being (e.g., Dupré, Dawe, & Barling, 2014; Schat & Kelloway, 2000). Finally, various workplace policies, practices, and procedures may also affect the extent to which subordinates engage in organizational citizenship and counterproductive behaviours. For example, research indicates that the perceived likelihood of being punished if caught is a significant predictor of employees' CWB (Fox & Spector, 1999). Thus, future research should consider evaluating – and controlling for – the broader organizational context and influences when researching supervisor-subordinate conflicts.

Aside from the avoiding CMS, the present study also found several unexpected results for supervisors' forcing CMS and yielding CMS. These results add to an increasing body of evidence that suggests that the impact of supervisors' conflict management behaviours on employee strains is different than, for example, the impact of coworkers' conflict management behaviours (e.g., de Reuver, 2006). However, little is known about the exact reasons for these differences. Future research should consider exploring these issues in more detail; for example, by comparing how employees' appraisal of supervisors' CMS may differ from their appraisals of colleagues' CMS.

The present study demonstrates that supervisors' behaviours during a conflict episode shape distal subordinate actions directed at the supervisor and the organization. However, it is plausible that strong emotional experiences caused by a supervisor (e.g., extreme frustration) also spill over into subordinates' other interpersonal relationships – both at work and at home. Thus, future research might investigate the extent to which adverse conflict experiences with a supervisor incites conflict, incivility, and other antagonistic interactions between employees and their peers, their own subordinates, and their personal relationships.

Present findings demonstrate that supervisors' actions within a particular conflict episode strongly shape future interpersonal relations between supervisors and subordinates, but only considered three supervisor-targeted behaviours: Helping, hostility, and obstructionism. Although these behaviours are relatively innocuous, they nevertheless target the supervisor quite explicitly and openly. Given the risk of sanctions for even minor transgressions against their supervisor, employees may choose to engage in even more inconspicuous actions. For example, research indicates that supervisors'

CMS shape the extent to which their subordinates engage in positive and negative gossip about their supervisor (Dijkstra et al., 2014). A review of other hidden counterproductive behaviours suggests a wide range of other possible outlets for disgruntled subordinates, such as starting false rumours, assigning derogatory nicknames, and belittling their supervisor's opinions to others. Exploring the effects of workplace conflict and supervisors' CMS on these types of behaviours may be a fruitful research avenue.

Finally, some situations (e.g., emergencies, critical incidents) may require supervisors to make absolute decisions that do not lend themselves to extensive open discussions and negotiations with the rest of their team. The present findings demonstrate that such authoritarian responses can have considerable adverse effects, particularly for the supervisor-subordinate relationship. Yet, it seems plausible that even these effects might be lessened. Thus, future research should examine how post-incident actions – such as apologies and other relationship repair efforts – might mitigate these effects.

Conclusion

Workplace conflict is a pervasive, recurrent, and often, a tremendously stressful experience. The difference in organizational status between supervisors and subordinates makes conflict with a supervisor particularly taxing for employees. The adverse intrapersonal, interpersonal, and organizational impact of such discord is substantial. The near unavoidability of workplace conflict highlights the importance of understanding its adverse effects, the ways in which it brings about these effects, and the interventions that may ease these effects. Supervisors play a large role in determining employees' overall conflict experience. The ways in which supervisors manage conflict with their subordinates can worsen its adverse effects considerably – but they can also ameliorate

many of its unfortunate impacts. The present research extends the current understanding of supervisors' conflict management styles by demonstrating that they not only shape subordinates' attitudes and well-being, but also affect the extent to which subordinates engage in desirable and undesirable discretionary workplace behaviours. Together, these findings highlight the importance of studying the impact of supervisors' conflict management approach on subordinates' behaviours outside of a specific conflict episode and underscore the relevance of discrete supervisor-subordinate relationships in determining critical organizational outcomes.

Notably, when supervisors manage conflict by listening to their subordinates, respectfully discussing the conflict issue, openly sharing information, and involving their subordinate in coming up with a mutually satisfactory solution, subordinates are not only more satisfied and less distressed, but also respond by engaging in more prosocial – and fewer antagonistic – behaviours at work. To some, engaging in such a collaborative conflict management approach may appear needlessly time-consuming and overindulgent – Why try and convince a subordinate when you can just force them? Although such a participative approach may indeed seem tedious to some, past and present research suggests that the long-term benefits can be tremendous: By strengthening the supervisor-subordinate relationship and setting the tone for respectful interactions, it reduces the likelihood of future frictions and ultimately frees up valuable time and energy that can be focussed on other, more gainful activities. Thus, it not only enhances employees' attitudes, relationships, and well-being, but also helps the bottom line. In short, cooperative conflict management results in considerable benefits for subordinates, their supervisor, and the broader organization – or, if you will, in a "win, win, win".

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APPENDICES

APPENDIX A – Participant Demographic Information

Table 26

Participant Demographic Information – Study #1 and Study #2

Variable	Study #1		Study #2	
	N	%	*N*	%
Gender				
Male	287	56.8	298	58.9
Female	218	43.2	208	41.1
Ethnicity				
White/Caucasian	399	79.0	402	79.4
Black/African	34	6.7	27	5.3
Hispanic	20	4.0	28	5.5
East Asian	30	5.9	27	5.3
Aboriginal	2	0.4	6	1.2
South Asian	5	1.0	3	0.6
Pacific Islander	4	0.8	1	0.2
Mixed Ethnicity	9	1.8	8	1.6
Other	2	0.4	2	0.4
Did not specify	-	-	2	0.4
Country of Residence				
United Stated of America	503	99.6	504	99.6
Canada	1	0.2	1	0.2
Did not specify	1	0.2	1	0.2
Marital Status				
Single	208	41.2	210	41.5
Married	188	37.2	188	37.2
Common-law/Committed relationship	76	15.1	82	16.2
Separated/Divorced	29	5.7	25	4.9
Widowed	3	0.6	1	0.2
Did not specify	1	0.2	-	-
Level of Education				
Some high school	2	0.4	4	0.8
High school graduate	46	9.1	56	11.1
Some college/University	159	31.5	170	33.6
University graduate	298	59.1	276	54.6
Management Position				
Yes	137	27.1	131	25.9
No	367	72.7	373	73.9
Did not specify	1	0.2	1	0.2
Union Position				
Yes	54	10.7	39	7.7
No	450	89.1	464	91.7
Did not specify	1	0.2	3	0.6

Variable	Study #1		Study #2	
	N	%	*N*	%
Occupational Group				
Business and Financial Occupations	58	11.5	52	10.3
Computer and Mathematical Occupations	46	9.1	78	15.4
Architecture and Engineering Occupations	10	2.0	12	2.4
Life, Physical, and Social Science Occupations	14	2.8	12	2.4
Community and Social Service Occupations	15	3.0	5	1.0
Legal Occupations	13	2.6	11	2.2
Education, Training, and Library Occupations	37	7.3	38	7.5
Arts, Design, Entertainment, Sports, & Media Occup.	37	7.3	30	5.9
Healthcare Practitioners and Technical Occup.	16	3.2	13	2.6
Healthcare Support Occupations	22	4.4	24	4.7
Protective Service Occupations	8	1.6	3	0.6
Food Preparation and Serving-Related Occup.	30	5.9	35	6.9
Building, Grounds Cleaning, & Maintenance Occup.	3	0.6	4	0.8
Personal Care and Service Occupations	7	1.4	7	1.4
Sales and Related Occupations	75	14.9	76	15.0
Office and Administrative Support Occupations	41	8.1	44	8.7
Farming, Fishing, and Forestry Occupations	2	0.4	2	0.4
Construction and Extraction Occupations	5	1.0	8	1.6
Installation, Maintenance, and Repair Occupations	6	1.2	9	1.8
Production Occupations	15	3.0	10	2.0
Transportation and Material Moving Occup.	20	4.0	10	2.0
Military Specific Occupations	4	0.8	4	0.8
Other Occupations	21	4.2	19	3.8
Supervisor's approximate number of supervisees				
1-5 supervisees	79	15.6	99	19.6
6-10 supervisees	142	28.1	149	29.4
11-15 supervisees	94	18.6	76	15.0
16-20 supervisees	62	12.3	56	11.1
21-25 supervisees	22	4.4	33	6.5
26-30 supervisees	31	6.1	21	4.2
31-35 supervisees	6	1.2	10	2.0
36-40 supervisees	13	2.6	12	2.4
41-45 supervisees	5	1.0	4	0.8
46-50 supervisees	16	3.2	8	1.6
More than 50 supervisees	35	6.9	37	7.3
Did not specify	-	-	1	0.2
Approximate number of company employees				
1-4 employees	9	1.8	9	1.8
2-99 employees	203	40.2	216	42.7
100-499 employees	117	23.2	126	24.9
500-999 employees	34	6.7	34	6.7
100+ employees	141	27.9	120	23.7
Did not specify	1	0.2	1	0.2

