The Effects of Social and Technical Systems on

Workplace Victims' Cognitive Appraisals and Coping Styles:

A Multi-Organizational, Multilevel Study

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Dedication

To Marty, Tom, my parents, brother, grandmothers, and my extended family and friends

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I love you.

Abstract

Sociotechnical systems theory has suggested that it is the conditions of social and technical systems that determine the healthiness of organizational and individual outcomes (Cox & colleagues, 1993, 1996, 2000; Trist & colleagues, 1951, 1963). However, scholars in this area have not explored the transactional psychological stress processes that are posited as precursors to these (un)healthy outcomes. Using the amalgamation of sociotechnical systems and transactional psychological stress theories, this dissertation's purpose was to investigate how organizational social systems and technical systems influence direct care workers' transactional psychological stress processes (i.e., cognitive appraisals and coping styles) after being victimized (i.e., direct, indirect, and sexual harassment victimizations) by patients, residents, and/or these clients' families. Understanding how organizational and workgroup contexts aid in molding an individual's appraisals and subsequent behavior is critical to an organization and its people – especially after workplace victimizations occur. Knowledge of the beneficial and negative aspects of the systems' influence on these processes can assist organizations in determining to maintain current programs and policies or to revamp, redesign, and/or create new systems and structures. The social systems under examination were: workgroup leader-member exchange (LMX) climate level and strength, workgroup conflict, and workgroup knowledge sharing climates. The technical systems under examination were: organizational complexity, centralization (i.e., hierarchy of authority and participation in decision making) and formalization climates (note: complexity was later removed as a key climate variable when it was deemed inappropriate for organizational aggregation).

Utilizing multilevel methods with 509 participants in 97 workgroups in 43 long term care facilities (total response was 575 participants in 49 facilities), main and moderating contextual effects on victims' cognitive appraisals and coping styles were assessed. Main effects were found between social systems and victims' appraisals and coping styles; while technical systems were only found to have direct relationships with cognitive appraisals. Further, significant three-way cross-level effects among direct victimization, workgroup LMX climate level, and workgroup LMX climate strength were found predicting threat, centrality, challenge, and resource availability cognitive appraisals. At high levels of direct victimization, high LMX climate level, high LMX climate strength workgroups' appraisals appeared better off than other workgroup categories. This suggests that leadership may act as a resource in the workplace to buffer victimization situations – especially when relationships between leadership and the workgroup are positive and consistent. Evidence from this study also suggested that the presence of rules in the workplace may have a stabilizing effect on cognitions. No change in centrality appraisals was found across levels of victims' direct victimization reports, and no change in resource appraisals was found across levels of victims' sexual harassment encounters; while low formalization climates were shown to exacerbate these appraisals. Finally, a balance may be needed with the amount of participation in decision making allocated to organizational members. For example, results revealed that a high participation in decision making climate ameliorated avoidance and denial coping mechanisms when direct victimization was at high levels; however, the same climate exacerbated advocacy seeking when direct victimization was at high levels.

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Introduction

Workplace victimizations have become an increasing issue for most

organizations. Workplace victimization has been identified as the number one U.S.

corporate security concern (Pajak, 2000). Murder is one of the leading causes of death at

work (Bureau of Justice Statistics [BJS], 2001); it was ranked as third by the Bureau of

Labor Statistics (BLS) with 631 deaths in 2003 (BLS, 2004). In the U.S., 1.7 million

employees fall prey to nonfatal workplace assaults annually (BJS, 2001). The National

Institute of Occupational Safety and Health (NIOSH) has reported that nonfatal assaults

contribute to more than 876,000 lost working days each year, equating to over $16

million in unearned wages (NIOSH, 1997). In a more recent study, surveying a

representative sample of 2,508 employed U.S. workers, 41.4% indicated experiencing at

least one psychological aggressive event in the past year at work (representing

approximately 47 million U.S. employees) with 13% of the sample responding that

psychological aggression is targeted at them once a week (Schat, Frone, & Kelloway,

2006). In the same study, 6% reported being targeted physically at work at least once

during the previous year (representing almost 7 million employees) with 1.3% of the total

sample indicating that physical aggression happens to them at least once on a weekly

basis. Results from an International Labour Organization (ILO) survey have illustrated

the global prevalence of workplace violence and aggression (ILO, 1998).

Though estimates differ in the cost of workplace victimizations to U.S.

corporations, the exorbitant amounts reported are shocking and illustrative of an

employer's alarm. Annual U.S. cost estimates have ranged from $4.2 billion (National

Safe Workplace Institute, 1993) to $35.4 billion (Workplace Violence Research Institute,

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1995). In regards to employers' payments to healthcare providers and injured employees, workplace victimizations are estimated to cost U.S. employers over $1 million per day (Liberty Mutual, 2004). Even at a state level is this detrimental expense apparent; for example, in 1992, Minnesota had 344 nonfatal physical workplace assaults reported which were estimated to cost, in total, almost $5.9 million (1996 dollars; McGovern et al., 2000).

The above estimates indicate the frequency and seriousness of workplace victimizations for employers and employees. However, the aggregate statistics belie the severity of violence experienced by certain segments of the workforce. Health care, the largest and fastest growing industry in terms of U.S. employment (i.e., currently 8% of the U.S.'s workforce), is the most afflicted by workplace victimization (BLS, 2006). Approximately fifty-percent of all nonfatal workplace aggression occurs in nursing homes, hospitals, and social services environments, and approximately fifty percent of these incidents are instigated by healthcare recipients (BLS, 1994; NIOSH, 1996). Nurses, aides, orderlies, and attendants are most at risk compared to other occupational categories (BLS, 2001). In long term care environments, findings have also shown that direct care workers in these contexts experience more frequent attacks from patients and residents in the form of physical aggression (Gates, Fitzwater, & Meyer, 1999; Lusk, 1992; Menckel & Viitasra, 2002). This is not solely a U.S. issue. The World Health Organization reported that over half of healthcare personnel in developing and transitional nations have reported experiencing at least one encounter of aggression in the past year; in some countries, such as Portugal and South Africa, this figure has exceeded sixty percent (World Health Organization, 2008).

Despite these high frequencies, according to the Occupational Safety and Health Administration (OSHA, 2004), it is believed that workplace aggression and violence are underreported in healthcare environments due to employees' beliefs that victimizations are *part of the job*. Underreporting may also suggest that victims perceive a lack of organizational support and perceive they will be viewed by their employers as providing inadequate care or are poor performers (OSHA, 2004). To inform this dissertation, healthcare employee focus groups were conducted, and participants echoed these concerns. Thus, aggression and violence experienced by these workers and their attempts to appraise and cope with victimization as *just part of the job* require understanding. It is this dissertation's objective to discern how organizational and workgroup contexts affect long term care workers' cognitive appraisals and coping styles that occur after experiencing victimizations from patients/residents and/or patients/residents' families.

The Current Study

Grounded in sociotechnical systems theory, the research of Cox and colleagues and Trist and colleagues has focused on how the condition of organizational social and technical systems influences stressful individual and organizational outcomes (i.e., healthy or unhealthy systems lead to healthy or unhealthy outcomes; Trist & Bamforth, 1951; Trist et al., 1963; Cox & colleagues, 1992, 1996, 2000). Cox and colleagues (1996 & 2000) have attributed this linkage of systems and outcomes as *organizational healthiness*. However, this previous work has not explored the cognitive appraisal and coping processes (i.e., Lazarus and colleagues' transactional psychological stress processes; cf. Lazarus & Folkman, 1984) that occur between the relationships of social systems and outcomes and technical systems and outcomes. By integrating sociotechnical systems

theory and transactional psychological stress theory with workplace victimization, this thesis examines whether social and technical systems influence workplace victims' cognitive appraisals and coping behaviors that follow victimization experiences. If organizational contexts facilitate certain appraisals and coping behaviors, then it is beneficial to know what aspects of the organization promote these appraisals and behaviors. If contexts are not supportive, organizations may want to adapt current policy, structure, and systems.

This dissertation contributes to the literature in the following ways: First, I holistically investigate healthcare workers' primary (i.e., threat, challenge, and centrality/harm appraisals – what is at stake?) and secondary (i.e., resource availability appraisals – what can be done/what resources do I have?) appraisals and coping styles that result from workplace victimization incidents (i.e., instigated by patients and/or their family members). Lazarus and colleagues' transactional psychological stress theory describes how cognition and coping are precursors to stress induced affect and negative outcomes and are mediators within a stressor, stress, and strain theoretical model (Lazarus & Folkman, 1984).

The broader literature is limited given the fact that it has not explored primary and secondary appraisal dimensions (i.e., threat, challenge, centrality/harm, and resource availability appraisals) in a more holistic manner. Previous workplace aggression and abuse research has merely looked at facets of these dimensions as outcomes of aggression experiences (e.g., fear of future violence, anger, stress, and threat appraisals; cf. Barling, Rogers, & Kelloway, 2001; Glomb, 2002; Grandey, Dickter, & Sin, 2004; Malamut & Offermann, 2001; Rogers & Kelloway, 1997; Sinclair, Martin, & Croll, 2002) – instead

of looking at all transactional stress dimensions in total, preferably in one study. Additionally, with few exceptions in the workplace victimization literature (cf. Malamut & Offermann, 2001), appraisals and coping typically have not been assessed in one study. Hence, research is lacking in fully understanding the transactional stress processes (i.e., appraisals and coping) that arise from workplace victimization experiences. This dissertation explicitly models workplace victimization's impact on the transactional psychological stress processes and the social and technical systems that influence these processes. Specifically, the study investigates how organizational (i.e., organizational complexity, centralization, and formalization; the technical systems) and workgroup climates (i.e., workgroup LMX climate level and strength, conflict climate, and knowledge sharing climate; the social systems) impact primary and secondary appraisal dimensions, as well as Knapp, Faley, Ekeberg, & Dubois' (1997) mode of response/focus of response coping typology dimensions, that result from workplace victimization.

Secondly, to the author's knowledge, this is one of the first studies, if not the first study, in this nascent literature to explore from a multilevel viewpoint how workgroup and organizational contexts have a direct and cross-level impact on cognitive appraisals and coping styles related to workplace victimization. Most contextual studies have explored environmental influences at the individual level and have looked specifically at how context predicts victimization; that is, they examine associations between self-reported perceived contextual features and self-reported victimizations (e.g., Einarsen, Raknes, & Matthiesen, 1994; Grubb et al., 2005; Hershcovis et al., 2007). For the few studies that preliminarily investigated contextual influences on appraisals and coping, they have either been qualitative or have looked at the relationships between self-reported

contextual perceptions and individual appraisals and coping choices related specifically to sexual harassment or general work stressors (cf. Frederikson & Dewe, 1996; Handy, 2006; Malamut & Offermann, 2001). Though informative, this individual-level information does not assist furthered knowledge in understanding higher level organizational effects. Thus, in heavy contrast to previous scholarly research, this dissertation has investigated these contextual questions utilizing multilevel research design and methods with multiple long term care facilities to understand the higher-level contextual influences on cognitive appraisals and coping, as well as to make comparisons within firms and between firms.

This dissertation surveyed direct care employees from 49 long term care organizations (i.e., transitional and nursing homes) that are represented by two labor unions. Long term care facilities were selected given the high base rates of aggression and number of work days missed related to aggression exposure in these environments (NIOSH, 1996). Given the organizational structure of individuals nested in workgroups and nested in facilities, this dissertation has enabled me to determine workgroup and organizational contextual effects on the individual.

Workplace Victimization Conceptualization

Definition of Workplace Victimization

Prior to developing and discussing this dissertation's theoretical approaches, workplace victimization must be conceptualized and its components identified. The definition of workplace victimization is borrowed from Aquino and Lamertz's (2004) conceptualization and is considered "an employee's perceptions of having been the target, either momentarily or over time, of emotionally, psychologically, or physically

injurious actions by another organizational member with whom the target has an ongoing relation" (p. 1023). Given this definition, the target (i.e., the victim) must perceive the instigator's (i.e., the one inflicting harm on the target) actions as intentional and not accidental; however, the instigator's actions do not necessarily have to be triggered by purpose (cf. Aquino, Douglas, & Martinko, 2004; Aquino & Lamertz, 2004; Aquino & Thau, 2009).

Forms of Workplace Victimization

Though the more violent workplace victimizations tend to be more frequently reported in the media, Glomb, Steel, and Arvey (2002) assert that researchers also should include the "less extreme forms of aggressive behaviors" in their workplace aggression and violence conceptualization given their frequent occurrences (p. 229). In line with Glomb et al.'s (2002) assessment, Baron, Neuman, and Geddes (1999) revealed that the most common forms of "within organization" aggression are the non-physical psychological aggressive behaviors and not the more physical acts. Glomb (2002) determined that respondents more frequently report being a target or aggressor of less extreme psychological behaviors than actions such as throwing something or physically assaulting another. Greenberg and Barling (1999) found that at least "76 per cent of respondents admitted at least one incident of psychological aggression against a coworker, subordinate, and supervisor" (p. 905). Cortina, Magley, Williams, and Langhout (2001) reported that 39% of the US Eighth Circuit Court employees sampled typically experienced incivility in the past five years at least "once or twice;" 25% said "sometimes," while 6% answered "often" or "many times." In concert with these studies' frequency findings, Aquino and colleagues argued that workplace victimizations should

include both higher base rate aggressive and uncivil behaviors as well as more egregious forms of violence and aggression: "the concept of workplace victimization falls within the broad family of constructs that have been introduced in to the organizational psychology literature to describe harmful interpersonal behaviors at work" (Aquino, Douglas, & Martinko, 2004, p. 152).

Harmful workplace interpersonal behaviors that would be included in this *broad family of constructs* and that are included in this proposal are as follows: workplace violence and aggression (e.g., Neuman & Baron, 1998; Schat & Kelloway, 2003), workplace bullying/mobbing (e.g., Einarsen, Raknes, & Matthiesen, 1994), workplace incivility (e.g., Andersson & Pearson, 1999), and sexual harassment (e.g., Fitzgerald, Swan, & Magley, 1997). Other forms of workplace victimization have been proposed in the literature (e.g., abusive supervision, Tepper, 2000; counterproductive behavior, Spector & Fox, 2002; antisocial behavior, Giacalone & Greenberg, 1997; social undermining, Duffy, Ganster, & Pagon, 2002), and though they are not specifically discussed in this dissertation, many of the constructs' definitions and items overlap the constructs included. From a thorough review of the literature, it is posited that the constructs covered in this proposal are inclusive and provide the breadth that comprises workplace victimization and measures that focus on the victim's perceptions – actions including both high and low base rates. For the interested reader, a comprehensive list and discussion of other workplace victimization forms can be found in Snyder, Chen, Grubb, Roberts, Sauter, and Swanson (2005).

To complete the conceptualization of workplace victimization, I define the victimization elements that are measured in this dissertation. I begin with workplace

violence and aggression. In the literature, Schat and Kelloway (2003) have defined

workplace violence and aggression as *physical violence* and *psychological aggression.*

Physical violence is more extreme action that involves actual contact or threat of contact

(e.g., hitting or use of weapon) directed toward the target or that involves damage or

threat of damage to a target's property. Though less frequent in occurrence, it may have

the most detrimental, visible impact on individuals Further, Schat and Kelloway consider

aggression as *psychological aggression* that occurs most frequently among individuals

but is considered a lesser form of aggression such as yelling, swearing at another, or

making unnecessary or derogatory facial expressions or looks. Though these forms of

aggression are not as egregious, they also may have a detrimental impact given that they

may not be reported to management as frequently as the more obvious violent behaviors.

