Conflict Type Co-occurrence: Exploring the Nature of Conflict

Through the Study of Conflict Incidents

by

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Abstract

The Intragroup Conflict Scale (ICS; Jehn & Mannix, 2001) comprising *task, relationship,* and *process* conflict types is heavily utilized to understand consequences of workgroup-level conflict. However, it has been unclear how well this typology translates to the virtually unexplored *incident level*, particularly with regard to the causes and meaning of ICS type "co-occurrence". Thus, this research first sought to identify the extent of ICS type co-occurrence within conflict incidents. Secondly, it investigated incident-level ICS type associations with individual wellbeing outcomes. Finally, it introduced the measure of Conflict Impact to augment and explain types' effects as a function of individual conflict processes (e.g., thoughts, emotions). Results indicated that the ICS types frequently co-occur within conflict incidents, their incident-level associations with wellbeing largely mirror those within workgroups, and conflict processes (as measured by Conflict Impact) appear a viable way to improve individual outcome prediction. Conceptual and practical implications are discussed.

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Through the Study of Conflict Incidents

In the modern business world of highly inter-dependent teams and individuals (De Dreu
& Weingart, 2003), interpersonal relationships among coworkers are often fraught with conflict
(Jehn & Bendersky, 2003), reducing employees' social connection and esteem, and decreasing
their efficacy and engagement at work (de Wit, Greer, & Jehn, 2012; Leiter, Laschinger, Day, &
Gilin Oore, 2011; Schnabel & Nadler, 2008). Effects of conflict extend to organizational
functioning as well, costing companies in lost work time, lost opportunities and poor decision
quality, increased absenteeism and turnover, health costs, and other resources used in managing
the conflict and its consequences (Dana, 2012).

Unfortunately, conflict can arise incredibly easily in organizations, as the potential
antecedent "sources" or "inputs" to conflict are plentiful and span all levels of organizational
units, such as intra-individual (e.g., personality, values) interpersonal (e.g., communication
styles, perceived intentions), and organizational design or structure (e.g., requiring collaboration
between coworkers to achieve goals; Wall & Callister, 1995). Where organizational conflict is
most commonly researched – that is, within groups of closely working colleagues (or
workgroups) – conflict is typically discussed as being a function of divergent goals, values, or
interests, such that conflict parties must be perceiving of some level of dissonance between their
own goals and the apparent goals of their coworkers (De Dreu, 2008). These goals do not need to
be in direct opposition to one another, for example in the mutually exclusive outcomes of two
employees desiring the same promotion (indeed some have said that infusing opposition into the
definition of conflict in this sense conflates conflict with competition; Tjosvold, 2006), but

parties do have to perceive of *some kind* of mismatch. In this regard, conflict can be "about" anything: From incompatible ideas or strategies towards achieving the *same* goal (e.g., whose idea to use in a proposal to a client), to one person's very personal or deep-rooted interest (e.g., the need to feel respected or appreciated in one's workplace) being "unmet" by their coworker, perhaps without the coworker even being aware of this need, or their failure to meet it.

Finally, another element of conflict is that parties must be to some extent *interdependent*: Korsgaard, Soyoung Jeong, Mahony, & Pitariu, (2008) succinctly summarize Emerson's (1962) power-dependency theory, highlighting that "conflict is a function of the extent to which the parties each want something from one another that is not easily available outside that relationship." (p. 1225). Whether conflict parties rely on one another for their work-related contributions to projects, or for the more psychological need of feeling social esteem and acceptance, conflict is sure to arise at some point.

The Intragroup Conflict Scale (ICS; Jehn, 1995; Jehn & Mannix, 2001) is a typological scale that has dominated the workgroup conflict literature in recent decades, and for good reason: This large body of research supports that three distinct types of conflict, *task, relationship,* and *process conflict*, defined by the ICS and popularized through its widespread use, predict unique effects to individual and organizational outcomes. Having demonstrated time and again consistent trends that conflicts of certain substantive issues – for example, conflicts "about" relationship tension versus conflicts "about" task-related disagreements – result in worse outcomes than others (De Dreu & Weingart, 2003; de Wit, et al., 2012; O'Neill, Allen, & Hastings, 2013), this literature has brought great understanding to the conflict domain. However, myriad contingencies and complexities to these trends (e.g., Jehn & Bendersky, 2003), unexplored realms of conflict levels (e.g., Korsgaard et al., 2008) and even persistent debates

regarding *how to define conflict* (e.g., Mikkelsen & Clegg, 2018; Tjosvold, 2006), leave some important conflict questions unanswered. Additionally, despite the earlier works of researchers like Pondy (1967) and Pinkley (1990) laying the foundation to explore the *psychological processes* associated with types of conflict, research rarely explores the *mechanisms through which* the ICS types inflict their consequences.

Notably, because most research examines conflict at the workgroup level, there is some ambiguity regarding what is happening on a per-incident basis when the ICS types are reported to "co-occur", as found in the majority of workgroup settings (*cf.* de Wit et al., 2012). That is, when studying conflict at the workgroup level, where numerous individuals are engaged in ongoing, multifaceted relationships, it is unclear whether ICS type co-occurrence is due to (1) the simultaneous occurrence of distinct, separate conflicts (e.g., a relationship conflict is unrelated to a simultaneous task conflict), or (2) "one conflict" (or many) being comprised of components of multiple ICS types.

Present Research

There are two main purposes of the present research. First, this research extends Jehn and colleagues' vast and significant work studying the ICS in *workgroup* settings to the lesser-studied domains of *incident-level* conflict and *individual-level* conflict outcomes, particularly understudied health and wellbeing outcomes. Primary to this exploration is the investigation of *ICS type co-occurrence* at the incident level, which is conducted by coding natural reports of conflict for ICS type presence.

By investigating the prevalence of incident-level co-occurrence, this research may help resolve workgroup-level co-occurrence ambiguity and add to the complex story of the interrelationships between the ICS types. Additionally, confirming an expected high frequency

of ICS type co-occurrence within unique conflict incidents may highlight some important discussion points regarding the model's use at the incident level, including potential theoretical challenges of defining conflict based on supposed substantive issues, and using such a measure in practical conflict management and resolution.

Second, this research proposes a mediation model of conflict, incorporating the author's newly developed *Conflict Impact* measure into the prediction of incident-level individual conflict outcomes. This mediation model proposes to explain some of the predictive capacity of the ICS types through the extent to which the conflict impacts individuals' cognitions, emotions, behaviour, and stress, as well as their perceptions of the conflict's intensity and importance.

With the overarching goal of expanding ICS literature into the incident level, this research aims to: 1) Estimate the prevalence ICS type co-occurrence and investigate incident-level effects of co-occurrence in different forms. 2) Expand the conflict literature further into the understudied health and wellbeing outcomes for individuals. And, 3) introduce a new measure of Conflict Impact, which may not only validate previous ICS findings and corroborate incident-level co-occurrence effects, but which may serve as an actual link between the ICS types and their effects, thereby explaining their outcome associations through a process of mediation. In its entirety, this research aims to contribute to the theoretical and practical discussion of the ICS types' complex effects, while introducing a novel measure to help explain and perhaps even overcome the ICS model's challenges, to progress future research and conflict management and resolution practice.

Background: The Nature of Conflict and its "Types"

The evolution of the typological conceptualization of conflict has been far from linear, which may be in part attributed to the innumerable and overlapping structures, settings, and foci

in which conflict may be examined. Dating back to some of the earliest days of industrial-era conflict research (e.g., Sorokin, 1928), researchers viewed conflicts of different subunits of social groups (e.g., racial, ethnic, generational, interpersonal, intergroup, international, East vs. West; see Fink, 1968; Rapoport & Anatol, 1960) as potentially unique conflict types possibly warranting unique conflict models. The trends in the level of conflict examination and whether the focus has been on, for example, inherent dimensions or components of conflict (e.g., Barki & Hartwick, 2004; Guetzkow & Gyr, 1954; Pinkley, 1990; Tjosvold, 2006), identifying a common process of conflict (Pondy, 1967; Thomas, 1976), or studying antecedents and consequences of conflict (see De Dreu & Gelfand, 2008), has greatly influenced the frameworks of conflict developed. The multifaceted theories and findings from these and many other nuanced veins of research have resulted in a domain of conflict literature spanning perhaps a dozen fields and thousands of articles (McCarter et al., 2018). Despite – or perhaps because of – this incredible breadth, there remains no uncontested definition or conceptualization of even just "intragroup" conflict, let alone a model of conflict that could apply to all levels of examination (Mikkelsen & Clegg, 2019; Korsgaard, et al., 2008).

The arrival at and subsequent recurrent use of Jehn's initial (1995) ICS iteration and its adaptations (Jehn, 1997; Jehn & Mannix 2001) was, as any significant event in history, as much a function of the times as it was ground-breaking. To simplify Mikkelsen and Clegg's (2019) thorough chronological review of the meaning of conflict, the last century of organizational conflict research has seen a few major shifts: Conflict was originally viewed as a near-ubiquitous challenge to overcome for the betterment of the organization (e.g., Mack & Snyder, 1957); conflict was eventually recognized as a necessary catalyst for change (e.g., Litterer, 1966), sparking debate regarding conflict's potential benefits; finally, the debate about *whether* conflict

could be beneficial, became a debate of *when* conflict could be beneficial, wherein conflict types as substantive issues were renewed as a major subject of discussion.

Karen Jehn's timely (1995) model of intragroup conflict suited the growing interest in teamwork dynamics and provided a conceptual means of differentiating conflict outcomes on the basis of contemporary conflict types titled *task* and *relationship* conflict, soon joined by *process* conflict (Jehn, 1997). Compared to earlier multidimensional frameworks of conflict that complexly incorporated organizational structures and individual processes (e.g., Pondy, 1967; Pinkley, 1990), the ICS was an appealing, simple measure that could provide a snapshot in time of which major conflict issues a workgroup was experiencing. Over 20 years later, the original (1995) ICS and its revised versions (e.g., Jehn & Mannix, 2001) remain a predominant model of intragroup conflict study, with Jehn's first version (1995) having been cited over five thousand times (according to Google Scholar). The model's statistically unique factors have proven capable of measuring complex effects of its types on many important organizational outcomes (e.g., De Dreu & Weingart, 2003; de Wit et al., 2012), and have deepened our understanding of intragroup conflict in immeasurable ways.

The Good, The Bad, and The Ugly of the Intragroup Conflict Scale

Within the ICS, task conflict refers to "disagreements among group members about the context of tasks being performed, including differences in viewpoints, ideas, and opinions" (Jehn, 1995, p. 258). Process conflict is about "how task accomplishment should proceed in the workplace, who is responsible for what, and how things should be delegated" (Jehn, 1997, p. 540). Relationship conflict "exists when there are interpersonal incompatibilities among group members, which typically includes tension, animosity, and annoyance" (Jehn, 1995, p. 258). Statistical support for the ICS (1995) model and its revisions (e.g., Jehn & Mannix, 2001) is

demonstrated both by its strong factor structure suggesting uniqueness of its conflict types, and the internal consistency reliabilities of its types regularly being within the acceptable to strong range. Specifically, the largest meta-analysis of ICS findings (including 116 studies; de Wit et al., 2012) found internal consistency to range from $\alpha = .71$ (Rispens, Greer, & Jehn, 2007) to $\alpha = .95$ (Wilkens & London, 2005) for task conflict; $\alpha = .62$ (Passos & Caetano, 2005) to $\alpha = .93$ (Leslie, 2007) for process conflict; and $\alpha = .71$ (Bierly, Starky, & Kessler, 2009) to $\alpha = .97$ (Peterson & Behfar, 2007) for relationship conflict.

All three of the ICS types have been shown to highly inter-correlate: The meta-analysis by de Wit et al., (2012) reported correlation estimates of $r = .54$ ($k = 73$) between task and relationship conflict, $r = .72$ ($k = 19$) between task and process conflict, and $r = .73$ ($k = 18$) between relationship and process conflict. These high correlations indicate that the conflict types are very frequently co-occurring within workgroups – even more often than they occur individually – causing some to suggest that the ICS types should not be viewed in isolation (e.g., Jehn & Chatman, 2000) and others to suggest that the model conflates conflict processes with conflict issues (e.g., Korsgaard et al., 2008; Weingart, Bear, & Todorova, 2009). Overall though, this workgroup research has revealed that the ICS types have both unique and interactive effects on a great many individual, group, and organizational outcomes, and has also identified various moderators of these associations (see De Dreu & Weingart, 2003; de Wit et al., 2012; O'Neill et al., 2013). With careful interpretation of some key findings from this workgroup literature, some tentative inferences may be postulated as to how workgroup ICS findings – particularly with respect to type co-occurrence – might be explained from the perspective of *conflict incidents*. Of course, such inferences are mere conjecture and face significant limitations without supporting evidence from the incident level directly. The following sections of each ICS type individually

will outline major findings and highlight points of interest in interpreting what might be expected at the incident level.

Task Conflict: The Good

As the reason for de Wit et al.'s (2012) coining of the term *the paradox of conflict*, it might be expected that there are some complex findings associated with the task conflict type of the ICS. It has long been theorized that task-based conflict, under the right circumstances, should have beneficial effects on performance (e.g., Amason, 1996; Guetzkow & Gyr, 1954; Simons & Peterson, 2000); indeed, successful team performance following task conflict doesn't always just occur *in spite* of the task-based conflict, but in some cases *due to* members' effective progression through it, for example when the information gained throughout resolving idea-based disputes leads to increased perspective-taking, creativity, and improved group decision quality (de Wit et al., 2012; Farh, Lee, & Farh, 2010; Schultz-Hardt, Mojzisch, & Vogelgesang, 2008). However, just because task conflict *can* be beneficial, does not mean it *will* be: Even in situations when resolving task conflict is necessary to complete a project and perform well, there are so many contextual factors that need to be "just right" for it to be beneficial, that in practice, task conflict may be more likely to impede performance than improve it (De Dreu & Weingart, 2003), or at best, "break even", having neither a negative nor a positive overall relationship with performance outcomes (de Wit et al., 2012). The meta-analysis by de Wit et al. (2012) and a review conducted by Bradley, Anderson, Baur, and Klotz (2015) highlight the key research findings demonstrating the many contingencies related to task conflict's potential benefits.

First and most simply, task complexity moderates the relationship between task conflict and performance, such that simple and routine tasks are likely to be hindered by unnecessary task conflict, whereas complex tasks may benefit from the creative idea generation, innovation,

information sharing, and critical thinking that can coincide with task conflict (de Wit et al, 2012;

O'Neill et al., 2013). Even if performance on a complex project stands to benefit from resolved

task conflict, the *timing* and *amount* of its expression are also important. That is, with moderate

but not high amounts of task conflict, creativity (Farh et al., 2010) and information sharing

(Todorova, Bear, & Weingart, 2014) can relate to improved performance. Todorva et al. (2014)

even found that the information gained from mild task conflict expression can lead to employees

feeling more active, energized, interested, and excited, and that these positive emotions can

increase job satisfaction. However, if the conflict occurs too late in the project cycle, the benefits

of task conflict may not be realized (Farh et al., 2010), possibly because members spend too

much time resolving what to do without leaving time to actually do it (e.g., Jehn & Mannix,

2001).

Of course, even if the above factors are primed for task conflict being beneficial, the

internal characteristics of the group must also support task conflict's expression, such as with the

facilitation of open discussion norms (De Dreu & West, 2001), or with high group trust,

cohesion, and respect (Jehn, Greer, Levine, & Szulanski, 2008). Further, parties' abilities to

regulate their emotions (Yang & Mossholder, 2004) and manage task conflict (DeChurch,

Hamilton, & Haas, 2007) have been shown to be key contributors as to whether task conflict

might evolve into relationship conflict (e.g., Simons & Peterson, 2000), at which point any

benefits of task conflict are almost certainly untenable. Indeed, the association between task and

relationship conflict is another very important moderator to the task conflict-performance

relationship, such that positive benefits of task conflict are more likely when this association is

weak (de Wit et al., 2012). Even on its own, however, task conflict can be quite stressful

(Lazarus, 1999), as parties may identify strongly with their ideas (De Dreu & Van Knippenberg,

2005) and place significant importance on task outcomes (Pinkley, 1990), suggesting that task conflict can negatively impact individuals and groups even in the absence of an association with the dreaded relationship conflict.

In a conflict utopia, task conflict would *only* be good; it would only occur when necessary, participants would be receptive to differing opinions and ideas, and conflict resolution or reaching consensus would occur by the opportune time for goal attainment following adequate discussion of viable options. Importantly, it would occur without the conflict escalating in intensity, being perceived as threatening, or being taken personally. In reality, task conflict participants are often attached to their ideas, feel threatened when challenged, and sometimes attribute situational cues (e.g., conflicting opinions) to personal characteristics (e.g., this person does not respect me/appreciate my input, and so on). However, de Wit et al.'s (2012) estimated correlation between task and relationship conflict of $r = .54$ suggests that while it is common for these two ICS types to co-occur, it is not inevitable. Task conflict can absolutely have positive effects on performance and individual and group outcomes *if* it is: mild, necessary to goal attainment, encouraged and accepted by the context and individuals, well managed and harnessed for its benefits, and ultimately, resolved as needed without intensifying. Task conflict's association with process conflict (a correlation estimated by de Wit et al., 2012, to be about $r = .73$) is perhaps slightly more complicated, in that while process conflict does not appear to exacerbate task conflict (de Wit et al., 2012), they are more closely related conceptually despite process conflict having more consistently negative outcome associations.

Process Conflict: The Bad

Whereas task conflict is about *what* to do, process conflict is *how* to do it. Process conflict reflects disagreements about who should do what and how and where resources should

be allocated. As such, process conflict is not "purely" about the tasks being performed, but about

individuals in their performance of said tasks, directly linking conflict to coworkers. Though its

effects have been found to be predominantly negative (de Wit et al., 2012), process conflict has

been studied less than task and relationship conflict for a few reasons, thus its outcome

associations are somewhat less established. Firstly, while researchers have been discussing the

difference between task and process conflict for some time (e.g., Pelz & Andrews, 1966, as cited

in Jehn & Bendersky, 2003; Rapoport & Anatol, 1960), it wasn't until the 1990s that researchers

(e.g., Jehn, 1997; Jehn, Northcraft, & Neale, 1999; Shah & Jehn, 1993) began to incorporate

process conflict into their models. Second, even since process conflict's emergence, it has often

been omitted from studies of intragroup conflict, ostensibly due to conceptual and measurement

issues (see Behfar, Mannix, Peterson, & Trochim, 2011); researchers have not consistently been

able to empirically distinguish it or even define it separately from task conflict, and it is also

highly correlated with relationship conflict (Behfar et al., 2011, de Wit et al., 2012). Finally,

while the studies that have included process conflict have found mostly negative results, there is

reason to believe that in some situations, process conflict, like task conflict, ought to be

necessary. These findings and theories suggest that the contingency perspective of conflict (e.g.,

Jehn & Bendersky, 2003) is as important for process conflict as for task conflict. Thus far, some

important studies have empirically distinguished process conflict from the likes of task and

relationship conflict (e.g., Greer & Jehn, 2007; Greer, Jehn, & Mannix, 2008; Jehn & Mannix

2001) to explain its predominantly negative associations with outcomes.

     The most important factor distinguishing process conflict from task conflict, is the same

factor which makes process conflict more conceptually similar to relationship conflict. That is,

while both task and process conflict are outwardly about task completion, process conflict's

personal linking of individuals to tasks can easily result in more personalized conflict

perceptions surrounding fairness and justice within the group (Greer & Jehn, 2007). Further,

determining who performs tasks involves assessment of individuals' abilities, skills, and even

values (Jehn & Bendersky, 2003), which can be closely tied to feelings of self-worth. When

group members experience conflict related to workload dispersion and resource allocation, this is

often tied to beliefs of disproportionate contributions, expertise being underutilized or

underappreciated, or discordant perceptions of value or importance of one's contributions, all of

which may result in increased emotionality, and reduced trust, commitment, satisfaction, and

ability to focus on the task at hand, often impeding performance (Behfar, Peterson, Mannix, &

Trochim, 2008; de Wit et al., 2012; Greer & Jehn, 2007; Jehn et al., 1999; Jehn & Mannix,

2001). Interestingly, de Wit et al. (2012) found in their meta-analysis that process conflict

demonstrated *stronger* negative associations with performance than did relationship conflict, and

further that process conflict exacerbated the relationship conflict – performance association, but

not vice-versa. This somewhat surprising result may be interpreted such that, while relationship

and process conflict both result in some form of reduced esteem, process conflict's ties to the

work might make the tasks themselves more difficult to endure and complete effectively,

whereas relationship conflict – when not associated with processes conflict – may be easier to

cognitively and emotionally detach from in order to "get on with" the work.

　　　　Still, determining who should perform which duties and where resources should go is at

times absolutely necessary for the completion of multifaceted tasks within groups. Given this,

there should be some circumstances in which procedural disagreements result in improved

decision-making and performance (see Jehn & Bendersky, 2003). Likely, many of the factors

relating to task conflict being utilized effectively also relate to process conflict being productive

(or minimally detrimental), though because of their increased propensity to be taken personally, extra precaution is likely necessary in the management of process conflicts. Behfar, et al. (2008) found that the proactive management of process conflict is highly important to group performance and team member satisfaction. Specifically, teams which focused on content instead of delivery style in personal exchanges, those which assigned tasks based on relevant expertise as opposed to (for example) volunteerism, and those which explicitly discussed and explained decisions reached in accepting and distributing work assignments, were more successful and satisfied. Like task conflict, process conflict has the potential to spiral into relationship conflict (Behfar et al., 2011; Greer & Jehn, 2007), and factors such as conflict timing and conflict expression intensity will undoubtedly influence whether this occurs (Farh et al., 2010; Weingart, Behfar, Bendersky, Todorova, & Jehn, 2015).

In a conflict utopia, process conflict, like task conflict, would occur only when necessary, participants would operate proactively and in open transparency in a meritocratic system of duty delegation; they would be open to discussing differing opinions on resource allocation and how tasks should proceed, and these differing opinions would be sensitively expressed and adequately resolved so that goal attainment could occur. Ideally, any negative affect or potential for personal attributions of the conflict would be mitigated by healthy communication so as to minimize the possibility of procedural conflict escalating into relationship conflict. In reality though, disagreements about procedural issues are often strongly linked to relationship tension, as evidenced by de Wit et al.'s (2012) estimated correlation of $r = .73$ between the conflict types. Though this high level of co-occurrence is not quite so high as to prompt questioning their unique construct validity (Le, Schmidt, Harter, & Lauver, 2010), it does beg the question as to whether the effects of these types may be truly dissociated at the incident level.

Relationship Conflict: The Ugly

The most consistent finding from the ICS literature is that relationship conflict appears detrimental to virtually any measurable outcome. In their meta-analysis, de Wit et al. (2012) reviewed studies testing the association between each of the ICS types with both proximal group outcomes (i.e., emergent states and group viability) and distal group outcomes (i.e., group performance). They found that relationship conflict had a significantly negative association with performance, as well as a significantly deleterious association with every included proximal group outcome, including: trust, cohesion, satisfaction, commitment, identification, organizational citizenship behaviours, counterproductive work behaviours, and positive affect. These findings appeared largely generalizable across settings, suggesting it is rare that such negative outcomes would not arise from the occurrence of relationship conflict.

Listing the negative associations of relationship conflict does little to acknowledge just how thoroughly and persistently intertwined it may become in group dynamics, and the extent to which its associations with other variables impedes individual and group wellbeing and functioning. de Wit et al. (2012) provide the following explanation as to how relationship conflict might infiltrate group processes:

"Disagreements about personal issues heighten member anxiety (Dijkstra et al., 2005) and often represent ego threats because the issues central to these conflicts are strongly intertwined with the self-concept. This ego threat (Baumeister, 1998) often increases hostility among group members, which, in turn, makes these conflicts more difficult to manage (De Dreu & Van Knippenberg, 2005) and more likely to negatively affect proximal group outcomes, such as

identification or trust (e.g., Jehn, Greer, Levine, & Szulanski, 2008; Polzer,

Milton, & Swann, 2002; Rispens, Greer, & Jehn, 2007) and member

commitment or turnover intentions (e.g., Bayazit & Mannix, 2003; Conlon &

Jehn, 2007; Elron, 1997; Raver & Gelfand, 2005) … relationship conflicts can

harm group performance because they reduce collaborative problem solving (De

Dreu, 2006) and because the time group members spend responding to non-task-

related issues could be spent more efficiently on task accomplishment (Evan,

1965)." p. 362

The negative consequences of relationship conflict are not only pervasive, but also very

difficult to recover from (de Wit et al., 2012). As Kolb & Putnam (1992) argued, "the outcomes

of most conflicts are other conflicts with only temporary respites in between" (p. 13). Though all

three ICS conflict types are known to trigger emotional, cognitive, and behavioural responses as

well as the "emergent states" of groups (e.g., trust, respect, cohesiveness; Jehn et al., 2008) it has

been noted that relationship conflict is especially problematic due to its closer ties to basic

human needs of belonging and esteem (De Dreu & Gelfand, 2008). Conflict begets conflict, and

the more relationship conflict is experienced in a relationship, the more difficult it is to return to

a state of positive regard for one another, and the more difficult it becomes to rebuild trust.