APPENDIX B – Study Description for Amazon Mechanical Turk (Study #1)

Description Headline:
Research Survey: How do you feel about your boss, job, and work?

About this HIT

- This is an academic study of employees' work-related attitudes, well-being, and workplace behaviours
- If you choose to accept this HIT and participate in this survey, you will be asked to complete an online questionnaire containing measures of a various job-related attitudes and behaviours as well as measures of general well-being
- It takes approximately 15-20 minutes to complete the survey

Participating in this HIT

To participate in this HIT, you must meet **all** of the following requirements:

(1) You are 18 years or older and currently hold a full-time job,
(2) You have worked with your current supervisor for at least 6 months,
(3) You currently reside and work in Canada or the United States,
(4) English is one of your primary languages (i.e., you speak English fluently),
(5) Amazon Mechanical Turk Qualifications: 98% approval rate and a minimum of 1,000 approved HITs

If you do not meet these eligibility requirements, your HIT will be rejected (that is, you will not be compensated).

Participants will receive a $1 as a token of appreciation for their research participation. However, participants must complete 80% or more of the survey questions to be eligible for this token of appreciation.

This HIT may be reposted periodically, but you may only participate once in this study. You will not be compensated for completing this study a second time.

Instructions

1. Please open the following link in a new tab or page: [**link to survey**]
2. Complete the survey
3. At the end of the survey, you will find a survey code. Please paste this code into the box below to receive your compensation.

Note: If you choose to withdraw from the study or choose to otherwise not complete the study, please be sure to return to AMT and withdraw from this study HIT.

APPENDIX C – Survey Instrument (Study #1)

Thank you for agreeing to participate in this research.

Although the instructions for each group of questions are similar, please read each one carefully as there are some subtle differences between these instructions. You may also find that some questions are very similar to others. Please bear with us; there are methodological reasons for these apparent redundancies.

This questionnaire generally takes 15-20 minutes to complete. Your participation is much appreciated.

Please provide your *Amazon Mechanical Turk* Worker ID Number in order to have your HIT approved:
AMT Worker ID Number: _____

Eligibility Questions (to verify participants' eligibility to participate in this study)

1. Are you 18 years or older? ☐ Yes ☐ No
2. Do you currently hold a full-time job? ☐ Yes ☐ No
3. Have you worked for your current supervisor for <u>at least</u> 6 months? *Your supervisor refers to your "boss"; that is, the person who oversees and directs your work activities and to whom you report to. If you have more than 1 supervisor, please think of the supervisor with whom you have worked the longest.*
   ☐ Yes ☐ No
4. Do you currently reside/work in Canada and/or the United States? ☐ Yes ☐ No
5. Is English one of your primary languages (i.e., a language that you speak fluently and proficiently?) ☐ Yes ☐ No

Demographic Questions

6. Which occupational group best describes your job?
   - Business and Financial Operations Occupations
   - Computer and Mathematical Occupations
   - Architecture and Engineering Occupations
   - Life, Physical, and Social Science Occupations
   - Community and Social Service Occupations
   - Legal Occupations
   - Education, Training, and Library Occupations
   - Arts, Design, Entertainment, Sports, and Media Occupations

- Healthcare Practitioners and Technical Occupations
- Healthcare Support Occupations
- Protective Service Occupations
- Food Preparation and Serving Related Occupations
- Building and Grounds Cleaning and Maintenance Occupations
- Personal Care and Service Occupations
- Sales and Related Occupations
- Office and Administrative Support Occupations
- Farming, Fishing, and Forestry Occupations
- Construction and Extraction Occupations
- Installation, Maintenance, and Repair Occupations
- Production Occupations
- Transportation and Material Moving Occupations
- Military Specific Occupations
- Other (please specify): _____

7. What is your job title? _____

8. Is your current job a management position? ☐ Yes ☐ No

9. Are you a member of a collective bargaining unit at work (that is, are you part of a labour union)? ☐ Yes ☐ No

10. For how many years have you held your current job? _____ years

11. How long have you worked for your current supervisor? _____ years

12. Including yourself, approximately how many people does your supervisor supervise? _____ people

13. Approximately how many employees work at your company/organization?
    - 1-4 employees
    - 5-99 employees
    - 100-499 employees
    - 500-999 employees
    - 1000+ employees

14. What is your sex? (e.g., male, female) _____

15. How old are you? _____ years

16. What ethnic background do you most identify with? (For example: Caucasian, African-American, East Indian, etc.) _____

17. What is your primary country of residence? _____

18. What is your relationship status?
    - Single
    - Married
    - Common-law/Committed relationship
    - Separated/Divorced
    - Widowed
    - Other (please specify): _____

19. What is your highest level of education?
    - Some high school
    - High school graduate
    - Some university/College
    - University/College graduate
    - Other (please specify): _____

Workplace Conflict with Supervisor

The following statements refer to work-related situations involving your supervisor. Please indicate how often you encounter these situations in your current job.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *all the time*

How often do you and your supervisor have…

Task Conflict

1. Differences of opinions regarding work tasks
2. Disagreements about the work being done
3. Disagreements about the task you are working on
4. Disagreements about ideas regarding work tasks
5. Different viewpoints on task-related decisions
6. Divergent ideas about the execution of work tasks
7. Different beliefs about the cause and solution of work-related problems

Relationship Conflict

8. Personality clashes
9. Relationship tensions
10. Interpersonal frictions
11. Differences of opinions about personal issues
12. Disagreements about non-work things
13. Quarrels about personal matters
14. Arguments due to personality differences

Supervisor's Conflict Management Style

The following statements refer to work-related situation involving your supervisor. For each statement, please indicate how your supervisor **generally** responds when you have a disagreement or conflict with each other.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *all the time*

When my supervisor and I have a disagreement or conflict at work, **my supervisor** …

Forcing

1. Pushes for his/her own point of view
2. Does everything to win
3. Uses his/her authority to make a decision in his/her favour
4. Uses his/her power to get his/her way
5. Pursues his/her own goals without concern for my goals

Avoiding

6. Avoids confrontations about our differences
7. Make differences appear less severe
8. Avoids confrontations with me
9. Avoids being "put on the spot"
10. Avoids open discussion of our differences

Yielding

11. Gives in to my wishes
12. Concurs with me
13. Accommodates me as much as possible
14. Adapts to my goals and interests
15. Goes along with my suggestions
16. Lets me have my way

Problem-Solving

17. Examines ideas from both sides to find a mutually acceptable solution
18. Works out a solution that serves both of our interests as best as possible
19. Investigates the issue together with me
20. Collaborates with me to come up with a decision jointly
21. Does whatever is needed to satisfy both of us
22. Works with me to come up with a solution that's acceptable to both of us

Interpersonal Conflict at Work Scale

The following statements refer to work-related situations involving people at work in general. Please indicate how often you encounter these situations in your current job.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *quite often*, 5 = *very often*

1. How often do you get into arguments with others at work?
2. How often do other people yell at you at work?
3. How often are other people rude to you at work?
4. How often do other people do nasty things to you at work?