Thus, without organizational knowledge, individuals may not receive adequate support or

care. Both physical violence and psychological aggression have been shown to occur in

the workplace instigated against workers by both colleagues and clients (cf. Findorff,

McGovern, & Sinclair, 2005).

Bullying has a similar definition as workplace aggression: it is psychological in

nature. According to Einarsen, Raknes, and Matthiesen (1994), bullying occurs when "a

worker or supervisor is systematically mistreated and victimized by" someone else at

work "through repeated negative acts like insulting remarks and ridicule, verbal abuse,

offensive teasing, isolation, and social exclusion, or the constant degrading of one's work

and efforts" (p. 381). It also is considered to occur over time. Additionally, this repeated

victimization is considered one where victims are not likely or able to defend themselves

(cf. Einarsen et al., 1994). In professional settings, it may be difficult for one to defend

himself/herself against supervisor aggression or clients that are provided service (i.e., given customer service policy or emotional labor requirements).

Incivility is defined by Andersson and Pearson (1999) as "low intensity deviant behavior with ambiguous intent to harm the target, in violation, of workplace norms for mutual respect. Uncivil behaviors are characteristically rude and discourteous, displaying a lack of regard for others" (p. 457). Lim and Cortina (2005) suggested that incivility overlaps with psychological aggression; however, it defers in the instigator's intentions and the victim's perception of the instigator's intentions. As long as the "injurious objectives" are perceived by the victim, uncivil actions will be considered workplace victimization (Lim & Cortina, 2005, p. 484; cf. Aquino, Douglas, & Martinko, 2004).

Finally, the last element considered in this dissertations' conceptualization of workplace victimization is sexual harassment. Sexual harassment is defined as "unwanted sex-related behavior at work that is appraised by the recipient as offensive, exceeding her resources, or threatening her well-being" (Fitzgerald, Swan, & Magley, 1997, p. 15). Although this definition was developed to apply to women, the definition has been expanded to men (cf. Berdahl, Magley, & Waldo, 1996; Waldo, Berdahl, & Fitzgerald, 1998). Though a high percentage of women encounter sexual harassment in the workplace, it is estimated that a significant percentage of men have experienced sexual harassment at work (cf. Willness, Steel, & Lee, 2007).

Long Term Care Workers as Victims

In consideration of the instigators under study in this dissertation, one may argue that nursing direct care workers may question the intent of some long term care residents suffering from dementia or some other altered state or disability. Some workers may

consider the behaviors as "just part of the job." Nonetheless, interactions instigated by

residents suffering from dementia still elicit psychological, emotional, and physical harm.

Rodney (2000) determined that after caregivers were verbally and/or physically assaulted

by their dementia patients that the caregivers felt more threatened; these threat appraisals

led to more stressful outcomes. Though healthcare workers may perceive these

interactions as an aspect of their work tasks, these findings indicate that they also may

cognitively assess that they have been victimized given they are in fear of what may

occur in the future. Further, findings would suggest that residents and patients – as

customers – have greater social power than workers (Grandey & Brauburger, 2002);

residents and patients are not required to reciprocate the caregiver's positive affect and

may feel justified in targeting the caregiver. Given Minnesota's *Vulnerable Adult Act,*

Statute 626.557, the resident's power over the caregiver is perhaps strengthened (Office

of the Revisor of Statutes, State of Minnesota, 2008). The purpose of the Vulnerable

Adult Act is to protect the resident, yet, it does little to protect the worker. If negative

interactions perpetrated by the resident are perceived by the employer as preventable or

the fault of the caregiver (even if in reality the event was not preventable nor of any fault

of the worker), the caregiver's job is potentially in jeopardy. Employers have the right to

suspend and/or terminate the employee. Hence, not only do the incidents alone promote

emotional, psychological and/or physical pain, but the potential for job loss related to

negative incidents can additionally be injurious that elicit emotional and psychological

harm.

Workplace Victimizations' Antecedents and Outcomes

Findings in the scholarly literature have substantiated that workplace victimization is an important domain to investigate. As outlined below, the literature has done a thorough job investigating the predictors and consequences of workplace victimization. However, as mentioned above in the contribution statement, gaps exist in the workplace victimization literature regarding the features that can influence the experience of victimizations and its outcomes.

The following predictors of workplace victimizations (i.e., from victim and instigator reports) have been proposed and/or documented in the literature: (a) individual demographics, differences, and personality (e.g., age, gender, affect, alcoholism, aggressiveness, avoiding/obliging conflict, cognitive appraisals, Big Five personality characteristics, Type A behavior, locus of control, narcissism, and self-esteem; Aquino et al., 1999; Aquino, 2000; Aquino & Bradfield, 2000; Barling, 1996; Baron, Neuman, & Geddes, 1999; Bushman & Baumeister, 1998; Douglas & Martinko, 2001; Fox & Spector, 1999; Greenberg & Barling, 1999; Miller, Lynam, & Leukefeld, 2003; Neuman & Baron, 1998); (b) job characteristics (e.g., hierarchical status, role ambiguity and conflict, job insecurity, and workload; Aquino, 2000; Barling, 1996; Chen & Spector, 1992; Spector, 1997); (c) dyad and workgroup characteristics and relationships (e.g., presence of workgroup aggression and conflict, gender and race compositions and diversity considerations, social stratification and network positions; Baron and Neuman, 1996; Chen & Spector, 1992; Glomb, 2002; Glomb & Liao, 2003; Lamertz & Aquino, 2004); (d) leadership styles (e.g., charismatic leadership; Hepworth & Towler, 2004); and (e) organizational climates, environments, structures, and policy creation and

implementation (e.g., organizational change, aggression tolerant climates, organizational justice, and organizational complexity, centralization, and standardization; Baron & Neuman, 1998; Bennett & Robinson, 2000; Fox & Spector, 1999; Tobin, 2001).

In addition to the work on predictors of workplace victimization, a substantial literature discusses the individual and organizational consequences of being victimized. Both individual and organizational outcomes have been explored. Relationships have been suggested between victimization in the workplace and individual outcomes: (a) job and life dissatisfaction (e.g., Bowling & Beehr, 2006; Lapierre, Spector, & Leck, 2005; Willness et al., 2007); (b) decreased normative and affective organizational commitment (e.g., Bowling & Beehr, 2006; LeBlanc & Kelloway, 2002; Tepper, 2000; Willness et al., 2007); (c) decreased psychological and physical health (e.g., Bowling & Beehr, 2006; LeBlanc & Kelloway, 2002; Rogers & Kelloway, 1997; Schat & Kelloway, 2000; Willness et al., 2007); (d) cognitive distraction (e.g., Barling, 1996); (e) increased weapons at work (e.g., Budd, Arvey, & Lawless, 1996); (f) work-family conflict (e.g., Tepper, 2000); (g) self-efficacy (e.g., Duffy, Ganster, & Pagon, 2002), (h) job stress and burnout (e.g., Bowling & Beehr, 2006; Lim & Cortina, 2005; Wistanley & Whittington, 2002), and (i) emotion and mood (e.g., negative mood, Barling, Rogers, & Kelloway, 2001; distress, Tepper, 2000; fear, Rogers & Kelloway, 1997; anxiety, Wistanley & Whittington, 2002).

For organizational outcomes, a majority of the scholarly research consistently investigates the following constructs: turnover, job performance, absenteeism, withdrawal and counterproductive workplace behavior. Barling, Rogers, and Kelloway (2001) determined that workplace aggression indirectly predicts job neglect and

interpersonal job performance. Glomb (2002) found that almost one fourth of workplace victims indicate a decrease in their personal job performance. Barling (1996) suggested that individuals who experience or witness workplace victimization will likely spend more time away from work or utilize sick leave given fear of reoccurrence. Though the literature has limited results to support this assertion, Quine (2001) found that victims of bullying take more sick days than those who do not experience bullying. Instead of missing work, individuals may take more dramatic steps and permanently leave or may come to work and engage in behaviors that are hurtful to the employer or others. It has been found that individuals who have suffered sexual harassment in the workplace have a tendency to withdraw from their work (Willness et al., 2007), while individuals who experience social undermining may engage in counterproductive work behaviors (Duffy, Ganster, & Pagon, 2002). Further, an individual's desire to leave his employer or find a new occupation also has a positive relationship with experiencing workplace victimizations (e.g., Rogers & Kelloway, 1997; Tepper, 2000).

Contextual Research Related to Workplace Victimization

Given the significance of organizational social and technical contexts to this proposal, a review of the literature is provided that details the contextual influences on workplace victimization, as well as the preliminary research that has been conducted on the relationship between organizational context and the transactional stress processes (i.e., cognitive appraisals and coping styles). Doing so will illustrate the contribution of the present work and its placement within the existing literature base.

Contexts and Workplace Victimization

Research has been conducted to understand how organizational structure, ownership type, and size may influence victimization in the workplace. In his theoretical work, Tobin (2001) posited that organizational complexity, centralization, and formalization can lead to one acting aggressively at work. He has argued that organizational structural components can lead to one feeling alienated and having routinized experiences that may result in aggressive behaviors. Hence, workplace structures may foster employee victimization. Hoel, Einarsen, and Cooper (2003) discussed research that found more bureaucratic organizations fostering greater incidence of workplace victimization. However, according to Hoel et al., organizations that are smaller, more loosely structured, or not as mature may also influence victimization. More rigid firms may have difficulty being flexible to handle employee concerns on a case by case basis, while those organizations that are not as structured may not have the monitoring and regulation in place that discourages aggressive acts. Other studies also have looked at how firm ownership is influential, yet findings conflict. Einarsen and Skogstad (1996) suggested that private firms may elicit more aggressive behaviors, whereas Hoel and Salin (2003) have shown that public firms elicit more victimizations.

Research also has focused on the relationships between organizational structural characteristics and organizational frequency reports of workplace victimization, as well as between organizational policy and programs and victimizations reports (cf. Grubb, Roberts, Swanson, Burnfield, & Childress, 2005). Grubb et al. (2005) determined that bullying and incivility are reported as occurring more often in firms that are larger, are not-for-profit, are unionized, and/or have established work rules, norms, or formalized

policy and procedures (e.g., harassment training). Though these findings are interesting, they only suggest that these organizational mechanisms and institutional characteristics may be more effective in policing, monitoring, and enabling employee voice; hence, organizations may have bettered knowledge of victimizations within the workplace. Yet, it is equivocal whether these policies necessarily influence the frequency of victimization. Organizational structure, size, and ownership characteristics are obviously important elements in determining victimization occurrences at work. However, study limitations and contradictions in the literature illustrate the need for further study, and suggest further exploration between the link of organizational characteristics and workplace victimization at an organizational level.

Additional studies have looked at the role of leadership, organizational climate, and the context for work rules and tasks and their relationships with victimization (e.g., Einarsen, Raknes, & Matthiesen, 1994). In their meta-analysis, Hershcovis et al. (2007) determined that poor leadership and interpersonal injustice are stronger predictors of supervisor-targeted aggression compared to colleague-targeted aggression; these predictors actually have the strongest relationships with supervisor-targeted aggression (i.e., corrected correlations of .52 and .51 respectively). Aquino and Lamertz's (2004) have proposed that institutionalized and episodic victimizations are more likely to occur when organizational cultures emanate the acceptance and routinization of incivility, aggression, and coercive power. Aquino, Douglas, and Martinko (2004) found that environments that promote conflict have increased direct victimization, and "the relationship between overt expressions of anger and direct victimization was stronger for employees who perceived the organization's norms as being more oppositional than

among employees who perceived the organization's norms as less oppositional" (p. 158).

Further, reactions resulting from undermining exposure have been found to be strongest

when traces of undermining are found within the social context of the workgroup or

organization (Duffy, Ganster, Shaw, Johnson, & Pagon, 2006). Other studies have also

looked at tolerant climates, policy severity and change, and risk and punishment

perceptions and their relationships with deviant behaviors (Baron & Neuman, 1998;

Cortina et al., 2001; Fox & Spector, 1999; Kamp & Brooks, 1991; Willness, Steel, and

Lee, 2007). Similar to the organizational structural and characteristic literature, these

studies suggest that an organization's internal environment or climate may dictate

behavior and victimization. Further studies also are needed at multiple levels of analyses

that explore relationships between internal environments and workplace victimization

and the stress processes that ensue.

Contexts and Transactional Stress Processes

Though work has been completed to further understand the influences of

organizational characteristics and climates on workplace victimizations, little work has

been conducted in attempts to understand organizational influences on cognitive

appraisals and coping processes that result from workplace victimization. The discussion

that follows outlines research that has laid a limited foundation in understanding

contextual influences on the appraisal and coping processes. Like most of the contextual

work above, the research discussed below is relevant and can guide future research, but it

is unable to suggest organizational influence given that it looks at the influences of

individual level contextual perceptions on individual appraisals and coping. Again, the

current dissertation looks at contextual influences at a multilevel perspective across multiple organizations.

In regards to organizational contextual influences on the transactional stress processes (i.e., cognitive appraisals and coping styles) resulting from workplace victimization, to my knowledge, only two studies have approached this, yet these studies were conducted at the individual level of analysis which does not inform the literature on organizational influences on the individual. Focused within a sexual harassment domain in a military setting, Malamut and Offermann (2001) analyzed the relationships between the probability of utilizing specific coping strategies and the victim's perceptions of organizational tolerance, the relationships between coping strategies and power distance perceptions, as well as the mediating relationships of appraisals. Empirical relationships were found between specific coping strategies and individual perceptions of organizational tolerance and perceptions of power difference while individual appraisals also were found to mediate these relationships. In the second study, Handy (2006) compared three different firms in a small town in New Zealand (i.e., meat processing, a bank, and retail store) to determine how community context, organizational structure and culture influenced women to individually and collectively appraise and cope with sexual harassment. Utilizing interview based qualitative methodology, Handy (2006) observed that organizational structure and culture feasibly influence how the individual and collective appraise and cope with harassment; each firm was distinct in how collectively their employees behaved. For example, in the meat packing plant, women "were often socially isolated from other women and had few effective strategies for combating the verbal and physical harassment collectively perpetrated by male employees," whereas women in the

retail store and bank had more collective coping approaches given their close interactions that facilitated more social interaction and support (Handy, 2006, p. 1). However, women in the bank had more rigid policies to follow and frequent management interaction which impacted their appraisals and coping responses.

Although it does not investigate transactional stress processes in relation to workplace victimization, a third study should be mentioned that has explored the effects of context on appraisals and coping related to general work stress. This study looked at how individual perceptions of supportive psychological climates have potential to moderate the relationship between one's self-reports of appraisal and coping with a specific workplace stress report, as well as the direct influence of psychological climates on specific coping options (Frederikson & Dewe, 1996). Findings suggested that individual perceptions of organizational supportive climates moderate the relationship between appraisals and particular coping styles. Though findings were limited, these scholars found some relationships between psychological climate perceptions and certain coping responses.