However, alternative perspectives have at times been proposed, for example by Rispens,

Greer, Jehn, and Thatcher (2011). Rispens et al. (2011) highlight the works of earlier theorists

(e.g., Coser, 1956) who have argued that relationship conflicts may be advantageous in that they

provide an emotional release of frustration and allow parties to address issues with one another,

which in turn may improve the relationship through increased understanding and perspective-

taking (c.f. Rispens et al., 2011). While this may all be true, I offer two counterpoints to contest any intrinsic benefits of relationship conflict, suggesting instead that relationship conflict is indeed *the ugly* of the ICS types: First, there is a difference between the benefits of *resolving* a conflict and the benefits of the conflict occurring in the first place. Indeed, resolving any conflict is better than not resolving it, however a relationship conflict does not begin when frustrations are aired; as Pondy (1967) and other proponents of the *conflict-as-a-process* theory have argued, those frustrations are themselves a part of the conflict, and are likely already impeding trust, satisfaction, performance, and so forth. While a relationship may be improved after the argument that finally resolves the issues, the "before" comparison is actually a relationship plagued by unspoken tensions – that is, rife with conflict (and perhaps quite easy to improve upon); whether a relationship is improved compared to truly pre-conflict times would be difficult to know, but given the often damaging effects and difficulty in managing relationship conflict, this may be the exception to the rule.

Second, the occurrence of a task or process conflict can directly improve a work-related objective (e.g., providing all of the information available before determining what to do; examining all courses of action before proceeding). Alternatively, relationship conflict in itself does not directly improve a work-related objective, but more likely (through its resolution) removes a barrier to completing work more effectively (e.g., improved group cohesion may result in improved ability to work together). Thus, while there may be benefits to effectively resolving relationship conflict, it is difficult to argue that it serves a direct purpose in a work relationship.

There are, however, some factors associated with less severe relationship conflict outcomes. While numerous researchers have found that the emotionality associated with

relationship conflict is particularly problematic for outcomes (e.g. Barki & Hartwick 2004; Jehn et al., 2008), Rispens and Demerouti (2014) found that conflict detachment was able to moderate the relationship between experienced conflict and negative emotions. Rispens et al., (2011) further found that close relationships amongst coworkers (wherein coworkers consider themselves friends) could help sustain positive work behaviours and act as a buffer against the negative effects of relationship conflict. Positive social processes (e.g., communication) and group atmosphere (e.g., respect) can also mediate the associations between perceived conflict and group outcomes (e.g., satisfaction, perceived performance; Jehn, Rispens, & Thatcher, 2010). Even without considering themselves "friends", a prior positive relationship between conflict parties can reduce their tendencies to be confrontational in conflicting situations (Tjosvold & Sun, 2002). In a conflict utopia, relationship conflict might not exist at all. However, although its supposed benefits may be dubious, relationship conflict may be manageable given the right group atmosphere and context, and with individuals' ability to maintain perspective, remove emotionality from relationship conflicts, and communicate effectively about differences.

ICS Types and Health and Wellbeing

The bulk of ICS research has investigated outcomes of direct organizational relevance, such as some form of performance or efficacy, the group processes that influence said performance (e.g., cohesion, trust), or the individual factors that may influence group perceptions (e.g., affective reactions, satisfaction). There is also a significant body of research demonstrating that conflict at work is negatively related to health and wellbeing, although unfortunately a lot of this research does not effectively distinguish between the conflict types (cf. Sonnentag, Unger, & Nägel, 2013; Spector & Bruk-Lee, 2008). Still, conflict has been associated with employee

depression, negative emotional states, psychosomatic complaints, life dissatisfaction, burnout, and psychiatric morbidity (see Spector & Bruk-Lee, 2008). Meier, Gross, Spector, and Semmer (2013) describe how conflicts of all types obstruct the achievement of goals, whether that is a specific task-related goal, or more fundamental human need to be regarded as competent and socially accepted. Whereas task conflict may be more easily attributed to the situation, relationship conflict signals a lack of respect and is more likely to be perceived as a threat to these fundamental needs (De Dreu & Gelfand, 2008) and self- and social esteem, leading to lowered wellbeing (Meier et al., 2013). Greer and Jehn (2007) explain how process conflict is similarly consequential through its more personally held attributions and the ensuing feelings of threat and negative affect.

Though there is less evidence of the interactive effects of the ICS types on health and wellbeing outcomes, the extant literature paints an equally complex picture to that of the performance-related domain. For example, like in the performance domain, task conflict may be associated with diminished wellbeing in part due to its association with relationship conflict – whether it precedes or co-occurs with it (Friedman, Tidd, Currall, & Tsai, 2000). Alternatively, task conflict may actually influence the extent to which relationship conflict is harmful. Meier et al. (2013) found that, once parties had had some time to reflect (but not when the conflict was too fresh), task conflict moderated the association between relationship conflict and angry mood and somatic complaints, in that relationship conflict was only associated with decreased wellbeing when task conflict was low. This suggested that the co-occurrence of task conflict with relationship conflict enabled conflict parties to attribute interpersonal tensions to the situation as opposed to their counterpart, such that task conflict had an ameliorating influence on relationship conflict's negative associations with wellbeing. Alternatively, research by Sonnentag et al.

(2013) found that task and relationship conflicts' direct negative associations with wellbeing were similar, and further, that task conflict may actually be more difficult to disengage from after work compared to relationship conflict, such that "psychological detachment" was unable to mitigate task conflict's negative effects to wellbeing. Other summaries (e.g., Spector & Bruk-Lee, 2008; De Dreu, van Dierendonck, & De Best-Waldhober, 2003) find that at least, whereas relationship conflict has a significant negative association with wellbeing, task conflict appears less severe (even non-significant) in this regard, and that these associations may be dependent on conflict handling modes. Such findings indicate that the complex, multi-layered contingency perspective used to make sense of the ICS types' associations with performance-related outcomes may well be extended into health and wellbeing outcomes – though perhaps with a unique set of contingencies.

The ICS within Conflict Incidents

Importantly, most of the ICS research, whether on performance-related or health and wellbeing outcomes, occurs at the workgroup level (for an exception, see Humphrey, Aime, Cushenberry, Hill, & Fairchild, 2017). These complex findings are difficult to extrapolate to the incident level of analysis for several reasons. As De Dreu (2008) noted, "positive outcomes at one level (e.g., group-level innovations) may occur with negative outcomes at another level (e.g., individual stress, and lowered job satisfaction). From a multi-level perspective, it is difficult to assess whether conflict has positive effects and oftentimes such an assessment forces one to compare apples and oranges" (p. 7).

As researchers increase their efforts towards developing a multi-level theory of conflict (e.g., Korsgaard et al., 2008; Humphrey et al., 2017; Korsgaard, Ployhart, & Ulrich, 2014), conceptual challenges relating to ICS type co-occurrence are becoming more evident

(Bendersky, Bear, Behfar, Weingart, Todorova, & Jehn, 2014). As such, researchers are beginning to refocus on incorporating individual and group conflict *processes* together with emergent states and outcomes (e.g., Weingart et al., 2015; DeChurch, Mesmer-Magnus, & Doty, 2013), as will be discussed further shortly.

One potentially helpful step in expanding conflict theory – and the ICS model in particular – across levels, is to integrate not only the individual experience of conflict (e.g., Humphrey et al., 2017), but to explore what the ICS types *look like* within one conflict incident, as characterized by those individuals. Despite the many indications that "one conflict" may sometimes be composed of multiple types, there does not appear to be any hard evidence as to the "make-up" of unique conflict incidents, or the differential effects of the possible ICS-type-combinations, within them. Notably, Jehn and colleagues (e.g., Jehn & Chatman, 2000; Jehn & Mannix, 2001; Jehn et al., 2010), have studied the effects of *proportional differences of the ICS types* within workgroups, throughout ongoing projects, and even through engaging a multi-level perspective by incorporating individual perceptions of conflict; however, none of these works ask participants to provide their insights on a singular conflict *incident*. That is, it appears no research to date has asked participants to "describe a recent conflict" to learn whether people actually characterize the ICS types as separate issues and hence as separate conflicts, or whether they commonly report multiple types as being part of the same incident.

Some of the goals of this research are to shed light on the frequency and formation of ICS type co-occurrence within conflict incidents, discern whether main effects of ICS types at the workgroup level are mirrored at the incident level, and identify notable differences in individual outcomes between the possible combinations of ICS types. The following five hypotheses explore these ideas.

First, to uncover the frequency and formation of ICS type co-occurrence: As each of the

three ICS types were coded as either "present" or "absent" in conflict reports, each incident

could have taken one of eight possible configurations: there are three *single-type* (task,

relationship, process)*,* three *double-type* (task/relationship, task/process, relationship/process),

and one *triple-type* (task/relationship/process) form; there is also the possibility that *none* of the

ICS types are identified, resulting in incidents coded as "undefined". Though such incidents may

be unlikely when using the actual ICS (as opposed to coding for types' presence), given

participants were not prompted to consider the ICS types prior to completing their conflict

reports, it was believed possible that their most salient memories may not reflect any of them.

This could be indicative of participants failing to provide adequate detail in their reports (i.e.,

that at least one of the ICS types would be identifiable with further prompting), or that the ICS

typology does not encapsulate the primary issue of these particular conflicts. Indeed, some

researchers have recently identified conflict types outside of the ICS, such as status conflict

(Bendersky & Hays, 2012) financial or political conflict (Conlon & Jehn, 2010), and

generational conflict (Hochwarter, Rogers, Summers, Meurs, Perrewé, & Ferris, 2009). While

conducting an analysis of the latent issues underlying the undefined conflicts is beyond the scope

of this thesis, I note that it raises an old "conflict types" question pertaining to the feasibility of

managing potentially innumerable conflict types (see Fink, 1968), and also speaks to more

recently acknowledged challenges of discerning true differences between constructs that are so

closely related (e.g., Le et al., 2010). This topic will be reviewed further in Discussion. In sum, it

was deemed likely that conflicts of all configurations should arise in the present research.

As mentioned, de Wit et al. (2012) found the ICS types to co-occur quite often – in fact

seemingly more than they occur individually. The basis for this workgroup level co-occurrence is

as yet unknown; however, there is ample reason to suspect that unique conflict incidents are often comprised of multiple types, and that relationship conflict is a common feature in these incident-level configurations: Conflict becomes more personal the longer it remains unresolved, and in turn, becomes more problematic and more likely to perpetuate escalated retaliatory behaviour the more personal is becomes (O'Neill et al., 2013); but although conflict being "personal" is an inherent facet of relationship conflict, it is not restricted to this type. People *also* identify with their ideas on a personal level (De Dreu & Van Knippenberg, 2005) and perceive of social injustices during procedural disputes (Greer & Jehn, 2007). The management of task-based issues (DeChurch et al., 2007), or the mere presence of emotionality during disagreement (Yang & Mossholder, 2004) can result in task conflict being perceived as, or escalating into, relationship conflict. It is well-established that conflicts of non-relational "origin" can escalate into relationship conflict (Simons & Peterson, 2000), and it is also more recently recognized that relationship conflict naturally bleeds into other issues (Choi & Cho, 2011).

The three parts of Hypothesis 1 investigating the frequency and form of incident-level ICS-type co-occurrence, were therefore as follows:

Hypothesis 1: ICS Type Co-occurrence:

Hypothesis 1a: There will be conflicts coded into each of the eight possible cells of ICS type combinations.

Hypothesis 1b: Incidents coded as multi-type conflicts will be significantly more prevalent than those coded as single-type conflicts.

Hypothesis 1c: Incidents coded as involving relationship conflict will be significantly

more prevalent than incidents coded as not involving relationship conflict.

As discussed in their *good*, *bad*, and *ugly* sections, task, process, and relationship conflict

have some well-established associations with outcomes as well as some inconclusive, contingent

associations. This research seeks to extend conflict theory using the ICS model by investigating

whether the pervasively damaging effects of relationship and process conflict and the often

weaker or non-significant associations of task conflict with outcomes (de Wit et al., 2012;

O'Neill et al., 2013) will be mirrored at the incident level. Of note, the rare benefits of task

conflict are typically found under such narrow circumstances (e.g., only during decision-making

tasks, only when trust is high, only when task conflict expression is mild and the behavioural and

psychological contexts permit it; O'Neill et al., 2013; Todorova, et al., 2014; Bradley,

Postlethwaite, Klotz, Hamdani, & Brown, 2012) that the present research was not believed to be

a reliable locale for discerning positive task conflict associations from its potentially harmful

effects. Based on widespread workgroup findings, Hypotheses 2, 3, and 4 delineate expected

associations of incident-level relationship, process, and task conflict with individual outcomes,

respectively.

Hypothesis 2: Relationship conflict with Outcomes:

Relationship conflict will demonstrate unfavourable associations with outcomes.

Specifically, coded presence of relationship conflict will be negatively associated with

general health and self-rated performance[1], and positively associated with negative affect,

physical strain, and lost work time due to conflict.

Hypothesis 3: Process conflict with Outcomes

Like relationship conflict, process conflict will demonstrate unfavourable associations

with outcomes: Coded presence of process conflict will be negatively associated with

general health and self-rated performance[1], and positively associated with negative affect,

physical strain, and lost work time due to conflict.

Hypothesis 4: Task conflict with Outcomes:

Coded presence of task conflict will appear negatively associated with general health and

self-rated performance[1], and positively associated with negative affect, physical strain,

and lost work time. However, these associations are expected to be weaker than those of

relationship and process conflict, and perhaps non-significant.

Hypotheses 2 – 4 investigate the effects of the ICS types similar to how they are studied

in workgroup level research, but this study also has the opportunity to view ICS type

combinations in a new way. Specifically, while the main and interactive effects of the ICS types

have often been researched using statistical controls to mute certain associations and look at

others, this research can directly compare incidents wherein certain ICS types have been

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[1] The author anticipates that self-rated performance may exhibit a restricted range of variability, precluding its utility as an individual outcome

measure to conflict in the present study. Should preliminary analysis confirm this limitation, self-rated performance will be excluded from further

analyses.

identified and others have not. In theory, the ICS type combination variable (i.e., that which differentiates the eight groups of ICS type configurations based on types' coded "presence" or "absence") could demonstrate a certain pattern of outcome associations. For example, the presence of all three types together may be associated with the worst outcomes, the relationship/process combination may be comparable, then perhaps singular relationship and process conflict would be closely followed by relationship/task and process/task (as task conflict has been found to ameliorate the negative effects of at least relationship conflict; e.g., Meier et al., 2013), and finally singular task conflict and undefined conflicts might be expected to be the least severe. Due to the limiting binary coding producing the ICS combination groups, the present study may not be poised to reliably distinguish such a specific pattern. However, overall multi-variate and univariate effects may be identified, as well as some specific contrasts between individual outcome means of the most divergent groups. In this respect, the literature clearly indicates that singular task conflict ought to be associated with the least severe outcomes compared to combinations involving relationship and process conflict, especially when they occur together (e.g., de Wit et al., 2012). Given the underlying substantive issues of the "undefined" conflicts are unknown, there is little theoretical background upon which to hypothesize differences between undefined incidents and other ICS type group combinations; however the well-established severe detriments associated with relationship conflict, and the more recent though comparably severe outcome associations established with process conflict, suggest that the mere absence of these conflict types may be associated with less severe individual outcomes. Hypotheses 5a, 5b, and 5c explore these ideas.

Hypothesis 5: ICS Type Combinations with Outcomes.

Hypothesis 5a: The ICS type combination variable will be a significant multi-variate

predictor (i.e., using MANOVA) and univariate predictor (i.e., in one-way ANOVAs) of

individual health and wellbeing outcomes, self-rated performance[1] and lost work time.

Hypothesis 5b: Compared to singular task conflict, ICS type combinations involving

relationship and process conflict will be associated with worse outcomes, and this effect

will be especially pronounced when they occur together (i.e., relationship/process,

relationship/process/task).

Hypothesis 5c: An exploratory investigation of group differences will reveal a trend that

the "undefined" group is associated with less severe individual outcomes than ICS type

combinations involving relationship and process conflict, particularly when they occur

together (i.e., relationship/process and relationship/process/task combinations).

Conflict Impact

This research also introduces the newly developed measure of Conflict Impact. As

discussed, some substantial ambiguities remain in the wake of the ICS research boom, and these

may have significant implications for the model beyond the workgroup level. One such

ambiguity is that ICS type co-occurrence is common, and the *source* of it unknown; although

there are some well-established possible contributors to this co-occurrence, such as simultaneous

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[1] The author anticipates that self-rated performance may exhibit a restricted range of variability, precluding its utility as an individual outcome

measure to conflict in the present study. Should preliminary analysis confirm this limitation, self-rated performance will be excluded from further

analyses.

"separate" conflicts within a group, conflict dynamism, and divergent perceptions of the conflict issue, workgroup research fails to discern what is causing the co-occurrence in any given case. Although the first five hypotheses of this research aim to shed light on the frequency of ICS type co-occurrence and extend understanding of the types' differential effects to the incident level, the reality – as I will argue in the following four subsections – is that discerning the *true source* of ICS type co-occurrence may be impossible – at any level of examination. I believe that this conundrum exposes the ICS's perhaps most insurmountable limitation, and it is for this reason that I developed the measure of Conflict Impact. The following sections therefore describe possible sources of ICS type co-occurrence and the complications resulting from co-occurrence source ambiguity; I then provide a brief rationale for the items used in creating the Conflict Impact measure.

Possible Causes of ICS Type Co-occurrence

Simultaneous separate conflicts. There are numerous ways that ICS type co-occurrence might arise, all of which have potential implications for theoretical and practical use of the ICS model. As mentioned, one possible source for workgroup-level co-occurrence is that multiple separate conflicts are occurring simultaneously. If purely separately occurring conflicts were the basis for workgroup level co-occurrence, the implication would likely be that researchers (e.g., Bendersky et al., 2014; Korsgaard et al., 2008; Mikkelsen & Clegg, 2019) would not be questioning the viability of the ICS taxonomy; it should be clear, however, that simultaneously occurring separate conflicts cannot explain all (or likely even a majority) of co-occurrence cases. The apparent frequency and strength of the types' inter-relatedness is simply too high, given not only the their high intercorrelations (de Wit et al., 2012), but also their demonstrated tendencies to influence one another's effects on outcomes (Meier et al., 2013; Shaw, Zhu, Duffy, Scott,

Shih, & Susanto, 2011), perpetuate conflict spirals across types (Choi & Cho, 2011; Zapf & Gross, 2001) and even transform into one another (DeChurch et al., 2007; Greer et al., 2008; Simons & Peterson, 2000).

Indeed, whether at the workgroup or the individual (dyadic) level, it is unlikely that any two supposedly "separate" conflicts would be entirely unrelated; research on affective team climate, emotional and conflict contagion, conflict escalation and management, and other related streams, suggests that behaviours large and small can have a profound impact on individual and team shared perceptions, behaviours, and reactions to conflict (e.g., Barsade, 2002; Choi & Cho, 2011; Jehn, Rispens, Jonsen, & Greer 2013; Pirola-Merlo, Härtel, Mann, Hirst, 2002; Zapf & Gross, 2001). These behaviours, perceptions, and reactions are locked into a continuous cycle of both individual and group processes, influencing the work and conflict climates, and vice versa (Korsgaard et al., 2008). Thus, even if conflicts *appear* to be occurring separately, how separable are they, really?

Dynamic development or conflict transformation. As Pondy said back in 1967, "Conflict can be more readily understood if it is considered a dynamic process." (p. 299). Another way conflicts can co-occur is through conflict dynamism, or the transformation of one conflict type into another. This may happen any number of ways, but for two simple examples: A task conflict could evolve "completely" into a relationship conflict (i.e., the task conflict is resolved or otherwise forgotten), such that co-occurrence is reflective of two issues at *different* times. Or, a task conflict could evolve into a relationship conflict such that the task conflict remains an issue, resulting in co-occurrence of two issues at the *same* time. The concept of conflict transformation precedes the ICS model's inception, such as in research streams like conflict escalation. For example, seminal work by Andersson and Pearson (1999) introduced the

concept of the *incivility spiral* in recognition that even ambiguous "uncivil" events – such as a "whatever," in response to a question – could be the start of a series of tipping points that eventually escalate into a full-blown conflict. It has long been recognized that any innocuous or unintentional behaviour perceived as "rudeness" could be felt on a personal level, and that conflict escalation is often a function of non-proportional "revenge" (see Andersson & Pearson, 1999); some early ICS research (e.g., Simons & Peterson, 2000; Tidd, McIntyre, & Friedman, 2004) helped to explain how the misattribution of task conflict as having a personal undertone (particularly in low-trust or ambiguous role contexts) could result in the transformation of a supposedly harmless discussion about task disagreements into relationship tension. Longitudinal work (e.g., Jehn & Mannix, 2001; Peterson & Behfar, 2003) supported this and later demonstrated that process conflict, as well, is apt to transform into the other ICS types when not resolved promptly (Greer et al., 2008). Choi and Cho (2011) further demonstrated relationship conflict can directly result in task conflict as well, in that relationship conflict bleeds into task issues because interpersonal animosity will naturally be expressed as task disagreements in workplaces. Thus, the conflict types' dynamic development is well-established, and the contingencies upon which they escalate or transform are becoming more thoroughly understood as well. These range from individual personality characteristics (e.g., trait perspective-taking vs. empathy, LeBlanc, Gilin Oore, Calnan, & Solarz, 2012; cognitive flexibility, a balance of self-other focus, emotion regulation, person-conflict situation fit, Gilin Oore, Leiter, LeBlanc, 2015) to emergent states of the group (e.g., trust; de Wit et al., 2012) to group conflict norms (e.g., open discussion norms; see Bradley et al., 2015), to factors about the conflict itself, aside from its "type" (e.g., oppositional intensity, Weingart et al., 2015).

The problem is that neither labeling conflicts as certain types, nor continually identifying contingent factors associated with their evolution, necessarily brings the research closer to the "root cause" of any conflict in practice. Not only can conflict be "about" one thing in one moment, and "about" something else the next, but in ongoing relationships, every interaction between two parties could arguably be viewed as a *reaction* to their previous interaction, dating back all the way to their introduction – or even to the pre-conceived biases they each brought to their introduction. Hence, identifying the true underlying issue of a conflict, or the "tipping point" of when one type transforms into another, is a formidable task. If an employee quickly dismisses a colleague's idea during a brainstorming session (i.e., task conflict occurs) causing the colleague to feel frustration and relationship tension, is the ensuing relationship conflict caused by the employee's abrupt dismissal, the colleague's interpretation of the dismissal as personally offensive, or perhaps an earlier event that sapped the employee's patience for listening to her colleague's idea? While it has no doubt been invaluable to learn the contexts that support versus impede effective conflict expression, the conflict life cycle may be too dynamic and complex to be precisely reflected with conflict type labels – especially given individuals may not always agree on what kind of offence has occurred.

Divergent conflict perceptions. Divergent perceptions of conflict issues demonstrate that not all conflict parties necessarily classify a conflict the same way (Jehn & Chatman, 2000; Jehn et al., 2010), suggesting that ICS type co-occurrence within the workgroup literature may also be in part due to alternative ideas of what a conflict is "about", within a group. In viewing "perceptions" of conflict as both the cognitive interpretations of and emotions felt from conflict, it cannot be over-stated that perceptions of a conflict are arguably the most important determinant of conflict outcomes (c.f. Mikkelsen & Clegg, 2019). This is in part because in

addition to their weight on more distal individual and group outcomes, perceptions of a conflict will also bear significantly on the more immediate effects of whether that conflict may bleed into other issues (Choi & Cho 2011), infect other parties not already involved (Jehn et al., 2012), or otherwise perpetuate the conflict cycle across types and levels.

While conflict dynamism/transformation is often discussed, rarely is it fully appreciated that the so-called issue at the root of the conflict does not even need to change for conflict to transform or be perceived differently between parties. That is, while task conflict is evident because of verbally articulated task-based disagreement, relationship conflict typically emerges without a change in topic (i.e., you don't need to be talking about the relationship in question), and can happen simply by coworkers discussing tasks with a more competitive approach as opposed to a collaborative one (DeChurch, et al., 2007). All conflict types are subject to the interpretations of the parties involved, and indeed can *only* exist if they are perceived (Barki & Hartwick, 2004); however, relationship conflict in particular often does not subsist on any tangible issues of its own, but purely through the perceptions of subtle nuances of expression about other things. Korsgaard et al., (2008) succinctly state: "Parties' interpretation and response to conflict episodes are governed by imperfect perceptual processes infused with affective reactions (Kumar, 1989), as such there is no necessary correspondence between objective events and the interpretation or perception of conflict" (p. 1226). Klein & Kozlowski (2000) provide an example of how this may negatively impact the construct validity of a group level measure, in that if half of a group rates a construct highly, and the other half rates it low, then the mid-range average is at best, ambiguous, but realistically, does not accurately represent any of the group members' ratings, rendering construct validity questionable (p. 213).

The implications of divergent conflict perceptions for the ICS model are simple yet profound: If conflict can have entirely different meanings to different people, is there ever any "truth" to defining the conflict itself, or can it only be defined for the individual?