Agreeableness

The following statements refer to personal attitudes and dispositions. Please indicate how accurately each statement describes **you**.

Anchors: 1 = *very inaccurate*, 2 = *moderately inaccurate*, 3 = *neither accurate nor inaccurate*, 4 = *moderately accurate*, 5 = *very accurate*

1. I am not really interested in others (R)
2. I am not interested in other people's problems (R)
3. I feel little concern for others (R)
4. I insult people (R)
5. I make people feel at ease
6. I am interested in people
7. I have a soft heart
8. I take time out for others
9. I sympathize with others' feelings
10. I feel others' emotions

Negative Affect

The following scale consists of a number of words that describe different feelings and emotions. Thinking about yourself and how you normally feel, to what extent do you **generally** feel:

Anchors: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *always*

1. Upset
2. Hostile
3. Ashamed
4. Nervous
5. Afraid

Supervisor Support

The following statements could be used to describe someone's supervisor. Please indicate the extent to which these statements apply to **your supervisor**.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *some of the time*, 4 = *most of the time*, 5 = *always*

1. My supervisor goes out of his/her way to make my work life easier
2. My supervisor is easy to talk to
3. My supervisor can be relied on when things get tough at work
4. My supervisor is willing to listen to my personal problems

Autocratic Leadership

Listed below are a number of statements that could be used to describe **your supervisor**. Please indicate the extent to which you AGREE or DISAGREE with each of the following statements.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*

1. My supervisor is a micro-manager
2. My supervisor attempts to exert total control over everyone
3. My supervisor is autocratic (that is, my supervisor is unconcerned with other people's wishes or opinions)
4. My supervisor does not trust others to do tasks properly
5. My supervisor wants to dominate/control everything
6. My supervisor does not show trust in subordinates by assigning them important tasks.
7. My supervisor does not share power with the people with whom he or she works

Passive Leadership

The following statements could be used to describe someone's supervisor. Please indicate the extent to which these statements apply to **your supervisor**.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *definitely not true*, 2 = *not true*, 3 = *neither true nor untrue*, 4 = *true*, 5 = *definitely true*

1. My supervisor allows performance to fall below minimum standards before trying to make improvements
2. My supervisor delays taking action until problems become serious
3. My supervisor tells me what I've done wrong rather than what I've done right
4. My supervisor waits until things have gone wrong before taking action.
5. My supervisor shows firm belief in "if it ain't broke don't fix it"

Job Satisfaction

Listed below are a number of statements that refer to how you feel about your present job. Please indicate the extent to which you AGREE or DISAGREE with each of these statements.

Anchors: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *strongly agree*

1. All in all, I am satisfied with my job
2. In general, I don't like my job (R)
3. All things considered, I like working here

Emotional Exhaustion

Listed below are a number of statements that could be used to describe your feelings about your job. Please indicate the extent to which you have been experiencing any the following **during the past 6 months**.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *all the time*

1. I feel burned out from my work
2. I feel fatigued when I get up in the morning and have to face another day on the job
3. I feel frustrated by my job
4. I feel like I'm at the end of my rope

Social Desirability

Please read each of the following statements and decide if that statement describes you or not. If it describes you, please select "true"; if not, please select "false."

Anchors: 1 = *true*, 2 = *false*

1. I sometimes litter (R)
2. I always admit my mistakes openly and face the potential negative consequences
3. In traffic I am always polite and considerate of others
4. I always accept others' opinions, even when they don't agree with my own
5. I take out my bad moods on others now and then (R)
6. There has been an occasion when I took advantage of someone else (R)
7. In conversations I always listen attentively and let others finish their sentences
8. I never hesitate to help someone in case of emergency
9. When I have made a promise, I keep it – no ifs, ands or buts
10. I occasionally speak badly of others behind their back (R)
11. I would never live off other people
12. I always stay friendly and courteous with other people, even when I am stressed out
13. During arguments I always stay objective and matter-of-fact
14. There has been at least one occasion when I failed to return an item that I borrowed (R)
15. I always eat a healthy diet
16. Sometimes I only help because I expect something in return (R)

Concluding Remarks

1. Have there been any major changes or events at your place of employment during the past 6 months (e.g., new management, a round of layoffs)? If so, please describe these briefly.

   _____
   _____
   _____

2. Have there been any major changes in your relationship with your supervisor during the past 6 months? If so, please describe these briefly.

   _____
   _____
   _____

3. Sometimes participants have concerns regarding their responses to some questions (e.g., they misunderstood a question, no option was available that properly captured their answer, etc.). If you have such concerns, please feel free to let us know in the space below. No one will contact you as a result of any comments you make.

   _____
   _____
   _____

We want to emphasize how important it is that we receive honest and accurate results from our study participants. Your responses will have significant consequences when the results of this study are used to help others. Therefore we ask that you respond to the following two questions regarding the quality of your questionnaire responses. Regardless of your answers, your eligibility for the $1 participation incentive will not be affected.

Anchors: 1 = *very careful*; 2 = *somewhat careful*; 3 = *somewhat careless*; 4 = *did not pay attention*

1. Please indicate the degree to which you responded carefully to each question.

Anchors: 1 = *very confident*; 2 = *somewhat confident*; 3 = *somewhat doubtful*; 4 = *very doubtful*

2. Please indicate how confident you are in the accuracy of your questionnaire responses.

APPENDIX D – Study Description for Amazon Mechanical Turk (Study #2)

Description Headline:
Research Survey: How do you feel about your boss, job, and work?

About this HIT

- This is an academic study of employees' work-related attitudes, well-being, and workplace behaviours
- If you choose to accept this HIT and participate in this survey, you will be asked to complete an online questionnaire containing measures of a various job-related attitudes and behaviours as well as measures of general well-being
- It takes approximately 20-30 minutes to complete the survey

Participating in this HIT

*****To participate in this HIT, you must <u>not</u> have participated in Part 1 of this study (posted on AMT at the end of August).*****

Additionally, you must meet **<u>all</u>** of the following requirements:

(1) You are 18 years or older and currently hold a full-time job,
(2) You have worked with your current supervisor for at least 6 months,
(3) You currently reside and work in Canada or the United States,
(4) English is one of your primary languages (i.e., you speak English fluently),
(5) Amazon Mechanical Turk Qualifications: 98% approval rate and a minimum of 1,000 approved HITs

If you do not meet these eligibility requirements, your HIT will be rejected (that is, you will not be compensated).

Participants will receive a $2 as a token of appreciation for their research participation. However, participants must complete 80% or more of the survey questions to be eligible for this token of appreciation.

This HIT may be reposted periodically, but you may only participate once in this study. You will not be compensated for completing this study a second time.

Instructions

1. Please open the following link in a new tab or page: [**link to survey**]
2. Complete the survey
3. At the end of the survey, you will find a survey code. Please paste this code into the box below to receive your compensation.

Note: If you choose to withdraw from the study or choose to otherwise not complete the study, please be sure to return to AMT and withdraw from this study HIT.

APPENDIX E – Survey Instrument (Study #2)

Thank you for agreeing to participate in this research.

Although the instructions for each group of questions are similar, please read each one carefully as there are some subtle differences between these instructions. You may also find that some questions are very similar to others. Please bear with us; there are methodological reasons for these apparent redundancies.

This questionnaire generally takes 20-30 minutes to complete. Your participation is much appreciated.