The studies discussed above provide impetus for the current study. Further knowledge is needed to understand the influences of organizational context and structure on the components of the transactional stress process when workplace victimizations occur. Karasek (1979) suggested that organizational context has the potential to hinder an individual's reaction to stress and to hinder the control one has over his/her own and other's behaviors. Conversely, if the organization exudes a beneficial environment, individuals may appraise stressful events as less strenuous and may not necessarily suffer long-term consequences. Organizational environments have the potential to cultivate

individual appraisal and coping styles that ultimately lead to better outcomes. If we can

understand how organizations influence individual appraisal and coping, then the

potential exists to effectively design and structure firms, as well as implement rules and

regulations in firms that promote more favorable outcomes for workers and the firm.

Thus, it is imperative to understand the direct and cross-level effects of organizational

contexts and structures on victims' appraisals and coping styles. However, the previous

studies discussed were unable to appraise organizational level effects on the individual.

In order to enrich and expand current knowledge, it is vital to investigate these

relationships via multilevel methods across multiple organizations.

Transactional Psychological Stress Theory

Prior to hypotheses, one must first understand transactional psychological stress

theory. Adapted from Lazarus and Folkman's (1984) transactional stress theory and

incorporated into Pratt and Barling's (1988) traditional work stress framework, in the

model, the *stressor* is the environmental event – workplace victimization incidents; *stress*

is the affective response; and *strains* are the resulting outcomes (Figure 1). Cognitive

appraisals and coping styles are mediating processes in this stress model.

[INSERT FIGURE 1 ABOUT HERE]

Cognitive Appraisals

Lazaurus (1995) has theorized "a transaction between the person and the

environment is stressful only when it is evaluated by the person as a harm, threat or

challenge to that person's well-being" (p. 5; cf. Lazarus, 1966; Lazarus & Folkman,

1984, 1987). This transactional evaluation is considered the *appraisal* and is a process

that is not necessarily immediate or static (Lazarus, 1995). Lazarus and Folkman (1984)

stated that "how a person construes an event shapes the emotional and behavioral response" (p. 24).

The appraisal aspect of the process is composed mainly of two facets that occur interdependently: the primary and secondary appraisal (Lazarus & Folkman, 1984; Lazarus, 1995). *Primary appraisal* comprises the individual's assessment of what is at stake to the victim after the incident has occurred and if the incident has compromised one's well-being (Folkman, Lazarus, Gruen, & DeLongis, 1986b; Lazarus & Folkman, 1987; Smith & Lazarus, 1993). Stake assessment allows one to process the encounter's effect on the individual and on the individual's appearance to others (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986a). As Folkman et al. (1986b) posited, during stake assessment, "a range of personality characteristics including values, commitments, goals, and beliefs about oneself and the world helps to define stakes that the person identifies as having relevance to well-being in specific stressful transactions" (p. 572). For primary appraisals of stress, three distinct appraisals have been identified: centrality, threat, and challenge appraisals. With *centrality appraisals*, the individual will determine if incidents are relevant (i.e., important) or central to him/her. Centrality "refers to the perceived importance of an event for one's wellbeing" (Peacock & Wong, 1990, p.228; cf. Lazarus & Folkman, 1984). These appraisals typically are more immediate given that emotional or physical injury has already transpired; thus, if a stressful event is deemed harmful, harm or loss is inferred and is cognitively processed and/or emoted by the recipient shortly after the incident has occurred (Folkman & Lazarus, 1985).

Threat and challenge appraisals are closely aligned with centrality perceptions of events. For example, if an individual appraises a transpired event as harmful, it likely is

"fused with threat because every loss is also pregnant with negative implications for the future" (Lazarus & Folkman, 1984: p. 32-22). *Threat appraisals* relate to the individual's expectation of harm or loss to come; while *challenge appraisals* are expectations to excel and develop from the experience (Peacock & Wong, 1990). Both threat and challenge appraisals are based upon a person's perceptions of long-term consequences and outcomes. Research has shown that challenge and threat appraisals are not necessarily polar extremes of each other; both have been found to occur when individuals appraise their futures as ambiguous or do not know what the future holds (Folkman & Lazarus, 1985).

Secondary appraisal enables the individual to determine *resource availability* (i.e., resource presence and his/her control of resources) to improve well-being and to determine how resources can be engineered to facilitate and/or aid options for coping (Folkman & Lazarus, 1985). It is at this stage where individuals ask themselves; "what can be done, or what do I have available that enables me to discourage future personal injury and to advance bettered long-term outcomes?" Having resources available may help one to perceive control of their stressful situations. Perceptions of resources and control converge with stake determination that assist one to determine "whether the person-environment transaction is regarded as significant for well-being, and if so, whether it is primarily threatening (containing the possibility of harm or loss), or challenging (holding the possibility of master or benefits)" (Folkman et al., 1986a: p. 993).

Coping

Within the transactional stress process, coping follows and is theorized to be determined by the appraisal process (Lazarus & Folkman, 1984, 1987). Lazarus and colleagues define coping as "cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taking or exceeding the resources of the person" (Lazarus & Folkman, 1984: p.141). Folkman et al. (1986a) found that variability in coping is in part due to cognitive appraisals especially in stressful situations.

Lazarus and colleagues theoretically developed a dichotomous categorization for coping: emotion-focused or problem-focused coping (Folkman et al., 1986a). According to Carver, Sheier, and Weintraub (1989), "emotion-focused coping is aimed at reducing or managing the emotional distress" while "problem-focused coping is aimed at problem solving or doing something to alter the source of the stress" (p. 267; cf. Folkman et al., 1986a). Peacock, Wong, and Reker (1993) determined that appraisals and coping likely follow a congruent model and that threat appraisals are related to increased emotion-focused coping style (i.e., situations where one may have less control) while individuals that had challenge appraisals enlisted problem-focused coping styles more. Further, emotion-focused coping typically prevails if the person perceives he/she cannot change situations or believes that nothing can be done, while problem-focused coping dominates when the individual appraises that he/she can act to change situations (Folkman & Lazarus, 1980). Nonetheless, the literature has substantiated that individuals can utilize both coping options when confronted with stress. Folkman and Lazarus (1980) reported that in 98 percent of stressful incidents individuals indicated that they engaged in both problem and emotion-focused coping.

These empirical findings substantiate the theoretical assertions that coping mediates the relationship between appraisal and strain outcomes and that appraisals and coping are the mediating processes between stressor and strain outcomes in the transactional psychological stress theory (Folkman et al., 1986a, 1986b; Folkman & Lazarus, 1980, 1985, 1988; Lazarus & Folkman, 1984, 1987; Lazarus, 1995).

Transactional Psychological Stress Theory Applied to the Workplace

Though Lazarus and colleagues' work has made great strides in understanding stress and the processes that ensue, their specific collaborative work was never widely applied to the workplace. However, Dewe and colleagues have been instrumental in applying transactional stress theory to the workplace and furthering knowledge about workplace stress in terms of specific stressful incidents (Dewe & Guest, 1990; Dewe, 1991; Dewe, 1992; Dewe, 1993; Dewe & Ng, 1999). Dewe and colleagues have developed and adapted scales from Lazarus and colleagues to apply to the work setting, developing specific coping (Dewe & Guest, 1990) and appraisal scales (Dewe, 1993). Dewe (1991, 1992), Dewe and Ng (1999), and Troup and Dewe (2002) have reported findings among specific workplace stressful incidents, appraisals, and coping to support the transactional stress theory in the workplace – findings similar to those of Lazarus and colleagues in non-work samples.

Though Dewe and colleagues' research has focused mainly on transactional stress processes related to common workplace stressors, other research has been conducted focusing on the transactional stress theory associated to interpersonal relationship stressors (Anshel, Robertson, & Caputi, 1997; Larsson, Kempe, & Starrin, 1988; Rodney, 2000; Winstanley & Whittington, 2002; Wykes & Whittington, 1991). In their Swedish

police officer study, Larsson, Kempe, and Starrin (1988) determined that officers typically appraised their daily workplace interactions and duties more often as challenges than threatening events and engaged in more problem-focused than emotion-focused coping (note: the authors used affect as a proxy for appraisals). Threat appraisals were linked to poorer performance while challenge appraisals resulted in improved performance outcomes. Anshel, Robertson, and Caputi (1997) determined with Australian police officers that threat, centrality, and challenge appraisals were strongly related to stressful perceptions of police work; however, centrality and threat were related to one's appraisal that the situation is uncontrollable, whereas challenge appraisals were linked to one perceiving that he or she has control of the event. Further, in a study involving nurses' stressful responses to dementia patients' aggressive behaviors, threat appraisals were determined a significant predictor of high levels of stress, yet, contrary to the other two studies appraisals of resource availability (secondary appraisal) and coping styles appeared to have no relationships to stress (Rodney, 2000). This finding is especially relevant for this dissertation and provides further impetus for this current work. Though working with dementia patients was part of these workers' jobs, the caregivers still perceived the negative incidents as threatening – an indication that they had fear of future victimizations occurring. The work by Dewe and others illustrates that the transactional stress processes are applicable to the workplace and to an individual's perceptions of stressful events at work and ultimate coping choices and outcomes, and especially are relevant when studying work environments where interpersonal interactions are the norm and are required aspects or functions of the job.

Discerning an Adequate Coping Typology for Workplace Victimization

As discussed above, the literature has made apparent the importance of coping given the fact that "the way people deal with stress" affects well-being in the short and long-term (Skinner, Edge, Altman, & Sherwood, 2003, p. 216). Though scholars suggest that understanding coping is imperative, "little consensus can be found about how to conceptualize or measure" how one copes (Skinner et al., 2003, p. 216). For example, various scholars have investigated coping responses to job stress utilizing various scales, items, classifications, categorizations, and typologies (e.g., Ben-Zur & Yagil, 2005; Brown, Westbrook, & Challagalla, 2005; Burke, 1971; Dewe & Guest, 1990; Larsson, Kempe, & Starrin, 1988; Lapierre & Allen, 2006; Latack, 1986; Newton & Keenan, 1985). Dewe and Guest (1990) concurred with the confusion and complexity of the coping construct and state:

> "There is no consistent pattern emerging from these studies which might lead to an empirically based classification. What does emerge, however, is an indication that the range and complexity of coping behaviors is not captured by the dominant distinction between problem-focused and emotion-focused approaches. The variety of results need not be seen as surprising within the context of the transactional model, which emphasizes variations between individuals and between environments and in interaction effects" (pp. 137-138).

In their seminal paper, Skinner et al. (2003) investigated the structure of coping in the psychological literature looking at approximately 100 coping scales that included 400 unique categorizations of coping (i.e., subscales). From their assessment, they asserted that the literature has provided a multitude of lower order coping categories; yet, it is how researchers categorize the lower order into higher order classifications that is most difficult. They argued that *action categories* are best for higher order grouping given that coping styles are multidimensional (i.e., they are not necessarily based upon topological

characteristic or difference; for example, coping is not necessarily maladaptive or adaptive; passive or active) and may be enlisted by more than one function (i.e., a coping style has potential to fit both problem- and emotion-focus). Based upon action theory, action categories are not simply a single behavior or reaction. Each action category is a conglomeration of differing behaviors that will elicit the same outcome; however, the behavioral selection is dependent on the individual's attention, emotions and goals (Skinner et al., 2003; cf. Brandtstädter, 1998). For example, in the case of workplace victimization, an individual may choose to file a written complaint, report incidents to his/her supervisor, seek help from police enforcement, or simply ask a coworker to exchange assignments with them. These are all coping mechanisms that are advocacy seeking behaviors; though these lower order examples are different approaches, they each achieve a similar outcome. However, how the individual achieves seeking advocacy is dependent upon the context, the emotions elicited, the individual's mission and disposition.

From my review of the victimization literature, Knapp, Faley, Ekeberg, and DuBois (1997) have provided one theoretical typology that comes close to Skinner et al.'s directive for higher order action schemas for coping. Knapp et al. (1997) have developed a 2x2 multidimensional, action-oriented workplace sexual harassment coping typology that is adaptable for the current study's purposes and follows the suggestions by Skinner et al. This typology seems especially promising for the current study given that Knapp et al. (1997) theorize that individual and organizational characteristics (e.g., power differentials, group characteristics) are instrumental in determining coping responses. They have proposed that coping responses differ depending on two elements: the mode of

response and the focus of response. The focus of response are either responses focused on the self or focused on the instigator of the aggression, while the mode of response is related to the extent the individual receives support (i.e., self-response or supported response). Figure 2 illustrates the typology proposed.

The four quadrants created by this 2x2 typology are as follows: Avoidance/Denial (i.e., the self-response and self-focus – quadrant 1; e.g., behaviorally disengaging, blaming self, or finding humor in negative interactions), Social Coping (i.e., the supported response and self-focus – quadrant 2; e.g., seeking instrumental and emotional support), Confrontation/Negotiation (i.e., the self-response that is initiator focused – quadrant 3; e.g., confront the instigator or tell the instigator that his/her action is wrong), and Advocacy Seeking (i.e., the supported response and initiator focus – quadrant 4; e.g., utilize policy to investigate perpetrator or escalate situation to one's manager). Of the quadrants, quadrants 3 and 4 are considered the most effective in handling victimization (Knapp et al., 1997). As suggested by Skinner et al., each example behavior within each higher order action category is a part of an action schema; the coping mechanism utilized should result in similar outcomes as the others in the schema – no matter the behavior chosen from the higher order category. Studies have provided support for Knapp et al.'s typology and have enlisted statistical approaches to attribute the lower order coping options to specific hierarchical categories as promoted by Skinner et al. (e.g., Cortina & Wasti, 2005; Malamut & Offermann, 2001; Wasti & Cortina, 2002). Thus, the Knapp coping framework is adopted in the current work.

[INSERT FIGURE 2 ABOUT HERE]

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The Debate: General Contextual Factors Affecting Transactional Stress

A debate exists among scholars about environmental contexts influencing the transactional stress process. Though Lazarus and colleagues theorize that coping and affect result from the appraisal of the transaction between the individual and the environment and that appraisals and coping are mediating processes between stressors and strain outcomes, they do not believe that these processes can be influenced by the institution or general organizational contexts because they assert stress is an individual phenomenon (Lazarus & Folkman, 1984).

Several theorists disagree with this assumption. While they are in agreement that stress likely happens at the individual level, Brief and George (1995) argue that simply looking at the individual level does not provide a level of analysis that enables identification of "working conditions which are likely to adversely affect *most* workers exposed to them" (p. 16). They further argued that work provides a special context given its economic instrumentality, and that researchers should consider institutional and contextual effects on cognition, coping, and affect responses. According to Davis-Blake and Pfeffer (1989), organizations provide *strong situations* and are likely to influence individual behavior more strongly than individual differences. Zucker (1983) asserted that behaviors become institutionalized as employees' actions are consistent with organizational practices and expectations that are collectively understood as appropriate and acceptable.

Cooper, Dewe, and O'Driscoll (2001) proposed that primary and secondary appraisals are most likely influenced by features of the organization. They have stressed that "structure, culture, functions, and strategies of the organization may determine the meaning

of a particular encounter . . . this organizational impact may also extend to the availability of coping resources" (pp. 162-163). In his theoretical piece, Harris (1995) pondered if organizations dictate employee behavior and coping choices through structure and culture. Newton (1989) similarly stated that coping "might also be conditioned or be products of particular environmental contexts" (p. 454). In agreement, I also suggest that organizational contexts are stable over time and have potential to influence the transactional stress processes.