"True multi-type". Whereas the ICS conflict types are often discussed regarding the how they may evolve into one another over time (Simons & Peterson, 2000) or how they can be differently perceived (Mikkelsen & Clegg, 2019), another way in which co-occurrence can happen is less often discussed, which is that of the "true multi-type" conflict: It is entirely possible that one single event could be characterized as more than one kind of conflict. For example, if an individual were to describe the following conflict: "my co-worker got really angry/became super disrespectful (relationship) and said that if we didn't use her idea (task) then she wouldn't commit to the project (process)", all three types of conflict can be easily identified. While researchers continually perform confirmatory factor analyses on the ICS model to affirm its use, it may be that this manner of conflict type co-occurrence is less discussed because it appears to demonstrate a greater threat to the validity of the taxonomy of distinct ICS types.

The Return of the Conflict Process Perspective

Recognizing the significance and complexity of ICS type co-occurrence, Jehn and Chatman (2000) discussed the importance of studying ICS type combinations, and other works (e.g., Greer et al., 2008; Jehn et al., 2010) have followed suit. However, only rarely and recently has it been discussed that the *ways in which co-occurrence happens* might bear weight on the theoretical and practical functionality of the ICS model (see Korsgaard et al., 2008; Mikkelsen & Clegg, 2019). The ways in which ICS type co-occurrence may happen not only contribute to the types' complex and diverse interactive effects, but also speak to the very nature of conflict itself.

Importantly, years of complex co-occurrence findings and discussion has resulted in a recent trend of researchers refocusing on conflict *processes*.

Some researchers (e.g., Bendersky et al., 2014; DeChurch et al., 2013; Weingart et al., 2015) have recently called for a greater (re)focus on conflict processes because any reliable conclusions as to the effects of the ICS types as substantive issues remain evasive. Others point out that the high levels of ICS type co-occurrence and their highly complex interactions may be a function of ICS type conflation with the conflict process (Korsgaard et al., 2008). Some argue that the study of conflict through substantive issues is perhaps misguided, because conflict in itself is inherently dynamic, and may be "about" one thing this minute and another the next (Korsgaard et al., 2008; Mikkelsen & Clegg, 2019). Further, individuals can have very different perceptions as to not only the amount of conflict, but also what it is about (Jehn & Chatman, 2000; Jehn et al., 2010), causing researchers to recognize and discuss that conflict is not an entity in itself, and that it cannot be separated from the individuals perceiving it (Mikkelsen & Clegg, 2019).

From a conflict process perspective, every conflict ought to follow the same structure and processes: That is, there are organizational and specific conflict-related structures resulting in a certain situation and context; events occur, and parties proceed through cognitive, emotional, and behavioural responses to those events; and finally, conflict outputs result (i.e., there are consequences of the conflict or a new context/situation; Pondy, 1967; Pinkley, 1990). As Korsgaard et al. (2008) describe, these structures and underlying processes should be parallel across levels of a multi-level theory of conflict, but this does not mean that the influencing factors to each part of the process are the same; in fact, there will be aspects of the process that are unique to each level, and this is relevant to the conflict experience as a whole.

Refocusing on conflict processes further highlights the important distinctions of measuring the ICS at the group level versus the incident level. That is, group processes should be appropriate predictors of group-level outcomes (Choi, 2006), and while they may be useful predictors of individual outcomes, they can also risk misspecifying the level of analysis (Klein & Kozlowski, 2000); as these authors describe, "cross-level analyses in which, for example, team level characteristics are used to predict individual-level outcomes raise the complex theoretical and statistical issues resulting from the non-independence of observations" (p. 214). That is, due to the nature of the "nested data", it might be difficult to know how much of an individual's conflict experience can be predicted by their group membership, and this may not be consistent across groups. Such questions are further complicated by the challenge of effectively operationalizing certain constructs as various types of group-level constructs. For example, Klein & Kozlowski (2000) differentiate between "global" team properties that are objectively stable group characteristics independent of the members of the group (e.g., a group's function – a sales team's function is to sell, regardless of its members), from other types of group-level constructs, like "shared" team properties, which may vary somewhat or a lot depending on the referent level of analysis; for example, "efficacy" may be operationalized as a shared team property, but *team* efficacy may be more likely to be shared than any individual's level of efficacy. For a measure which was designed to assess a group's shared perception of conflict, or one's perception of the shared conflict climate, it is possible that the measure may not simply translate to the individual level without further theoretical development and testing (see Klein & Kozlowski, 2000, p. 212 – 217).

Further, though the workgroup climate will most certainly influence an individual's perceptions of their own personal conflict incident, when the individual makes sense of this

conflict, their greater focus would presumably be on their own individual and dyadic processes, interactions, and outcomes, as individuals tend to focus less on how their environment contributes to their experiences of events than what they can see and feel of those events more tangibly (Barsade, 2002). It seems, then, that the obvious solution to extending the ICS to the incident level, is to measure the ICS types from the perspective of the individual. In effect, there may be something of a Catch-22 in creating a truly multi-level model of conflict using the ICS typology: The workgroup level cannot explain frequent ICS type co-occurrence, which needs to be investigated and understood from the incident level to clarify the model; however, while the incident level of analysis may have better luck explaining co-occurrence, it is likely to produce challenges in aggregating and integrating individual perspectives of conflict *back* with the higher order levels, due to potentially high disagreement on what conflict is about, or its dynamic and complex nature.

In sum, a great deal has been discovered thanks to the ICS typology, though persistent conceptual barriers remain to answering some of its most nagging ambiguities. Issues like conflict dynamism and asymmetrical conflict perceptions make defining conflict akin to shooting a moving target, but the entire model rests on the types being uniquely definable constructs. Given all of the difficulty conclusively defining conflict types, the Conflict Impact measure is proposed as a supplementary or alternative tool to predict individual outcomes to conflict. By focusing on the conflict *processes* experienced by conflict parties throughout and following conflict incidents, this measure is further proposed to explain the effects of the ICS types on individual outcomes through mediation.

Rationale for Conflict Impact Items

This research introduces a measure of Conflict Impact, developed by the author under the supervision of Dr. Debra Gilin. This 5-item measure was designed to evaluate the personal impact of a conflict on an individual, irrespective of conflict type, by measuring uniquely personal facets of the experience, including perceived conflict stressfulness, importance, intensity, and the degree to which one's emotions, cognitions, and behaviours were influenced by the conflict process. The measure was inspired by many researchers' work, but most notably by Pondy's (1967) process model theory of conflict, wherein emotions, cognitions, and behaviours were viewed as inseparable elements of the conflict process, which should largely determine conflict outcomes. Barki & Hartwick's (2001) conflict criterion and their subsequent (2004) paper provided the basis for framing items in terms of amount and frequency, and for incorporating a measure of overall intensity, as this could be independent of conflict type. Items related to conflict stressfulness and importance were also included to provide a direct evaluation of conflict events, while remaining personalized to the individual and therefore more proximally related to their own outcomes. Together, the Conflict Impact items are intended to act as a mediator, bridging the conceptual pathway between ICS types and individual outcomes.

The items are broken down specifically as follows: Two items reflecting the frequency that the conflict influenced individuals' cognitions, emotions, and behaviour, are intended to capture the individual processes experienced throughout conflict (see Pondy, 1967). An intensity item has been included as the perceived seriousness or severity of the conflict is perhaps the central factor in determining the responses of the parties involved (Todor & Owen, 1991), and the intensity of a conflict should be associated not just with the ICS types individually, but with certain/increasingly complex combinations of types. Additionally, researchers have found conflict expression intensity to influence how parties experience and react to conflict, resulting in

dynamic escalatory or de-escalatory spirals (Weingart et al., 2015) and influencing how well

information can be obtained (such as in the case of task conflict; Todorova, et al., 2014). An item

assessing stress was included because conflict is a known stressor producing strain (Spector &

Bruk-Lee, 2008), consequently reducing wellbeing (Meier et al., 2013) and conflicts of all types

have been found to be stressful due to the fact that they impede goals (Lazarus, 1999). Further,

an indicator of stress experienced from the conflict is likely to differentiate between the ICS

types, as the threats experienced by the types – at least in their pure forms – ought to be different;

for example, relationship conflict is likely to produce feelings of threat to one's need to belong,

whereas task conflict is likely to produce feelings of threat associated with failing to perform

tasks effectively (Semmer, Jacobshagen, Meier, & Elfering, 2007). Finally, conflict importance

was included on the basis of work like Pinkley's (1990), which described that individuals frame

conflicts based on what they perceive to be important within that conflict, and respond

accordingly. Interdependency in social relationships has long been considered a feature of

conflict (see Wall & Callister, 1995), and this is determined both by the value placed on goal

outcomes as well as the availability of alternative outcomes (Korsgaard et al., 2008); While

relationship conflicts may *typically* be more inherently important to people and task conflicts less

so, a task conflict could be framed as very important if an employee is highly dependent on a

colleague to collaborate, whereas a relationship conflict could be less important if an employee

does not feel dependent on that colleague in order to feel (for example) a sense of belonging in

the workplace. A measure of importance may therefore permit finer distinction of the ICS types

according to individual context, which should again be more predictive of individual outcomes.

A Mediation Model of Conflict Impact

As mentioned, Conflict Impact was developed to be more proximal to the individual and place greater emphasis on the unique conflict perceptions and processes that individuals experience throughout conflict, in order to act as a mediator and explain more of the highly complex associations between the ICS types and individual outcomes. As noted throughout this paper, the complexity of these associations may arise from numerous sources (i.e., the various possible means of ICS type co-occurrence), but the implications are often that the ICS typology may struggle to easily traverse levels as a multi-level model. The first five hypotheses of this thesis address the questions of frequency and form of ICS type co-occurrence at the incident level. It is expected that conflict incidents will frequently present as multi-type conflicts and that relationship-oriented conflicts will be tightly enmeshed with conflicts surrounding objective work issues. Should these first five hypotheses be supported, this will corroborate recent calls to refocus on conflict processes (e.g., Weingart et al., 2015).

Should the validated Conflict Impact measure demonstrate meaningful associations with individual health and wellbeing outcomes for employees, it may provide a basis for further research to focus on individual perceptions and conflict processes to advance conflict theory, and practically, in the development and implementation of resources aimed at confining conflict's negative effects in organizations. Should the mediation model proposed in this research be supported, this research will add to the growing literature that attempts to disentangle the ICS types from the individual processes of experiencing conflict. It is the author's hope that in addition to contributing to the theoretical understanding of conflict, particularly as related to ICS type co-occurrence, this simple five-item measure of Conflict Impact may one day be useful in practice to direct employees to resources for conflict coping and management based on their unique, individual needs.

Hypothesis 6: Conflict Impact as a measure

Hypothesis 6a: The five items comprising *Conflict Impact* will demonstrate adequately

strong internal consistency reliability for a five-item, unidimensional measure (i.e.,

Cronbach's alpha >= .8), and each item will improve the measure's reliability.

Hypothesis 6b: An Exploratory Factor Analysis will reveal the best fit of *Conflict Impact*

items to a one-factor structure, which will be supported through testing of forced

alternative two-factor or three-factor structures.

Hypothesis 7: Conflict Impact with ICS

Hypothesis 7a: Conflict Impact will be positively associated with coded relationship and

process conflict, such that when these are "present", Conflict Impact will be greater; this

trend will be weaker and perhaps non-significant for coded task conflict.

Hypothesis 7b: The ICS Type Combination variable will be a significant univariate

predictor (i.e., using one-way ANOVA) of Conflict Impact.

Hypothesis 7c: Compared to singular task conflict, ICS type combinations involving

relationship and process conflict will tend to be associated with greater Conflict Impact,

and this effect will be especially pronounced when they occur together (i.e.,

relationship/process, relationship/process/task).

Hypothesis 7d: As stated in Hypothesis 5b, the design of this research presents a novel

opportunity to explore differences between conflict incidents involving recognized ICS

types, and those wherein no ICS type was identified. Despite not knowing what these

undefined incidents are "about", it is reasonable to anticipate that, given their well-

established harmful effects, incidents involving relationship and process conflict will be

more impactful to individuals than incidents not clearly involving these ICS types. This

will be investigated in an exploratory fashion, with the expectation that undefined

incidents will be associated with lower Conflict Impact than incidents involving

relationship and process conflict, particularly when they occur together (i.e., in

relationship/process and relationship/process/task combinations).

Hypothesis 8: Conflict Impact with Outcomes

Hypothesis 8a: Higher levels of Conflict Impact will predict unfavourable individual

outcomes. Specifically, Conflict Impact will be negatively associated with general health

and self-rated performance[1] and positively associated with negative affect, physical

strain, and lost work time.

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[1] The author anticipates that self-rated performance may exhibit a restricted range of variability, precluding its utility as an individual outcome

measure to conflict in the present study. Should preliminary analysis confirm this limitation, self-rated performance will be excluded from further

analyses.

Hypothesis 8b: The associations between Conflict Impact and individual outcomes will

remain after controlling for coded ICS types, such that Conflict Impact still predicts a

significant amount of variance in outcomes over and above the ICS types.

Hypothesis 9: Conflict Impact Mediation of ICS-type associations

Hypothesis 9: Significant associations between coded relationship, task, and process

conflict with individual outcomes will be partially mediated by Conflict Impact.

Method

Participants

Healthcare organization.   One thousand one hundred and forty-four employees from

a large healthcare organization in Nova Scotia (hereon referred to as HCO for "healthcare

organization") participated in either an online or paper version of the research survey. Of these

1,144 participants, 374 were excluded due to either providing no written details in their conflict

incident reports (thereby prohibiting ICS type coding of their conflict situation) or reporting that

they did not experience a conflict within the past year; the resulting a sample from HCO was N =

770, which represents approximately 7.7% of HCO's estimated 10,000 employees.

These 770 HCO participants were 85.2% female with an age range of 19 to 66 years

(Median = 43). One hundred and thirty-three (17.3%) identified as being a member of a minority

group or diverse population (e.g., ethnicity, sexual orientation). Participants' job categories

included (in order of frequency): Other health care (e.g., pharmacist, social worker; $n = 253$,

32.9%), Nurse ($n = 184$, 23.9%), Office or clerical ($n = 134$, 17.4%), Confidential exclusion ($n =$

36, 4.7%), Support (e.g., food services, janitorial; $n = 28$, 3.6%), Other manager ($n = 24$, 3.1%),

Health services manager ($n = 19$, 2.5%), Researcher ($n = 17$, 2.2%), Supervisor ($n = 16$, 2.1%),

Physician/Surgeon (n =12, 1.6%), Senior management (n = 6, 0.8%), and Other (n = 40, 5.2%). One participant did not report their job category.

Participants' tenure of employment at HCO ranged from less than six months to 30 years or more, with about half of participants tenured for ten years or less. Most participants were full time employees (76%), whereas part-time (14%) and casual/temporary workers (9%) comprised smaller proportions of the sample; five participants did not report their employment status.

University sample.   Three hundred and ninety-eight employees from a Nova Scotian university (hereon referred to as NSU) participated in the "Conflict Experiences at Work Survey" on FluidSurveys.com (Fluidsurveys.com is a former Canadian-based survey-hosting platform but has not been operational since 2016). Of these 398 participants, 186 were excluded due to either providing no information in their conflict descriptions or reporting that they did not experience a conflict within the past year, resulting a final sample of N = 212 representing approximately 21% of NSU's estimated 1000 employees.

This NSU sample was 67% female with an age range of 18 to 71 years (Median = 39). Thirty-eight participants (17.9%) identified as a member of minority group or diverse population. Participants' job categories included: Full-time staff (n = 100, 47.2%), Part-time staff (n = 33, 15.6%), Casual/temporary staff (e.g., student workers such as research and teaching assistants, n = 31, 14.6%), Full-time faculty or professional librarian (tenured/permanent, n = 26, 12.3%; untenured/not permanent, n = 10, 4.7%), Part-time, adjunct, or emeritus faculty or professional librarian (n = 7, 3.3%), or Other (e.g., contract workers; n = 4, 1.9%). One participant did not report their job category. Participants' employment tenure ranged from less than six months to over 30 years, with about half having been employed for five years or less.

As compensation for completing the survey, participants from both locations received a

$10 gift card to their choice of several eateries and stores, and were encouraged to follow up on study findings to learn more about their organization's conflict resolution services.

Measures and Materials

Predictors and controls.

Coded conflict types. Two hired research assistants were trained as coders by the author (Kristina Pope), Dr. Debra Gilin, and Dr. Diane LeBlanc (at the time, a PhD Candidate also studying conflict under Dr. Gilin's supervision). Coders were trained to independently code all conflict incident reports for the presence or absence of task, relationship, and process conflict based on the updated ICS subscales by Jehn and Mannix (2001). Specifically, coders were trained to identify each indicator for each conflict type based on the three items per subscale; for example, identification of any of relationship tension, anger, or emotional conflict, would result in a "present" coding for relationship conflict. Following theming training, coders independently coded 15 incidents and results were discussed with trainers until agreement was reached for each incident report. This method continued for every 15 reports until coder agreement was satisfactory for each conflict type (interrater reliability of at least Kappa = .72), at which point coders checked agreement amongst themselves after every 50 incident reports. For every conflict incident, each type of conflict was coded as present if both coders agreed it could be identified from the participant's report. In the event of unresolvable disagreements or lacking clarity, coders consulted with trainers to reach agreement. See Appendix [TBD] for conflict description and specific instructions given to participants to consider when completing their conflict reports.

Conflict impact. The proposed research uses five items to evaluate *conflict impact*, which were adapted and developed from Barki and Hartwick's (2001) three-item conflict criterion. Whereas the original conflict criterion items measured the severity of conflict throughout one

team project, the current conflict impact items aim to assess the extent to which an *individual* is/was *impacted* by one conflict *incident*, which may occur across teams/departments and which may endure for any length of time. Participants were instructed to think of the conflict when it was at its worst or when it bothered them the most, and report either frequency or degree perceptions to indicate how the conflict has impacted them for each of the five items.

The items touch on participants' internal experience and outward behaviour throughout the conflict, as well as their perceptions of how important the conflict issue was to them, how stressful the conflict was, and the conflict's overall intensity. Items are as follows:

1. "How frequently has this conflict influenced your thoughts and emotions (e.g., frustration, anger, betrayal, worry)?"

2. "How frequently has this conflict influenced your behaviour, either alone (e.g., avoiding the person, coping behaviours) or with others (e.g., venting to coworkers, addressing the problem, getting into arguments)?"

3. "How intense has this conflict been?"

4. "When the conflict was at its worst, how stressful did you find it?"

5. "How important has this conflict issue been to you?"

Items used (or were adjusted to use) a seven-point Likert scale with anchors ranging from 1 = *Not at all/Never* to 7 = *Extremely/Always*. Together, these items are proposed to represent a composite of Conflict Impact, which (pending suitable reliability and one-factor structure validation) will be used for all conflict impact-related analyses.

Outcome Variables. Outcome variables include mental and emotional well-being, physical strain, job functioning, and lost work time. Because it refers to time spent managing the conflict, the lost work time variable asked participants to reflect on when the conflict was at its

worst or when it bothered them the most. All remaining outcome variables asked participants to respond based on their experiences over the past month, in order to measure potential long-term impacts of conflict while remaining recent enough to obtain reliable responses (i.e., their conflicts should have occurred within one year of survey completion). See Appendix [TBD] for full versions of scales.

Mental health. The General Health Questionnaire (GHQ; Goldberg & Williams, 1988; α = .86) was used to assess participants' mental health. This 12-item checklist uses a 5-point Likert scale (*never* to *always*) for respondents to report on the frequency with which they experience symptoms of mental health suffering. An example item is: "Have you recently been feeling unhappy or depressed?"

Emotional well-being. Emotional well-being was assessed using two subscales from the Job-related Affective Well-being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000). Specifically, participants reported their recent experience of low-pleasure, low-arousal (LPLA; α = .80), and low-pleasure, high-arousal (LPHA; α = .80) emotions related to their work. High-pleasure items from the JAWS were excluded due to space concerns, and the fact that differences in emotional well-being after stressful experiences may be more commonly found in low-pleasure items. For brevity throughout this paper, I use the acronym JAWS instead of JAWS-NA, though for the present study, JAWS refers to negative affect only. Participants used a 5-point Likert scale to report the frequency (*never* to *always*) with which they experienced 10 emotions. An example item is: "In the past month, my job made me feel angry."

Physical strain. Physical strain was assessed using Leiter's (1996) 6-item checklist (α = .75), which measures frequency of physical strain indicators (e.g., "In the past month, how often have you experienced back strain") using a 7-point frequency Likert scale (*never, once, twice,*

several times, once a week, twice or more per week, daily).

  Self-rated performance. Gilin Oore et al. (2015) developed a three-item job functioning

scale for participants to report how their supervisors would rate their job performance ($\alpha = .95$).

Participants respond using a 5-point Likert scale (*poor, fair, good, very good, excellent*).

Instructions for all three items are: "Considering all of your job duties and responsibilities, how

would your boss rate the following about your work over the past month?" Items include: "The

amount of work that you accomplished," "The quality of your work," and "Your overall

performance".

  Lost work time. Participants were asked to estimate how much work time they spent

dealing with or worrying about the conflict. "Lost work time" was then calculated by multiplying

number of hours per week by number of weeks. Further details on the calculation of this

outcome variable are presented in Results.

Research Design

  A cross-sectional, self-report survey was conducted online at two organizations, a large

healthcare organization (HCO) and university in Nova Scotia (NSU) through the survey service

website FluidSurveys.com, and in-person with a paper version of the survey at one organization

(HCO).

Procedure

  Healthcare organization employees were recruited to participate in either an online

version of the research survey (using survey platform FluidSurveys.com) or a paper version

filled out in-person. Emails with an invitation and link to the "Conflict Experiences at Work

Survey" were sent directly to former clients of HCO's internal Conflict Resolution Specialist

directly, as well as en-masse to all HCO employees. Additionally, HCO's home website included

a similar call-out and invitation to the survey with the same link. To increase the accessibility of this large population, notices were posted at various HCO work sites inviting employees to participate in person on three separate occasions, each with a seven-hour time span for employees to drop in. For NSU participants, emails with a link to the online research survey were sent out on three separate occasions, and no in-person sessions were held due to the smaller and more email-accessible population.

The full-length survey (approximately 40 minutes in duration) was comprised of seven sections, including (1) demographics, (2) personality predictors, (3) workgroup conflict norms, (4) incident-level conflict reports and other conflict-related measures, (5) conflict handling options and program evaluation, (6) health and well-being measures and (7) job functioning and lost work time ratings. Sections (2) and (6) were randomly alternated to rule out possible order/priming effects of contemplating one's conflict prior to (or after) considering one's well-being or personality.

Upon survey completion participants were informed of the study's purpose and given information about the conflict resolution resources at their organization. Finally, they were redirected to a separate "Gift Card and Feedback Survey" to (a) select their $10 gift card without association between their conflict survey responses and their mailing address, and (b) to provide any feedback or address concerns with the study.

Results

Analytic Overview

The nine hypotheses proposed in this thesis require a range of analytic techniques for testing. Hypothesis 1, which explores ICS type co-occurrence and combination frequency, uses Chi-square analyses.

Prior to discussing conflict-outcome associations, I detail statistical assumption checks (e.g., normality, outlier tests, homogeneity of variance) and relevant variable modifications for outcome measures. Hypotheses 2, 3, and 4 use multiple regression to test main effects of the of ICS types on outcomes. Hypothesis 5, which investigates mean differences in participants' conflict outcomes between the eight ICS type combinations, uses one-way MANOVA and univariate planned contrasts.

Hypothesis 6 analyses the reliability and factor structure of the Conflict Impact measure. Hypothesis 7 explores associations between Conflict Impact and ICS type presence within conflict incidents using both regression (7a) and ANOVA (7b) with planned contrasts (7c and 7d). Hypothesis 8 uses linear regressions to examine Conflict Impact associations with individual outcomes.

Finally, Hypothesis 9 explores Conflict Impact's mediation of the ICS type–conflict outcome relationships. As is described in detail in this subsection, the data structure does not allow for originally planned analysis (Hayes' process macro for indirect effects), so instead I explore an alternate approach (MANCOVA with planned contrasts).

Hypothesis 1: ICS Type Combinations and Co-occurrence Frequency

Hypothesis 1a: Presentation of ICS type combinations. Hypothesis 1a stated simply that there would be conflict incidents coded into each of the eight possible cells of ICS type combinations. Table 1 shows a frequency count of 955 participants included for this analysis dispersed from most to least prevalent ICS type combination (981 participants are included in the final sample, 28 were further excluded from this analysis due to missing data). With cell sizes ranging from $n = 26$ to $n = 251$, Hypothesis 1a is supported.

Table 1

Frequency Distribution of ICS Type Combinations

	Frequency		
ICS Type Combination	*n*	Percent	Valid Percent
Relationship/Task/Process	251	25.6	26.3
Relationship	216	22.0	22.6
Relationship/Process	190	19.4	19.9
Relationship/Task	155	15.8	16.2
Undefined	53	5.4	5.5
Task	38	3.9	4.0
Process	26	2.7	2.7
Task/Process	26	2.7	2.7
Total	955	97.3	100
Missing	26	2.7	
Total	981	100	

Note. ICS Type Combinations are further reduced due to listwise deletion for Hypotheses 5, 7b, and 7c; the greatest reductions occur in Hypothesis 5, when group sizes range from 23 (singular process and task/process) to 240 participants (relationship/task/process), resulting in a useable sample of 899 participants.