Please provide your *Amazon Mechanical Turk* Worker ID Number in order to have your HIT approved:
AMT Worker ID Number: _____

Eligibility Questions (to verify participants' eligibility to participate in this study)

1. Did you participate in Part1 of this study (posted on AMT at the end of August)?
   ☐ Yes ☐ No

2. Are you 18 years or older? ☐ Yes ☐ No

3. Do you currently hold a full-time job? ☐ Yes ☐ No

4. How long have you been working with your current supervisor?
   Your supervisor refers to your "boss"; that is, the person who oversees and directs your work activities and to whom you report to. If you have more than 1 supervisor, please think of the supervisor with whom you have worked the longest.
   ☐ Yes ☐ No

5. Do you currently reside/work in Canada and/or the United States? ☐ Yes ☐ No

6. Is English one of your primary languages (i.e., a language that you speak fluently and proficiently?) ☐ Yes ☐ No

Demographic Questions

7. Which occupational group best describes your job?
   - Business and Financial Operations Occupations
   - Computer and Mathematical Occupations
   - Architecture and Engineering Occupations
   - Life, Physical, and Social Science Occupations
   - Community and Social Service Occupations
   - Legal Occupations
   - Education, Training, and Library Occupations
   - Arts, Design, Entertainment, Sports, and Media Occupations
   - Healthcare Practitioners and Technical Occupations
   - Healthcare Support Occupations
   - Protective Service Occupations
   - Food Preparation and Serving Related Occupations
   - Building and Grounds Cleaning and Maintenance Occupations
   - Personal Care and Service Occupations
   - Sales and Related Occupations
   - Office and Administrative Support Occupations
   - Farming, Fishing, and Forestry Occupations
   - Construction and Extraction Occupations
   - Installation, Maintenance, and Repair Occupations
   - Production Occupations
   - Transportation and Material Moving Occupations
   - Military Specific Occupations
   - Other (please specify): _____

8. What is your job title? _____

9. Is your current job a management position? ☐ Yes ☐ No

10. Are you a member of a collective bargaining unit at work (that is, are you part of a labour union)? ☐ Yes ☐ No

11. For how many years have you held your current job? _____ years

12. How long have you worked for your current supervisor? _____ years

13. Including yourself, approximately how many people does your supervisor supervise? _____ people

14. Approximately how many employees work at your company/organization?
    - 1-4 employees
    - 5-99 employees
    - 100-499 employees
    - 500-999 employees
    - 1000+ employees

15. What is your sex? (e.g., male, female) _____

16. How old are you? _____ years

17. What ethnic background do you most identify with? (For example: Caucasian, African-American, East Indian, etc.) _____

18. What is your primary country of residence? _____

19. What is your relationship status?
    - Single
    - Married
    - Common-law/Committed relationship
    - Separated/Divorced
    - Widowed
    - Other (please specify): _____

20. What is your highest level of education?
    - Some high school
    - High school graduate
    - Some university/College
    - University/College graduate
    - Other (please specify): _____

Workplace Conflict with Supervisor

Participant Instructions: The following statements refer to work-related situations involving your supervisor. Please indicate how often you encounter these situations in your current job.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *all the time*

How often do you and your supervisor have…

Task Conflict

1. Differences of opinions regarding work tasks
2. Disagreements about the work being done
3. Disagreements about the task you are working on
4. Disagreements about ideas regarding work tasks
5. Different viewpoints on task-related decisions
6. Divergent ideas about the execution of work tasks
7. Different beliefs about the cause and solution of work-related problems

Relationship Conflict

8. Personality clashes
9. Relationship tensions
10. Interpersonal frictions
11. Differences of opinions about personal issues
12. Disagreements about non-work things
13. Quarrels about personal matters
14. Arguments due to personality differences

Supervisor's Conflict Management Style

The following statements refer to work-related situation involving your supervisor. For each statement, please indicate how your supervisor **generally** responds when you have a disagreement or conflict with each other.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *all the time*

When my supervisor and I have a disagreement or conflict at work, **my supervisor** …

Forcing

1. Pushes for his/her own point of view
2. Does everything to win
3. Uses his/her authority to make a decision in his/her favour
4. Uses his/her power to get his/her way
5. Pursues his/her own goals without concern for my goals

Avoiding

6. Avoids confrontations about our differences
7. Make differences appear less severe
8. Avoids confrontations with me
9. Avoids being "put on the spot"
10. Avoids open discussion of our differences

Yielding

11. Gives in to my wishes
12. Concurs with me
13. Accommodates me as much as possible
14. Adapts to my goals and interests
15. Goes along with my suggestions
16. Lets me have my way

Problem-Solving

17. Examines ideas from both sides to find a mutually acceptable solution
18. Works out a solution that serves both of our interests as best as possible
19. Investigates the issue together with me
20. Collaborates with me to come up with a decision jointly
21. Does whatever is needed to satisfy both of us
22. Works with me to come up with a solution that's acceptable to both of us

Distributive Justice

Participant Instructions: The following statements refer to how you might feel about the way in which other people manage interpersonal conflicts or disagreements. Please indicate how you feel about **your supervisor's** approach to managing conflicts or disagreements **with you**.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *some of the time*, 4 = *most of the time*, 5 = *always*

When **my supervisor** manages conflicts or disagreements **with me**…

1. I feel that the outcomes are favourable to me
2. I feel that the outcomes are easily acceptable by me
3. I feel that the outcomes meet my needs
4. I feel that I deserve the outcomes
5. I feel that the outcomes are fair
6. I feel that the outcomes are reasonable

Procedural Justice

Participant Instructions: The following statements refer to how you might feel about the way in which other people manage interpersonal conflicts or disagreements. Please indicate how you feel about **your supervisor's** approach to managing conflicts or disagreements **with you**.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *some of the time*, 4 = *most of the time*, 5 = *always*

When it comes to managing conflicts or disagreements **with me**, my supervisor…

1. Collects accurate information necessary for making decisions
2. Provides opportunities for me to appeal or challenge the decision
3. Has all sides affected by the decision represented
4. Generates standards so that decisions can be made with consistency
5. Hears the concerns of all those affected by the decisions
6. Provides me with useful feedback regarding the decision and its implementation
7. Allows for requests for clarification or additional information about the decision

Interactional Justice

Participant Instructions: The following statements refer to how you might feel about the way in which other people manage interpersonal conflicts or disagreements. Please indicate how you feel about **your supervisor's** approach to managing conflicts or disagreements **with you**.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *never*, 2 = *rarely*, 3 = *some of the time*, 4 = *most of the time*, 5 = *always*

When it comes to managing conflicts or disagreements **with me**, my supervisor…

1. Treats me in a polite manner
2. Treats me with dignity
3. Treats me with respect
4. Refrains from making improper remarks or comments
5. Is candid in his/her communications with me
6. Provides me with thorough explanations
7. Provides me with reasonable explanations
8. Communicates details in a timely manner
9. Seems to tailor his/her communication to my specific needs

Emotional Experiences

Listed below are a number of statements concerning different emotions that a person can feel. Please indicate the extent to which **your supervisor** has made you feel each emotion within the past **2 weeks**.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1= *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *quite often*, 5 = *extremely often*

During the past 2 weeks, …

1. My supervisor made me feel angry
2. My supervisor made me feel anxious
3. My supervisor made me feel at ease
4. My supervisor made me feel bored
5. My supervisor made me feel calm
6. My supervisor made me feel content
7. My supervisor made me feel depressed
8. My supervisor made me feel discouraged
9. My supervisor made me feel disgusted
10. My supervisor made me feel ecstatic
11. My supervisor made me feel energetic
12. My supervisor made me feel enthusiastic
13. My supervisor made me feel excited
14. My supervisor made me feel fatigued
15. My supervisor made me feel frightened
16. My supervisor made me feel furious
17. My supervisor made me feel gloomy
18. My supervisor made me feel inspired
19. My supervisor made me feel relaxed
20. My supervisor made me feel satisfied

Interpersonal Helping

Participant Instructions: Listed below are a number of statements that could be used to describe your relationship with **your supervisor**. Please indicate the extent to which you AGREE or DISAGREE with each of these statements.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neither agree nor disagree*, 5 = *slightly agree*, 6 = *agree*, 7 = *strongly agree*

1. I help my supervisor after he/she has been absent
2. I help my supervisor when he/she has a heavy workload
3. I willingly help my supervisor when he/she has work-related problems
4. I am always ready to lend a helping hand to my supervisor
5. I volunteer to do things for my supervisor

Organizational Loyalty

Participant Instructions: Listed below are a number of statements that could be used to describe **your** work-related behaviours. Please indicate the extent to which you AGREE or DISAGREE with each of the following statements.