Sociotechnical Systems Theoretical Approach

Some of the first scholarly work investigating the notion that employers had systems in place that could impact individual and organizational outcomes came out of the Tavistock Institute. These seminal workplace studies help to inform this current dissertation. Trist and colleagues (Trist & Bamforth, 1951; Trist, Higgins, Murray, & Pollack, 1963) studied the United Kingdom's coal mining industry and the longwall method of retrieving coal which helped to originate *sociotechnical systems theory*. These scholars noticed that various coal mines utilized differing technical and social mechanisms to achieve similar goals (i.e., retrieving coal). Those workgroups that were allowed to self-regulate, to select with whom they wished to work, to problem-solve as a unit and to determine autonomously who would work what technical processes in the coal retrieving process (i.e., workgroup-based work) had greater productivity and decreased negative health and absenteeism outcomes, as well as had improved social interactions with management. With a more mechanized approach (i.e., the longwall system), management made decisions, more formally supervised the workers, and assigned workers to specialized roles. According to Pasmore and Khalsa (1993), "this lack of choice caused a psychological reaction against management and the technical

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system, which led to lower than expected productivity and higher levels of absenteeism, turnover, and accidents" (p. 553).

Emery and Trist (1981) emphasized that it is not friendship that facilitates workgroup productivity and coping with job stress. As the workgroup matures and becomes more integrated, group members understand their relatedness in the work role system via task performance and task interdependence contributions, as well as the existence of reciprocal support (i.e., collectively performing and sharing task stress) and contributions of other workgroup members (Emery & Trist, 1981). This ultimately leads each member to understand each individual's contribution and to appreciate the interdependencies of the workgroup (Emery & Trist, 1981). In harmony with Emery and Trist, Niepce and Molleman (1998) suggested that "in [sociotechnical systems], technology must be used in a way that supports rather than minimizes the role of human resources" (p. 270). Vice versa, Hackman (1981) asserted that "human relations programs that do not also deal with the nature and structure of the work itself are likely to be limited both in impact and in longevity" (p. 78). These assertions and findings have furthered the hypotheses that technical (e.g., technical tools and knowledge, processes and procedures, work tasks and systems) and social systems (e.g., organizational climate, workgroup and leadership relationships, norms) have implications for both individual and organizational outcomes.

Utilizing sociotechnical systems, Cox and colleagues have defined *organizational healthiness* as "the condition of its structure and function, management systems, and culture" (Cox and Thomson, 2000, p. 179; cf. Cox & Cox, 1996; Cox & Leiter, 1992). Similar to Trist and colleagues' focus on social and technical systems, Cox and others

have promoted the notion that the organization is comprised of two levels, the subjective and the objective:

> "The objective level of an organization is defined by its written policies, rules of operation and procedures, its communication channels and its physical interchanges of materials and products within and between its different environments. The subjective level of an organization is represented in people's understanding of it and attitudes towards it, both individual and collective" (Cox & Thomson, 2000, p. 184; cf. Cox & Howarth, 1990).

Cox and Thomson explicitly asserted that "the organization, and the context that it offers for work, shape the behaviour of its employees and can determine not only the quality of their working life but also their general health" (Cox & Thomson, 2000, p. 173). Understandably, it is important to study the relationships among organizational contextual features and outcomes; however, it is just as important (and perhaps more important) to investigate the effects of climates on stress processes (i.e., cognitive appraisals and coping) that are precursors to organizational and individual outcomes. Stated specifically, an organization's unhealthiness "may be the mechanism by which [employees] perceptions and cognitions about the organization are translated into unhealthy behaviour" (Cox & Thomson, 2000, p. 183).

Blending two theoretical perspectives, sociotechnical systems and transactional stress theory, I posit that technical and social systems (i.e., contextual elements) of the organization have implications on an individual's cognitive appraisals and coping styles related to workplace victimization. Cox and colleagues, as well as Trist and colleagues, have illustrated how sociotechnical climates can influence strains on the organization and individual. This work might be summarized by saying healthy (unhealthy) systems lead to healthy (unhealthy) outcomes. However, the previous work has not specified the

processes that occur between the relationships of subjective systems (i.e., social) and outcomes and objective systems (i.e., technical) and outcomes. Thus, by integrating transactional stress theory and sociotechnical systems, this study will examine whether social and technical systems have a direct and/or moderating influence on healthcare workers' cognitive appraisals and coping styles that are related to patient instigated workplace victimization.

In the following sections, I explore the effects of leadership and workgroup interactions, as well as organizational structural elements on these processes. The constructs investigated are workgroup leader-member exchange climate level and strength, workgroup conflict climate, and workgroup knowledge sharing climate (social systems), as well as organizational centralization, complexity, and formalization climates (technical systems). The selection of specific social and technical systems analyzed in this thesis was informed by the tenets of sociotechnical systems theory.

Social Systems

Leadership and Workgroup Relationships

The role of the leader has been identified as a critical factor of an organization's social system. Cox and colleagues have suggested that relationship systems between the leader and followers are instrumental in determining healthy organizational outcomes. Trist and colleagues observed that the level of management involvement in directing the workgroup should not interrupt the workgroup's ability to self manage and work autonomously – for this may influence the health of the employees and their work. Sociotechnical systems theory would argue that the role of the leader is to be a facilitator and that this coaching role should not interfere with workgroup interdependencies but aids

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in providing information and support when the workgroup needs guidance or has interruptions such as encountering workplace victimizations.

Similarly, Frost (2007) proposed a supportive function for leadership when he explored the notion that organizations have in place a figure, typically a leader, who helps employees who are dealing with *toxins* (i.e., stressful encounters and the stress processes that follow) and aids them in appraising and coping with stress, as well as their emoting and related behavior. Frost (2007) suggested that management likely takes the role of the *toxic handler* through listening to subordinates' issues, creating available space for subordinates to heal, easing the subordinates' pain, removing employees from stressful situations, and transforming the workers' pain (p. 63). Through implementing these tasks, the handler enables employees to deal with issues in a healthier manner, resulting in improved personal and organizational outcomes. Hence, it is possible that these supportive functions are fostered in environments where quality relationships exist between the leader and subordinates and where supportive climates are strongly entrenched in the workgroup. From the work of Lazarus and colleagues, toxins are potentially the negative appraisals of stressful encounters, maladaptive coping, and negative affect – which may lead to negative organizational and individual outcomes. At the individual level, leadership support has been found to mitigate the relationship between appraisals and coping resulting from workplace stressors (Frederikson & Dewe, 1996).

Supportive leadership relationships with subordinates potentially follow the main effect and/or moderating hypotheses of social support where support can directly impact stress and its precursors or can ameliorate/enhance these relationships (Cohen & Wills,

1985; House, 1981). The literature has substantiated how supervisor support has negative relationships with workplace burnout, stress related to work-family conflict, newcomer stressful adjustments, and other workplace strain (Fisher, 1985; Ganster, Fusilier, & Mayes, 1986; Lingard & Francis, 2006; Redman & Snape, 2006). In the current work, a supportive leadership climate is captured in the constructs of workgroup leader-member exchange (LMX) climate level and strength.

Workgroup Leader-Member Exchange Climate Level and Strength

Leader-member exchange (LMX) theory discusses how quality relationships between the subordinate and leader will develop (Graen & Uhl-Bien, 1995). Some individuals are considered the in-group by the leader which signifies that the leader, due to limited resources, selects subordinates to work closely with him/her, who receive assignments/responsibilities, autonomy, and decision-making that are highly involved and require high levels of trust, respect, and mutual obligation. In contrast, the out-group conducts routine tasks with little power and is not utilized as the in-group. The in-group employees have more quality relationships with the leader that are supportive while the out-group does not.

Research has supported the idea that differentiated relationships develop between the manager and his/her followers (e.g., Dansereau, Graen, & Haga, 1975; Graen, Liden, & Hoel, 1982). Further, LMX has been found to influence job satisfaction (Graen et al., 1982), performance (Scandura & Graen, 1984), organizational citizenship behavior (Podsakoff, MacKenzie, & Hui, 1993), and stress (Harris & Kacmar, 2006), as well as other constructs. In regards to stress specifically, the literature has found that those with low-quality LMX relationships endure increased stress (Harris & Kacmar, 2006;

Hochwarter, 2005; Peiro, Gonzalex-Roma, Ramos, & Zornoza, 1996; Van Dyne, Jehn, & Cummings, 2002). Lower stress experienced by those having improved relations with their leader is likely dependent on them having more decision making ability in their jobs (Townsend, Da Silva, Mueller, Curtin, & Tetrick, 2002). Hence, LMX quality likely fosters positive affect and negative relationships with role conflict, ambiguity, and other strains (Dunegan, Uhl-Bien, & Duchon, 2002; Newcombe & Ashkanasy, 2002; Tanner & Castleberry, 1990).

Though LMX theory and research originated as mainly exploring differentiated independent dyadic relationships between leadership and subordinates, scholars have suggested that research should investigate LMX as systems of interdependent relationships or network assemblies (Graen & Scandura, 1987; Graen & Uhl-Bien, 1995; Scandura, 1995). Leaders and workers do not interact in isolation, and employees do not necessarily conduct their work roles in isolation. Hence, it is these scholars' argument that relationships and roles are interconnected and that LMX research should reflect this group-level system of relationships. Further, dyadic studies do not provide any evidence as to how group-level LMX quality influences individual, group, and organizational outcomes. In addition, they do not consider the effects of leadership having high quality relationships with most of the workgroup compared to leadership having quality relationships with just a few members of the workgroup. While investigating LMX at the group level is at a nascent stage, studies have provided support that LMX quality may have a between-group effect (cf., Cogliser & Schriesheim, 2000; Hofmann, Morgeson, & Gerras, 2003). Recently, though not explicitly hypothesized, Liden et al. (2006) found that higher levels of group level LMX quality were positively related to improved

individual performance. Mayer (2004) found that high levels of LMX quality (i.e., group

LMX mean) were linked to beliefs that the organization provided just and equal

environments for all subordinates in the workgroup. Analysis from this dissertation also

suggests that LMX can be a shared phenomenon at the workgroup level with an average

$r_{wg(j)} = .76$.

These findings and theoretical arguments above are consistent with Trist and

colleagues' arguments that beneficial leadership systems can exist and can facilitate

workgroup self-regulation, autonomy, and decision-making which promote better and

less stressful outcomes. Theoretically, in sociotechnical systems, workgroup influence

allows workers to take responsibility of some managerial tasks and problem-solve

interdependently and independently of management (Manz, Keating, & Donnellon, 1990;

Niepce & Molleman, 1998). According to the sociotechnical systems theory's principal

of minimal critical specification (cf. Cherns, 1987), "as much autonomy as possible

should be given to employees to perform tasks according to their own knowledge and

experience" (Niepce & Molleman, 1998, p. 262). The more responsibilities, control, and

trust that leadership allocates to the workgroup likely signify that a greater average LMX

climate level exists for the workgroup. Even if some employees in the collective may

have a lower LMX dyadic relationship with leadership, if the group's aggregate equates a

greater quality LMX climate level, then, all individuals within the group should benefit.

This is consistent with Mayer's (2004) finding that high workgroup LMX climate level

was related to aggregate perceptions of justice.

In addition to the LMX facets of increased trust and environmental control,

support and mutual concern are also inherent in quality LMX climate levels. Wayne,

Shore, and Liden (1997) have confirmed a reciprocal relationship between LMX quality relationships and perceived organizational support; findings indicated a stronger influence on organizational support which proposes that LMX quality is critical in determining support perceptions. Hence, more robust LMX climates likely foster socio-emotional relationships between workgroup members and organizational entities (cf. Blau, 1964). This suggests that the leader can function as a source of social support to the workgroup. Sociotechnical systems theory, in fact, calls for leadership to be a resource. Leadership's principal responsibility is to coach the workgroup through times of ambiguity utilizing methods that are not intrusive to workgroup functioning and self-management (Manz et al., 1990; Manz, 1992; Morgeson, 2005; Niepce & Molleman, 1998). Leadership's feedback, information, and training should be congruent to the workgroup's mission, and aid in eliminating workplace variances or interruptions, "any unprogrammed event" – enabling the workgroup to control issues at the problem's core (Cherns, 1978, p. 65; 1987; Niepce & Molleman, 1998). Studies have found how supportive leadership predicts workplace psychological safety, as well as can aid workgroups to overcome barriers that have blocked discussion of previous workplace failures and problems (Cannon & Edmondson, 2001; Edmondson, 1999).

For employees in workgroups with high quality LMX climate levels, working in an atmosphere that engenders control and mastery of work and the environment and that fosters leadership as a supportive outlet provides workgroup members with internal and external resources to manage workplace victimizations when they occur. As suggested by Hobfoll's (2002) conservation of resources theory, with consistent and replenished resources in the work environment (e.g., mastery, control, and leadership support),

resources should be readily available to help workgroup members to overcome victimizations when they happen. As long as resources are replenished after previous utilization, resources should be readily available for future encounters – long after the initial victimization incident occurred. Thus, employees should appraise and cope in more proactive ways given this maintained level of resources (cf. Anshel, Robertson, & Caputi, 1997; Jex & Bliese, 1999). Alternatively, if resources do not exist (i.e., poor leadership climates) when victimizations occur, workgroup members will experience a deficiency of situational control and may succumb to harm that elicit negative behaviors and reactions in the immediate and likely even greater harm in the future if resources are not procured. Thus, this systems-level leadership climate, if positive for the workgroup, provides a protective resource shield for the individual and the aggregate that wards off potential negative outcomes from victimization experiences.

Therefore, working in a workgroup with a high average LMX quality level may facilitate a victim to generally perceive that not much is at stake or harmful when victimizations occur (centrality appraisal); that victimizations are not as threatening and that long term consequences may not exist (threat appraisal); and that his/her well-being is stable given that resources are available (resource availability appraisal). The victim may also view victimizations as vehicles from which to learn and benefit (challenge appraisal). Given past exposure and resiliency due to resources, the victim may be better prepared and have added control and mastery when confronting similar events in the future.

In positive LMX climates, the leader likely entrusts the workgroup to find coping solutions to victimizations interdependently via workgroup self-regulation with limited

leadership guidance (i.e., unless victimizations are of an egregious nature that warrants management's involvement). This facilitates potential proactive resolution with continued work and decreased downtime. With control and mastery, workgroup members may confront and negotiate with instigators to resolve matters in the moment that the incidents occur. Given that support is a function of quality LMX climate levels, workgroup members also may turn to their colleagues for social support and/or seek advocacy via their leadership and/or organization. Avoidance and denial coping likely is not a coping style that workgroup members generally select. According to sociotechnical systems theory, if self-regulating workgroups are not able to resolve the victimization issues, leadership will step in to coach the workgroup through the interruptions. If control, mastery, trust, and support exist in the environment and are available to the workgroup, these resources should engage victims in coping styles that encourage supported responses and that are instigator focused.

Given these theoretical assertions, I propose the following hypotheses (models of these hypotheses can be seen in Figures 3a and 3b):

Hypothesis 1: Workgroup LMX climate levels are positively related to individual (1a) challenge appraisals and (1b) perceptions of resource availability; while negatively related to individual (1c) threat and (1d) centrality appraisals.