Hypotheses 1b and 1c refer to predictions regarding the distribution of conflict incidents over the various ICS type combinations; each were investigated using Chi-square analysis for goodness of fit.

Hypothesis 1b: Frequency of ICS type co-occurrence (multi-type) versus single-type conflicts. Hypothesis 1b stated that multi-type conflicts would be more prevalent than single-type, so was concerned only with incidents wherein at least one of the ICS types was identified;

thus, all conflicts coded as "undefined" were excluded from this analysis. If evenly dispersed

across the ICS type combinations, the remaining 902 participants would be distributed (nearly)

129 participants to each group (i.e., 902 / 7 cells of type combinations). Further, there are four

ICS type combinations that are "multi-type" (i.e., relationship/task, relationship/process,

task/process, and relationship/task/process), whereas there are only three singular ICS types

(relationship, task, and process). Hence, an equitable distribution of participants between multi-

versus single-type conflicts should reflect this 4/7ths and 3/7ths ratio, resulting in 515

participants expected to have had multi-type conflicts, and 387 expected to have had single-type.

The Chi-square test of independence found that significantly more incidents were coded as

multi-type (622 incidents) and significantly fewer incidents were coded as single-type (281

incidents) than would be expected due to chance ($X^2(1) = 50.83$, $p < .001$). Thus, Hypothesis 1b

was supported.

   Hypothesis 1c: Prevalence of relationship conflict within incidents. Hypothesis 1c

stated that incidents involving relationship conflict would be more prevalent than incidents not

involving relationship conflict. Of the eight cells of ICS type combinations, four include

relationship conflict (relationship, relationship/task, relationship/process,

relationship/task/process) and four do not (undefined, task, process, task/process), thus an even

distribution of the 955 conflict incidents should result in 477.5 per (four-combination) group.

The Chi-square test revealed that with 812 incidents involving relationship conflict and only 144

not involving it, the observed distribution between groups was significantly different than what

would be expected by chance ($X^2(1) = 467.30$, $p < .001$). The strength of this finding may be

further exemplified in noting that between the two broader "involves relationship conflict" and

"does not involve relationship conflict" groups, even the two most closely populated cells –

relationship/task (155 cases) versus undefined (53 cases) – are significantly different from one another at the (X^2(1) = 47.55, p <.001) level. Thus, not only does relationship conflict occur in the vast majority of cases, but also, other conflict types and combinations (known to the ICS model or not) are relatively *unlikely* to occur *without* the presence of relationship conflict. In sum, Hypothesis 1c is supported.

Outcome Measure Data Cleaning and Verification of Assumptions for Analysis

Many of the remaining hypotheses require the use of Multiple Regression or multivariate analysis of variance (MANOVA) for testing, thus dependent variables (DVs) are assessed to the extent that they meet the requirements of these analyses. Unfortunately, self-rated performance and the lost work time variable demonstrated problematic distributions and were therefore excluded from further analyses. Details are below.

Self-rated performance. It was expected that self-rated performance may suffer from skewness (due to self-report bias), thereby making it unsuitable as a measure by which to assess conflict outcomes. Over 78% of participants' self-rated performance means (on three items measuring quantity, quality, and overall performance) fell between four and five on a five-point Likert scale (M = 4.09, SD = .77, SE = .03). A skewness value of -.923 (SE = .083), a kurtosis value of 1.391 (SE = .167), and visual inspection of the data confirmed a moderate (bordering on high) negative skew and high kurtosis in the distribution (see Figure 1). Preliminary analyses further revealed that this variable did not demonstrate significant associations with coded ICS types, thus this measure was excluded from further analysis.

Figure 1. Participants' Self-rated Performance Means
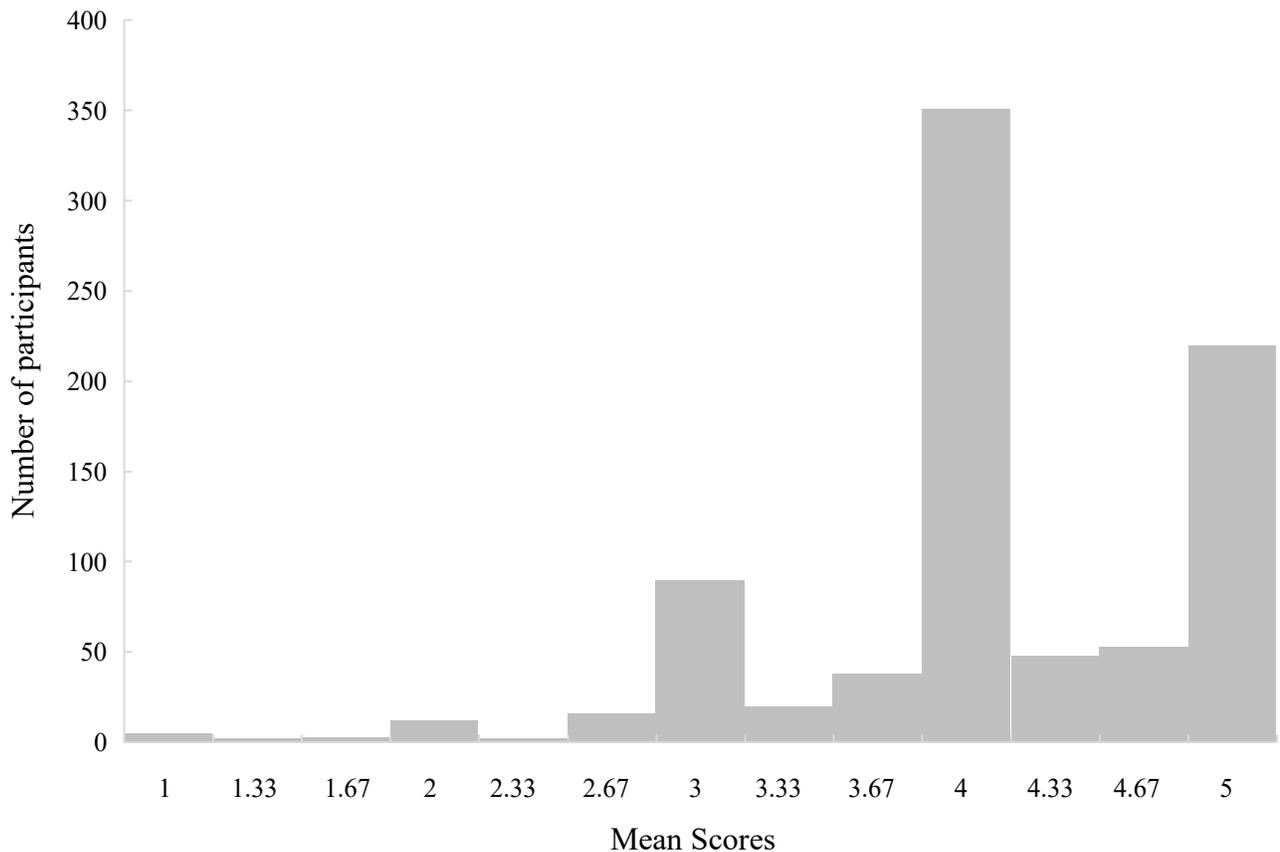
Figure 1. Participants' self-rated performance means based on three items: *Considering all of your job duties and responsibilities, how would your supervisor or boss rate the following about your work over the past month?* 1. *The amount of work that you accomplished.* 2. *The quality of your work.* 3. *Your overall performance.* Responses were provided on a Likert scale ranging from 1= *Poor*, 2 = *Fair*, 3 = *Good*, 4 = *Very good*, 5 = *Excellent*.

Lost work time. The Lost Work Time variable was introduced as a "safeguard" measure to self-rated performance – that is, as a more subtle means of gauging whether participants' performance and productivity may have been affected by their experience of conflict. Unfortunately, the manner by which I asked participants to report their lost work time resulted in

a highly skewed distribution that, following much consideration, was deemed not amenable to analysis. Details are below.

      Variable computation. Participants were asked to estimate how much work time they spent dealing with or worrying about the conflict in the format of *X number of hours per week* for *X number of weeks*; "drop down" lists ranging from 1-61 (the maximum allowed number of options) were provided (the 13 participants who completed the paper-and-pencil survey version had no range limit). These numbers were then multiplied to calculate the total number of hours lost, for example, four hours spent per week over three weeks would amount to 12 total hours.

      Data distribution. The multiplicative nature of *hours per week* times *number of weeks* resulted in a 3,721-point range for the variable, and a very abnormal distribution that was very highly skewed (skewness = 4.92, *SE* = .085) and kurtotic (kurtosis = 28.98, *SE* = .169). Approximately half the sample reported 16 or fewer total hours spent dealing with or worrying about the conflict, whereas the remaining half was dispersed between 17 – 3,721 hours. Of the 833 responses computed for this variable, 110 reflected just *one hour* of work time spent dealing with or worried about the conflict. Because the variable's 3,721-point range is too large to illustrate in its natural form, Figure 2 illustrates its approximate distribution by grouping its range into 285-point portions, up to 2000 hours of reported lost work time. Preliminary analyses (conducted on the natural form of the variable) revealed that lost work time also did not demonstrate significant associations with coded ICS types, thus this measure was also excluded from further analysis.

      I note that the use of non-parametric, robust tests could potentially be applied to accommodate the distributions of self-rated performance and lost work time. However, given the primary predictors of this research – the coded ICS types – also experience highly restricted

range due to their binary *present* versus *absent* coding, it was deemed that this dataset is not an

optimal environment to explore these DVs further.

Figure 2. Approximate natural distribution of Lost Work Time
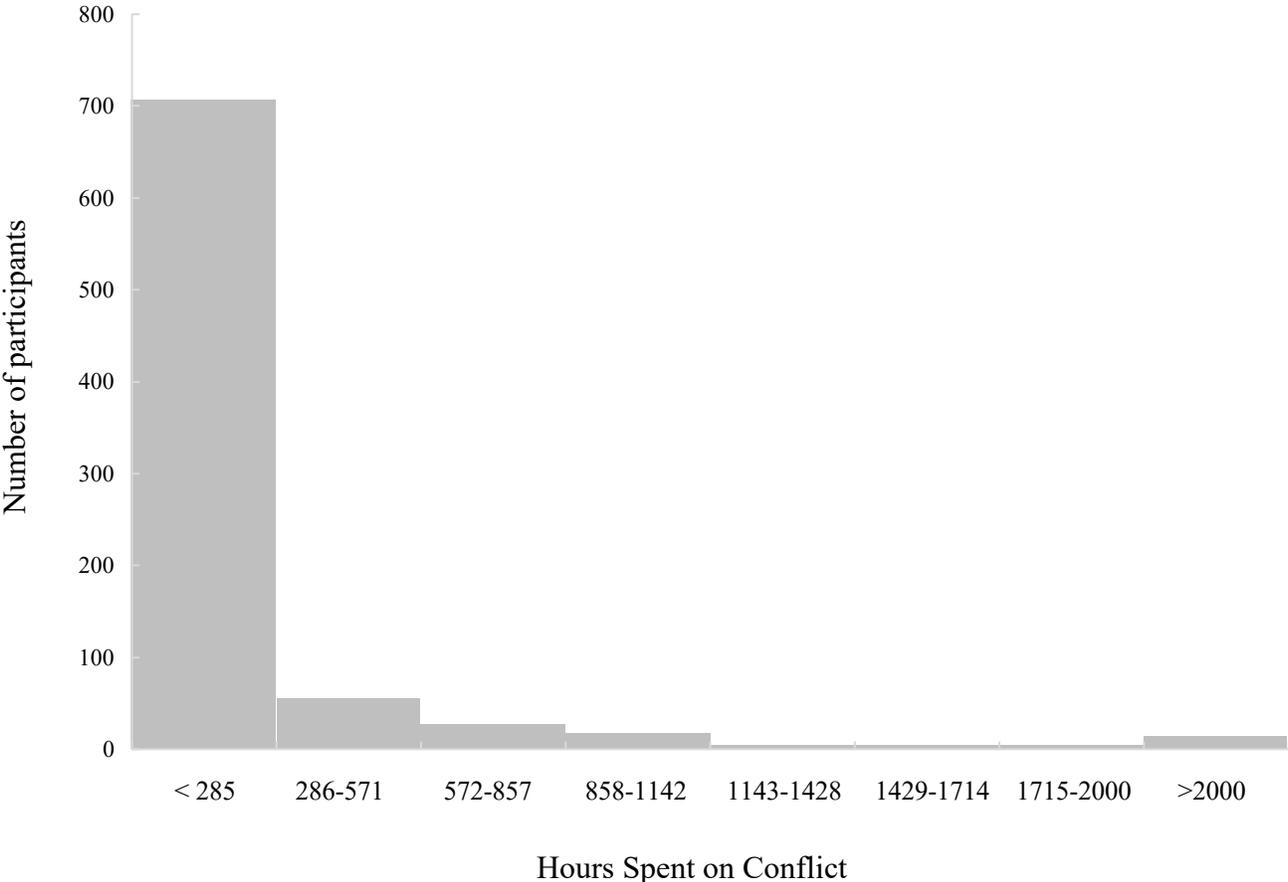
Figure 2. The natural distribution of the Lost Work Time variable, condensed into eight groups

for visual acuity and comparison with Figure 3. The range of *hours spent on conflict* for each

group is held constant at ~ 285 (up to 2,000 hours; full variable range is 3,721), resulting in

highly unequal group sizes.

The remaining DVs, general mental health (GHQ) negative affect (JAWS), and physical strain (PSI) were checked for univariate and multivariate outliers and normality.

Univariate and multivariate outliers. Four participants were identified as potential univariate outliers due to lower than average general health scores (three cases) or higher than average negative affect (one case), with the most distal outlier being 3.65 standard deviations from its variable mean. Both the standardized and raw versions of these scores follow closely with the trends of the data, and Cook's Distance confirmed that they do not exert significant influence on their variables. As such, they do not appear to warrant removal. There were no univariate outliers identified for the physical strain index.

Mahalanobis' Distance conducted with the GHQ, JAWS, and PSI identified three participants as potential multivariate outliers. In two cases, participants' scores followed expected trends wherein a high GHQ score coincided with low JAWS and PSI scores (or vice versa), and thus do not appear to warrant removal. The third outlier demonstrated the unexpected pattern of moderately high general health while also reporting the highest possible negative affect and quite high physical strain. Running preliminary analyses with and without this individual revealed that their reports were noticeably deviating from the trends of the data, so their identification as a multivariate outlier was accepted and they were removed from further analysis.

Normality. Because the Kolmogorov-Smirnov test and standardized tests for significance of skew and kurtosis are overly sensitive to small deviations from normality in large samples (Field, 2009), I visually inspected the data, Normal Q-Q Plots, and raw skew and kurtosis values to evaluate DV normality. For this sample, moderate skews are found for the GHQ (a negative skew of -.564) and JAWS (a positive skew of .575), whereas the PSI has a slight positive skew

(.346) but is approximately symmetrical. Kurtosis values for the GHQ (.154) and JAWS (-.025)

are within normal range, and that of the PSI (-.584) demonstrates a somewhat flatter distribution.

Normal Q-Q Plots of the variables show that each reasonably approximates a normal

distribution, with observed values following expected values well for the majority of the

distribution. In sum, the distributions of these variables are relatively normal, albeit with the

sample as a whole trending towards the "healthier" side, with slightly more weight on the higher

end of general mental health, and on the lower end of negative affect and physical strain.

Tables 2 and 3 present study variable intercorrelations, means, and standard deviations,

for each of the healthcare organization and university samples.

Table 2

Study Variable Correlations for Health Care and University Samples

Variable	1	2	3	4	5	6	7
1. RC	-	-.030	.166*	-.175*	.119	.262***	.313***
2. TC	.059	-	.089	.084	-.048	-.035	-.013
3. PC	.121**	.159***	-	-.116	.085	.227***	.305***
4. GHQ	-.062	.040	-.079*	(.91/.90)	-.761***	-.546***	-.505***
5. JAWS	.091*	-.030	.143***	-.750***	(.88/.90)	.468***	.584***
6. PSI	.150***	-.025	.070	-.520***	.526***	(.77/.77)	.387***
7. Conflict Impact	.266***	-.018	.149***	-.400***	.411***	.357***	(.89/.92)

Note. RC, TC, PC = relationship, task, and process conflict, respectively; GHQ = General Health Questionnaire; JAWS = Job-related Affective Wellbeing Scale (negative affect only); PSI = Physical Strain Index. Health care sample correlations are below the diagonal, university sample correlations are above the diagonal; for GHQ, JAWS, PSI, and Conflict Impact, the diagonal contains scale reliabilities, with the health care sample provided first (left) and university sample second (right). Bivariate correlations are calculated using pairwise deletion.
* $p < .05$. ** $p < .01$. *** $p \le .001$ (two-tailed).

There are three significant differences in associations between the two samples, each demonstrating stronger associations between variables in the university sample compared to the healthcare organization. Specifically, process conflict is more strongly associated with physical strain ($t = 2.010$, $p = .022$) and Conflict Impact ($t = 2.073$, $p = .019$), and Conflict Impact is more strongly associated with negative affect ($t = 2.905$, $p = .002$) in the university sample compared to the healthcare organization. It is somewhat surprising that stronger correlations are demonstrated within the smaller university sample ($n \sim 205$ for most bivariate correlations) compared to the university sample ($n \sim 710$). This seems to suggest that in the university sample, process conflict is more physically, cognitively, and emotionally stressful, and more impactful overall, and also that negative affect is more closely tied to conflict in the university sample. Though, strangely, negative affect is not more strongly associated with either process conflict or physical strain in the university sample.

Table 3

Study Variable Means and Standard Deviations for Health Care and University Samples

Variable	Healthcare Organization			University		
	n	*M*	*SD*	*n*	*M*	*SD*
1. RC	746	.86	.35	210	.83	.37
2. TC	746	.48	.50	210	.54	.50
3. PC	745	.52	.50	209	.51	.50
4. ICS Combo	745	5.73	2.09	209	5.74	2.11
5. GHQ	728	3.71	.67	207	3.71	.68
6. JAWS	725	2.30	.72	205	2.26	.78
7. PSI	726	3.34	1.34	206	3.27	1.32
8. Conflict Impact	749	4.44	1.35	207	4.21	1.52

Note. RC, TC, PC = relationship, task, and process conflict, respectively; ICS Combo = ICS combination variable; GHQ = General Health Questionnaire; JAWS = Job-related Affective Wellbeing Scale (negative affect only); PSI = Physical Strain Index. Group sizes (*n*) reflect total usable sample for each variable; listwise deletion results in 697 and 202 participants for the healthcare organization and university samples, respectively. Means for RC, TC, and PC indicate prevalence of "present" coding in each sample; for example, relationship conflict is present in 86% of cases in the healthcare organization. The ICS Combination variable is ordered with "undefined" conflicts at the low end (group 1), through single-type, dual-type, then triple-type at the high end (group 8), such that higher means indicate greater prevalence of multi-type conflicts. GHQ and JAWS scales range from *1 – 5*, PSI and Conflict Impact scales range from *1 – 7*.

Hypotheses 2-4: ICS types' associations with individual outcomes

Hypotheses two – four used multiple regression analyses to investigate the main and interactive effects of the ICS types on individual health and wellbeing. Regression model summaries are discussed prior to the main effects of each type uniquely.

ICS Models

GHQ. Together, the presence versus absence of relationship, task, and process conflict types significantly predicted general mental health (F(3, 905) = 5.499, p = .001, R^2 = .018). Neither of models two or three, respectively including the types' two-way interactions (FΔ(6, 902) = .731, $R^2\Delta$ = .002) and three-way interaction (FΔ(7, 901) = 1.088, $R^2\Delta$ = .001) uniquely improved prediction of general mental health.

JAWS. Together, the presence versus absence of relationship, task, and process conflict types significantly predicted negative affect (F(3, 900) = 8.163, p = .000, R^2 = .026). Neither model two, which included types' two-way interactions (FΔ(6, 897) = .823, $R^2\Delta$ = .003), nor model three, including types' three-way interaction (FΔ(7, 896) = .008, $R^2\Delta$ = .000) uniquely improved prediction of negative affect.

PSI. Together, the presence versus absence of relationship, task, and process conflict types significantly predicted physical strain (F(3, 902) = 12.168, p = .000, R^2 = .039). Including the types' two-way interactions (FΔ(6, 899) = 1.045, $R^2\Delta$ = .003) and three-way interaction (FΔ(7, 898) = .219, $R^2\Delta$ = .000) did not improve the predicted variance of physical strain.

It is worth noting that the ICS types' combined variance accounted for in individual outcomes ranges from just 1.8% to 3.9%. There are several reasons to argue for or against the recognition of these arguably negligible associations (and the subsequently small unique

associations between the individual ICS types and outcomes) based on specific facets of the present dataset; these considerations will be addressed in Discussion.

Hypothesis 2: Relationship Conflict

Hypothesis 2 stated that coded presence of relationship conflict (versus its absence) will be associated with worse individual health and wellbeing outcomes (a negative association with general health and positive associations with negative affect and physical strain). Multiple regressions wherein all three ICS types were entered at step one found significant unique associations in the expected directions between relationship conflict and general health ($b = -.154$, 95% $CI = -.281$, $-.027$, $t(1) = -2.386$, $p = .017$, $sr^2 = .006$), negative affect ($b = .176$, 95% $CI = .038$, $.313$, $t(1) = 2.510$, $p = .012$, $sr^2 = .007$), and physical strain ($b = .627$, 95% $CI = .378$, $.875$, $t(1) = 4.954$, $p < .001$, $sr^2 = .026$). Hypothesis 2 was thus supported. As similarly mentioned in the above *Models* section, relationship conflict's variance accounted for in outcomes is very small, and the associated changes in outcomes with its presence are also minimal (scales ranged from either *1 – 5* or *1 – 7*). Special consideration of these findings with respect to this unique dataset will be addressed in Discussion.

Hypothesis 3: Process conflict

As was expected with relationship conflict, Hypothesis 3 stated that coded presence of process conflict (versus its absence) will be associated with "worse" individual health and wellbeing outcomes (a negative association with general health, and positive associations with negative affect and physical strain) and greater lost work time. Multiple regressions wherein all three ICS types were entered at step one found that process conflict was negatively associated with general health ($b = -.117$, 95% $CI = -.206$, $-.028$, $t(1) = -2.581$, $p = .010$, $sr^2 = .007$), and positively associated with negative affect ($b = .187$, 95% $CI = .090$, $.283$, $t(1) = 3.782$, $p < .001$,

$sr^2 = .015$) and physical strain ($b = .242$, $95\%\ CI = .068, .416$, $t(1) = 2.731$, $p = .006$, $sr^2 = .008$).

Hypothesis 3 was therefore supported. Notably, process conflict demonstrated similarly minimal

predictive capacity and changes in outcomes as did relationship conflict, which will be discussed

in greater detail in Discussion.

Hypothesis 4: Task conflict

Hypothesis 4 referred to the expectation that task conflict would demonstrate similar

trends of associations with individual outcomes as did relationship and process conflict, but that

these would be weaker and perhaps non-significant. Task conflict was significantly associated

with general health ($b = .089$, $95\%\ CI = .001, .177$, $t(1) = 1.979$, $p = .048$, $sr^2 = .004$), but was

not significantly associated with negative affect ($b = -.082$, $95\%\ CI = -.178, .014$, $t(1) = -1.678$, p

$= .094$, $sr^2 = .003$) or physical strain ($b = -.117$, $95\%\ CI = -.289, .056$, $t(1) = -1.327$, $p = .185$, sr^2

$= .002$). Initially, these weaker and predominantly non-significant relationships appear to provide

support for Hypothesis 4; however, the direction of these relationships – though mostly non-

significant – is opposite to those of relationship and process conflict, and indeed in the direction

of *favourable* individual outcomes in every case. That is, the trend is that task conflict appears –

if anything – positively associated with general health, and negatively associated with negative

affect, physical strain, and lost work time. Because these are primarily non-significant

relationships (with arguably meaningless effect sizes), no conclusions can be drawn; however,

due to the aforementioned intricacies of the dataset, the direction of association is a point of

interest that will be reviewed further in Discussion. For now, it may be most appropriate to

suggest that Hypothesis 4 received partial support due to its weaker/non-significant associations

herein, but lacks full support given the pattern of associations is opposite to those of relationship

and process conflict.

Hypothesis 5: ICS type combinations' associations with outcomes

Hypothesis 5a predicted that the ICS Type Combination variable (seen in Hypothesis 1) would predict mean differences in general health, negative affect, and physical strain. Hypothesis 5b stated specifically that singular task conflict will tend to be associated with significantly less severe individual outcomes compared to combinations involving relationship and process conflict, particularly when they occur together (i.e., in relationship/process and relationship/task/process combinations). Hypothesis 5c similarly stated that although the substantive issues of "undefined" conflicts are unknown, the mere absence of coded relationship and process conflict will result in undefined conflicts demonstrating less severe individual outcomes compared to combinations involving relationship and process conflict (particularly when together).