Anchors: 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neither agree nor disagree*, 5 = *slightly agree*, 6 = *agree*, 7 = *strongly agree*

1. I defend my organization when other employees criticize it
2. I encourage friends and family to use my organization's products and services
3. I defend my organization when outsiders criticize it
4. I show pride when representing my organization in public
5. I actively promote my organization's products and services to potential users

Civic Virtue

Participant Instructions: Listed below are a number of statements that could be used to describe **your** work-related behaviours. Please indicate the extent to which you AGREE or DISAGREE with each of the following statements.

Anchors: 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neither agree nor disagree*, 5 = *slightly agree*, 6 = *agree*, 7 = *strongly agree*

1. I attend company meetings that are not mandatory, but are considered important
2. I attend functions that are not required, but help the company image
3. I keep abreast of changes in my organization
4. I read and keep up with my organization's announcements, memos, and so on

Hostility

Participant Instructions: Listed below are a number of behaviours that could be used describe your relationship with your supervisor and how you behave toward him/her. Please indicate how often you have engaged in these behaviours during the past 6 months. Please remember to be completely honest. Your responses will remain strictly confidential.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1= *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *very often*

How often have you…

1. Given your supervisor "dirty looks" or other negative eye-contact
2. Belittled your supervisor's opinion to others
3. Given your supervisor "the silent treatment"
4. Made a negative or obscene gesture toward your supervisor
5. Talked behind your supervisor's back
6. Spread rumours about your supervisor
7. Repeatedly interrupted your supervisor when he/she is speaking
8. Ridiculed your supervisor or his/her work
9. Send unfairly negative information about your supervisor to higher levels in the company
10. Purposefully leave the work area when your supervisor entered
11. Failed to deny a false rumour about your supervisor
12. Failed to object to false accusations about your supervisor
13. Acted rudely toward your supervisor

Obstructionism

Participant Instructions: Listed below are a number of behaviours that could be used describe your relationship with your supervisor and how you behave toward him/her. Please indicate how often you have **intentionally** engaged in these behaviours on your present job.

Please remember to be completely honest. Your responses will remain strictly confidential.

Your supervisor is whomever you consider to be your "boss" – that is, the person who oversees and directs your work activities and to whom you report. If you have more than one supervisor, please think of the supervisor with whom you have worked the longest.

Anchors: 1= *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *very often*

How often have you **intentionally**…

1. Failed to return phone calls, emails, or respond to memos from your supervisor
2. Failed to transmit information needed by your supervisor
3. Caused others to delay action on matters important to your supervisor
4. Failed to warn your supervisor of impending work issues or problems
5. Show up late for a meeting run by your supervisor
6. Fail to defend your supervisor's plans to others
7. Interfere with or block your supervisor's work activities
8. Needlessly consume resources needed by your supervisor
9. Refuse to provide needed resources or equipment to your supervisor
10. Delay work to slow down your supervisor
11. Create unnecessary work for your supervisor

Theft

Participant Instructions: Listed below are a number of work-related behaviours. Please indicate how often you have engaged in these behaviours on your present job.

Please remember to be completely honest. Your responses will remain strictly confidential.

Anchors: 1= *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *very often*, 6 = *not applicable to my job*

How often have you…

1. Used the photocopier for personal business
2. Used the company's stamp or postage meter for personal mail
3. Used the fax machine for personal business
4. Taken money from the cash register or petty cash fund
5. Taken products or merchandise worth $15.00
6. Charged personal meals, gas, phone, or supplies to a company credit card beyond those charges allowed by the company
7. Ordered merchandise for personal use and charging it to the company
8. Borrowed or copied company documents for personal gain
9. Padded mileage reports for company reimbursement
10. Used the company phone for long-distance personal calls
11. Turned in meal receipts for meals never purchased
12. Exaggerated hours on time card
13. Taken products or merchandise worth $5.00
14. Reported expenses on your expense report when you never really spent the money
15. Used office supplies for personal use (e.g., stationary, envelopes, etc.)
16. Used the company vehicle for personal business
17. Bought company products or merchandise at the employee rate for friends or family members
18. Used the company phone for local personal calls
19. Sold products/merchandise to your friends or family members at a reduced price
20. "Borrowed" money or supplies with the intent to return it later
21. Taken home office supplies
22. Copied computer software from a company computer
23. Taken products or merchandise worth $1.00 or less
24. Taken products or merchandise worth $50.00
25. Taken products or merchandise worth $100.00

Withdrawal

Participant Instructions: Listed below are a number of work-related behaviours. Please indicate how often you have engaged in the following behaviours during the past **6 months.**

Please remember to be completely honest. Your responses will remain strictly confidential.

Anchors: 1= *never*, 2 = *very rarely*, 3 = *rarely*, 4 = *occasionally*, 5 = *somewhat often*, 6 = *often*, 7 = *very often*

During the past 6 months, how often have you…

1. Thought of being absent
2. Chatted with co-workers about non-work topics
3. Left work situation for unnecessary reasons
4. Daydreamed
5. Spent work time on personal matters
6. Put less effort into the job than should have
7. Thought of leaving current job
8. Let others do your work

Job Satisfaction

Participant Instructions: Listed below are a number of statements that refer to how you feel about your present job. Please indicate the extent to which you AGREE or DISAGREE with each of these statements.

Anchors: 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neither agree nor disagree*, 5 = *slightly agree*, 6 = *agree*, 7 = *strongly agree*

1. All in all, I am satisfied with my job
2. In general, I don't like my job (R)
3. All things considered, I like working here

Psychological Distress

Participant Instructions: The following statements refer to your general well-being. Please indicate the extent to which you have been experiencing any the following during the past **6 months**.

Anchors: 1= *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *all the time*

During the past 6 months, how often…

1. Have you felt capable of making decisions about things (R)
2. Have you felt that you couldn't overcome your difficulties
3. Have you been able to enjoy your normal day-to-day activities (R)
4. Have you been able to face up to your problems (R)
5. Have you been feeling unhappy and/or depressed
6. Have you been losing confidence in yourself
7. Have you been thinking of yourself as a worthless person
8. Have you been feeling reasonably happy, all things considered (R)

Justice Sensitivity

Participant Instructions: The following statements refer to personal attitudes and dispositions. Please indicate the extent to which you AGREE or DISAGREE with each of these statements.

Anchors: 1= *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *all the time*

1. It bothers me when others receive something that ought to be mine
2. It makes me angry when others receive an award which I have earned
3. I can't easily bear it when others profit unilaterally from me
4. I can't forget for a long time when I have to fix others' carelessness
5. It gets me down when I get fewer opportunities than others to develop my skills
6. It makes me angry when others are undeservingly better off than me
7. It worries me when I have to work hard for things that come easily to others
8. I ruminate for a long time when other people are being treated better than me
9. It burdens me to be criticized for things that are being overlooked with others
10. It makes me angry when I am treated worse than others

Conscientiousness

Participant Instructions: The following statements refer to personal attitudes and dispositions. Please indicate how accurately each statement describes **you**.

Anchors: 1 = *very inaccurate*, 2 = *moderately inaccurate*, 3 = *neither inaccurate nor accurate*, 4 = *moderately accurate*, 5 = *very accurate*

1. I am always prepared
2. I shirk my duties (R)
3. I pay attention to details
4. I find it difficult to get down to work (R)
5. I get chores done right away
6. I don't see things through (R)
7. I carry out my plans
8. I waste my time (R)
9. I make plans and stick to them
10. I do just enough work to get by (R)

Social Desirability

Participant Instructions: Please read each of the following statements and decide if that statement describes you or not. If it describes you, please select "true"; if not, please select "false."