Hypothesis 2: Workgroup LMX climate levels are positively related to individual coping styles that are (2a) social coping, (2b) confrontation and negotiation, and (2c) advocacy seeking; while negatively related to (2d) avoidance and denial.

[INSERT FIGURE 3a and 3b ABOUT HERE]

With the theoretical assertions outlined above, using similar arguments, it also could be hypothesized that LMX climates may moderate the relationships between victimizations and appraisals, as well as between victimizations and coping styles. For example, resources linked to quality LMX climates may enhance workgroup members' perceptions that resources are available and that benefits and learning can be achieved after victimizations are experienced; while ameliorating thoughts that victimizations are harmful and threatening to their well-being. Further, the presence of LMX climate resources also could impact coping where workgroup members' support, confrontation and negotiation, and advocacy seeking coping styles are enhanced to more resilient levels.

To discern these cross-level effects, the LMX literature would suggest that the interaction between the aggregate measure of LMX climate level and the amount of variation in group members' responses is the appropriate measure (cf. Henderson et al., 2008; Liden et al., 2006; Mayer, 2004). When aggregating individual LMX scores to the workgroup, the aggregate LMX climate level provides insight to the group's average relationship with leadership. Yet, this LMX climate level does not convey the strength of agreement among workgroup members' relationships with leadership (i.e., the amount of variation in workgroup members' scores of LMX quality). By interacting group level LMX quality and LMX differentiation, researchers can understand simultaneously the workgroup's LMX climate level and the strength of the workgroup's climate (note: workgroups that have lower LMX differentiation have a stronger LMX climate and vice versa).

Given LMX theory, it is important to understand the workgroup's LMX climate level and to understand the consistency or differentiation of the workgroups' responses. For example, a workgroup could have a high average LMX climate and also have high agreement within the workgroup (i.e., low variance among members) – indicating that most members, if not all, have positive dyadic relationships with leadership and that the group, as a whole, has a stronger relationship with leadership. Alternatively, some workgroups may have a low LMX climate level with high agreement (i.e., low variance) – indicating that the relationship between the workgroup and leadership generally is not in a good state.

In addition, a workgroup could have a high average LMX climate level but have low agreement (i.e., high variance among members) which indicates that a majority of workgroup members have a good dyadic relationship with leadership but a few members do not. Workgroups having low LMX climate levels also could have low agreement among individuals in the group. This is illustrative of a majority of group members having negative relationships with leadership – yet few members have positive ones. Though these four LMX differentiated workgroups can exist (i.e., the high LMX climate level, high LMX climate strength workgroup; the low LMX climate level, high LMX climate strength workgroup; the high LMX climate level, low LMX climate strength workgroup; and the low LMX climate level, low LMX climate strength workgroup), are differentiated workgroup quality levels influential on members' cognitions and behaviors – particularly when confronted with workplace victimization? Do these differences matter?

Organizational justice theory speaks to fairness in the workplace and asserts that a workgroup member utilizes his/her perceptions of how he/she is treated by others and his/her perceptions of how others in his/her referent group are treated to discern his/her status and position in the workgroup (Deutsch, 1975, 1985; Greenberg, 1987; Thibaut & Walker, 1975). When equality norms exist in the workgroup, leadership likely will treat all workgroup subordinates in an evenhanded and equal manner, and workgroup members will perceive this treatment as most equitable (Leventhal, 1980; Tyler, 1989). In these environments, neutral leaders equally allocate support, control, mastery, and trust resources to all group members. This fair and consistent leadership has been considered to prevail over other leadership styles given that group members desire fair distribution of resources across members (Deutsch, 1975, 1985; Hooper & Martin, 2008; Leventhal, 1980). This likely elicits group harmony which can facilitate improved individual cognitions and behaviors.

The above depicts the advantages of membership in a high LMX climate level, high LMX climate strength workgroup. However, the following compares workgroups with strong (i.e., consistent) low and high LMX climate levels and how membership in the specific workgroup category may impact individual behaviors. In strong LMX climate workgroups, no matter if they are low or high LMX quality, workgroup members will not necessarily engage in social comparison processes given that leadership is consistently treating everyone the same; there is little differentiation (Festinger, 1954; Graen & Uhl-Bien, 1995). Thus, if social comparison processes are not prompted to help guide one's cognitions and behaviors, social exchange considerations may take precedent in helping to decide the workgroup member's cognitions and appraisals (Blau, 1964;

Henderson et al., 2009). Members in workgroups that are high LMX climate level, high LMX climate strength notice the benefits of their positive socio-emotional relationship with their leadership. The workgroup achieves work goals and objectives and in return receives valued resources from their leadership. Workgroup members' cognitions and behaviors are likely influenced positively because of the fair reciprocation that is elicited by these just leader-workgroup networks.

However, members in workgroups that are low LMX climate level, high LMX climate strength are consistently being treated poorly by management. These individuals have no incentive to be good performers, and these relationships continue to deteriorate by negative social exchange (Liden et al., 2006). This can lead to cognitions and behaviors that are worse off and more negatively influenced. Van Breukelen, Konst, and Van Der Vlist (2002) determined that the relationship between LMX quality perceptions and work unit commitment was more strongly positive when little differentiation was perceived in the workgroup. Hence, in strong LMX climates, high LMX quality individuals had better work unit commitment than low LMX quality individuals. Comparing these two workgroup types, when confronted with high levels of workplace victimizations, the high LMX climate level, high LMX climate strength workgroup will be most resilient or better off than the low LMX climate level, high LMX climate strength workgroup in regards to cognitive appraisals and coping styles. This is due to the fact that high LMX climate level, high LMX climate strength workgroup members receive equal and consistent resources from their leadership – while the other group does not.

In contrast, when high LMX differentiation exists in workgroups, social comparison processes become more influential in regards to one's perceptions of resources received from the leader and his/her status in the group – which can influence individual cognitions and behaviors (Henderson, 2009). From information retrieved, high LMX members in low LMX climate level, low LMX climate strength workgroups discern that they have a greater relative advantage over other group members because there are very few high LMX individuals in the group (Erdogan & Liden, 2002; Liden et al., 2006). The very few high LMX members are receiving all of the leader's resources. Henderson et al. (2008) determined that subordinates with a relative advantage with leadership tended to have improved perceptions of psychological contract fulfillment with management.

The high LMX member's counterpart (i.e., the low LMX member) in the low LMX climate level, low LMX climate strength workgroup likely has behaviors that are roughly similar to the high LMX member. Liden et al. (2006) explained:

> "High LMX differentiation may be perceived by low LMX members as a sign of hope for eventually developing a high LMX relationship with the leader, as the leader is not forming low LMXs with everyone. For these individuals, high LMX differentiation suggests that the leader is not uniformly developing low quality relations, and that the leader is capable of, and interested in forming at least some high quality relationships" (p. 726).

This assertion has been supported; at low levels of individual and workgroup LMX climates, levels of individual and workgroup performance were enhanced as LMX differentiation increased from low to high levels (Liden et al., 2006). Similarly, even though resources are not received from leadership presently, low LMX members may behave more proactively – perhaps by engaging in emotional labor – to appear as a better

workgroup member in hopes of impressing leadership to improve their LMX quality status and resource receipt.

In comparison to the low LMX climate level workgroups with high differentiation (i.e., low LMX climate level, low LMX climate strength), the high LMX climate level workgroups with high differentiation (i.e., high LMX climate level, low LMX climate strength) likely have cognitive appraisals and behaviors that may not be as advantageous. When high LMX members in high LMX climate level, low LMX climate strength workgroups retrieve information from the environment, they may not perceive that they have a relative advantage because there are many group members that are closely aligned to the leader. In fact, this situation "may not necessarily create a clear role and status differentiation" for the high LMX member (Liden et al., 2006, p. 729) and perhaps may create a more competitive environment for the high LMX member in regards to receiving leadership resources.

For the low LMX members in high LMX climate level, low LMX climate strength workgroups, these individuals realize that only few members are low LMX and that they are outnumbered by high LMX members. Thus, high quality relations have already been allocated to specific workgroup members, and future opportunities to improve one's relationship with leadership are limited and likely may never occur. Hence, the more competitive environment for high LMX members and the lack of opportunity for low LMX members can negatively impact appraisals and behaviors because of the uncertainty of resource allocation and the lack of resource opportunities.

Given the comparison of the two differentiated workgroup categories, members in the low LMX climate level, low LMX climate strength workgroup may have more stable

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or improved cognitions and behaviors than the high LMX climate level, low LMX climate strength workgroup. This is due to the relative advantage in resource receipt and prospects of receiving future resources for members in the low LMX climate level, low LMX climate strength workgroup. However, as discussed earlier, the fair and consistent treatment that occurs in high LMX climate level, high LMX climate strength workgroups should prevail over these two differentiated leadership styles, as well as prevail over the low LMX climate level, high LMX climate strength workgroup. Cooperative leadership-workgroup networks have been shown to promote improved individual and workgroup-based behaviors (Greenberg, 1982; Hooper & Martin, 2008); while more competitive and equity driven environments can elicit counterproductive behaviors in workgroups (Pelled, 1996; Vecchio, 2005). As Hobfoll (2002) would suggest, it should be the workgroups that have consistent and replenished resources that have the better outcomes and are most resilient.

As discussed earlier, leadership may act as a "toxic handler" (Frost, 2007) where leadership takes on the burden of workplace victimization and provides resources to alleviate workgroup stress. Or, perhaps, as Ashforth, Kreiner, Clark, and Fugate (2007) have asserted, leadership may normalize "dirty work" (e.g., workgroup members experiencing patient/resident abuse) so that workgroup members act according to organizational goals – making the extraordinary seem ordinary (Ashforth & Kreiner, 2002). These type relationships may be more effective in cooperative environments, in which leadership-workgroup relations have the tendency to be more positive and strong. Because workgroup members are equitably treated and receive equal resources, they

perceive leadership to be more of a resource and may actually reach out to leadership more frequently for guidance and assistance when victimizations occur.

Coupling these arguments with the earlier main effect theoretical assertions, when workgroup LMX climate level, workgroup LMX climate strength, and victimization are simultaneously higher, the level of victims' challenge and resource availability appraisals should be higher for the high LMX climate level, high LMX climate strength workgroup compared to the other workgroup LMX categories. Further, high LMX climate level, high LMX climate strength workgroup victims' threat and harm appraisals should be lower than the other workgroup LMX categories (i.e., at high levels of victimization). For coping responses, high LMX climate level, high LMX climate strength workgroups will likely have supported responses and instigator focused responses (social, confrontation and negotiation, and advocacy seeking coping) at higher levels than the other workgroups, while having avoidance and denial experiences at lower levels (i.e., when victimizations occur at high levels).

Hypothesis 3: When workplace victimization is at a high level, individuals in high LMX climate level, high LMX climate strength workgroups experience levels of (3a) challenge and (3b) resource availability appraisals that are higher than the other workgroup LMX categories; while experiencing levels of (3c) threat and (3d) centrality appraisals that are lower than the other workgroups.

Hypothesis 4: When workplace victimization is at a high level, individuals in high LMX climate level, high LMX climate strength workgroups utilize (4a) social coping, (4b) confrontation and negotiation, and (4c) advocacy seeking at a higher level than the other

workgroup LMX categories; while utilizing (4d) avoidance and denial at a lower level than the other workgroups.

Workgroup Relationships

One of the main tenants of sociotechnical systems theory is that workgroup members are working interdependently while self-regulating via decision-making and self-management to achieve goals that elicit healthier outcomes for the individual and the organization. Thus, it is critical to investigate the effects of workgroup climate on cognitive appraisals and coping styles that result from workplace victimization. The literature has shown how workgroup interactions and dynamics can influence organizational outcomes and group member behaviors, perceptions, and well-being (e.g., De Dreu, 2007; De Dreu & Beersma, 2005; Dijkstra, van Dierendonck, & Evers, 2005; Galinksy & Kray, 2004). In this dissertation, I look specifically at how (1) workgroup conflict and (2) workgroup knowledge sharing climates have potential to influence individual appraisals and coping with workplace aggression.

Workgroup Conflict Climate

Though sociotechnical systems theory dictates that workgroup members should work interdependently on both the relationship and task levels to attain workgroup goals and objectives and accomplish healthy outcomes, conflicts still may arise that impede and/or shape individual and/or workgroup behaviors and perceptions. According to Boulding (1963), conflict occurs when individuals within a workgroup possess ideas and views that are not consistent with one another within the group. Over the past ten years, the management literature has focused on two constructs that impede quality, processes, and outcomes (e.g., De Dreu & Weingart, 2003; Duffy, Shaw, & Stark, 2000; Jehn, 1995;

Jehn & Mannix, 2001; Raver & Gelfand, 2005): workgroup task conflict and relationship conflict. Jehn (1995) has asserted that workgroup task conflict occurs "when there are disagreements among group members about the content of the tasks being performed, including differences in viewpoints, ideas, and opinions;" while workgroup relationship conflict happens "when there are interpersonal incompatibilities among group members, which typically include tension, animosity, and annoyance among members within a group" (p. 258).

De Dreu and Weingart's (2003) meta-analytic findings suggested that both task conflict and relationship conflict have negative implications for both workgroup member satisfaction and workgroup performance. Though important work has been completed regarding conflict and workgroup effectiveness, research investigating conflict's influence on stress and individual well-being is at a nascent stage. Some scholars have determined that workplace conflict perceptions can induce stress which leads to negative outcomes such as psychological and physical illness, exhaustion, turnover, absenteeism, and job satisfaction (Dijkstra, van Dierendonck, & Evers, 2005; Giebels & Janssen, 2005; Guerra, Martínez, Munduate, & Medina, 2005). If conflict perceptions have implications for stressful outcomes, then, conflict may have an influence on the precursors to stress – cognitive appraisals and coping style choices.

De Dreu and Beersma (2005) asserted that "employees working in groups . . . with relatively high levels of conflict around them may come to conclude that there is a lot wrong with the department, the people in it, and the jobs they are performing" (p. 111). With conflict present in the workplace, individuals may sense that social and other supports are not available or are depleting and question resources available to cope. Individuals may feel

as if they cannot do anything to control their environment and/or feel as if they do not have the ability to achieve certain levels of success (cf. Bandura, 1986; Cox, Kuk, & Leiter, 1993). If the employee feels isolated in his/her environment, his/her coping style likely is a response that is self-reliant and focused more so on the self than the instigator. For example, in conflict ridden environments, an individual likely appraises workplace victimization as threatening and central to the self (i.e., challenging appraisals may not occur because the individual does not perceive his/her environment as fostering benefits especially when encountering aggression). Further, an employee may not reach out to his/her colleague for support after workplace victimization has occurred; he/she may diffuse the workplace aggression victimization experience (e.g., by going to the local casino after work and gambling). This can further be explained utilizing Hobfoll's (1989) explanation of "loss-spiral" that one may succumb to when he/she lacks resources, lacks control, and/or perceives that he/she in unable to master a workplace event and/or task. Conflict and victimization usurp available resources that are accompanied by further resource depletion when the individual appraises his/her state of being as helpless and isolated which leads to further mental disengagement and denial that negative situations have occurred (cf. Dijkstra, van Dierendonck, & Evers, 2005). Dijkstra, van Dierendonck, and Evers (2005) empirically determined that conflict perceptions promote feelings of helplessness and mental withdrawal and ultimately other stressful outcomes. Hence, the following direct effect hypotheses are proposed:

Hypothesis 5: Workgroup conflict climates are positively related to individual (5a) threat and (5b) centrality appraisals; while negatively related to individual (5c) challenge appraisals and (5d) perceptions of resource availability.