Hypothesis 5a: Dependent variable group differences across ICS Type Combination. A one-way MANOVA was conducted to predict a multivariate group difference effect of the ICS Type Combination variable on all DVs together. Using Pillai's trace, ICS Type Combination was a significant predictor of general health, negative affect, and physical strain, $V = .060$, $F(21, 2{,}673) = 2.584$, $p < .001$, $\eta_p^2 = .020$. Though Box's M was non-significant ($p = .297$), dependent variables experienced unequal sample size and some minor deviations from normality (and JAWS also has unequal variance) across ICS Type Combination groups. Instead of conducting post-hoc tests using Games-Howell multiple comparisons (which would account for these issues but would also inflate family-wise error due to an excessive number of contrasts tested), I used robust and bootstrapped univariate F omnibus tests to account for the unique sample; I followed these with planned contrasts of only the task conflict and undefined groups with others to reduce the number of effects tested.

Using a robust and bootstrapped one-way ANOVA, Welch's test revealed that ICS Type Combination was a significant univariate predictor of general health $F(7, 143) = 3.019$, $p = .005$, $\eta^2 = .022$, negative affect $F(7, 143) = 4.968$, $p < .001$, $\eta^2 = .030$, physical strain $F(7, 143) = 5.992$, $p < .001$, $\eta^2 = .043$, individually. Hypothesis 5a thus receives the necessary support to proceed to planned contrasts in hypotheses 5b and 5c, though it is once again pertinent to note that very small effect sizes were found (ranging from 2.2% – 4.3% of variance in outcomes), likely due to the limited power resulting from the ICS Type Combination variable's restricted range.

Hypotheses 5b and 5c: Task Conflict and Undefined Conflict Contrasts. Planned contrasts retrieved from the above one-way ANOVA provided tests of mean differences between both singular task conflict and the undefined group with each other ICS combination, for each DV. Bootstrapped contrast significance is reported for all outcomes. Equal variances were assumed for general health and physical strain. Because Levene's test for negative affect indicated unequal variances across ICS Type Combination groups ($F(7, 891) = 3.276$, $p = .002$), I report planned contrasts from equal variances *not* assumed for this DV.

Hypotheses 5b and 5c overview. Table 4 lists DV means and standard deviations for each ICS combination group, as well as contrasts comparing each group's mean to that of task conflict and undefined groups. Group sizes are also included to aid interpretation of when some contrast tests may suffer from low power (these contrasts are in red) As an overview: Singular task conflict was associated with significantly less severe individual outcomes than relationship and process conflict, especially when they occurred together, as expected. For all DVs, task conflict's mean was significantly different from all other ICS combination groups except the task/process and undefined combinations. *Hypothesis 5b was therefore supported.*

The undefined group demonstrated a similar but weaker pattern of contrasts, as expected. Specifically, the undefined group was associated with significantly less severe outcomes than relationship/process, relationship/task/process (GHQ, JAWS, PSI), and singular relationship conflict (PSI only). *Hypothesis 5c was therefore also supported.*

Following Table 4, Figures 3 through 5 illustrate these contrasts for each DV to demonstrate visually the consistent trends found across health and wellbeing outcomes. Significant task conflict and undefined conflict contrasts are denoted by red and blue asterisks, respectively. In sum, all parts of Hypothesis 5 were supported.

Table 4 (continued on next page)

Dependent Variable Means by ICS Type Combination and Contrast Results for Task and Undefined Conflicts

DV				Contrasts									
GHQ				Task Conflict					Undefined				
ICS Combo	*n*	M	SD	Contrast value	SE	t	df	*p*	Contrast value	SE	t	df	*p*
TC	36	3.996	0.577	-	-	-	-	-	-0.114	.150	-0.756	891	.395
RC	202	3.687	0.661	0.309	.121	2.543	891	.004	0.196	.111	1.765	891	.087
PC	23	3.520	0.885	0.476	.179	2.653	891	.022	0.362	.172	2.104	891	.092
TC/RC	151	3.772	0.663	0.224	.125	1.795	891	.045	0.110	.114	0.965	891	.344
TC/PC	23	3.890	0.733	0.106	.179	0.591	891	.558	-0.008	.172	-0.045	891	.964
RC/PC	179	3.606	0.689	0.390	.123	3.175	891	.002	0.276	.112	2.464	891	.017
TC/RC/PC	240	3.653	0.659	0.343	.120	2.858	891	.003	0.230	.109	2.103	891	.040
Undefined	45	3.882	0.661	0.114	.150	0.756	891	.414	-	-	-	-	-
JAWS				Task Conflict					Undefined				
ICS Combo	*n*	M	SD	Contrast value	SE	t	df	*p*	Contrast value	SE	T	df	*p*
TC	36	1.887	0.538	-	-	-	-	-	0.207	.137	1.509	78.9	.136
RC	202	2.261	0.711	-0.374	.103	-3.645	59.2	.002	-0.167	.116	-1.445	65.9	.160
PC	23	2.430	0.835	-0.544	.196	-2.777	33.7	.012	-0.336	.203	-1.659	38.1	.112
TC/RC	151	2.208	0.693	-0.321	.106	-3.029	65.8	.008	-0.114	.118	-0.959	71.8	.319
TC/PC	23	2.215	0.946	-0.328	.217	-1.515	31.2	.150	-0.121	.223	-0.542	34.6	.597
RC/PC	179	2.438	0.813	-0.551	.108	-5.086	71.5	.001	-0.343	.121	-2.850	76.9	.004
TC/RC/PC	240	2.369	0.695	-0.483	.100	-4.814	54.2	.001	-0.275	.113	-2.429	61.5	.025
Undefined	45	2.094	0.698	-0.207	.137	-1.509	78.9	.137	-	-	-	-	-

Note. TC = task conflict, RC = relationship conflict, PC = process conflict, Undefined = no ICS type was identified. GHQ = General Health Questionnaire, JAWS = Job-related Affective Wellbeing Scale (negative affect only). Task Conflict and Undefined contrast columns compare TC and Undefined group means with those of all other groups. For example, the GHQ task conflict contrast with relationship conflict is significant at $t(891) = 2.543$, $p = .004$. Dashes fill cells where task and undefined conflicts cannot be contrasted with themselves. Rows in red ink draw attention to contrast tests that may suffer from low power.

Table 2 (continued)

Dependent Variable Means by ICS Type Combination and Contrast Results for Task and Undefined Conflicts

DV				Contrasts									
PSI				Task Conflict					Undefined				
ICS Combo	*n*	M	SD	Contrast value	SE	t	df	*p*	Contrast value	SE	t	df	*p*
TC	36	2.418	1.163	-	-	-	-	-	0.360	.294	1.224	891	.182
RC	202	3.401	1.248	-0.984	.238	-4.139	891	.001	-0.624	.216	-2.883	891	.007
PC	23	3.163	1.442	-0.746	.351	-2.128	891	.033	-0.387	.337	-1.148	891	.290
TC/RC	151	3.183	1.296	-0.767	.244	-3.146	891	.001	-0.407	.223	-1.824	891	.079
TC/PC	23	2.812	1.301	-0.395	.351	-1.126	891	.216	-0.035	.337	-0.105	891	.929
RC/PC	179	3.486	1.384	-1.200	.240	-4.456	891	.001	-0.710	.219	-3.240	891	.003
TC/RC/PC	240	3.525	1.318	-1.070	.235	-4.719	891	.001	-0.749	.213	-3.507	891	.003
Undefined	45	2.776	1.408	-0.360	.294	-1.224	891	.210	-	-	-	-	-

Note. TC = task conflict, RC = relationship conflict, PC = process conflict, Undefined = no ICS type was identified. PSI = Physical Strain Index. Task Conflict and Undefined contrast columns compare TC and Undefined group means with those of all other groups. For example, the undefined group contrast with RC is significant at $t(891) = -2.883$, $p = .007$. Dashes fill cells where task and undefined conflicts cannot be contrasted with themselves.

Figure 3. General Health Questionnaire Means and Significant Planned Contrasts
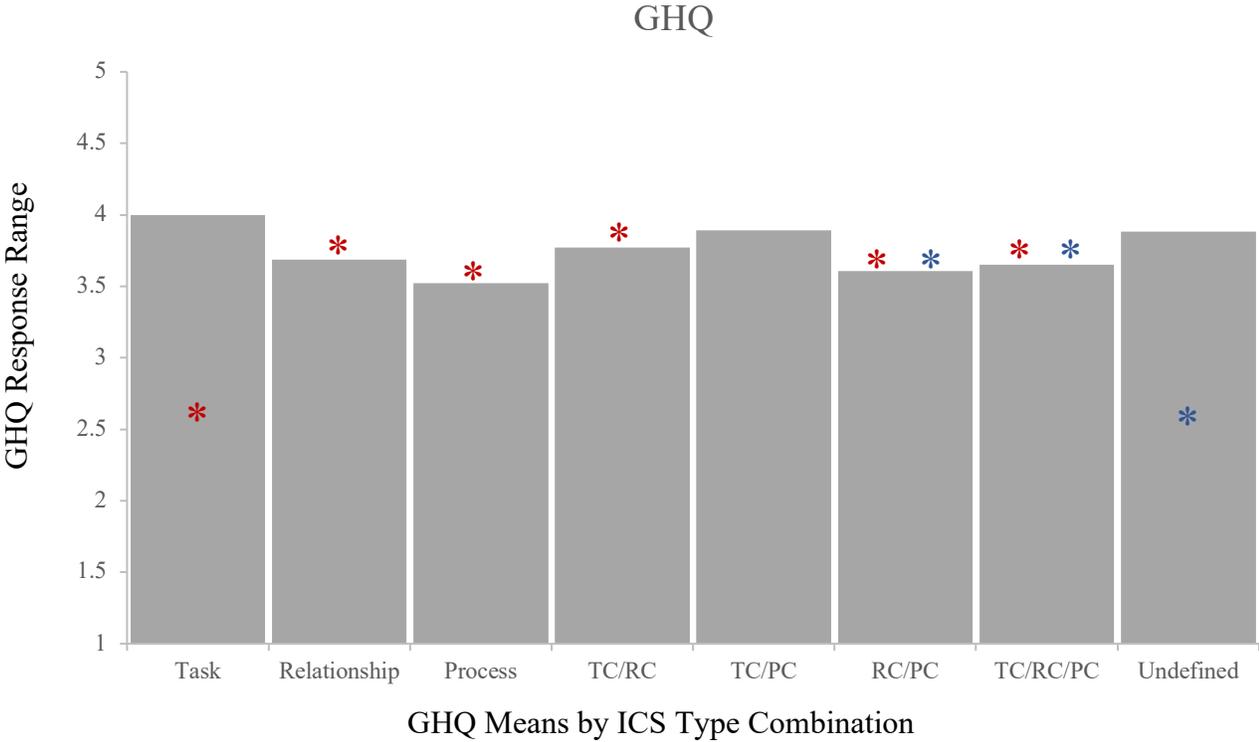
Figure 3. Significant Task Conflict contrasts are denoted by a red asterisk; significant Undefined contrasts are denoted by a blue asterisk.

Figure 4. Job-related Affective Wellbeing Scale Means and Significant Planned Contrasts
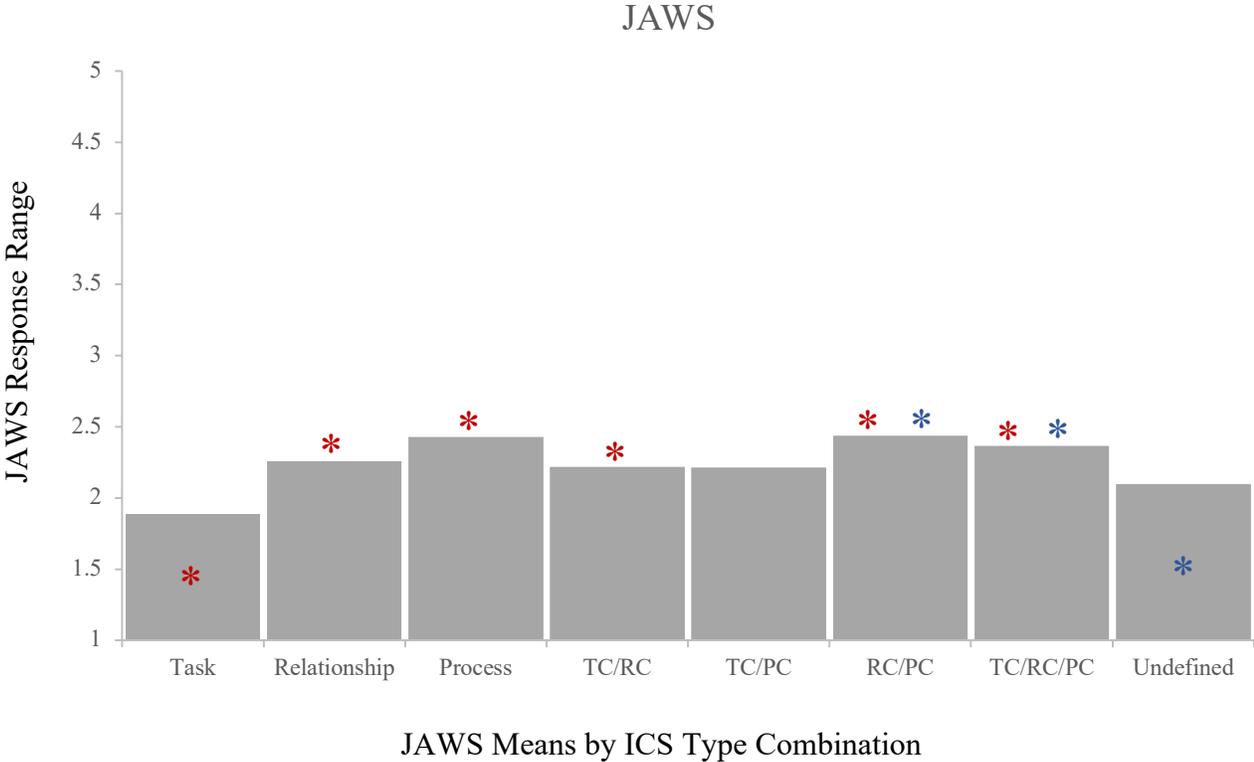

Figure 4. Significant Task Conflict contrasts are denoted by a red asterisk; significant Undefined

contrasts are denoted by a blue asterisk.

Figure 5. Physical Strain Index Means and Significant Planned Contrasts
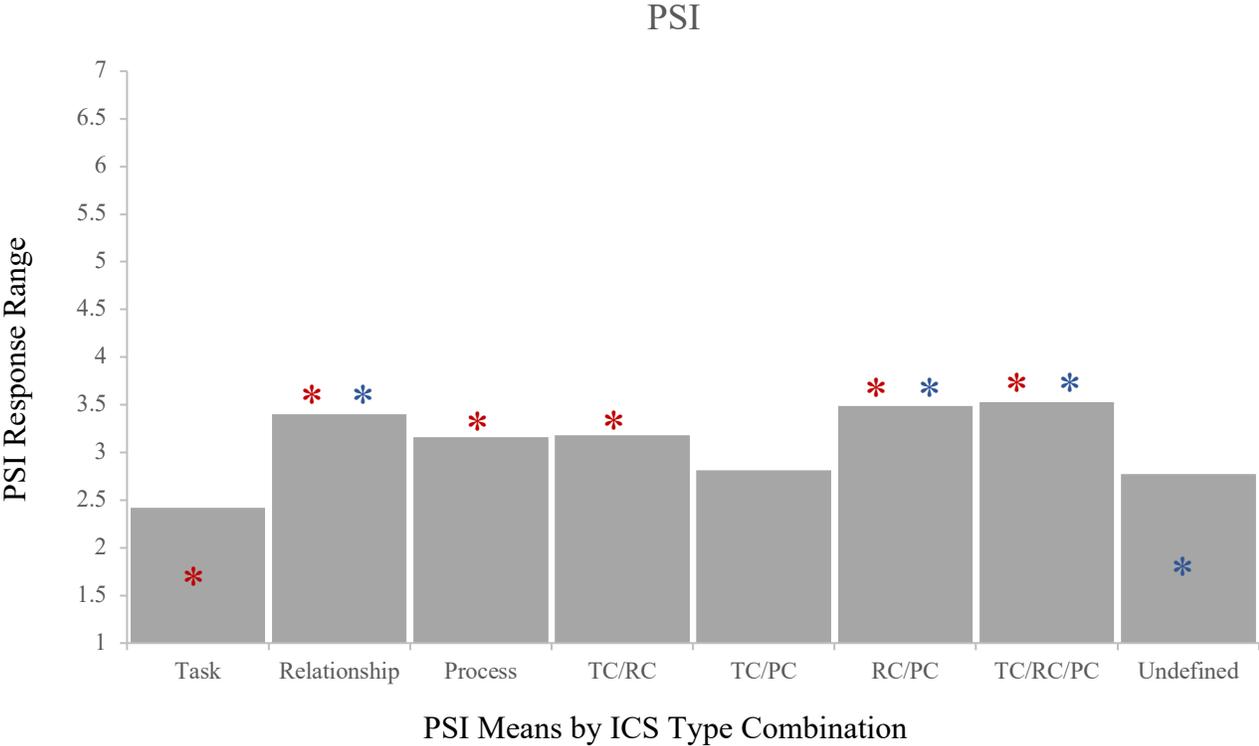
Figure 5. Significant Task Conflict contrasts are denoted by a red asterisk; significant Undefined contrasts are denoted by a blue asterisk.

Hypothesis 6: Evaluation of Conflict Impact measure

This research introduces the measure of Conflict Impact, which is a five-item scale designed to assess individuals' personal experience of their conflict and provide a means of supplementing the ICS typology in individual outcome prediction. Hypothesis 6 evaluates this new measure.

Hypothesis 6a: Internal consistency reliability. Hypothesis 6a stated that the items comprising the Conflict Impact measure would demonstrate adequately strong internal consistency reliability for a five-item, unidimensional measure. A reliability analysis conducted on 889 participants (91 were excluded due to incomplete data) revealed that the five Conflict Impact items together are highly reliable, with Cronbach's $\alpha = .899$. Inter-item correlations ranged from $r = .552$ to $r = .792$, and corrected item-total correlations ranged from $r = .687$ to $r = .829$, suggesting that each item is adequately associated with other scale items as well as with the measure overall. Finally, deleting any of the five items would result in a slightly lower overall alpha value, ranging from $\alpha = .859$ to $\alpha = .891$, demonstrating that each item is indeed contributing to the measure's overall strong internal consistency. Thus, Hypothesis 6a was supported.

Hypothesis 6b: Factor analysis of Conflict Impact. Hypothesis 6b stated that Conflict Impact will best fit a one-factor structure, given the intended unidimensionality of the measure. The Kaiser-Meyer-Olkin measure of sampling adequacy demonstrated that patterns of item correlations are sufficiently compact, such that analysis should yield distinct and reliable factors (individual item KMOs ranged from .810 to .906, with an overall KMO of .861). Bartlett's test of sphericity indicated that the five items are sufficiently correlated (2742.326, $p < .001$), and Haitovsky's test for singularity of the correlation determinant demonstrated that multi-

collinearity is not present among the five Conflict Impact items ($X^2_H(10) = 40.772$, $p < .001$).

Thus, Conflict Impact items remain sufficiently correlated when controlling for the partial

correlations amongst them, and these correlations are appropriately large (but not too large) for

factor analysis.

An initial exploratory factor analysis was run with an unrotated solution to extract factors

with Eigenvalues greater than one. This unrestricted analysis produced a one-factor structure

explaining 64.6% of the variance in items (Eigenvalue = 3.231), wherein the variance of each

item retained in the one-factor solution ranged from 52.2% - 79.8%, and item correlations with

the one-factor solution ranged from $r = .723$ to $r = .894$. The reproduced correlation matrix based

on item variance retained found that two of the ten correlations amongst items (20%) have

residuals with absolute values greater than .05, compared to their observed original correlations.

However, these residuals (.067 and .076) are not alarmingly large and thus are not cause for

concern. Attempts to produce two- and three-factor solutions (using various methods of

orthogonal and oblique rotation) resulted in significant cross-loadings of items onto factors

without substantially improving the solutions' ability to predict item variance. In sum, The

Conflict Impact measure appears best suited to a one-factor structure, and Hypothesis 6b is

supported. The Conflict Impact measure will therefore be evaluated in terms of its associations

with the ICS typology and individual conflict outcomes.

Hypothesis 7: ICS types' prediction of Conflict Impact

In following the procedures that were used to examine ICS types associations with

individual outcomes, Hypothesis 7a will utilize multiple regression to investigate the associations

between (dummy-coded) ICS types and Conflict Impact. Next, a robust and bootstrapped

univariate F omnibus test will assess the overall association between the ICS Combination

variable and Conflict Impact (7b); finally, planned contrasts will compare Conflict Impact mean

differences between task (7c) and undefined (7d) conflict groups, with other ICS type

combinations.

Hypothesis 7a: Regression of ICS types on Conflict Impact. Hypothesis 7a stated that

the ICS types together, as well as relationship and process conflict uniquely, were expected to

demonstrate significant positive associations with Conflict Impact, whereas task conflict was

expected to demonstrate a similar although weaker or non-significant association with Conflict

Impact. A multiple regression was conducted wherein all three ICS types (dummy coded for

presence vs. absence) were entered into the model at step one, their two-way interactions were

entered at step two, and their three-way interaction was entered at step three. The first step of the

model found that together, the presence versus absence of relationship, task, and process conflict

types significantly predicted Conflict Impact ($F(3, 931) = 35.376$, $p < .001$, $R^2 = .102$). Neither

inclusion of ICS types' two-way interactions ($F\Delta(6, 928) = 2.246$, $R^2\Delta = .006$) nor three-way

interaction ($F\Delta(7, 927) = 1.066$, $R^2\Delta = .001$) significantly improved the model's prediction of

Conflict Impact.

At the univariate level, relationship conflict ($b = 1.022$, *95% CI* $= .779$, 1.265, $t(1) =$

8.248, $p < .001$, $sr^2 = .066$) and process conflict ($b = .446$, *95% CI* $= .275$, 617, $t(1) = 5.125$, $p <$

$.001$, $sr^2 = .025$) were both positively associated with Conflict Impact, whereas task conflict ($b =$

$-.129$, *95% CI* $= -.298$, $.041$, $t(1) = -1.491$, $p = .136$, $sr^2 = .002$) did not demonstrate a significant

association with Conflict Impact. These findings support Hypothesis 7a, however I note that

again, task conflict's association was opposite to those of relationship and process conflict, in

that task conflict (if anything) appears inversely related to Conflict Impact. It is also worth noting

that together, the ICS types predict 10.2% of the variance in Conflict Impact, and relationship

and process conflict uniquely predict 6.6% and 2.5% of its variance, respectively. Although these associations remain quite small (once again, likely due to range restriction of the binary variables), they are appreciably larger than those of the regression models investigating health and wellbeing and lost work time outcomes, which is indicative of the closer proximity between the Conflict Impact and ICS typology constructs. In sum, Hypothesis 7a was supported.

ICS type combinations' prediction of Conflict Impact.

Hypothesis 7b posits that the ICS type combination variable will be a significant predictor of Conflict Impact. Hypothesis 7c states that singular task conflict will be associated with significantly lower Conflict Impact than ICS type combinations involving relationship and process conflict (particularly when they occur together). Hypothesis 7d predicts a similar trend of comparisons for the undefined ICS Combination group, due to the absence of relationship and process conflict identified within these reports.

Hypothesis 7b. Though Levene's test was non-significant ($p = .378$), due to the ICS Combination variable's unequal group sizes and some groups demonstrating non-normal distributions of Conflict Impact, a robust and bootstrapped univariate F omnibus test followed up with planned contrasts was once again conducted. Welch's test from the bootstrapped one-way ANOVA revealed that ICS Type Combination was a significant predictor of Conflict Impact $F(7, 149) = 13.778$, $p < .001$, $\eta^2 = .110$, *providing support for Hypothesis 7b,* and eligibility to proceed to planned contrasts in Hypotheses 7c and 7d.

Hypotheses 7c and 7d: Planned contrasts of Conflict Impact means. Planned contrasts retrieved from the above one-way ANOVA provided tests of mean differences in Conflict Impact between both task and undefined conflicts with each other ICS combination. Bootstrapped contrast significance was reported for all contrasts. Table 5 provides Conflict

Impact descriptive statistics for each ICS combination group, and contrasts task and undefined conflict groups with all others.

Task conflict contrasts. As shown in Table 5, task conflict was associated with significantly lower Conflict Impact than every other ICS combination. The largest difference is seen in its contrast with the task/relationship/process combination $t(927) = -8.301, p = .001$ and the smallest difference is seen with task/process conflict $t(927) = -2.538, p = .031$. *As such, Hypothesis 7c receives full support.*

Undefined contrasts. Table 5 demonstrates that the undefined conflict group was significantly different from all other ICS combinations except process and task/process combinations. As best illustrated in Figure 6, undefined conflicts are associated with significantly *higher* Conflict Impact than task conflict $t(927) = 2.742, p = .018$, and significantly *lower* Conflict Impact than most other types, with the strongest effects seen in the contrast with task/relationship/process conflict $t(927) = -5.340, p = .001$. *Hypothesis 7d is therefore supported.*

In sum, all of the parts of Hypothesis 7 are supported. Specifically, Hypothesis 7a used regression analyses to find that together the ICS types predicted Conflict Impact, and that univariately, only relationship and process conflict were significantly associated with it. Hypothesis 7b found that the ICS Type Combinations were a significant predictor of Conflict Impact, and Hypotheses 7c and 7d demonstrated that task conflict and undefined conflicts were associated with less severe Conflict Impact, as expected.