Anchors: 1 = *true*, 2 = *false*

1. I sometimes litter (R)
2. I always admit my mistakes openly and face the potential negative consequences
3. In traffic I am always polite and considerate of others
4. I always accept others' opinions, even when they don't agree with my own
5. I take out my bad moods on others now and then (R)
6. There has been an occasion when I took advantage of someone else (R)
7. In conversations I always listen attentively and let others finish their sentences
8. I never hesitate to help someone in case of emergency
9. When I have made a promise, I keep it – no ifs, ands or buts
10. I occasionally speak badly of others behind their back (R)
11. I would never live off other people
12. I always stay friendly and courteous with other people, even when I am stressed out
13. During arguments I always stay objective and matter-of-fact
14. There has been at least one occasion when I failed to return an item that I borrowed (R)
15. I always eat a healthy diet
16. Sometimes I only help because I expect something in return (R)

Concluding Remarks

1. Have there been any major changes or events at your place of employment during the past 6 months (e.g., new management, a round of layoffs)? If so, please describe these briefly.

   _____
   _____
   _____

2. Have there been any major changes in your relationship with your supervisor during the past 6 months? If so, please describe these briefly.

   _____
   _____
   _____

3. Sometimes participants have concerns regarding their responses to some questions (e.g., they misunderstood a question, no option was available that properly captured their answer, etc.). If you have such concerns, please feel free to let us know in the space below. No one will contact you as a result of any comments you make.

   _____
   _____
   _____

We want to emphasize how important it is that we receive honest and accurate results from our study participants. Your responses will have significant consequences when the results of this study are used to help others. Therefore we ask that you respond to the following two questions regarding the quality of your questionnaire responses. Regardless of your answers, your eligibility for the $1 participation incentive will not be affected.

Anchors: 1 = *very careful*; 2 = *somewhat careful*; 3 = *somewhat careless*; 4 = *did not pay attention*

1. Please indicate the degree to which you responded carefully to each question.

Anchors: 1 = *very confident*; 2 = *somewhat confident*; 3 = *somewhat doubtful*; 4 = *very doubtful*

2. Please indicate how confident you are in the accuracy of your questionnaire responses.

APPENDIX F – Supplementary Path Analysis Information

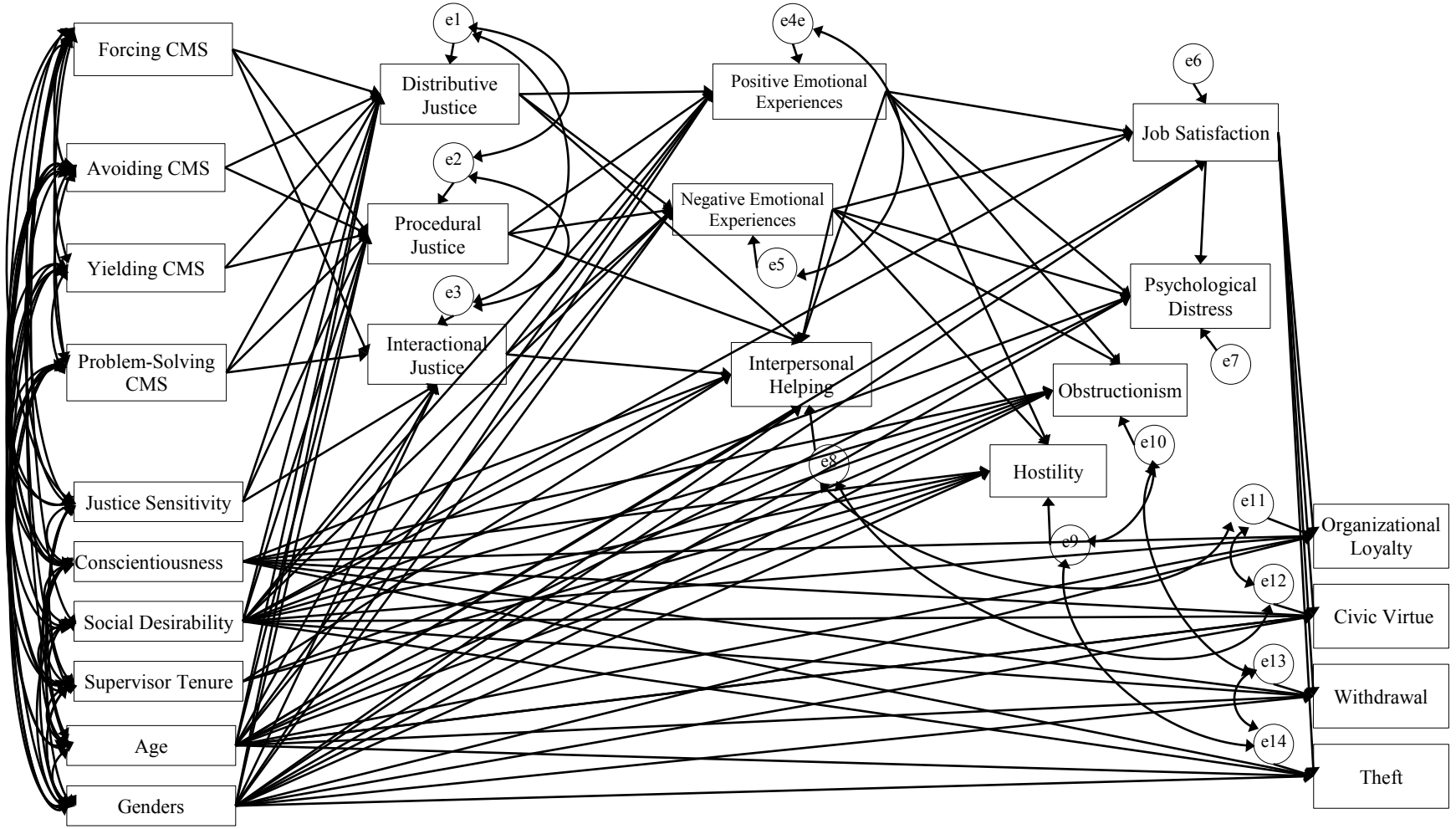

Figure 12. Full path model

Table 27

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Supervisors' Forcing Conflict Management Style

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Distributive justice	-	-	-	-.17*	.04	-.24 to -.10	-.17*	.04	-.24 to -.10
Procedural justice	-	-	-	-.11**	.04	-.16 to -.05	-.11**	.04	-.16 to -.05
Interactional justice	-	-	-	-.11*	.04	-.18 to -.05	-.11*	.04	-.18 to -.05
Pos. emot. experiences	-.10*	.02	-.13 to -.05	-	-	-	-.10*	.02	-.13 to -.05
Neg. emot. experiences	.09*	.03	.04 to .13	-	-	-	.09*	.03	.04 to .13
Helping	-.06*	.02	-.09 to -.03	-	-	-	-.06*	.02	-.09 to -.03
Hostility	.05*	.02	.03 to .07	-	-	-	.05*	.02	.03 to .07
Obstructionism	.03*	.01	.01 to .04	-	-	-	.03*	.01	.01 to .04
Job satisfaction	-.08*	.02	-.10 to -.04	-	-	-	-.08*	.02	-.10 to -.04
Psychological distress	.05*	.02	.03 to .08	-	-	-	.05*	.02	.03 to .08
Theft	.00	.01	-.01 to .01	-	-	-	.00	.01	-.01 to .01
Withdrawal	.01*	.01	.01 to .02	-	-	-	.01*	.01	.01 to .02
Civic virtue	-.03*	.01	-.04 to -.02	-	-	-	-.03*	.01	-.04 to -.02
Loyalty	-.05*	.01	-.07 to -.02	-	-	-	-.05*	.01	-.07 to -.02