Hypothesis 6: Workgroup conflict climates are positively related to (6a) avoidance and denial coping; while negatively related to individual coping styles that are (6b) social coping, (6c) confrontation and negotiation, and (6d) advocacy seeking.

Similar arguments as above can be used to hypothesize workgroup conflict climate's moderating effect between victimizations and appraisals and coping. Workplace victimization can compound with conflict emanating from the workplace that creates more hazardous and stressful individual outcomes. With a loss-spiral in place due to resources being usurped by workgroup conflict and victimization experiences, negative events can be perceived as more threatening and harmful; while resources and benefits will seem ameliorated. Without having appropriate resources to cope appropriately, avoidance and denial coping is likely heightened; while support, confrontation and negotiation, and advocacy seeking coping styles are ameliorated.

Hypothesis 7: At high levels of workplace victimization, high workgroup conflict climates enhance individual (7a) threat and (7b) centrality appraisals; while ameliorating (7c) challenge appraisals and (7d) perceptions of resource availability.

Hypothesis 8: At high levels of workplace victimization, high workgroup conflict climates enhance (8a) avoidance and denial coping; while ameliorating individual coping styles that are (8b) social coping, (8c) confrontation and negotiation, and (8d) advocacy seeking.

Workgroup Knowledge Sharing Climate

The notion of knowledge exchange is critical in sociotechnical systems theory especially in regards to workgroup member multifunctionality, as well as to the sociotechnical principle of incompletion (i.e., an outcome of minimal critical

specification) in which learning is never complete for the workgroup (Cherns, 1987;

Niepce & Molleman, 1998). Inherent in self-managing workgroups, individuals within

the workgroup should effectively and efficiently share information to inform decision-

making and assist one another to achieve objectives, as well as to potentially change

course if current processes are not fulfilling workgroup needs and objectives. According

to De Dreu (2007), "when individuals are held accountable for the decision-making

process, they engage in deep information processing and develop an accurate and

multifaceted understanding of the decision problem" (p. 630).

Referring to workgroup multifunctionality, Niepce and Molleman (1998) have

stated the following:

> Sociotechnical systems theory "does not require [workgroup] members to be able
> to perform all tasks. Rather, each member possesses a variety of skills relevant to
> the group task. Thus, a certain degree of specialism or work distribution can still
> exist in STS [workgroups]. In STS, having multiskilled workers means that
> [workgroup] members can assist each other" (pp. 265-266).

This statement suggests that individuals in the group may have differing knowledge

content and experiences. The individual understands his/her own knowledge possessed,

and he/she can so choose to share his/her knowledge by helping others with a task or

providing insight to others to remedy tough situations. When colleagues understand that

the particular person holds this knowledge set, then, the colleagues may solicit this

individual for the specified knowledge.

The literature has approached knowledge sharing in determining workgroup

effectiveness, workgroup learning, workgroup goal accomplishments, improved

evaluation, performance and viability (Austin, 2003; Campion, Medsker, & Higgs, 1993;

De Dreu, 2007; Ellis, 2006; Lewis, 2003, 2004; Lewis, Lange, & Gillis, 2005; Liang,

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Moreland, & Argote, 1995; Moreland, Argote, & Krishnan, 1996; Moreland & Myaskovsky, 2000; Wegner, 1987) with little investigation to how information sharing impacts stressful events and the stress process.

Knowledge sharing is likely beneficial for individuals who experience workplace victimization. A victim may know how to better respond to his/her victimization from information exchanged with colleagues in the past (social information processing theory; Salancik & Pfeffer, 1978), or the victim may know who to go to for direction provided that the victim witnessed this individual handle a similar case in the past (social learning theory; Bandura, 1977). Further, the knowledge exchange interactions also may be facilitated and sustained by social exchange mechanisms (Blau, 1964). If one individual provides helpful information to another, the receiver feels duty and obligation to provide helpful information in return, at some undesignated time in the future. These knowledge exchange relationships are sustained based on trust and based on the fact that individuals value the information that they receive.

Similarly, Ashforth and Kreiner (2002) have argued that shared mental models that are constructed by information exchange may be a means for workgroups to regulate and/or normalize undesirable emotions. Utilizing Zerubavel's (1991) theory of *mental fields*, Ashforth and Kreiner (2002) asserted that the workgroup collectively clusters stimuli that are similar and labels them accordingly which dictate behaviors (p. 221). Newcomers to the group acquire these mental fields via socialization and embracing group ideology (e.g., tenured employees demonstrate to the new hires norms to follow and expected behavior); "an individual's response to a stimulus may largely depend on how that stimulus has been classified by the group or organization" (Ashforth & Kreiner,

2002: p. 221). This notion of newcomer adoption is supported by Schneider's (1975; 1987; cf. Schneider, Goldstein, & Smith, 1995) attraction-selection-attrition (ASA) theoretical framework. Hackman (1981) has echoed this position: "groups and organizations construct social definitions of reality and are powerful in communicating that reality to their members" (p.84; cf. Hackman, 1976). Research has confirmed the notion that shared mental models within workgroups promotes effectiveness in regards to function and performance (e.g., Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000).

Thus, if knowledge sharing is present in a workgroup, the individual who experiences workplace victimization likely knows how to handle the situation and/or knows who to go to as a resource to resolve the situation. The victim perceives the aggression as less central to him/her given that he/she has access to knowledge to combat stressful outcomes, and the victim knows that similar events have happened to others. Due to workgroup members reciprocating knowledge, the victim may perceive the aggressive event as one that he/she can master or grow from the experience because the information to overcome the incident is readily available in the environment and/or role models are at hand to assist and guide. Thus, appraisals of harm or loss in the future likely may not occur given that information resources needed to remedy victimizations reside in the workgroup's shared mental models and are easily retrieved. Effective information exchange climates inherently foster perceptions that resources are available and that supported response coping styles are feasible; retrieving knowledge from others is considered a form of informational social support (cf. House, 1981). Social support via colleagues and/or the organization can facilitate one in helping himself/herself to get

through the aggressive event and/or can aid one in gaining organizational support to manage interactions with the instigator and/or to effectively prosecute the instigator's aggressive actions. Previous knowledge exchange that helped to formulate workgroup shared mental models also may facilitate individuals to act alone in response to the instigator. For example, it may be accepted practice in the workgroup to stand one's ground and confront the instigator about his/her wrong doing. An effective knowledge sharing climate is likely not associated with avoidance and denial coping given that workgroup members have the toolkits in place to handle victimizations.

Hypothesis 9: Workgroup knowledge sharing climates are positively related to individual (9a) challenge appraisals and (9b) perceptions of resource availability; while negatively related to individual (9c) threat and (9d) centrality appraisals.

Hypothesis 10: Workgroup knowledge sharing climates are positively related to individual coping styles that are (10a) social coping, (10b) confrontation and negotiation, and (10c) advocacy seeking; while negatively related to (10d) avoidance and denial.

Knowledge exchange also can combat cognitive overload that can result from being victimized. When workplace victimization occurs in environments that are already stressful, individuals may experience a cumulative stress effect that engenders cognitive load increases or cognitive overload (Carnevale & Probst, 1998). Given the overload of cognition, the employee may have difficulty appraising and coping with victimizations in ways one normally would with stressors considered less detrimental. With cognitive overload, individuals may not be able to effectively process information from the environment, emulate role models, and/or exchange information. As De Dreu and

Weingart (2003) have stated, "as conflict intensifies, the cognitive system shuts down, information processing is impeded, and [workgroup] performance is likely to suffer" (p. 742).

However, in environments that foster knowledge sharing climates among group and organizational members, cognitive overload may be alleviated and/or eliminated given that information exchange can provide individuals with resolution and mechanisms for prevention. In the absence of transactive memory systems, workplace stressors have been found to have a much more damaging effect on workgroup behaviors – suggesting that the presence of information sharing in groups may mitigate negative outcomes (Ellis, 2006). Zellmer-Bruhn (2003) found that negative interruptions can facilitate workgroup members to transfer information that develop new routines to handle interruptions or make change accordingly so that the particular interruption does not occur again. These new routines, developed from information sharing, have potential to counter an individual's cognitive overload and assist individuals with their cognitive appraisals and coping styles.

Like the assertions before, given effective knowledge sharing climates, role modeling and/or retrieving social information from the workgroup environment can moderate the relationship between victimizations and cognitions and coping. With information readily available, threat and centrality appraisals are ameliorated. Toolkits are in place to prevail. Given that knowledge sharing climates are successful, workgroup members' perceptions that resources are available are enhanced. Members are more likely to have a greater sense that victimizations are events from which to learn – especially when knowledge is easily retrieved and reciprocated and when workgroup

mental models exist and are expanded. Reports of utilizing social support, confrontation and negotiation, and advocacy seeking are likely enhanced. Knowledge sharing climates instruct the victim how to more effectively utilize confrontation, social support, and organizational advocacy. Additionally, avoidance and denial should be buffered given that workgroup members are more engaged to remedy victimizations when shared mental models and knowledge sharing are common in the workgroup. Given these theoretical assertions, the following moderating effect hypotheses are posited:

Hypothesis 11: At high levels of workplace victimizations, high workgroup knowledge sharing climates enhance individual (11a) challenge appraisals and (11b) perceptions of resource availability; while ameliorating individual (11c) threat and (11d) centrality appraisals.

Hypothesis 12: At high levels of workplace victimizations, high workgroup knowledge sharing climates enhance individual coping styles that are (12a) social coping, (12b) confrontation and negotiation, and (12c) advocacy seeking; while ameliorating (12d) avoidance and denial.

Technical Systems: Organizational Structure

In sociotechnical systems theory, organizational structure should be as important to the organization as the social systems, should coexist and share a somewhat similar standard with the organization's social systems, should be consistent with the goals of the organization and designed accordingly to elicit specific behavior from employees that reinforce these goals (Cherns, 1978, 1987). The definition of structure that I use in this dissertation is borrowed from Pasmore, Srivastva, and Sherwood (1978):

"the structure of an organization affects the premises on which decisions are made and the extent to which they can be programmed, thereby affecting the dependability of task performance, and, by changing the structure of an organization, the techniques of organizational decision making can be improved, with resulting increases in the dependability of interdependent task performance" (p.360).

The literature focuses on the following types of organizational structure: *complexity*, *centralization*, and *formalization* (Hage, 1969; Hage & Aiken, 1967, 1969; Hall, 1999; Pugh, Hickson, Hinings, & Turner, 1968; Schminke, Cropanzano, & Rupp, 2002; Tobin, 2001). These constructs help to determine the degree an organization is bureaucratic which "characterizes the technical structure of the organization" (Adler, 1999: p. 38). In essence, "the components of the technical structure of the organization – procedures, standards, structural configurations – are organizational technologies" (Adler, 1999: p. 41). Cummings (1978) concurred that these elements help derive the technological system (i.e., "the tools, techniques, and methods of doing that are employed in task accomplishment," p. 169). Hackman (1981) explained that these organizational structures can dictate certain behaviors and perceptions, and it is necessary to understand what behaviors are cultivated by a specific structure in order to fulfill healthy system design.

The notion that complexity, centralization, and formalization have influence on individual behavior is prominent within one perspective of institutional theory that specifies that structures are embedded or hardcoded within the organization (i.e., institutionalized – the organization as the institution); this embeddedness dictates, guides, and legitimates collective and individual actions that promotes organizational stability and routine (Zucker, 1983, 1987). Further these institutionalized mechanisms are "easily

transmitted to newcomers, are maintained over long periods of time without further justification or elaboration, and are highly resistant to change" (Zucker, 1987, p. 446; cf. Zucker, 1983).

Davis-Blake and Pfeffer (1989) concurred with assertions that structure is likely unwavering and impacts organizational behavior more so than individual differences – "organization settings are strong situations" (p. 387). Structure "shapes what goes on in an organization and is in turn shaped by what goes on in an organization . . . [it] does not yield total conformity, but it is intended to prevent random behavior" (Hall, 1999: p. 48). Further, Akerlof and Kranton (2003) have theorized that a firm can actually make investments that support existing structure (e.g., training investments) to change the identity of the individual. Ben-Ner and Putterman (1998) proposed that organizations may influence the individual's preferences which within this discussion may imply an impact on appraisals and coping preferences. Hall (1999) supports this notion: "in some situations even the emotions and feelings of the people involved can have an organizational basis" (p. 31). Ashforth and Kreiner (2002) proposed that organizations will attempt to normalize negative emotions associated to stressful workplace occurrences in attempts to engineer the "extraordinary seem ordinary" (p. 215). Given these theoretical assumptions and findings, the organizational structure may influence individuals to respond to workplace victimization in a particular manner. It is assumed that if the organization is healthy that organizational structures will induce behavior that is beneficial to the organization and the individual.

Complexity is defined as the specialization within a firm (Hage, 1969) and how work is subdivided – the extent that tasks are routine or nonroutine (Hall, 1999). Price

(1968) considered complexity "as the degree of knowledge required" to behave and engage in tasks according to the organization's requirements (p. 26). Frese, Teng, and Wijnen (1999) have asserted that "a high degree of complexity of work implies that one is able to use and further develop one's skills and that work is more challenging" (p. 1142).

Formalization concerns whether rules are utilized in the firm (Hage & Aiken, 1967), if rules and procedures are formally composed and recorded (Pugh et al., 1968), as well as if the rules are understood and followed by employees. In essence, formalization is the policy and procedure that guide and dictate employees' task accomplishments and work behaviors.

Centralization refers to "how power is distributed among social positions" (Hage & Aiken, 1967). There are two components to centralization: hierarchy of authority and participation in decision making; the former is related to the latitude of decision making individuals have with their work tasks while the latter refers to the influence of individuals on organizational policy and decision making.

Organizational Complexity

Organizational complexity has been associated with internal psychological states for employees that in turn may influence their cognitive appraisals and coping. For example, Kanungo (1979) has found that in highly routinized jobs employees have feelings of alienation. Alienation (i.e., the employee's perception that his/her job and social status in the organization have no meaning; Katz & Kahn, 1978) can lead to negative perceptions toward the job or employer (Tobin, 2001). Individuals who feel alienated in the job due to lack of complexity may feel as if the organization has deserted

them (Eisenberger, Rhoades, & Cameron, 1999). Feelings of desertion can lead one to feelings of helplessness, as well as lead one to forfeit any attempts to change his/her surroundings (Dijkstra, van Dierendonck, & Evers, 2005).

Feelings of alienation and helplessness are proposed as mechanisms by which complexity impacts appraisal and coping choices related to victimizations. With these feelings, victimized individuals may not perceive that they have assistance from anyone within the firm nor other resources to aid coping. Thus, they perceive victimization events as uncontrollable – ultimately, harmful and central to them. Further, victims may disengage from or deny that events have happened that they are unable to control (i.e., utilizing a self-response, self-focused coping mechanism).