Table 5. *Conflict Impact Means by ICS Type Combination and Planned Contrast Results for Task and Undefined Conflict Groups*

ICS Combo	*n*	M	SD	Contrast value	SE	t	df	*p*	Contrast value	SE	t	df	*p*
		Conflict Impact			TC Contrasts					Undefined Contrasts				
TC	37	2.862	1.452	-	-	-	-	-	0.791	.289	2.742	927	.018
RC	210	4.411	1.281	-1.549	.233	-6.650	927	.001	-0.758	.213	-3.564	927	.004
PC	25	3.734	1.501	-0.872	.338	-2.577	927	.026	-0.081	.325	-0.249	927	.847
TC/RC	155	4.199	1.292	-1.337	.239	-5.593	927	.001	-0.546	.219	-2.489	927	.028
TC/PC	24	3.731	1.496	-0.869	.342	-2.538	927	.031	-0.078	.329	-0.237	927	.835
RC/PC	188	4.720	1.316	-1.858	.235	-7.908	927	.001	-1.067	.215	-4.965	927	.001
TC/RC/PC	250	4.773	1.214	-1.910	.230	-8.301	927	.001	-1.119	.210	-5.340	927	.001
Undefined	46	3.653	1.563	-0.791	.289	-2.742	927	.020	-	-	-	-	-

Note. TC = task conflict, RC = relationship conflict, PC = process conflict, Undefined = no ICS type was identified. The left grouping of columns shows DV descriptives by ICS Type Combination; Task Conflict and Undefined Contrasts provide contrast results for task conflict and undefined groups respectively, with all ICS type combinations; for example, the contrast between task conflict and relationship conflict is significant at $t(927) = -6.650$, $p = .001$. Dashes fill cells where task and undefined conflicts cannot be contrasted with themselves.

Figure 6. Conflict Impact Means and Significant Planned Contrasts
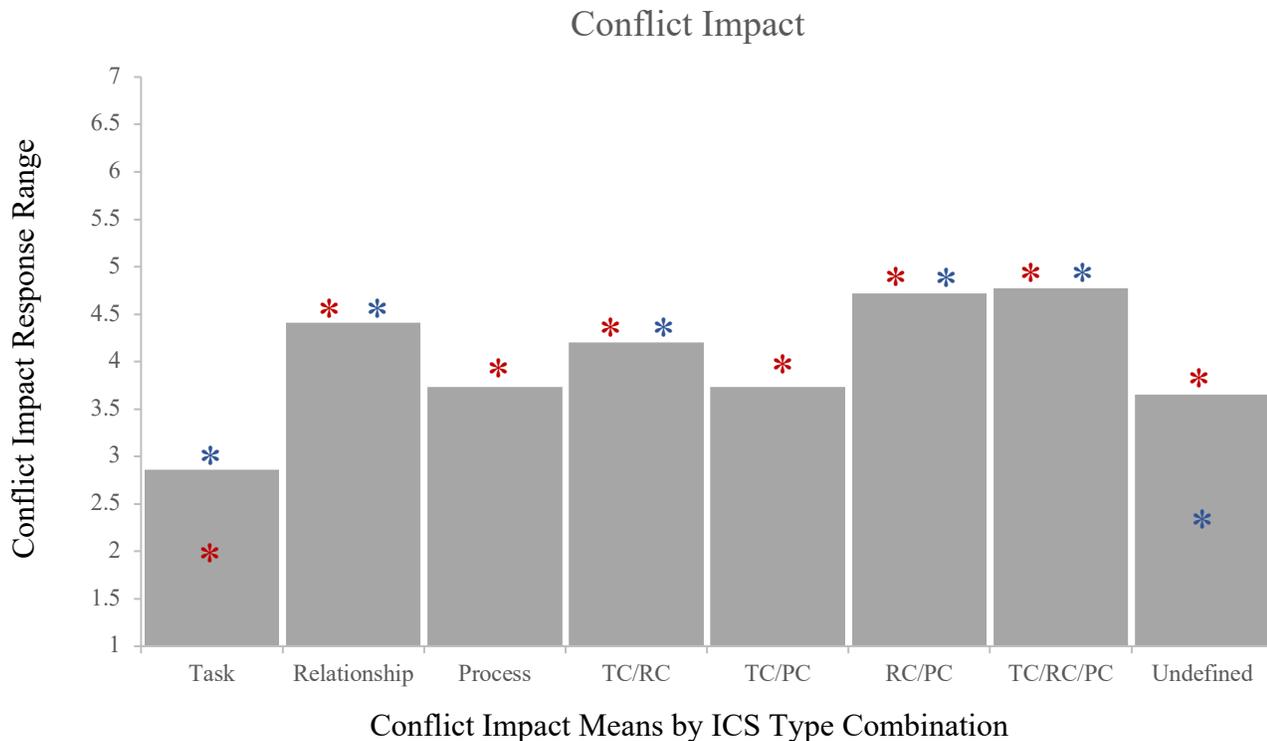
Conflict Impact

Figure 6. Significant Task Conflict contrasts are denoted by a red asterisk; significant Undefined contrasts are denoted by a blue asterisk.

Hypothesis 8: Conflict Impact's Prediction of Individual Outcomes

Hypothesis 8a uses three linear regressions to evaluate associations between Conflict Impact and each of general health, negative affect, and physical strain. As expected, results demonstrated that Conflict Impact was negatively associated with general health ($b = -.205$, *95% CI* $= -.234, -.177$, $t(1) = -14.203$, $p < .001$, $R^2 = .181$), and positively associated with negative affect ($b = .242$, *95% CI* $= .211, .272$, $t(1) = 15.491$, $p < .001$, $R^2 = .208$) and physical strain ($b = .351$, *95% CI* $= .293, .409$, $t(1) = 11.824$, $p < .001$, $R^2 = .133$). With Conflict Impact explaining

between 13.3% to 20.8% of variance in health and wellbeing outcomes, Hypothesis 8a is supported.

Hypothesis 8b predicted that Conflict Impact's associations with outcomes would be retained after controlling for the effects of coded relationship, task, and process conflict. Three linear regressions were repeated as above, but this time with the three coded ICS types entered at step one and Conflict Impact entered at step two, to prioritize variance to ICS types. As predicted, Conflict Impact's negative association with general health (b = -.209, *95% CI* = -.240, -.179, $t(4)$ = -13.425, $p < .001$, $R^2\Delta$ = .165) and positive associations with negative affect (b = .240, *95% CI* = .207, .273, $t(4)$ = 14.269, $p < .001$, $R^2\Delta$ = .182) and physical strain (b = .321, *95% CI* = .259, .384, $t(1)$ = 10.093, $p < .001$, $R^2\Delta$ = .099), retained significance. Conflict Impact remains a significant predictor at the $p < .001$ level for all outcomes and loses between 1.6% (GHQ) and 3.4% (PSI) of variance accounted for. Given the context, I would be remiss not to note that in the present research, testing whether Conflict Impact retains its outcome associations is more a formality preceding mediation analyses than an attempt to claim that Conflict Impact is the stronger predictor, and that with the binary-coded ICS types having such restricted range, it is not exactly a "fair fight" for variance. This will be addressed further in Discussion. In sum, however, Hypothesis 8b was supported.

Hypothesis 9: Conflict Impact's Mediation of ICS Types – Individual Outcome Associations

Even with the binary range of the *present* versus *absent* ICS type coding used for conflict incident reports, results thus far have demonstrated not only that relationship and process conflict predict health and wellbeing outcomes (Hypotheses 2 and 3), but also that they predict the newly developed measure of Conflict Impact (Hypothesis 7a). Conflict Impact is also a significant

predictor of individual outcomes (Hypothesis 8), and because it was designed to be more

proximally related to them than are measures of the conflict itself, it stands to reason that

Conflict Impact may account for some of the variance in outcomes explained by the ICS

typology. Hypothesis 9 therefore tests the mediating effects of Conflict Impact on the ICS types–

individual outcome associations. Task conflict was not found to be a significant predictor of any

individual outcomes except general health (Hypothesis 4) and also did not demonstrate a

significant association with Conflict Impact (Hypothesis 7a), thus precluding mediation analyses

for this ICS type. I note again that the ICS types' full range of effects cannot be realized in this

research due to their binary coding. The implications of this on the interpretation of mediation

analyses will be addressed in Discussion.

Mediation analyses were conducted using Hayes' (2018) process macro (dialogue

version), which uses bias-corrected bootstrapping of the sampling distribution to test for

significance of indirect effects. Tests were conducted for relationship and process conflict with

each DV independently (while controlling for effects of other ICS types), resulting in six tests

evaluating the extent to which types' associations with outcomes occurred through Conflict

Impact. While Baron and Kenny's (1986) causal-steps approach has recently been recognized as

having severe limitations (see Memon et al, 2018), it remains the most familiar method of

mediation testing for many researchers (Aguinis et al., 2016). I therefore present a few

alternative indicators of mediation that can be drawn from this approach in Table 6 for ease of

comparison.

One common test of mediation is to view whether there is a change in a predictor's *total*

and *direct* effects on an outcome after a mediator is introduced. As seen in Table 6, p-values for

relationship and process conflict's *total* and *direct* effects appear to show a reduction in

significance when Conflict Impact is included as a mediator; in fact, in five of six cases, direct effects are no longer significant (though this is not necessarily an indication that the *change* in significance is, itself, significant; Gelfand et al., 2009). Some would refer to this as "full mediation" however – even aside from the types' restricted variance in this study – mediation discourse is becoming increasingly clear that full or complete mediation should never be claimed (Memon et al., 2018).

Another indicator of mediation is the significance test of indirect effects, as seen through confidence intervals not encapsulating 'zero'. As shown in Table 6, indirect effects for each analysis (bolded) are all accompanied by 95% bootstrapped confidence intervals that do not contain zero. The four columns to the right of these confidence intervals are different *effect size estimates* for these indirect effects. These effect sizes vary in their accuracy; for the present research (due to the binary predictors it uses) Miočević, et al. (2018) demonstrate that the most accurate and reliable estimate should be ab/s_y, which is the standardized change in DV due to the indirect effect. Table 6 shows that indirect effects of conflict types on outcomes appear to result in a change of .1072 – .3316 standard deviation units of wellbeing outcomes, with relationship conflict's indirect effects appearing to account for a greater standardized change in DVs overall.

I have also included estimates of the *proportion/percent mediated* (P_M in Table 6) and the changes in variance accounted for when predictors are entered into regressions either prior to ($R^2\Delta$ step 1) or following the mediator ($R^2\Delta$ step 2). While the proportion mediated method is popular and intuitive, it suffers another limitation (aside from inaccuracy with binary predictors). As seen in Table 6, because it is calculated by dividing a predictor's *indirect effect* by *total effect,* it cannot be calculated in cases of inconsistent mediation (where direct effects' opposite signs result in the indirect effect being larger than the total). Because of this, while process

conflict's indirect effects appear to account for 56% – 79% of its total effects on outcomes, relationship conflict's indirect effects through Conflict Impact would be said to account for 50% – 137% of its total effects (for the JAWS mediation test).

Still, all of the provided means of detecting and interpreting mediated associations appear to indicate that mediation is occurring to some extent, in all cases. According to the most reliable test, (ab/s_y), the indirect effect of relationship and process conflict occurring *through* Conflict Impact, is significant for all six mediation tests.

Table 6

Conflict Impact's Mediation of Relationship and Process Conflict Associations with Individual Outcomes

			Effect	(Boot)se	t	p	(Boot) LLCI	(Boot) ULCI	ab/s_y	P_M	$R^2\Delta$ step 1	$R^2\Delta$ step 2
RC	GHQ	Total	-.1661	.0655	-2.5362	.0114	-.2946	-.0376				
		Direct	.0469	.0618	0.7587	.4482	-.0744	.1682			.009	.001
		Indirect	**-.2130**	**.0345**	–	–	**-.2836**	**-.1479**	**-.3164**	–		
	JAWS	Total	.1785	.0714	2.4984	.0127	.0383	.3187				
		Direct	-.0659	.0667	-0.9887	.3231	-.1969	.0650			.009	.001
		Indirect	**.2444**	**.0393**	–	–	**.1695**	**.3244**	**.3316**	–		
	PSI	Total	.6632	.1289	5.1435	<.0001	.4101	.9162				
		Direct	.3326	.1265	2.6296	.0087	.0844	.5809			.033	.007
		Indirect	**.3305**	**.0591**	–	–	**.2197**	**.4523**	**.2473**	50%		
			Effect	(Boot)se	t	p	(Boot) LLCI	(Boot) ULCI	ab/s_y	P_M	$R^2\Delta$ step 1	$R^2\Delta$ step 2
PC	GHQ	Total	-.1175	.0453	-2.5914	.0097	-.2065	-.0285				
		Direct	-.0247	.0419	-0.5892	.5559	-.1070	.0576			.008	.000
		Indirect	**-.0928**	**.0203**	–	–	**-.1329**	**-.0536**	**-.1378**	79%		
	JAWS	Total	.1858	.0495	3.7514	.0002	.0886	.2830				
		Direct	.0789	.0453	1.7405	.0821	-.0101	.1678			.016	.002
		Indirect	**.1069**	**.0230**	–	–	**.0623**	**.1528**	**.1451**	58%		
	PSI	Total	.2566	.0891	2.8803	.0041	.0818	.4315				
		Direct	.1133	.0856	1.3237	.1860	-.0547	.2814			.012	.002
		Indirect	**.1433**	**.0330**	–	–	**.0844**	**.2135**	**.1072**	56%		

Note. RC = relationship conflict, PC = process conflict; GHQ, JAWS, PSI, = General Health Questionnaire, Job-related Affective Wellbeing Scale, and Physical Strain Index, respectively. Results were produced using Hayes' (2018) SPSS PROCESS macro add-on with dialogue function. Analyses test Conflict Impact as a mediator of the RC and PC associations with DVs. Total, direct, and indirect effects of RC and PC on DVs are provided with available indices of significance. Columns ab/s_y and P_M are two effect size measures for comparison. ab/s_y is a modern standardized effect size measure demonstrating the standard deviation change in DV associated with the indirect effect; it is calculated by dividing the indirect effect by the standard deviation of the DV. P_M (referring to proportion or percent mediated) is an older and more commonly used effect size measure demonstrating how much of a predictor's

total effect occurs through the mediator; it is calculated by dividing the indirect effect by the total effect. This effect size is incalculable for inconsistent mediation, such as with RC's effects on GHQ and JAWS. The final two columns ($R^2\Delta$ step 1 and $R^2\Delta$ step 2) provide another commonly used metric of mediation: that which demonstrates lost variance. These columns show ICS types' variance accounted for in outcomes when types are entered into a regression at step one, versus when they are entered at step two following Conflict Impact.

Discussion

The Intragroup Conflict Scale (ICS, Jehn, 1995; Jehn & Mannix, 2001) comprising *task*, *relationship*, and *process* conflict types has been the metric of choice for a wealth of conflict research over the past 25 years. However, while these conflict types are defined based on the supposed issues at the root of the conflict, the measure has rarely – if ever – been used to define unique conflict incidents. Because of this, the ICS's potential to further expand conflict theory has remained unclear. This thesis employed a novel approach to exploring the presence and effects of the ICS types within conflict incidents, and discussed the model's further use at this level with regard to several closely related limitations which may impede its utility: First, the model's conflation of conflict states (issues) and conflict processes (Korsgaard et al., 2008), especially relationship conflict's conflation with emotionality (Bendersky et al., 2014); second, the types' complex interrelationships and outcome associations, resulting in endless moderator testing and a lack of parsimony (Weingart et al., 2015); and third, the more conceptual problem of whether the types are ever truly separable, whether they ever *can* be objectively defined, and whether such questions should concern us when modeling conflict based on typological definitions (Mikkelsen & Clegg, 2019).

One cumulative effect of these interwoven limitations has been evidenced in the ICS types' high levels of co-occurrence within workgroup-level conflict research (de Wit et al., 2012). This co-occurrence indeed seems to suggest that the types may be more interrelated than their statistically distinct factors might appear, but the workgroup-level of analysis is unable to confirm the extent of their co-occurrence within *conflict incidents*, thereby limiting the discussion on the nature of conflict at this fundamental level.

The first objective of this study was therefore to identify the form and frequency of ICS type co-occurrence within unique conflict incidents by coding conflict reports for the presence or absence of each ICS type. Building on this, the second objective was to extend workgroup ICS findings to the incident level by investigating how the types' presence in conflict incidents would be associated with *individual-level* outcomes, particularly focusing on health and wellbeing outcomes, as these are both neglected at the workgroup level and very relevant to the individual experience of conflict (Meier et al., 2013). The third and final objective of this research was undertaken in light of the conceptual challenges arising from defining conflict (Mikkelsen & Clegg, 2019); the development of the Conflict Impact measure complements the renewed interest in conflict processes as a means for better predicting conflict outcomes, and its further testing as a mediator of ICS type–outcome associations also sought to better understand those complex relationships.

Overall, this research used a unique methodology within a substantial organizational sample of employees (over 900 participants for many analyses), who naturally provided details on their unique conflict experiences. The identification of ICS type presence and co-occurrence in this novel manner was able to address (and raise) some pertinent questions to our conceptualization of conflict and its elusive nature. Additionally, this research was able to demonstrate that there is much to be gained by exploring incident-level conflict, both with the ICS typology, as well as via measures evaluating conflict processes, such as Conflict Impact or its potential progeny.

Objective 1: ICS Type Presentation within Conflict Incidents

Review of research objective and main findings. Conflict has long been recognized as a dynamic process (Pondy, 1967). However, because this dynamism is most commonly studied

within workgroups as opposed to unique incidents, research documenting conflict transformation (abundant since at least Simons & Peterson, 2000), is only partially depicting the extent of conflict's transient nature. Conflict issues may indeed shift within workgroups according to current challenges of projects being worked on, but they may also be inseparable from the outset, shift on a moment-to-moment basis, and vary extensively across individuals' perceptions. Some critiques of the ICS have wagered that the types' complexity and co-occurrence are functions of conflict issue-conflict process conflation (e.g., Korsgaard et al., 2008) and that the ambiguity of their effects is perhaps irresolvable (Weingart et al., 2015). Others have said that to define something – that is, the very concept of a conflict typology – presupposes an objective reality, whereas the highly individualized and transient perceptions of conflict may render any attempt to define it, misguided:

> Conflict is often about a lot of different elements, some of which can be categorized as task or relationship issues in conflict. But when we try to categorize conflict by its content and its sources, we end up regarding conflict as being "something" in itself, independent of how it is perceived, enacted and managed by team members. The different elements in conflict are often interconnected and entangled in different ways and therefore it can be difficult to observe the neat theoretical distinctions, extensively described in the literature, between task and relationship conflict. (Mikkelsen & Clegg, 2019, pp. 7-8)

Alternatively, it is entirely possible that despite the lack of a clear borderline between one conflict type and another, the ICS may be effectively adapted to the incident level and quite

useful in a multi-level model of conflict. Directing focus to conflict incidents highlights some important considerations in this endeavour, and necessarily, to the conceptualization of conflict more broadly. For example: Assuming one conflict can be comprised of multiple types of issues, how frequently does this happen? What if parties disagree on a conflict's issues; does a measure of conflict that defines conflict by its issues, require consensus on what these issues are, or can each individual have their own "truth"? With the dynamic nature of conflict, plus parties' potentially divergent beliefs about conflict issues, will it ever be possible to determine a *true root cause* of a conflict? Is this necessary? What even *is* "one conflict"? How long can one conflict last, what are the defining features of the beginning and end to a conflict? What if parties disagree on these things?

The present research takes a first step towards addressing these conceptual quandaries by exploring the frequency of ICS type co-occurrence within participants' naturally described conflict reports. As expected, while all configurations of conflict types were identified, findings revealed that conflicts were very commonly reported to be "multi-type" in nature (approximately 70% of the time). The accuracy and resultant meaning associated with this finding hinges on many contextual factors of the data – not least of which was the prevalence of relationship conflict (85% of incidents).

Relationship conflict-emotionality conflation. While some researchers have disentangled emotions from conflict issues (e.g., Barki & Hartwick, 2004; Pinkley, 1990), the majority of conflict type research has included negative emotions in their definitions and measures of relationship conflict (see Bendersky et al., 2014). Now, it should be expected that relationship conflict would be highly prevalent because the other types are known to spiral into it (Greer et al., 2008; Tidd et al., 2004). However, to say that task and process conflict simply

"spiral into" relationship conflict seriously diminishes the problem of relationship conflict-emotionality conflation (Korsgard et al., 2008), which is indeed the very reason for the other types' "spiralling". To clarify, the ICS types are conflict *issues* (i.e., what the conflict is currently "about"), whereas conflict *processes* (i.e., thoughts, emotions, behaviours) are part of the conflict *experience*, and each *will be* experienced to some extent throughout *every* conflict, regardless of the conflict issue. To incorporate an inherent feature of the conflict process into the definition of a conflict type not only obscures the border between conflict issues and processes, but will necessarily muddy the waters between the types as well – because any time that part of the process (emotionality) is experienced, it is necessarily indicative of a certain type (relationship), even if the original "issues" (task or process) were not associated with that type (e.g., the interpersonal tension aspect of relationship conflict).

We coded for the types' presence based on the items of the most recent ICS version (Jehn & Mannix, 2001). In this version (cited over 3000 times), two of the three relationship conflict items directly reference emotions: "how often do people get angry…" (code present for anger) and "how much emotional conflict is there…" (code present for emotional expression of conflict). The present research, therefore, highlights how – even if emotions are associated with task or process issues – the presence of emotions necessarily pigeonholes a conflict into being defined as at least partly "relational" in nature.

While this emotional characterization of relationship conflict is technically "accurate" according to Jehn and Mannix's (2001) version, researchers have since recognized how this conflation is problematic, that it has contributed to the complexity and ambiguity of past ICS research (Korsgaard et al., 2008), and have called for emotionality to be disentangled from relationship conflict (Bendersky et al., 2014). The present research supports these critiques

through demonstrating the extremely high prevalence of relationship conflict and multi-type

incidents involving it, which are both – presumably – due to coding emotionality as relationship

conflict: This research found that relationship conflict is often identifiable on its own (216

cases), whereas singular task (38 cases) and singular process conflict (26) are much less common

than their task/relationship (155) and process/relationship (190) counterparts. Starker still is the

difference between the task/process (26) and task/process/relationship (251) combinations,

suggesting perhaps that when either of task or process conflict types are identified, but especially

when they are identified together, "relationship conflict" (or the feeling or expression of

emotion) is likely not far behind.

In sum, whether 85% prevalence of relationship conflict and nearly 70% prevalence of

multi-type incidents are accurate estimations, may depend largely on whether one subscribes to

the *emotionality-as-relationship conflict* definition, or whether one believes these should be

separate dimensions of the conflict.

Other factors related to possible overestimation of multi-type incidents and relationship

conflict prevalence. There are a few other reasons why multi-type incidents and relationship

conflict may be overestimated in this sample. First, as shown by the sample's slightly skewed

Conflict Impact distribution (skew = -0.338), participants within this group appear to have

perceived of their conflicts as slightly more severe than a perfectly normally distributed sample.

This was expected, for three reasons: 1) we targeted individuals who had used conflict resolution

programs (approximately 15% of the final sample), 2) even non-users of programs may have

been more interested in the study if they had had more severe conflicts, and 3) we asked

participants to think of their most severe recent conflicts. This may have resulted in a higher

prevalence of multi-type incidents and relationship conflict presence, as past research would

suggest both should be associated with more severe conflicts (de Wit et al., 2012). Relatedly, this

sample could be underestimating the frequency of minor conflicts in workplaces relative to more

severe ones (e.g., there could be more inconsequential "pure" task conflicts experienced every

year that this research is not tapping into).

Second, while survey instructions were clear in requesting a description of a singular

conflict, we intentionally provided no parameters surrounding the number or types of issues that

could comprise the conflict. This enabled us to view how frequently participants naturally

mention different conflict types as belonging to the same conflict, but it is also possible that upon

further prompting, some multi-type-reporting participants would have provided a more nuanced

delineation of their conflicts, highlighting points of conflict type separation and transformation.

Relatedly, the way in which participants were instructed to describe their conflicts may

have resulted in additional conflation of conflict types and processes. Participants were

instructed to "briefly describe the conflict, including <u>what happened</u> (i.e., events/actions taken),

<u>the thoughts and feelings [they] experienced,</u> and the <u>impact</u> the conflict had on [them] (such as

effects to [their] work, wellbeing, social life, mental and emotional health, etc.)" (See Appendix

A for full instructions for conflict incident reporting). This was intended to provide some

structure to the reports as well as a more complete picture of how and why events transpired, but

instructing participants to include thoughts and emotions they experienced may have resulted in

more participants describing an emotionality component to their conflict than would have

otherwise.

Third, there was no timeframe restriction for the duration of the conflict incident (other

than it having to have occurred within the past year); participants' conflict durations ranged from

a few minutes to multiple *years*. Certainly, conflicts of longer durations may be more prone to

escalate and increase in severity and complexity, thus increasing the likelihood that emotionality and interpersonal tension could develop, or that new types of issues could be "added" to the conflict.