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 28

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Supervisors' Avoiding Conflict Management Style

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Distributive justice	-	-	-	-.01	.03	-.05 to .04	-.01	.03	-.05 to .04
Procedural justice	-	-	-	-.02	.03	-.06 to .02	-.02	.03	-.06 to .02
Interactional justice	-	-	-	-	-	-	-	-	-
Pos. emot. experiences	-.01	.01	-.03 to .01	-	-	-	-.01	.01	-.03 to .01
Neg. emot. experiences	.00	.01	-.00 to .01	-	-	-	.00	.01	-.00 to .01
Helping	-.00	.01	-.01 to .01	-	-	-	-.00	.01	-.01 to .01
Hostility	.00	.00	-.00 to .01	-	-	-	.00	.00	-.00 to .01
Obstructionism	.00	.00	-.00 to .00	-	-	-	.00	.00	-.00 to .00
Job satisfaction	-.01	.01	-.02 to .01	-	-	-	-.01	.01	-.02 to .01
Psychological distress	.00	.00	-.00 to .01	-	-	-	.00	.00	-.00 to .01
Theft	.00	.00	-.00 to .00	-	-	-	.00	.00	-.00 to .00
Withdrawal	.00	.00	-.00 to .00	-	-	-	.00	.00	-.00 to .00
Civic virtue	-.00	.00	-.01 to .00	-	-	-	-.00	.00	-.01 to .00
Loyalty	-.00	.00	-.01 to .00	-	-	-	-.00	.00	-.01 to .00

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 29

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Supervisors' Yielding Conflict Management Style

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Distributive justice	-	-	-	.22*	.05	.13 to .28	.22*	.05	.13 to .28
Procedural justice	-	-	-	.03	.03	-.04 to .08	.03	.03	-.04 to .08
Interactional justice	-	-	-	-	-	-	-	-	-
Pos. emot. experiences	.05*	.02	.02 to .09	-	-	-	.05*	.02	.02 to .09
Neg. emot. experiences	-.03*	.01	-.05 to -.01	-	-	-	-.03*	.01	-.05 to -.01
Helping	.04*	.02	.01 to .07	-	-	-	.04*	.02	.01 to .07
Hostility	-.02*	.01	-.03 to -.01	-	-	-	-.02*	.01	-.03 to -.01
Obstructionism	-.01†	.01	-.02 to .00	-	-	-	-.01†	.01	-.02 to .00
Job satisfaction	.03*	.01	.01 to .05	-	-	-	.03*	.01	.01 to .05
Psychological distress	-.02*	.01	-.03 to -.01	-	-	-	-.02*	.01	-.03 to -.01
Theft	.00	.00	.00 to .01	-	-	-	.00	.00	-.00 to .01
Withdrawal	-.01*	.00	-.01 to -.00	-	-	-	-.01*	.00	-.01 to -.00
Civic virtue	.01*	.00	.00 to .02	-	-	-	.01*	.00	.00 to .02
Loyalty	.02*	.01	.01 to .03	-	-	-	.02*	.01	.01 to .03

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 30

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Supervisors' Problem-Solving Conflict Management Style

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Distributive justice	-	-	-	.45**	.06	.36 to .57	.45**	.06	.36 to .57
Procedural justice	-	-	-	.70**	.04	.65 to .77	.70**	.04	.65 to .77
Interactional justice	-	-	-	.70*	.03	.64 to .74	.70*	.03	.64 to .74
Pos. emot. experiences	.48*	.03	.43 to .53	-	-	-	.48*	.03	.43 to .53
Neg. emot. experiences	-.50**	.03	-.55 to -.45	-	-	-	-.50**	.03	-.55 to -.45
Helping	.27**	.04	.22 to .35	-	-	-	.27**	.04	.22 to .35
Hostility	-.30**	.02	-.35 to -.27	-	-	-	-.30**	.02	-.35 to -.27
Obstructionism	-.16**	.03	-.21 to -.13	-	-	-	-.16**	.03	-.21 to -.13
Job satisfaction	.39*	.03	.35 to .43	-	-	-	.39*	.03	.35 to .43
Psychological distress	-.29**	.03	-.34 to -.25	-	-	-	-.29**	.03	-.34 to -.25
Theft	-.01	.03	-.05 to .03	-	-	-	-.01	.03	-.05 to .03
Withdrawal	-.07**	.02	-.11 to -.05	-	-	-	-.07**	.02	-.11 to -.05
Civic virtue	.15**	.02	.12 to .19	-	-	-	.15**	.02	.12 to .19
Loyalty	.25**	.02	.22 to .30	-	-	-	.25**	.02	.22 to .30

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 31

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Subordinates' Perceptions of Distributive Justice

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Pos. emot. experiences	-	-	-	.21**	.05	.13 to .30	.21**	.05	.13 to .30
Neg. emot. experiences	-	-	-	-.11*	.05	-.20 to -.03	-.11*	.05	-.20 to -.03
Helping	.01	.02	-.01 to .05	.14*	.05	.08 to .25	.16**	.05	.08 to .26
Hostility	-.08*	.03	-.12 to -.04	-	-	-	-.08*	.03	-.12 to -.04
Obstructionism	-.04*	.02	-.07 to -.01	-	-	-	-.04*	.02	-.07 to -.01
Job satisfaction	.14**	.03	.08 to .19	-	-	-	.14**	.03	.08 to .19
Psychological distress	-.09*	.03	-.13 to -.05	-	-	-	-.09*	.03	-.13 to -.05
Theft	-.00	.01	-.02 to .01	-	-	-	-.00	.01	-.02 to .01
Withdrawal	-.03**	.01	-.04 to -.01	-	-	-	-.03**	.01	-.04 to -.01
Civic virtue	.05**	.01	.03 to .08	-	-	-	.05**	.01	.03 to .08
Loyalty	.08**	.02	.05 to .12	-	-	-	.08**	.02	.05 to .12

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 32

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Subordinates' Perceptions of Procedural Justice

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Pos. emot. experiences	-	-	-	.29*	.07	.18 to .38	.29*	.07	.18 to .38
Neg. emot. experiences	-	-	-	-.16**	.07	-.28 to -.06	-.16**	.07	-.28 to -.06
Helping	.02	.02	-.01 to .05	.03	.07	-.10 to .15	.05	.07	-.07 to .16
Hostility	-.12**	.03	-.17 to -.06	-	-	-	-.12**	.03	-.17 to -.06
Obstructionism	-.06*	.02	-.09 to -.02	-	-	-	-.06*	.02	-.09 to -.02
Job satisfaction	.19**	.04	.12 to .26	-	-	-	.19**	.04	.12 to .26
Psychological distress	-.12**	.03	-.19 to -.08	-	-	-	-.12**	.03	-.19 to -.08
Theft	-.00	.01	-.03 to .02	-	-	-	-.00	.01	-.03 to .02
Withdrawal	-.03**	.01	-.06 to -.02	-	-	-	-.03**	.01	-.06 to -.02
Civic virtue	.07**	.02	.04 to .10	-	-	-	.07**	.02	.04 to .10
Loyalty	.12**	.03	.08 to .16	-	-	-	.12**	.03	.08 to .16

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 33

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Subordinates' Perceptions of Interactional Justice

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Pos. emot. experiences	-	-	-	.26*	.07	.15 to .36	.26*	.07	.15 to .36
Neg. emot. experiences	-	-	-	-.48*	.05	-.56 to -.38	-.48*	.05	-.56 to -.38
Helping	-.02	.03	-.08 to .03	.26*	.08	.10 to .39	.25*	.08	.10 to .36
Hostility	-.25*	.03	-.31 to -.20	-	-	-	-.25*	.03	-.31 to -.20
Obstructionism	-.15*	.03	-.20 to -.10	-	-	-	-.15*	.03	-.20 to -.10
Job satisfaction	.31*	.04	.24 to .37	-	-	-	.31*	.04	.24 to .37
Psychological distress	-.24*	.03	-.29 to -.19	-	-	-	-.24*	.03	-.29 to -.19
Theft	-.00	.02	-.04 to .03	-	-	-	-.00	.02	-.04 to .03
Withdrawal	-.06*	.02	-.08 to -.03	-	-	-	-.06*	.02	-.08 to -.03
Civic virtue	.11**	.02	.09 to .15	-	-	-	.11**	.02	.09 to .15
Loyalty	.19*	.03	.14 to .23	-	-	-	.19*	.03	.14 to .23