Conversely, in situations where complexity is advocated and fulfilled (i.e., tasks are non-routine and ongoing learning occurs), individuals will be exposed to mastery experiences that positively influence their self-efficacy and beliefs that they control their situations; this can lead to coping choices that embrace enhanced well-being (cf. social cognitive theory, Bandura, 1986; Gist & Mitchell, 1992, Perrewé & Ganster, 1989). In complex organizations, employees are utilizing existing knowledge and gaining further knowledge through work accomplishments. According to Frese, Kring, Soose, and Zempel (1996, p. 42), "knowledge and skill also help to overcome barriers and setbacks, should they occur," such as workplace victimization.

Mastering tasks and obstacles leads to individuals perceiving that they are in command and have the ability for success with similar challenges in the future; thus, employees will appraise interruptions such as workplace victimization as a greater challenge – events from which they can learn and grow. Employees that perceive they are in control of

their situations will interpret workplace victimization incidents as less important without long term harmful effects (i.e., decreased threat and centrality appraisals) because they are able to remedy the negative events more immediately. In greater organizational complexity climates, tasks are less routine, and workgroup members' tasks are more tightly interdependent – leading to enhanced member interaction. Hence, the member can scan the work environment more easily to acquire information and resources to better resolve victimizations (i.e., resource availability appraisals). This close connection of workgroup members also may elicit enhanced social support coping. Environments that foster fully utilizing an existing knowledge set and further developing it can empower individuals, and through the development of their knowledge sets, it is possible that organizational members have learned better ways to confront/negotiate with instigators and to utilize organizational advocacy to mitigate victimization events. Avoidance and denial coping should not be an option for organizational members in complex organizations. Strong organizational complexity climates would likely ameliorate avoidance and denial when victimization is present given that knowledge generally is developed when workers are more engaged and proactive instead of avoiding incidents.

The following hypotheses capture organizational complexity climate's direct effects on appraisals and coping and organizational complexity climate's moderating effects on the relationship between victimizations and appraisals and coping. Please refer to Figure 3c and 3d for an illustrated view of the technical systems' hypotheses.

Hypothesis 13: Organizational complexity climates are positively related to individual (13a) challenge appraisals and (13b) perceptions of resource availability; while negatively related to individual (13c) threat and (13d) centrality appraisals.

Hypothesis 14: Organizational complexity climates are positively related to individual coping styles that are (14a) social coping, (14b) confrontation and negotiation, and (14c) advocacy seeking; while negatively related to (14d) avoidance and denial.

Hypothesis 15: At high levels of workplace victimizations, high organizational complexity climates enhance individual (15a) challenge appraisals and (15b) perceptions of resource availability; while ameliorating individual (15c) threat and (15d) centrality appraisals.

Hypothesis 16: At high levels of workplace victimizations, high organizational complexity climates enhance individual coping styles that are (16a) social coping, (16b) confrontation and negotiation, (16c) advocacy seeking; while ameliorating (16d) avoidance and denial.

[INSERT FIGURE 3c and 3d ABOUT HERE]

Organizational Formalization

Formalization has two components: (1) Rules exist and are written down, and (2) rules are understood by the individuals in the organization. Though sociotechnical systems theory discourages stringent rules and regulations (i.e., stringency allows little room for flexibility, Dekker & Barling, 1995), it does acknowledge the need for them in the workplace. Work rules can lead to less confusion in the workplace (Organ & Greene, 1981), and aid in improving worker satisfaction and lowering organizational conflict perceptions (Zeitz, 1983). Podsakoff, Williams, and Todor (1986) determined that organizational formalization provides job clarity that influences individuals to perceive their work and their

positions in the workplace as valued by others and their organizations, as well as individuals perceive less ambiguity and conflict in their work due to formalization.

Some scholars have asserted that lack of work rules and lack of standardization lead to counterproductive work behaviors (Perrow, 1986). Thus, policy should guide employee behavior and provide acceptable organizational standards that direct an employee in how to appropriately behave. When formalization is utilized by the organization, it is found positively related to employees' justice fairness perceptions and, thus, is an organizational structure that can create fair social interactions (Schminke et al., 2002). Organizational rules and regulation additionally keep its members in check, and the "consistency of rules . . . should enhance individuals' confidence that they are being treated in a fashion similar to others in equivalent situations" (Schminke et al., 2002, p. 885). Formalization has potential to create a norm of equality in the workplace which can lead to organizational social harmony (Deutsch, 1975).

In situations where individuals are victimized at work, the victim should appraise his/her victimization as less threatening and less stressful in organizations that have rules and policies documented and understood. With rules in place, the victim should not view the negative interaction as central as another would in organizations with no existing policy – as long as incidents are dealt with fairly and in a timely manner via policy enforcement. Long term consequences may not surface if the victim perceives that due process was carried out, and that the organizational formalization generally protects the individual. Therefore, organizational formalization will be negatively related to threat and centrality appraisals; while high organizational formalization may have a buffering effect between victimizations and these appraisals.

Established organizational rules and procedures can also facilitate one to appraise victimizations as if they have grown or developed from the experience. A victimized employee who utilized the proper channels of organizational policy to remedy his/her situation has learned and gained from the process and may feel that they have mastered or overcome the situation even if initially he/she was harmed. In the future, if the employee is victimized again, he/she may be able to more expeditiously handle the victimization given the prior experience and knowledge of the rules in place. This can allow for improved incident management. This dissertation further posits that organizational formalization is positively related to challenge appraisals and that more formalized organizations may enhance these challenge appraisals as victimizations move from low to high levels.

After experiencing the benefits of policy, organizational members may recognize that these tools are a greater resource than they previously perceived. Additionally, when formalization climates are deemed by employees as equitable (i.e., covering all members consistently and equally), a social exchange (Blau, 1964) dynamic may be created where workers are dedicated to following organizational rule, policy and practice because they view the formalization climate as a resource and because they feel more protected and fairly and consistently treated by the organization. Given these arguments, it is thought that formalization climates are directly related to resource availability appraisals and that resource appraisals are most resilient when victimizations and formalization are at high levels.

Further, coping styles have the potential of being influenced by organizational formalization climates. Formalization may help the victim to know how to remedy the situation by himself/herself given existing policy. Formalization has been shown to provide

job clarity; without it, employees may be confused in how to react when negative interactions occur (Podsakoff et al., 1986). Employee handbooks perhaps cover appropriate and inappropriate conduct when handling patients and residents that are aggressive. Without rules, the employee likely does not confront or negotiate due to the fact that he/she does not know if he/she is protected and/or supported by his/her organization. Therefore, organizational formalization likely is positively related to one confronting and negotiating with the instigator, and perhaps the utilization of this coping style is enhanced because the rules outline precise methods for all individuals to follow.

The manuals and documentation within the organization likely prescribe specific advocacy that is available to the victim. Further, victims may know how to escalate the issue to the appropriate person in the chain of command given this instruction. With policies in place and policies understood to function, the individual should recognize that organizational support is available. In environments where victimizations persist, advocacy seeking is likely enhanced as long as organizational members perceive that organizational formalization is equitable. Formalized organizations, thus, are positively related to one's advocacy seeking, and in more formalized organizations, perhaps advocacy seeking utilization is greatest in environments with high victimization.

Further, with formalized rules present, victims potentially are more vocal because grievance processes are established, or their positive justice perceptions encourage them to convey their victimization experiences to others (i.e., to educate or to educe support). Thus, the victim may communicate or vent to colleagues about the negative events which may initiate the colleagues to respond or reciprocate with social support or other aid. Formalized climates can beget equitable environments; equitable environments can beget social support

and collegial relationships in the organization (Greenberg, 1982; Stanne, Johnson, & Johnson, 1999). Hence, it is thought that formalization climates are positively associated with social coping and may enhance the relationship between victimizations and social support – especially when victimization levels are high.

Avoidance and denial coping is most likely not applied to victimization experiences given that rules are established that dictate work behavior and how to handle general workplace obstacles. Additionally, if a social exchange relationship exists between workers and the organization, employees are likely more engaged in following organizational rules to handle victimizations – especially if the rules are perceived as fair and are deemed as adequate. Organizational formalization climates will then be negatively related to avoidance and denial, and these climates will have a negating effect on avoidance and denial when victimizations and formalization climates are both high. Overall and as discussed, coping styles selected to deal with victimizations will likely be supported responses and/or instigator focused when organizational formalization climates are prevalent. The following hypotheses outline the main effect and moderating effect arguments above:

Hypothesis 17: Organizational formalization climates are positively related to individual (17a) challenge appraisals and (17b) perceptions of resource availability; while negatively related to individual (17c) threat and (17d) centrality appraisals.

Hypothesis 18: Organizational formalization climates are positively related to individual coping styles that are (18a) social coping, (18b) confrontation and negotiation, and (18c) advocacy seeking; while negatively related to (18d) avoidance and denial.

Hypothesis 19: At high levels of workplace victimizations, high organizational formalization climates enhance individual (19a) challenge appraisals and (19b) perceptions of resource availability; while ameliorating individual (19c) threat and (19d) centrality appraisals.

Hypothesis 20: At high levels of workplace victimizations, high organizational formalization climates enhance individual coping styles that are (20a) social coping, (20b) confrontation and negotiation, and (20c) advocacy seeking; while ameliorating (20d) avoidance and denial.

Organizational Centralization

Sociotechnical systems theory promotes a decentralized work environment where organizational members make critical decisions about their work with little influence from management. In concert with a decentralized climate, Cherns (1987) stated that workers should have power and authority of their resources and "authority to command them" (p. 157). As environments become more decentralized, workgroups begin to manage their own boundaries and the relationships developed by interfacing with other workgroups' boundaries (Cherns, 1978). This implies that workgroups have greater influence on organizational policy and decision making.

These principles are supported by research that have shown unhealthy (healthy) outcomes associated with centralization (decentralization). Aiken and Hage (1966) determined that workers felt ostracized in environments because workers were unable to participate and have a sense that they were contributing to the organization. Further, high levels of participation in decision making and lower levels of hierarchy of authority have been found to contribute to one's perceptions of fairness in the workplace (Schminke,

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Ambrose, & Cropanzano, 2000; Schminke et al., 2002). If workers are actively involved and infiltrated in decision-making aspects of the organization, they likely are more committed and perceive that their voice is being heard and acknowledged and that they have greater choice in their day-to-day tasks and environment given increased control (Lind, Kanfer, & Early, 1990; Schminke et al., 2000; Thibaut & Walker, 1975). Like complexity, one's experience of control and power in decision-making can lead one to have mastery appraisals that influence one's belief of future success and his/her ability to accomplish (Bandura, 1986). Thus, the employee's perceptions of organizational support and of his/her own ability are likely enhanced due to the influence he/she has in the organization and in his/her specific job.

This being said; the employee is more inclined to have greater challenge appraisals (i.e., compared to threat and centrality appraisals) after experiencing workplace victimizations in environments that are decentralized. The information retrieved from experiencing workplace victimization may inform future decision-making and how the target handles future interactions with the instigator and others in the future. This new knowledge has potential to empower the victim; thus, the victim may perceive that he/she has grown from the situation. More importantly, decision-makers have an organizational voice that enables them to communicate and inform the workplace about victimizations that occur. Instigators are labeled and identified which may deter future negative aggressive events. Further, decision-makers can influence policy and enforcement of policy that protect victims and punish instigators. Thus, the individual's influence within the organization may assuage his/her appraisals of future harm or loss resulting from victimization. Having authority in the organization and utilizing it may reduce how one interprets an event's

importance given that he/she has power to influence and at least partially determines organizational direction and change. Therefore, decentralized climates are positively related to challenge appraisals; while negatively related to threat and centrality appraisal. When high victimizations occur, decentralized climates enhance challenge appraisals; while ameliorating threat and centrality appraisals.

Allowing employees to make decisions enables them to appraise that resources are available to them to resolve workplace victimizations when they occur. With more power and influence in the workplace, organizational members may perceive that they can better access and utilize resources; hence, their perceptions of resources available are heightened. Employee engagement and involvement in task and organizational decisions may also solicit feelings that the organization is supportive. Additionally, those with greater decision-making authority likely are on work committees that make suggestions for and/or design additional resource tools. Hence, decentralized climates are believed to be positively associated with resource availability appraisals and may provide more resilient resource availability perceptions when victimizations are at high levels.

Organizations that involve their employees in decision-making believe in their employees to make good, sound decisions. Thus, organizations trust and empower their subordinates to initially find remedies for victimization incidents on their own or with other colleagues. One's first step to reconcile a patient's negative interaction may be to confront the patient immediately to circumvent escalation of the behavior. This is a self-supported coping behavior that is solely focused on the instigator, and is a coping mechanism an organizational decision-maker at first may utilize given his/her organizational authority. Therefore, organizational decentralized climates are predicted to be positively related to

confrontation and negotiation coping. In more decentralized climates, employees may perceive greater justice perceptions and greater control and mastery of their environment. As victimizations go from low to high levels, a workgroup member's confrontation and negotiation coping may be enhanced via these fairness, power and influence perceptions that are key aspects to more decentralized environments.

Though decentralization is prevalent in the environment, if victimizations are too egregious, then, the organization is present for escalation and adjudication. The organization does entrust its people to self-manage and make choices for the organization, but this does not mean that the organization is not at hand for supportive and advocacy purposes. Inherent in trusting and empowering employees is organizational support. Additionally, as climates become more decentralized, employees receive more voice and choice. This may trigger greater communication among colleagues because employees are more active and vocal in the organization and, thus, may be more active and vocal about the victimization incidents encountered. Social support and sharing experiences and best practices among colleagues are likely increased as voice and influence is enhanced. Thus, decentralized environments are positively linked to social coping and organizational advocacy seeking. Further, when victimizations and decentralized climates are at high levels, the utilization of social support and advocacy seeking are enhanced.

In centralized climates, avoidance and denial may be a natural choice for employees given that they have no power to assert any decision-making. However, in decentralized climates, via voice and choice, organizational members are expected to act or at least notify the organization that victimizations have occurred. Avoiding or escaping an incident may be viewed as an egregious reaction by the organization, and, in response, the organization could

potentially nullify organizational members' power. Thus, decentralized climates are negatively related to avoidance and denial coping. Further, avoidance and denial coping styles are ameliorated when decentralized climates and victimizations are mutually at higher levels. In aggregate, supported response coping styles and initiator focused coping styles should result after negative workplace incidents due to employees feeling more empowered and perceiving a fairer workplace in decentralized environments. Organizational decentralized climates should be most influential in enhancing the relationship between victimizations and supported and initiator focused coping responses; while avoidance and denial should be buffered.

The following hypotheses convey the direct and moderating effects proposed by the above suppositions:

Hypothesis 21: Organizational decentralized climates are *positively related to individual (21a) challenge appraisals and (21b) perceptions of resource availability; while negatively related to individual (21c) threat and (21d) centrality appraisals.*

Hypothesis 22: Organizational decentralized climates are positively related to individual coping styles that are (22a) social coping, (22b) confrontation and negotiation, and (22c) advocacy seeking; while negatively related to (22d) avoidance and denial.

Hypothesis 23: At high levels of workplace victimizations, high organizational decentralized climates enhance individual (23a) challenge appraisals and (23b) perceptions of resource availability; while ameliorating individual (23c) threat and (23d) centrality appraisals.

Hypothesis 24: At high levels of workplace victimizations, high organizational decentralized climates enhance coping styles that are (24a) social coping, (24b) confrontation and negotiation, and (24c) advocacy seeking; while ameliorating (24d) avoidance and denial.