Factors related to possible underestimation of multi-type conflict prevalence.

Alternatively, there is also reason to suggest that the present research may significantly *underestimate* the frequency of ICS type co-occurrence within conflict incidents. Participants were intentionally *not* prompted to think of task, relationship, or process conflict issues prior to completing their conflict reports. This was intended to ensure only the most pertinent or naturally recalled issues were discussed, but it is possible that with further inquiry, additional issues not originally described would emerge. If this happened within single-type-coded incidents, it would of course result in an even greater proportion of multi-type incidents. This possibility seems quite likely when one considers using the traditional ICS measure (with three items per conflict type), but adapted to the incident level, instead of our "present/absent" coding approach. For example, it might be quite unlikely that all three items for task and process conflict would register as absolutely "none" or "never", as hypothetically needed to create a purely single-type relationship conflict.

Similarly, it should be more unlikely still that any "undefined" conflicts could be identified when using an incident-level ICS adaptation, as all three types would have to be reported as entirely absent in this case. Given this, the support of Hypothesis 1a (all possible ICS type combinations being identified) is not likely a true reflection of how conflicts *actually present*. Support for Hypothesis 1a should instead be interpreted to mean that *when given no ICS-related prompting*, people will sometimes describe issues pertaining to only one type, sometimes the issues will pertain to two or three types, and occasionally, the conflicts may not

quite fit into the ICS model without further inquiry. While the ICS may not perfectly encapsulate all possible conflict issues (i.e., there may indeed be some benefit to exploring other types), it is probably still rare that if asked about these issues specifically, participants would report their conflicts as involving *no* conflict of ideas/opinions, *no* disagreement on procedures/resources, *and no* interpersonal tension, given the frequency with which each type was mentioned without participants even being prompted.

Additionally, this research is only accounting for one individual's perspective of their conflict, and already the majority of them are described as multi-type incidents. Given conflict perceptions are highly individualized and can vary from person to person (Jehn & Chatman, 2000; Jehn et al., 2010), it should be expected that accounting for the perspectives of the counterparts in these conflicts may have resulted in greater complexity and even more multi-type incidents being identified. Of course, whether or not individual perspectives *ought to be* combined in such a manner is a separate issue; this may depend on the nature of the research or practice in question. For example, using a combined perspective would perhaps not be appropriate in predicting individual outcomes, whereas conflict resolution practices may benefit greatly from developing a shared understanding of what conflict types are perceived by the parties involved.

Implications. This objective intended to aid in the broader, somewhat philosophical discussion of how best to conceptualize conflict – a discussion that has been active for nearly a century of industrial research (Sorokin, 1928). This research found that based on one of the most widely used contemporary metrics of conflict conceptualization (ICS; Jehn & Mannix, 2001), the majority of conflicts are reported to be "multi-type" in nature. This seems to support the notion that the ICS types may be too complex, too interrelated, and too dynamic to conclusively

delineate from one another at any given time (Mikkelsen & Clegg, 2019), even within one conflict. The high frequency of incident-level ICS type co-occurrence found in this research (and the likelihood that an even higher proportion could be detectable with further prompting) appears to suggest that the ICS types are frequently very much inseparable in practice, begging the question as to whether it is drawing an arbitrary "line in the sand" to separate them, even if it is statistically possible to do so.

Paradoxically, this research also finds promising support for ICS use at the incident level of conflict: People *do* naturally refer to task, process, and relationship conflict issues when describing their conflicts, and they do so very frequently, suggesting these conflict types tap into important problems underlying many workplace conflicts. As long as a researcher is not seeking an "objective truth" or a definitive "root cause" of a conflict, the ICS could be a useful measure of one individual's perspective of his or her own conflict.

Importantly, although many researchers rely on parsimonious one-dimensional versions of the ICS, which incorporate emotions in their measure of relationship conflict (such as that by Jehn & Mannix, 2001, used in this research) future use of the ICS at any level would be improved by returning to a two-dimensional measure wherein conflict types are clearly separated from conflict processes, such as those by Barki and Hartwick (2004), Pinkley (1990), or Jehn et al. (2008). To disentangle emotionality and view it separately from relationship conflict would facilitate viewing emotionality about conflict as it is uniquely associated with all three types; notably, it would also be important to clarify what relationship conflict *is*, if not its association with emotions. For example, could relationship conflict be described as a discomfort within or threat to the relationship? Perceived violations of social norms? Disagreement on social values? Jehn (1997) found that relationship conflicts were frequently reported to be about social events,

gossip, clothing preferences, political views, or hobbies; alternatively, Jehn et al. (2008) simply

phrased relationship conflict items as fights or disagreements about "personal issues" "personal

matters" or "non-work" things. Future research may benefit from further exploration of the

personal matters that arise in workplace conflicts and why they are distressing.

Limitations. The first and most obvious limitation of this research is that simply coding

for the presence or absence of each conflict type does not provide any nuance to their overall

amounts, their proportional amounts to relative to one another, or their frequency, intensity, and

so forth; therefore, conflicts within the same ICS type combinations are wont to be quite

different from one another. Additionally, the absence of any given ICS type is ambiguous – that

is, it is unclear whether the type would have been identified with further prompting, or whether it

was truly not present. Relatedly, "undefined" conflict types are especially ambiguous – perhaps

alternative "types" of conflict outside of the ICS were present, but it is also possible that these

participants were simply skirting through the survey in order to receive a gift card, and that this

was why they failed to provide significant detail on their "conflict" (if they experienced one). To

whatever extent that this may be the case with undefined conflicts, findings associated with these

conflicts would not necessarily be reflective of actual conflict content, thus ought to be

interpreted with caution.

Also, this research is unable to discern *how* multi-type incidents developed. That is, while

this research can largely rule out that previous workgroup level ICS type co-occurrence would

have been solely due to concurrent, separate, single-type conflicts, it cannot reveal whether the

incident-level co-occurrence seen presently is a reflection of "true multi-type" conflicts (i.e.,

more than one type being identified right from the conflict's inception), or whether some form of

conflict type transformation occurred. It also cannot illustrate anything about what types of conflict/combinations tend to precede others.

Additionally, a standard definition of the parameters comprising a "one conflict", it is difficult to know how participants framed the boundaries of their conflicts in their minds when completing reports. For example, participants may have viewed their conflict as its "full duration", from the first time they personally perceived of disagreement or incompatibilities, until they perceived the conflict to be "resolved" – which in turn could be the resolving conversation/apology, or when the sour feelings associated with the conflict subside. Others may have perceived of their conflict to have "ended" as soon as the manifestation of the conflict (e.g., an argument) was over. Until such a definition of "one conflict" is established, it may be difficult to compare findings across incident-level conflict research.

Finally, any findings related to the presence or absence of the ICS types, or indeed associations between the conflict types or Conflict Impact with individual outcomes, should be interpreted with consideration of the sample, particularly that approximately 80% of participants were women. While I did not investigate differences between participants' genders (or genders of their conflict counterparts), it is quite possible that differences may be found with respect to the types of conflicts participants described and how those conflicts influenced them. For example, women may place greater importance and value on their work relationships (Rosenbury, 2011), and while it is unclear how this may affect their perceptions of conflict or their conflict management styles, there is some research to suggest that women may engage in more active, constructive responses to conflict (e.g., perspective taking, creating solutions, expressing emotions, reaching out) whereas men engage in more active destructive responses to conflict (e.g., focusing on winning at all costs, displaying anger, demeaning others, retaliating;

Davis, Capobianco, & Kraus, 2010). In this regard, men and women may have similarly high

amounts although substantively different *reasons* for experiencing relationship conflict; men

may be more likely to express anger, whereas women may be more likely to make emotional

bids in conflict resolution strategies. Apropos to this, neither men nor women's responses to (or

interpretations of) conflict can be removed from their social and environmental context; as such,

the prevailing stereotypes of "expected behaviour" for each gender may play a role in

individuals' own perceptions of and responses to conflict. This may result in women being more

'other-oriented' and behaving in a more relationally focused manner, versus men being more

'self-oriented' and behaving in their own self-interest or focusing more on tasks (Davis et al.,

2010). Further, if women appeared to demonstrate self-interest throughout conflict, their

counterparts may have become especially offended by their behaviour (even if it were similar to

what a man might do) because it deviates from this gender-based expectation; as such women

may have been viewed more negatively or punished for performing the same behaviours as men

(Heilman, 2012). Thus, both perceptions of conflict and the actual manifestations of conflict

themselves, may differ significantly between men and women, and this should be investigated

further.

  Future directions. It would be interesting to see a replication of the present research in

which the ICS types are coded with relationship conflict being separate from emotions, and with

emotionality as a separate dimension; hopefully this research could retrieve a sample with a

greater number of "minor" conflicts, to see how the types present across a broader range of

conflict severity. Ideally though, this study would utilize an ICS (+ emotionality dimension)

adapted to the incident level and there would be clearer parameters defining "one conflict" for

the purposes of generalizability. Additionally, it would be especially valuable if future research

were longitudinal, measuring ongoing conflicts to see how participants' reporting of ICS levels

within their conflict evolves over time; while it may remain virtually impossible to discern a true

"root cause" of a conflict, this may aid in understanding the conflict transformation process.

Finally, if future research could also incorporate conflict counterparts' reports of ICS types (+

emotionality) in ongoing incidents, this could extend conflict asymmetry research (e.g., Jehn et

al., 2010), and potentially provide useful information to conflict resolution practitioners.

Objective 2: Incident-level ICS Types and Individual Health and Wellbeing

Review of research objective and main findings. A great deal of research has focused

on the ICS types' associations with performance, team functioning, and the individual or group

factors that influence those associations, whereas comparatively less research has examined the

types' associations with individual health and wellbeing outcomes (Spector & Bruk-Lee, 2008).

While work conflict has indeed been associated with depression, psychosomatic complaints, life

dissatisfaction, and burnout (Spector & Bruk-Lee, 2008), many of these findings did not

differentiate between conflict types, and the ones that did are typically equally as complex or

ambiguous as those studying performance-related outcomes (Friedman et al., 2000; Meier et al.,

2013).

Unfortunately, this research was unable to expand performance-related findings into the

incident-level of investigation, as the measures of self-rated performance and lost work time

were not amenable to analyses. Self-rated performance – as measured in this research – deviated

significantly from normality, demonstrating a skew suggestive of potential rater error or bias.

That is, although we attempted to instill objectivity by asking participants to consider how their

supervisor would rate their performance quality/quantity/overall, over 78% of participants

provided themselves an averaged rating of four or higher on a five-point rating scale. While this

may indeed be a function of social desirability, it may also be possible that unique features of

this sample resulted in participants truly believing they were being objective in providing these

ratings. A large proportion of participants were professional healthcare workers (e.g., nurses,

pharmacists, social workers), wherein the designation of professional certifications often reflects

one's level of skill and knowledge; as such, participants may have had a somewhat binary view

of performance on the basis of their certifications (e.g., I am certified at a high level, therefore I

perform well). It may have been beneficial to ask participants to rate their performance in

comparison to their coworkers, such as in the relative percentile method developed by Goffin,

Jelley, Powell, and Johnston (2009), as this may help introduce alternative and more relevant

perspectives in considering one's performance. The lost work time variable would have required

significantly altered measurement techniques to avoid its very extreme skew; future research

might benefit from developing a measure that does not try to estimate *actual* time, but instead,

participants' perceptions of whether the time lost is a lot or a little, such that a standard Likert

scale could be employed.

Regarding health and wellbeing outcomes, this research found that despite their severely

limited power, the ICS types were significant predictors of individual health and wellbeing

outcomes almost exactly as would be expected based on previous research. Specifically,

relationship and process conflict, but not task conflict, were significant predictors of general

mental health, negative affect, and physical strain, demonstrating adverse effects to wellbeing.

Notably, because of their limited power, the three types together predicted only 1.8% to 3.9% in

outcomes, and in five of the seven unique associations, the ICS type in question predicted less

than 1% of variance in outcomes.

When the eight ICS type combinations were compared in terms of their health and wellbeing outcome means, significant group differences were found for each outcome. More interestingly still, contrast tests revealed that singular task conflict was associated with significantly "better" wellbeing than almost every other combination, whereas undefined incidents were associated with significantly "better" wellbeing than only the most "harmful" combinations – that is, the relationship/process and relationship/process/task (and in one case, singular relationship) combinations. These effects were small; however, given what we know of the ICS types' restricted range herein, and given the consistent trends of associations mirroring previous workgroup-level research, it seems that these incident-level findings are perhaps the tip of a very similar iceberg. Relationship and process conflict appear generally harmful to health and wellbeing, whereas the mostly non-significant associations between task conflict and outcomes may reflect the "paradox of conflict" coined by De Dreu and Weingart (2003) in their meta-analysis. By this, they meant that task conflict's overall effects averaged on non-significance because whether it could have positive or negative associations with outcomes is dependent on contextual factors of the group and work context. Indeed, the only significant task conflict finding was with general health, which was a barely-there *positive* association. This suggests that at the incident level as well, task conflict's overall effects tend to balance to neutral.

One very interesting facet of these findings is that process conflict's unique effects with health and wellbeing outcomes can be viewed as *independent* from any (detectable) emotionality. That is, any time emotionality was detected, relationship conflict was automatically coded as present; and in testing process conflict's main effect associations with wellbeing outcomes (in regression) any variance associated with relationship conflict (and task conflict) was controlled. Similarly, the singular process conflict group is also comprised of incidents

wherein emotionality must not have been mentioned (or else they would have been coded as process/relationship). Thus, while the emotionality associated with conflict is often viewed as a mechanism through which negative outcomes arise (Spector & Bruk-Lee, 2008), this finding seems to suggest that another mechanism may be contributing to process conflict's negative effects to health and wellbeing. Indeed, this would parallel findings by Jehn et al. (2008), who found that negative emotions associated with relationship conflict, but not process or task conflict, moderated types' associations with emergent group states (e.g., trust). Alternatively, it is entirely possible that a lot of emotion was experienced due to even the singular process conflicts in this study, but that this small group of just 26 participants happened to not describe emotionality in their reports. This would instead corroborate the findings of Rispens and Demerouti (2014), wherein both relationship and process conflict were associated with negative emotions, some of which influenced later performance. Given process conflict is associated with negative affect in the present study, this may be the more likely possibility.

Interestingly, the presence of task conflict in the absence of relationship and process conflict may, if anything, have benefits compared to conflicts wherein no clear issue can be identified. Although this cannot be truly concluded because the differences were not technically significant, singular task conflict's means consistently trended towards being somewhat "healthier" than those of undefined conflicts. Wellbeing means associated with undefined conflicts, in turn, were only reliably different from means associated with relationship and process conflict *together*, which may indicate a negative consequence of these types exasperating one another (although we did not have the power to detect any interactions), or a negative consequence of increased conflict complexity. Again, these ideas cannot be confirmed in the present research, but given the weak power due to both ICS coding and small group sizes in

some cases, the trends may be worth exploring further in another study. In either case, it appears

the absence of relationship and process conflict is the most promising predictor of less severe

health and wellbeing outcomes.

Implications. This research is among the first to study the effects of the ICS types as

they are naturally described within *one conflict*. Results demonstrate that ICS type patterns of

association seen in workgroup-level research seem largely echoed at the incident level of

conflict: Relationship and process conflict appear mostly harmful, especially when together,

whereas task conflict's associations with health and wellbeing are inconclusive and likely

dependent on other factors. This research contributes both to the health and wellbeing-related

conflict literature, and also largely supports the further expansion of the ICS model into the

incident level – pending some useful modifications (i.e., extricating emotionality from

relationship conflict to measure as a separate dimension, and further clarifying what relationship

conflict *is*).

Limitations and future directions. This study's primary limitation of having binary

coded as opposed to full-range ICS types clearly applies to this research objective in that ICS

types' associations with outcomes are inevitably under-powered. Using an incident-level adapted

full-scale version of the ICS would surely strengthen and clarify these findings, including

demonstrating interactive effects of the types, as was subtly hinted here (e.g., possible

ameliorating effects of task conflict, possible exasperating effects of relationship and process

conflict when together).

Additionally, the fact that this research combines data from two organizations into one

nested sample would typically warrant exploring possible differences between locations. Ideally,

this nested data would be examined using hierarchical linear modeling to see if there are

meaningful, systematic differences in variable associations between the samples. Unfortunately, due to the already very small sizes of certain ICS combination groups, numerous hypotheses would not have been testable with the further reduction that would result from dividing the sample by location. Table 2 presented study variable intercorrelations between samples: Comparison tests found that in the university sample, process conflict was more strongly associated with physical strain and Conflict Impact, and negative affect was also more strongly associated with Conflict Impact. It is unclear why this would be without further analysis and probably investigation of moderator variables. Some potential factors may include the differences in the roles of these employees or their level of habituation to conflict. It may be possible that the participants from the healthcare sample (i.e., predominantly nurses and other professionals like social workers) are accustomed to high levels of process conflict and negative affect associated with their jobs, and thus are less impacted by it. Alternatively, the smaller size of the university sample may be emblematic of a Type I error for these associations, such that a larger sample size would find comparable associations across samples. More research would be required to understand these differences.

Finally, although relationship conflict's conflation with emotionality was already discussed insofar as how it increases relationship conflict and multi-type incident prevalence, it should be noted that this also confuses the effects of all three types on outcomes. If relationship conflict were reconceptualized as being separate from emotionality and having clearer substantive issues of its own (e.g., disagreement about personal matters), there may be important distinctions between, for example, task conflict + emotionality incidents versus task/relationship conflict incidents. In one of the few studies to investigate emotionality separately from the ICS types, Jehn et al. (2008) found that when emotionality is associated with relationship conflict, it

increased this type's negative effects, but that the same moderating/exasperating effects of emotionality were not found in its associations with task or process conflict. In sum, the effects of the types as a function of their association with emotionality is unclear and needs to be investigated further.

Objective 3: Conflict Impact

Review of research objective. Conflict has long been recognized as a process (Pondy, 1967; Thomas, 1972), even throughout the era of ICS model proliferation (Barki & Hartwick, 2004; Korsgaard et al., 2008; Wall & Callister, 1995). Yet, despite some researchers providing examples of multi-dimensional *conflict type* by *conflict process* measurement models (e.g., Barki & Hartwick, 2004; Jehn et al., 2008; Pinkley, 1990), many researchers have opted to use the parsimonious one-dimensional ICS on its own (Bendersky et al., 2014). Unfortunately, this parsimonious measure has led to anything but parsimonious literature (Weingart et al., 2015). Researchers are beginning to suggest that contingencies to the ICS types' effects may be never-ending, and some have begun incorporating more processual factors into their research by focusing on factors related to the conflict's expression or management (e.g., DeChurch et al., 2013; Weingart et al., 2015).

The present research returned to an even earlier wave of conflict process theorization, one which focuses on emotions, cognitions, and behaviour as inseparable though unique facets of the highly individualized conflict process (Pondy, 1967), and sought to measure these elements of the conflict experience along with a few other known indices of a conflict's severity (i.e., stressfulness, importance, overall intensity). The resulting measure of Conflict Impact focuses purely on individuals' perceptions of their conflict and how it has personally affected them, irrespective of conflict type. As such, this research objective was to develop a measure that could

both aid in the prediction of individual health and wellbeing throughout conflict, as well as

potentially explain how individual processes and perceptions serve as a mechanism through

which the ICS types exert their effects on those experiencing conflict.

Main findings. The Conflict Impact measure was found to have suitable reliability

(Cronbach's alpha = .899) and fit well to a one-factor structure, as intended.

ICS associations. Considering their limitations, The ICS types together predicted an

appreciable amount of Conflict Impact (up to 11%) and relationship and process conflict

predicted notably more of this variable (6.6% and 2.5%, respectively) than they did of any

individual health and wellbeing metric. This suggests that, as intended, Conflict Impact may

have the potential to act as an intermediary between conflict types and wellbeing outcomes.

Interestingly, relationship conflict appeared to predict substantially more of Conflict

Impact than did process conflict; if so, this would likely be due to relationship conflict's

emotionality component in the present research, as this is explicitly shared by Conflict Impact

(i.e., in the item "*How frequently has this conflict influenced your thoughts and emotions…*").

Because of this – although there were no hypotheses addressing it – I decided to directly

compare relationship and process conflict's associations with Conflict Impact. Standardizing

Conflict Impact and using bias corrected bootstrapping for confidence intervals, I re-ran a

multiple regression (with all three ICS types included) to find that there was no overlap in the

confidence intervals for process (*BCa* = .202, .442) and relationship conflict (*BCa* = .542, .919).

As such, the difference between the types' standardized betas (Δb = .414) should be statistically

significant at the p = .001 level (Cumming & Finch, 2009), suggesting relationship conflict did

indeed predict significantly more variance in Conflict Impact, than did process conflict. This is

yet another piece of the present research to indicate that findings herein are very influenced by

the relationship conflict-emotionality conflation; importantly, relationship conflict's association

with Conflict Impact is be subject to change in any research avoiding such conflation, and would

also depend on the alternative facets introduced to the relationship conflict concept (e.g.,

"disagreements about personal matters").

Returning to hypotheses tested: Planned contrasts between singular task conflict and

undefined conflicts with all other ICS combinations further supported earlier findings and what

was expected by previous research: Participants who mentioned *only* task-based issues in their

conflict descriptions reported the lowest Conflict Impact compared to every other group – even

those who reported none of the ICS types. In this regard, this research supports the notion that,

not only is singular task conflict better than task conflict + relationship and/or process conflict,

but having a clear task-based issue at the center of one's conflict may at times be better than

either not having a clearly describable issue at all, or having an issue that is outside the spectrum

of the ICS. Of course, this thesis cannot speculate as to what types of issues may be present in

these undefined incidents; some may fit under the umbrella of previously identified alternative

types (e.g., status conflict, Bendersky & Hayes, 2012), some may not quite suit any types known

to this literature currently, or, of course, there could be any combination of existing, or

undiscovered types present within, but these participants in question were simply not very

descriptive of their conflicts. The fact that the undefined incidents had a significantly lower mean

than every other group involving relationship conflict once again suggests that the absence of

emotionality is an important factor in how much a conflict may impact a person.

Overall, these findings (taking into account the types' limited power) provide both

convergent and discriminant validity to the Conflict Impact measure, suggesting that while it is

sufficiently associated with a measure evaluating problematic sources of conflict, it also appears

to have unique characteristics that are not clearly explained by the ICS. As such, Conflict Impact

may proffer to explain additional unique variance in conflict-related individual outcomes.

      Health and wellbeing. Conflict Impact was significantly associated with general mental

health, negative affect, and physical strain, explaining between 13.3% to 20.8% of their variance.

These effects were largely retained when controlling for the ICS types' effects, dropping to 9.9%

to 18.2% of variance explained. While Conflict Impact's unique effects still appear to account

for a moderate amount of variance in outcomes (Field, 2013), it is important to note that

whatever ICS-related variance is going unseen due to the types' restricted range, may or may not

be shared with Conflict Impact. That is, in controlling for ICS types using a full-scale incident-

level adaptation, the variance in outcomes uniquely associated with Conflict Impact could be

substantially reduced to show that it has quite small unique effects – or, if this variance is not

shared, the two measures could predict health and wellbeing outcomes very strongly together. In

general though, this measure appears to provide encouraging support for the continued

evaluation of individual conflict processes as a means of predicting individual outcomes.

      Mediation. The final test of this research was to evaluate whether Conflict Impact

mediated the associations between the ICS types and individual health and wellbeing outcomes.

For all six mediation analyses conducted (relationship conflict x 3 outcomes; process conflict x 3

outcomes), the types were found to have *significant indirect effects* on outcomes *through*

Conflict Impact (using Hayes Process Macro, 2018). The mediated percentage of types' total

effects could only be calculated for four of six tests (due to inconsistent mediation), but in these

cases, it appeared that the indirect effects accounted for at least 50% of the types' total effects on

outcomes. Meaning – of the limited variance available to them – half of the ICS-related variance

in outcomes appeared to be explained by the conflict processes and perceptions measured by

Conflict Impact. While this was the intent of Conflict Impact, as it was created to be more

proximal to the individual, it is again very important to note that these findings – perhaps more

than any others in this thesis – cannot be confidently extrapolated beyond this research; the ICS

types were simply not given a "fair fight" for variance in outcomes. It is absolutely possible that,

using a full-ranging ICS scale, a significant proportion of the ICS' effects would occur through

Conflict Impact, and even that this mediation would account for 50% – or more – of the types'

total effects. However, it is equally possible that with a full scale, the ICS types would predict

much more variance in health and wellbeing, and this newly visible variance would not occur

through Conflict Impact at all. As such, further research using a full-scale incident-level ICS

measure would be needed to conclude whether the ICS types' outcome associations are a

function of the individual perceptions and experiences of those conflicts.

Implications and limitations. Conflict Impact appears to be a promising potential

predictor of individual health and wellbeing outcomes. Ideally, this research would have been

able to determine whether Conflict Impact is a useful alternative or supplementary addition to the

ICS types in predicting outcomes. However, while there is some evidence to suggest the two

measures are not entirely overlapping, it is impossible to know whether Conflict Impact adds

much above and beyond the ICS types when we do not yet know what they can predict at the

incident level in their full force. This is, of course the primary limitation of the present research.