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 34

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Subordinates' Positive Emotional Responses

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Helping	-	-	-	.11†	.06	.01 to .20	.11†	.06	.01 to .20
Hostility	-	-	-	-.17*	.04	-.23 to -.10	-.17*	.04	-.23 to -.10
Obstructionism	-	-	-	-.03	.05	-.09 to .06	-.03	.05	-.09 to .06
Job satisfaction	-	-	-	.43**	.03	.39 to .52	.43**	.03	.39 to .52
Psychological distress	-.16**	.03	-.22 to -.13	-.05	.04	-.13 to .01	-.22**	.04	-.32 to -.16
Theft	-.01	.03	-.05 to .04	-	-	-	-.01	.03	-.05 to .04
Withdrawal	-.08*	.02	-.11 to -.05	-	-	-	-.08*	.02	-.11 to -.05
Civic virtue	.16**	.03	.13 to .22	-	-	-	.16**	.03	.13 to .22
Loyalty	.27**	.03	.23 to .33	-	-	-	.27**	.03	.23 to .33

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 35

Tests of Total Indirect Effects, Direct Effects, and Total Effects for Subordinates' Negative Emotional Responses

	Total indirect effects			Total direct effects			Total effects		
Variable	β	*SE*	95% CI	β	*SE*	95% CI	β	*SE*	95% CI
Helping	-	-	-	.10†	.06	.01 to .21	.10†	.06	.01 to .21
Hostility	-	-	-	.44**	.04	.37 to .52	.44**	.04	.37 to .52
Obstructionism	-	-	-	.30*	.04	.22 to .37	.30*	.04	.22 to .37
Job satisfaction	-	-	-	-.40*	.06	-.46 to -.33	-.40*	.06	-.46 to -.33
Psychological distress	.15**	.03	.11 to .19	.23*	.05	.15 to .30	.38*	.04	.30 to .44
Theft	.00	.03	-.03 to .05	-	-	-	.00	.03	-.03 to .05
Withdrawal	.07*	.02	.04 to .11	-	-	-	.07*	.02	.04 to .11
Civic virtue	-.15*	.02	-.18 to -.11	-	-	-	-.15*	.02	-.18 to -.11
Loyalty	-.25*	.03	-.24 to -.19	-	-	-	-.25*	.03	-.24 to -.19

Note. Pos. emot. experiences = positive emotional experiences; Neg. emot. experiences = negative emotional experiences.
$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 36

Mediation Tests for Specific Indirect Effects

Hypothesis	Mediation test	Specific indirect effect		
		B	*SE*	95% CI
10a(i)	Forcing CMS → Distributive justice → PosE	-.10	.03	-.17 to -.04
	Forcing CMS → Procedural justice → PosE	-.15	.04	-.23 to -.08
	Forcing CMS → Interactional justice → PosE	-.14	.03	-.20 to -.07
10a(ii)	Avoiding CMS → Distributive justice → PosE	.00	.01	-.02 to .03
	Avoiding CMS → Procedural justice → PosE	-.00	.02	-.04 to .03
10a(iii)	Yielding CMS → Distributive justice → PosE	.11	.05	.03 to .22
	Yielding CMS → Procedural justice → PosE	.19	.05	.10 to .28
10a(iv)	Problem-solving CMS → Distributive justice → PosE	.11	.04	.03 to .19
	Problem-solving CMS → Procedural justice → PosE	.16	.06	.03 to .26
	Problem-solving CMS → Interact. justice → PosE	.15	.05	.05 to .25
10b(i)	Forcing CMS → Distributive justice → NegE	.02	.02	-.01 to .07
	Forcing CMS → Procedural justice → NegE	.05	.03	-.01 to .01
	Forcing CMS → Interactional justice → NegE	.18	.03	.13 to .25
10b(ii)	Avoiding CMS → Distributive justice → NegE	-.00	.00	-.01 to .01
	Avoiding CMS → Procedural justice → NegE	.00	.01	-.01 to .02
10b(iii)	Yielding CMS → Distributive justice → NegE	-.07	.03	-.14 to -.02
	Yielding CMS → Procedural justice → NegE	-.09	.04	-.16 to -.01
10b(iv)	Problem-solving CMS → Distrib. justice → NegE	-.05	.03	-.11 to .00
	Problem-solving CMS → Procedural justice → NegE	-.09	.04	-.17 to .01
	Problem-solving CMS → Interact. justice → NegE	-.27	.04	-.35 to -.20
13b	PosE → Job satisfaction → Psychological distress	-.30	.03	-.37 to -.25
13c	NegE → Job satisfaction → Psychological distress	.33	.04	.26 to .41

Note. CMS = conflict management style; PosE = positive emotional experiences; NegE = negative emotional experiences.

Hypothesis	Mediation test	Specific indirect effect		
		B	*SE*	95% CI
15a(i)	Distributive justice → PosE → Hostility	-.03	.01	-.06 to -.00
	Distributive justice → NegE → Hostility	-.11	.02	-.15 to -.08
15a(ii)	Procedural justice → PosE → Hostility	-.04	.02	-.08 to -.01
	Procedural justice → NegE → Hostility	-.12	.02	-.16 to -.09
15a(iii)	Interactional justice → PosE → Hostility	-.02	.01	-.06 to .00
	Interactional justice → NegE → Hostility	-.12	.02	-.16 to -.08
15b(i)	Distributive justice → PosE → Obstructionism	-.00	.01	-.03 to .02
	Distributive justice → NegE → Obstructionism	-.07	.01	-.10 to -.05
15b(ii)	Procedural justice → PosE → Obstructionism	-.00	.01	-.03 to .02
	Procedural justice → NegE → Obstructionism	-.07	.01	-.10 to -.04
15b(iii)	Interactional justice → PosE → Obstructionism	.01	.01	-.02 to .03
	Interactional justice → NegE → Obstructionism	-.07	.02	-.10 to -.04
18a(i)	Distributive justice → PosE → Interp. helping	.31	.05	.22 to .43
18a(ii)	Procedural justice → PosE → Interp. helping	.27	.05	.17 to .38
18a(iii)	Interactional justice → PosE → Interp. helping	.28	.05	.19 to .39
18b(i)	Distributive justice → NegE → Interp. helping	-.02	.05	-.10 to .08
18b(ii)	Procedural justice → NegE → Interp. helping	-.05	.05	-.15 to .03
18b(iii)	Interactional justice → NegE → Interp. helping	-.11	.06	-.23 to .01
20a(i)	PosE → Job satisfaction → Theft	.00	.01	-.02 to .03
20a(ii)	NegE → Job satisfaction → Theft	-.03	.02	-.07 to .00
20b(i)	PosE → Job satisfaction → Withdrawal	-.12	.03	-.17 to -.07
20b(ii)	NegE → Job satisfaction → Withdrawal	.10	.03	.04 to .15
20c(i)	PosE → Job satisfaction → Civic virtue	.25	.06	.14 to .38
20c(ii)	NegE → Job satisfaction → Civic virtue	-.64	.08	-.80 to -.48
20d(i)	PosE → Job satisfaction → Loyalty	.56	.07	.43 to .70
20d(ii)	NegE → Job satisfaction → Loyalty	-1.01	.09	-1.19 to -.84

Note. PosE = positive emotional experiences; NegE = negative emotional experiences; Interp. helping = Interpersonal helping.

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