Additionally, in a cross-sectional, non-experimental research design such as this, it is also

possible that any associations seen between measures of individual health and wellbeing

"outcomes" and Conflict Impact and the ICS types may be a function of "reverse-causality", in

that individuals' mental health, negative affect, or physical strain actually influence the extent to

which they perceive of (or report the presence of) the conflict types, or the extent to which they

are impacted by their conflict experiences. Of course, no conclusions about causality can be drawn in the present research, and especially given the cyclical nature of the conflict process (Pondy, 1967), such associations would be best tested in an experimental or at least longitudinal research design.

Even with these limitations, this research extends workgroup level findings demonstrating the relatedness of the ICS types and individual conflict processes, and the potential value in examining these constructs together. As other researchers have noted, the ICS types are valuable labels for differentiating conflict's effects (de Wit et al., 2012), but in truth, conflict cannot exist without individuals *perceiving* it to exist, and individuals must further ascribe some *meaning* to the conflict they are perceiving, if it is to have any relevance or impact (Barki & Hartwick, 2004; Mikkelsen & Clegg, 2019).

Conflict Impact measure limitations and future directions. In hindsight – and following several years of continued research – there are several adjustments I would test as potential improvements to the Conflict Impact measure. First, prior to discussing changes to the content of any items, I note that in future I would ensure that all items use the same range in their Likert scales: due to an oversight, two of the five Conflict Impact items used a 5-point Likert scale and were adjusted to a 7-point scale to match the others. This did not appear to significantly alter the scale's reliability statistics, however (e.g., Cronbach's alpha using the mix of 5-point and 7-point items was .890 instead of .899).

I developed the measure to reflect Pondy's (1967) individual conflict process, wherein thoughts, emotions, and behaviours are central to the *individual's* experience of conflict, thereby (presumably) making them a well-matched group of predictors for individual conflict outcomes, especially those as personalized as health and wellbeing. I attempted to structure the items based

on Barki and Hartwick's (2001) Interpersonal Conflict Criterion, which identifies conflict amount, frequency, and intensity, as relevant factors to identifying a conflict's severity. This resulted in the items *"How frequently has this conflict influenced your thoughts and emotions (e.g., frustration, anger, betrayal, worry)?"*, *"How frequently has this conflict influenced your behaviour, either alone (e.g., avoiding the person, coping behaviours) or with others (e.g., venting to coworkers, addressing the problem, getting into arguments)?"*, and *"How intense has this conflict been?"*.

Pondy (1967) described *felt* conflict and *perceived* conflict as separate pieces of the conflict process. That is, a conflict may be perceived without the individual being emotionally bothered by it, or it may be felt (e.g., as tension or anxiety) without there being a clear attributable source; However, Pondy also recognized that if a conflict is both felt and perceived, these processes may enhance or influence the experience of the other, thereby making them difficult to separate. For example, the average individual may find it difficult to separate high levels of rumination or worry from the accompanying angst, or thoughts of being betrayed from the accompanying anger – in a chicken-or-the-egg, sort of problem. It was for this reason that I opted to put "thoughts and emotions" together into one item.

In retrospect, I think there may be added value to a measure that references these parts of the conflict process separately. In effect, to separate these into two items does not actually require individuals to treat them as separate experiences, but instead asks that they consider each part of the experience separately. While thoughts and emotions should certainly be related, allowing them to have separate influence may provide more nuance to the scale.

In a revision, I would further consider developing frequency, intensity, and overall amount items (like those in Barki & Hartwick, 2001) for each facet of the conflict process.

Frequency and intensity should overlap and may even influence one another slightly: very frequent "processing" of a conflict (emotionally, cognitively, behaviourally) may make the intensity of the experience feel greater, or highly intense bouts of processing (emotionally, cognitively, behaviourally) may be easier to recall or take longer to recover from, in either case feeling more frequent. Each would overlap with overall amount perceptions as well (as they should contribute to it) but all three items should vary independently depending on individual perceptions. Notably, the Conflict Impact measure does not measure the frequency or intensity of conflict *events* or *interactions* (although these may be directly related to an instance of individual processing), but whether an individual is *processing* those events or interactions. Thus, if any habituation to repeated conflict events may be expected, this may be reflected in individuals' reduced frequency and intensity of conflict processing. Though some research suggests people do not emotionally habituate to interpersonal conflict (Bolger et al., 1989).

Importantly, if improved distinctions between the conflict processes provided greater nuance to the Conflict Impact measure, this nuance could be obscured in a one-factor measure. Two equal Conflict Impact "scores" may result from very different conflict evolutions and experiences, which may in turn have quite different effects to individual outcomes. Two comparable scores may have resulted from any combination of high or low levels of emotional, cognitive or behavioural processing, and these varying levels could presumably interact to influence individual wellbeing outcomes. Thus, if conflict processes are more thoroughly distinguished, a three-factor structure of Conflict Impact may emerge and be more effective at predicting individual outcomes. Alternatively, given these conflict processes are so highly interrelated (Pondy, 1967) such a measure may not naturally divide into three neat factors based on emotionality, cognitions, and behavioural conflict processing, but may divide instead into any

number of factors based on some combination of conflict processes and/or whether the influence

is framed in terms of the intensity or frequency of the processing experience. It is even possible

that following factor analysis and item reduction techniques, a one-factor structure with only

three items could be the strongest and most parsimonious predictor of individual outcomes.

These items could reference all pieces differently, such as the *intensity* with which the conflict

influenced one's *emotions*, the *frequency* with which it influenced one's *thoughts*, and the

overall effect it had on one's *behaviour*. In sum, further exploration of these processes and how

to best represent them to reflect the conflict experience, is needed.

Regarding the remaining two items in the current Conflict Impact version – those

addressing the conflict's stressfulness and importance – I would consider dropping these,

depending on the goal of the measure. If the intent was to create a one-factor, unidimensional

scale, I may retain the stressfulness item, as it may have the potential to further clarify the effects

of the frequency, intensity, or overall amount of individual "processing" due to conflicts. That is,

there may be times in which a conflict is stressful despite not strongly influencing one's

emotions, cognitions, or behaviour, and times in which it is not stressful even when it does.

Interestingly, when all items of the Conflict Impact scale are regressed onto general health,

negative affect, and physical strain, stressfulness in addition to the process-related items were the

most reliable predictors of outcomes. Thus, how personally stressful an individual perceived a

conflict to be appears fit well within the realm of uniquely individualized conflict process

perceptions and contributed to outcome prediction. However, if Conflict Impact were revised to

have multiple factors as described above, it may be unclear where stressfulness would fit.

Regarding the conflict's importance, this item *appeared* to be valuable to the current

measure of Conflict Impact, but its associations with the ICS and measures of health and

wellbeing reveal a more complex story. This item was originally included because people tend to

frame conflicts based on what they feel is important (Pinkley, 1990), and when the issue is of

greater perceived importance, people are more compelled to voice dissent and feel concerned

about outcomes (Jehn, 1997). It was therefore expected that high importance conflicts may be

associated with greater cognitive, emotional, and behavioural resources devoted to them and

higher stress overall. It was further expected that including an importance item may predict

additional variance in individual outcome over and above the ICS: While relationship and

process conflict are generally associated with worse outcomes, there may be times when a task

issue is particularly important, thereby making the conflict associated with it especially stressful

and impactful. However, more recent research has found that while conflict importance may vary

across types, *effects* of conflict importance depends on the conflict type: When a task conflict

issue is viewed as high importance, this can actually have a *buffering effect* on the conflict's

potential to escalate or spiral into relationship conflict (see Bradley et al., 2015). That is, people

recognize that any negative affect or tension arising in the conflict is because of the high

importance of the work-related issue, as opposed to attributing this to interpersonal issues, which

actually can help them proceed through conflictual tasks more effectively. On the flip side, it was

expected that low importance conflicts (of any type) may be less taxing and stressful, and

therefore less impactful. However, the unfortunate negative consequence of low importance

conflicts may actually be that they can signal that the group or task is unimportant, which may

negatively impact group attitudes and outcomes (Jehn et al., 2008). While I hadn't made such a

connection before, this actually supports findings that task *complexity* is associated with better

outcomes to task conflict (e.g., de Wit et al., 2012) – overall, parties are more accepting of

conflicts when they appear to be warranted.

As such, conflict importance is likely to be an unreliable predictor of outcomes and may depend too much on moderators to be useful. Indeed, in the present research, the association between conflict importance and each of the ICS types is somewhat unclear (it appears to be related to relationship and process conflict, but coding limitations do not support drawing conclusions); further, it does not demonstrate any significant associations with individual health and wellbeing outcomes (when viewing a regression of Conflict Impact's items on outcomes as opposed to its composite). Thus, even if certain issues may more often be considered important than others, the variability in how those important issues are handled may result in conflict importance not having a significant overall association with health and wellbeing.

General Conclusion

This research provided novel evidence that the ICS types frequently and naturally "co-occur" within unique conflict incidents: When describing a significant workplace conflict, people often discuss issues pertaining to multiple ICS conflict types, even when they are not prompted to consider the types at all. This finding speaks volumes to the types' complex interrelationships insofar as how fluidly ICS types may transform and seamlessly coexist in our minds; by extension, this finding begs inquiry as to whether our widely accepted trichotomous delineation of conflict in academia may be an unnatural fit to the way interpersonal conflict actually operates in our individual and shared realities. Still, this research clearly demonstrates that however transient or subjective one's definition of conflict may be, this definition will be true to the individual, and therefore ought to predict one's own individual outcomes in meaningful ways; indeed, that a lack of objectivity needn't preclude meaningful research.

Even with the very limiting bounds of ICS type measurement in this study, ICS-related findings largely corroborated previous workgroup level research. As such, this research finds

considerable support for expanding ICS use explicitly into the study of unique conflict incidents,

and further into the realm of individual health and wellbeing. Additionally, by developing and

testing a preliminary measure of Conflict Impact, this study aligns with and contributes to the

renewed interest in conflict processes as a means of predicting conflict's effects, as well as better

understanding the complex interrelationships between the ICS types, and the mechanisms

through which they affect individuals.

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Appendices Overview

The "Conflict Experiences at Work Survey" was collaboratively designed to meet the research interests of eleven researchers and practitioners belonging to the Partnership for Productive Organizational Conflict (PPOC). As such, not all sections of the survey are relevant to the current thesis; for brevity and clarity, only sections and items directly relevant to this paper are included in these appendices. Any identifying information about partnering organizations has been removed to protect their identities.

Survey measures are presented in the order of their use in this thesis (i.e., Conflict Incident Report and Coding; Health and Wellbeing; Conflict Impact) as opposed to their order in the survey. Both online and paper versions of the survey were randomized to present health and wellbeing metrics either before or after conflict incident reporting.

Appendix A: Measures

<u>Conflict Example</u>

"Conflict" can be described as tension, arguments, or difficulty with other people. Working with others often involves some conflict. Conflicts may result from a specific problem or struggle between people, or simply when people's personalities cause them to not 'get along' well.

Think of <u>your workplace over the past year,</u> and reflect on <u>the conflict you had that bothered or upset you the most.</u> The conflict can have been about anything, and have been between multiple people, or just you and one other person.

Please briefly describe the conflict, including <u>what happened</u>, (i.e., events/actions taken) <u>the thoughts and feelings you experienced</u>, and the <u>impact</u> the conflict had on you (such as effects to your work, well-being, social life, mental and emotional health, etc.).

If you feel that you have *not* experienced a significant conflict <u>in the past year</u>, please check this box and skip to page 22 below.

☐ I have not experienced a conflict in the past year. (Go to Page 22)

This survey is confidential. If you provide names, we will not include them when analyzing responses.

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ICS Type Items/Definitions for Coding

Conflict Incident Reports were coded for the presence of relationship, task, and process conflict according to the following items from: Jehn K. A., & Mannix, E. A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of Management Journal*, *44*(2), 238–251.

Relationship Conflict Items

1. How much relationship tension is there in your work group?

2. How often do people get angry while working in your group?

3. How much emotional conflict is there in your work group?

Task Conflict Items

4. How much conflict of ideas is there in your work group?

5. How frequently do you have disagreements within your work group about the task of the project you are working on?

6. How often do people in your work group have conflicting opinions about the project you are working on?

Process Conflict Items

7. How often are there disagreements about who should do what in your work group?

8. How much conflict is there in your group about task responsibilities?

9. How often do you disagree about resource allocation in your work group?

General Health Questionnaire (GHQ)

Adapted from Goldberg, D. P. & Williams, P. (1988). The User's Guide to the General Health Questionnaire. NFER-Nelson: Windsor.

Instructions: Have you recently...

Response scale: 5-point Likert: never, rarely, sometimes, often, always

1. Been able to concentrate on whatever you're doing?

2. Lost much sleep over worry?

3. Felt that you are playing a useful part in things?

4. Felt capable of making decisions about things?

5. Felt constantly under strain?

6. Felt you couldn't overcome your difficulties?

7. Been able to enjoy your day-to-day activities?

8. Been able to face up to your problems?

9. Been feeling unhappy or depressed?

10. Been losing confidence in yourself?

11. Been thinking of yourself as a worthless person?

12. Been feeling reasonably happy, all things considered?

Job-related Affective Wellbeing Scale (JAWS; Negative Affect dimension ONLY)

Adapted from Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000).

Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to

work stressors. *Journal of Occupational Health Psychology, 5*(2), 219-230.

Instructions. Below are a number of emotions that a person might feel because of their job.

Please rate how often <u>any part of your job</u> (e.g., your work, coworkers, supervisors, clients, pay)

<u>has made you feel that emotion in the past month</u>.

(In the past month) My job made me feel…

Response scale: 5-point Likert: never, rarely, sometimes, often, always

1. Angry

2. Anxious

3. Bored

4. Depressed

5. Discouraged

6. Disgusted

7. Fatigued

8. Frightened

9. Furious

10. Gloomy

Physical Strain

Adapted from Leiter, M. P. (1996). Staff Survey. Centre for Organizational Research & Development, Acadia University, Wolfville, NS, Canada B4P 2R6.

Instructions: In <u>the past month</u>, how often have you experienced:

Response scale: 7-point Likert: never, once, twice, several times, once a week, twice or more per week, daily.

1. Back strain

2. Headaches

3. Repetitive strain injuries (injuries from repetitive work tasks)

4. Gastro-intestinal discomfort (stomach/ digestive problems)

5. Sleep disturbances (problems getting to sleep or staying asleep, poor quality sleep)

6. Stress-related anxiety

Conflict Impact

Please see *Conflict Impact measure limitations and future directions* in the Discussion prior to using this measure in any future research.

Instructions (items 1-3): Please think of when this conflict was at <u>its worst</u>, or when it <u>bothered you the most.</u>

Response scale: 7-point Likert: never, very rarely, rarely, sometimes, often, very often, always

1. How <u>frequently</u> has this conflict influenced <u>your thoughts and emotions</u> (e.g., frustration, anger, betrayal, worry)?

2. How <u>frequently</u> has this conflict influenced <u>your behaviour</u>, either alone (e.g., avoiding the person, coping behaviours) or with others (e.g., venting to coworkers, addressing the problem, getting into arguments)?

Response scale: 7-point Likert: not at all, a little, somewhat, moderately, quite, very, extremely

3. When the conflict was at its worst, how stressful did you find it?

Instructions (items 4-5): N/A - The following two items were intended to refer to the conflict generally, no additional instructions were provided.

Response scale: 5-point Likert: not at all, a little, somewhat, very, extremely

4. How <u>important</u> has the <u>conflict issue</u> been to you?

5. How <u>intense</u> has this conflict been?

Appendix B: Informed Consent and Survey Information

Conflict Experiences at Work Survey

REB FILE #: CDHA-RS/2015-120

STUDY TITLE: Conflict Experiences at Work Survey

PRINCIPAL OR QUALIFIED INVESTIGATORS:
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Phone 491-6211 or 491-6261; Fax 496-8287; Email dgilin@smu.ca

ASSOCIATE INVESTIGATORS:
Diane LeBlanc, Saint Mary's University; Kristina Pope, Saint Mary's University

RESEARCH COLLABORATORS:
REDACTED

STUDY SPONSOR: Saint Mary's University

FUNDING AGENCY: This study is being funded by the Social Sciences and Humanities Research Council (SSHRC)

1. Introduction: You are invited to participate in a survey of Conflict Experiences at Work. This study investigates how effective it is for workplaces to offer conflict resolution programs and services to their employees. We are inviting all employees at your workplace to provide their responses on this topic. Results of this study may help improve workplace conflict resolutions by identifying best practices.   This is a one-time survey that takes people about 30 minutes to complete. The study involves an online anonymous self-report survey that you can complete by clicking "start survey" and then answering questions.

2. Are There Risks To The Study?   There are two main foreseeable risks. (1) Emotional risk: As you are asked to report on a work conflict that was the most upsetting in the past year, and what you did about that conflict, there is a chance you might feel anger, worry, or stress as you answer the survey. (2) Social/ reputational risk: Private and sensitive information--about conflicts with others at work—may be described on your survey. You may be concerned others at your workplace could learn about the conflict situation from answering the survey.

The following steps will be taken to reduce risks. (1) Emotional risks: Our feedback letter at the end of the survey will provide a list of resources you can use immediately to help you deal with work conflicts more positively. (2) Social/reputational risk: The descriptive conflict incident data will only be viewed by two graduate student investigators at Saint Mary's University for analysis. Individual answers will never by seen by anyone at your organization and the Conflict Resolution staff will not view any survey answers (they will be shown only average patterns of answers added across groups of participants).

3. Are There Benefits Of Participating In This Study?   We cannot guarantee or promise that you will receive any benefits from this research. However, possible benefits include: You may gain information

about resources available at your workplace to help you cope better with work conflict. You may enjoy providing the organization with your feedback on Conflict Resolution services provided. Your participation may help your colleagues by helping REDACTED continue and develop more effective conflict resolution practices. Your participation may help researchers understand which employees are best suited for conflict resolution, and what are best practices in conflict resolution programs, to help create good programs at more workplaces around Canada.

4. Can My Participation In This Study End Early? Yes, you can stop the research at any time. Simply stop completing the survey and dispose of the questionnaire; your information provided up to that point would not be included in the study analysis. Then contact the PI, Dr. Debra Gilin Oore, at dgilin@smu.ca or (902) 491-6211 and request to be sent a link for claiming your gift card.

5. What Happens At The End Of The Study? It is anticipated that the results of this study will be published and or presented in scientific articles and conferences, website articles, trade journals about work conflict, and workshops for work conflict resolution practitioners. In any publication and/or presentation, information will be provided in grouped form only, such that you cannot be identified.

6. Will It Cost Me Anything? Participation in this study will not involve any additional costs to you. You will receive compensation worth $10 for completing the study questionnaire. You have the choice of receiving either an emailed (electronic) gift card (choose from Starbucks, Extreme Pita, Amazon.ca, or Indigo) or a regular gift card mailed to the address of your choice (choose from Subway, Tim Horton's, or Pizza Pizza).

Research Related Injury: If you become ill or injured as a direct result of participating in this study, necessary medical treatment will be available at no additional cost to you. Clicking to begin this survey does not in any way waive your legal rights nor release the Principal Investigator, the research staff, the study sponsor or involved institutions from their legal and professional responsibilities.

7. What About My Privacy and Confidentiality? Protecting your privacy is an important part of this study. Every effort to protect your privacy will be made. No identifying information (such as your name or job title) will be connected to your survey responses. If the results of this study are presented to the public, nobody will be able to tell that you were in the study. However, complete privacy cannot be guaranteed. For example, the investigator may be required by law to allow access to research records. If you or others provide names of or job titles/departments of any individuals on the survey, study staff would see that information.

Access to Records: Other people may need to look at your personal information to check that the information collected for the study is correct and to make sure the study followed the required laws and guidelines. These people might include: REDACTED and people working for or with the REDACTED because they oversee the ethical conduct of research studies at REDACTED.

Use of Your Study Information: Study data that will be used for the research purposes is explained in this consent form. Only the academic researchers will see your anonymous survey answers. We stress that staff of the Conflict Office at REDACTED will not have access to any individual survey responses and any names mentioned in the survey will be stripped from the survey. The research team will keep any personal information about you in a secure and confidential location for 7 years and then destroy it according to REDACTED policy. Your personal information will not be shared with others without your permission. When the results of this study are published, your identity will not be disclosed. The

investigator(s), study staff and the other people listed above will keep the information they see or receive about you confidential, to the extent permitted by applicable laws. Even though the risk of identifying you from the study data is very small, it can never be completely eliminated.

<u>Your Access to Records:</u> We will not be able to identify your survey responses once your survey is submitted as no identifying information will be stored with your anonymous responses—this means we cannot offer you access to your individual survey answers after survey completion.

8. Declaration of Financial Interest: The Social Sciences and Humanities Research Council is reimbursing the Principal Investigator and/or the Principal Investigator's institution to conduct this study. The amount of payment is sufficient to cover the costs of conducting the study.

9. What About Questions or Problems? For further information about the study call Dr. Debra Gilin Oore at 491-6211.

10. What Are My Rights? You have the right to receive all information that could help you make a decision about participating in this study. You also have the right to ask questions about this study and your rights as a research participant, and to have them answered to your satisfaction before you make any decision. You also have the right to ask questions and to receive answers throughout this study. If you have any questions about your rights as a research participant, contact the REDACTED at REDACTED. The next question will ask you if you agree (consent) to join this study. If the answer is "yes", you can then click "Yes, start survey" to complete the survey.

11. Consent: By clicking the link to begin the survey, I am indicating that I have reviewed all of the information in this consent form related to the survey called "Conflict Experiences at Work," and that I agree to take part in this study. I authorize access to the research study data as explained in this form.   I understand that I am free to withdraw at any time and my withdrawal will not affect my job.

Do you consent to participate in this study?

Please check "Yes" if you consent, for our records. If you do not consent, please do not complete the survey.

☐   Yes

☐   No

Please read this important information

Thank you for volunteering your time to take this survey. Interpersonal relationships have an important influence on our work lives. Conflicts can often arise, so understanding how we respond can help individuals and organizations improve workplaces for everyone.

This survey asks questions about yourself, a work conflict you may have experienced in the past year, and about your organization. These questions will help us to better understand under what circumstances, and for whom, certain kinds of conflict resolution methods work best.

Please remember: There are no right or wrong answers. Answer as honestly as possible. If you feel that a question does not apply to you, <u>please leave the answer blank.</u>

Appendix C: Feedback Form, Gift Card Selection, and Debrief Information

<u>Gift Card Form</u>

<u>Feedback:</u>

If you have any feedback regarding the survey, please feel free to include it here:

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<u>Gift cards:</u>

You may select one $10 gift card. You can choose to have a <u>regular gift card sent to you via</u> <u>Canada Post</u> (options are Subway, Tim Horton's, and Pizza Pizza), <u>OR</u> have an <u>electronic</u> <u>gift card emailed to you</u> (options are Starbucks, Indigo, Amazon, and Extreme Pita). You will need to provide either your home address or email address depending on your choice.

☐ **I would like a <u>regularly mailed</u> $10 gift card (sent via Canada Post) to:**

    ☐ Subway   ☐ Tim Horton's   ☐ Pizza Pizza

    <u>Please provide a full mailing address (gift card will be mailed via Canada Post)</u>

Name:	**<u>Conflict Survey Participant</u>**
Street # and name:	_____
Apt # (if applicable):	_____
City:	_____
Province:	_____
Postal Code:	_____

☐ **I would like to be emailed a $10 e-gift card to:**

    ☐ Starbucks   ☐ Indigo   ☐ Amazon   ☐ Extreme Pita

    Email address: _____

Information for Participants

Please note, you may keep this page of the survey, but please do not share it with anyone as the research is still ongoing.

Assurance of Confidentiality:
Because your home/email address can be linked to you, we, the researchers, have identifying information about you. When compensating survey respondents in anonymous studies, this is an unavoidable challenge. However, we uphold the promise of confidentiality to the highest possible standard in the following ways:

1) Your information will never be shared with REDACTED or any third party. No one at REDACTED (or elsewhere) will ever be informed that you have participated.

2) Further, when we receive your package, we will separate your Gift Card Form from your survey responses. This ensures that your conflict-related responses cannot be associated with your personal information, even by the researchers.

Study Purpose:
This study is investigating how effective it is for workplaces to offer conflict resolution programs and services to their employees. The data collected in this study will help to bring an understanding of whether alternative workplace conflict programs relate to improved employee efficacy or well-being.

Study Results:
If you are interested in the findings of this study please contact the Principal Investigator (see below) and the results will be sent to you after the analysis is complete. Or, you may access our project website for summaries of the results as they are available (http://www.smu.ca/centres-and-institutes/ppoc-research-initiatives.html).

Ethics Notice:
If you feel that you have experienced any negative or adverse events as a result of your participation, you may contact me at the information below, or contact Research Ethics at REDACTED.

Resources:
You may wish to access these if you experience difficulty related to conflict at work:

- REDACTED Workplace Conflict Resolution Program (education, coaching, mediation, and more): Conflict Transformation Coordinator REDACTED
- REDACTED or flyer at REDACTED
- REDACTED Employee and Family Assistance Program: REDACTED
- Mental Health Mobile Crisis Team: 1-888-429-8167
- Halifax Help Line (24-hour crisis support): 902-421-1118

Thank you again for your time and responses,

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Lab: McNally Main 315 (902) 491-6261
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