To assist the reader, a full listing of posited hypotheses in the dissertation is provided in Table 1 below.

[INSERT TABLE 1 ABOUT HERE]

Method

Participants and Procedure

Participants were unionized healthcare direct care employees (i.e., RNs, LPNs, nursing aids, and other direct care personnel) from 49 metropolitan and suburban area Midwestern, United States, long term care healthcare facilities. Access to this population of healthcare employees was provided by two union organizations that represent these workers. Union A represents 1,002 healthcare employees in 22 facilities (average represented employees per facility = 45.5, SD = 24.2); while union B represents 1,636 healthcare employees in 28 facilities (average represented employees per facility = 60.4, SD = 43.4; note: both unions represented workers in one facility).

All unionized workers represented by these two unions were surveyed via an eight-page paper-pencil survey. The survey's contents began with asking participants about their organizational technical structure contexts and workgroup and leadership social relationships. These items were followed by asking the participant about the frequencies of victimizations experienced from their patients and residents in the past six months. Then, the healthcare employees were asked how they cognitively appraise and

generally cope with victimizations in the past six months. Finally, participants were asked background information about themselves and their workplace. Union A's members were mailed a survey to their homes. Union B's members' surveys were hand delivered to each member by a union representative and/or steward at the workplace.

257 completed surveys were mailed back by Union A members to the researcher via a business-reply envelope provided to the participants (25.7% response rate for Union A; average response rate per home = 30%, SD = 17); while 318 surveys were returned in a similar manner by Union B members (19.4% response rate for Union B; average response rate per home = 20%, SD = 12). After all surveys were received, a conversation was had with union leadership to discern if the return rate was reflective of internal union response. Union leadership noted that typical participation in internal union surveys regarding collective bargaining concerns was approximately 15-18% of their membership population. Thus, it was thought that given this response norm that the current response in this study was adequate.

Out of the 575 returned surveys (21.8% total response rate), 22 were eliminated from the sample due to employees no longer working for an employer, employees no longer working in a direct care role, or incomplete surveys or suspect responses (e.g., participant responding all 1's or all 5's across all items). Of the 553 participants remaining in the sample of 49 facilities, organizational group assignment ranged from 2 to 53 individuals (average per organization = 11.3, SD = 9.2). 2.5% were RNs; 18.3% were LPNs; 76.1% were nursing aids; and 3.1% were other direct care employees. Participants comprised a fairly homogenous group regarding race and gender: 84.8% Caucasian, 92.2% female. Average age was 42.3 years; while average employer tenure

was 9.5 years. Union A's member accounted for 44% of the sample with the remaining participants belonging to Union B.

Given the multilevel nature of the data collected, in the current dataset, individuals can be nested in shift workgroups, nested in organizations, as well as individuals nested in shifts, nested in organizations. Due to direct care employees working interdependently during a particular shift in the facilities surveyed and due to the fact that not all individuals in a facility work the same shift (i.e., days of week and times of day), it was appropriate to group employees by their typical work shift for each organization. Typical days worked in a week and times of day worked were asked of each participant to enable shift groupings (i.e., morning-afternoon, afternoon-evening, and evening-morning).

After classifying healthcare workers in their appropriate shift workgroup, 509 individuals were nested within 97 shift workgroups within 43 long term care facilities. 44 individuals did not provide enough information to be classified or were the only individual to respond that worked a particular shift in a particular organization. Hence, in analyses that involve aggregation to shift, 44 individuals were dropped (8% of the sample). Of the 509 that were identified within a work shift, approximately 57% were morning-afternoon, 31% afternoon-evening, and 12% evening-morning. Employees nested within the 97 shifts ranged from 2 to 18 individuals with a shift mean of 5.3 (SD = 3.4); 63% of the shift groupings had 4 or more individuals within a particular shift. From these 43 facilities, survey respondents ranged from 3 to 53 respondents; organization mean = 12.5 (SD = 9.1). 70% of the 43 facilities had 9 or more survey respondents; 91% had 4 or more.

In the reduced sample of 509, 2.8% were RNs; 18.9% were LPNs; 75.6% were nursing aids; and 2.8% were other direct care personnel. The average age was 42.3 years with an average tenure of 9.5 years. Again, race and gender were homogenous; Caucasians comprised 85.6% of the sample with females comprising 92.9%. Union A's members were 45% of the reduced sample with the remaining belonging to Union B. These demographics were very similar to those reported for the entire sample. Further details about multilevel aggregation considerations and analytical approaches are discussed in the sections below.

Measures

Workplace Victimization

As discussed earlier with the conceptualization of workplace victimization, many constructs and definitions of negative workplace interactions have been studied and determined in the literature which can be categorized underneath the larger umbrella of workplace victimization. Many of the items that reflect these multiple constructs have overlap; thus, many similarities exist across scales. Approaching these considerations, I looked to the literature to find a scale that would be a good foundation on which to build – a scale that includes many of the overlapping items but would allow me to add items from existing scales that are not included.

The scale utilized as the foundation for victimization items is Aquino, Grover, Bradfield, and Allen's (1999) workplace victimization scale. Through a literature review of on-the-job violence, these scholars developed 14 items which include aspects of incivility, bullying, social undermining, psychological and physical aggression in the workplace. Items from their scale are as follows: a) Said bad things or gossiped about me

to others, b) Sabotaged my work, c) Made a racial, religious, ethnic, or offensive slur against me, d) Cursed or swore at me, e) Did something to make me look bad, f) Lied to get me in trouble, g) Made an obscene comment or gesture in front of me, h) Threatened me with physical harm, i) Endangered me with their reckless behavior, j) Stole my possessions, k) Refused to talk to me, l) Embarrassed me in front of others, m) Threw an object at me, n) Hit, kicked, slapped, grabbed, shoved, pushed or punched me. Aquino and colleagues have utilized these items in two separate scales: direct victimization (i.e., actions directed toward the individual – such as *threw an object at me*) and indirect victimization (i.e., actions experienced indirectly or without necessarily being present – such as *gossiped about me to others* or *embarrassed me in front of others*). However, their usage of the 14-items that comprise the two separate scales has not been consistent across studies. The researchers have justified using different combinations of items in different studies given the specific study's item factor loadings discerned through exploratory factor analysis (cf. Aquino et al., 1999; Aquino & Bradfield, 2000; Aquino, Douglas, & Martinko, 2004). Hence, in the current dissertation's study, confirmatory factor analysis was utilized with the 14 items and additional items outlined below to discern appropriate items for scales that measure aspects of workplace victimization.

To supplement the above scale, I compared Aquino et al.'s (1999) 14 items to Glomb's (1998) Aggressive Experiences Scale (AES; i.e., based upon Buss' (1961) taxonomy which categorizes aggression in the following framework: direct and indirect, verbal and physical, and active and passive) and Rogers and Kelloway's (1997) physical violence scale. Further, in an earlier study using a different sample of unionized healthcare employees, I measured how often healthcare workers encountered behaviors

from their patients and patients' families in the past year. In this previous study, I used the AES and physical violence scales. From this work, I calculated the mean for each item to determine which behaviors from these scales had the highest base rates. From comparing items across scales to ensure that duplications did not occur and looking at items with highest base rates, I used five items from Glomb's (1998) AES (i.e., 4 psychological items and 1 physical item) and one item from Rogers and Kelloway's (1997) physical violence scale. For the psychological items, items that had a mean of 2.0 or higher were included. For physical items, items that had a mean of 1.5 or higher were included. Physical items generally have a lower base rate in most workplace contexts, and thus a lower mean was utilized (Schat, Frone, & Kelloway, 2006). The psychological items used were as follows: a) yelled or raised their voice at me, b) made angry gestures or used hostile body language, c) interrupted or "cut me off" while speaking, d) insulted, criticized me (including sarcasm). The physical items used are as follows: a) physically assaulted me, b) spat on or bit me (i.e., the one item from Rogers & Kelloway).

Further, the scales and items discussed above do not capture sexual harassment. In the previous study mentioned earlier, healthcare workers indicated experiencing sexual harassment behaviors from their patients and/or patients' families. In the previous study, seven items from the Cortina, Swan, Fitzgerald, and Waldo's (1998) Sexual Experiences Questionnaire (SEQ) – short scale were utilized that measure sexual coercion, gender harassment and unwanted sexual attention (cf. Fitzgerald, Gelfand, & Drasgow, 1995). Sexual coercion was not utilized in this dissertation because in the earlier study the mean was 1.0 for patient instigators which indicated that it never occurred. Again, I used the means of the previous study to discern item selection.

In the current study, four items measuring gender harassment and unwanted sexual attention were used (two items for each domain). One item that was utilized for gender harassment is a combination of two items from the short scale. These two items are quite similar and were justified as being combined because both ask about the instigator's verbal remarks (i.e., one refers to sexual remarks while the other refers to sexist remarks). This combined item is: *Made crude and offensive sexual or sexist remarks to me*. The second gender harassment item utilized is as follows: *Treated me "differently" because of my gender*. The two unwanted sexual attention items chosen were as follows: a) Gave me unwanted sexual attention; b) Touched me in a way that made me feel uncomfortable.

In total, the direct care staff was presented twenty-four victimization items and asked how often in the past six months that these behaviors were targeted toward them by their patients/residents and/or patients/residents' families. A 7-point Likert scale was used, 1-Never to 7-Daily.

Prior to confirmatory factor analysis (CFA), one item, *stole my possessions*, was dropped due to a low base rate with a mean of almost 1 – indicating it rarely, if ever happens. Additionally, the item, *refused to talk to me*, was eliminated given the possibility that the direct care worker may have a biased response given the physical state of many patients/residents. Thus, twenty-two items were utilized in the CFA. A series of CFAs were completed to verify the factor structure for workplace victimization. For each CFA analysis, McDonald and Ho (2002) have recommended assessing the root-mean square error of approximation (RMSEA) and the comparative fit index (CFI) to discern adequate model fit, as well as chi-square difference tests to detect improved model fit

when comparing models. Generally, RMSEA values at or below .08 (Browne & Cudeck, 1993) and CFI scores at or above .90 (Bentler & Bonnett, 1990) are illustrative of model fit. First, I analyzed the fit of a one-factor model using the twenty-two victimization items. Chi-square for the one-factor model was $\chi^2(209, N = 553) = 3351.8$, $p < .001$. The fit indices were RMSEA = .64 and CFI = .17. These results were indicative of poor fit.

Thus, I further analyzed the fit of a three-factor model: 1) direct victimization, 2) indirect victimization, 3) sexual harassment. Thirteen items were used for direct victimization: a) Made a racial, religious, etc. slur against me, b) Cursed of swore at me, c) Made an obscene comment or gesture in front of me, d) Threatened me with physical harm, e) Endangered me with reckless behavior, f) Threw an object at me, g) Hit, kicked, etc., h) Yelled or raised their voice at me, i) Made angry gestures or used hostile body language, j) Interrupted me or "cut me off," k) Insulted, criticized me, l) Physically assaulted me, and m) Spat on or bit me. Five items were used for indirect victimization: a) Said bad things or gossiped about me to other, b) Sabotaged my work, c) Did something to make me look bad, d) Lied to get me in trouble, and e) Embarrassed me in front of others. The third factor was sexual harassment and comprised the four sexual harassment items discussed above. Chi-square for the three-factor model was $\chi^2(206, N = 553) = 1819.4$, $p < .001$. The fit indices were RMSEA = .82 and CFI = .12. Though not meeting conventional levels of model fit, the indices illustrated improved fit compared to the one-factor model.

After reflecting more about the items, it was decided to drop two other items from the direct victimization factor: a) Made a racial, religious, etc. slur against me and b) Endangered me with reckless behavior. The first item was dropped due to the possibility

that the participant could perceive the item as indirect or direct victimization. Slurs can be directed toward the individual or said indirectly "under one's breath" or "behind one's back." The second item was eliminated given the concern that the participant may not be able to decipher the meaning of "reckless behavior." With these deletions, a three-factor model was run again. Chi-square for the three-factor model was χ^2(161, N = 553) = 792.2, p < .001. The fit indices were RMSEA = .92 and CFI = .08. The indices met conventional levels for adequate fit. The chi-square difference test between the one-factor and three-factor models also illustrated improved fit: χ^2(48, N = 553) = 2559.6, p < .001. Thus, the average of the eleven direct victimization items, the average of the five indirect victimization items, and the average of the four sexual harassment items were used to measure three domains of workplace victimization. Cronbach's alpha for the three scales are as follows: direct victimization (.94), indirect victimization (.85), and sexual harassment (.87).

It should be noted that a four factor model was also investigated. Direct victimization has items that can be classified as verbal direct and physical direct. Thus, a model including indirect victimization, verbal direct victimization, physical direct victimization, and sexual harassment factors was estimated. Results revealed that it was a better fit. However, the correlation between verbal direct and physical direct was .81. Additionally, I looked at the correlations of control and the dissertation's key variables with the verbal direct and physical direct victimization variables. Correlations were consistent and had the same directional relationships across these two variables. It was decided to maintain Aquino and colleagues operationalization of direct victimization (i.e., the combination of physical and verbal direct victimization items).

Transactional Stress Processes

Cognitive Appraisals.

I used the Roesch and Rowley (2005) stress appraisal measure (adapted from Peacock & Wong, 1990). This multidimensional scale measures challenge, threat, and centrality appraisals (primary appraisal), as well as appraisals of resource availability (i.e., that enables situational controllability; secondary appraisal). Twenty-four items comprised the original scale; however, through exploratory factor analysis and CFA, Roesch and Rowley utilized 19 items. Items from these scales are as follows: When I experience negative workplace interactions, generally: a) I have the ability to overcome these interactions, b) I can positively attack these interactions, c) I have what it takes to beat these interactions, d) I am eager to tackle problems, e) I feel I can become stronger, f) I have the skills necessary to overcome these interactions, g) I am excited about the potential outcomes (7 challenge items); a) I feel totally helpless, b) These interactions impact me greatly, c) I perceive these interactions as threatening, d) I feel anxious, e) These interaction are beyond my control (5 threat items); a) These interactions have serious implications for my life, b) There are long-term consequences as a result of these interactions, d) The outcomes of these interactions are negative, e) These interactions have a negative impact on me (4 centrality items); a) There is someone I can turn to for help, b) There is help available to me, c) No one has the power to over these interactions (3 resource availability items). In this study, the resource availability item, "when I experience negative workplace interactions, no one has power to overcome these interactions," may sound foreign to a participant given the double negative aspect of the item. Thus, following the wording of an original item from the Peacock and Wong scale,

I reworded the double negative resource availability item as follows: *I have the resources available to me to overcome these interactions*. These nineteen items are on a five point Likert-type scale; 1 – Not at all, 5 – A great amount.

To ensure that the four dimensions of appraisal are unique, I compared a one-factor CFA including all items with a four-factor CFA. The one-factor CFA resulted in the following: χ^2(152, N = 529) = 2167.1, p < .001 with fit indices of RMSEA = .16 and CFI = .58. Given the conventional standards, the four-factor CFA was definitely a better fit with χ^2(146, N = 529) = 552.8, p < .001; RMSEA = .07 and CFI = .92. The chi-square difference test also revealed the four-factor model as a better fit: χ^2(6, N = 529) = 1614.3, p < .001.

With these results, reliability coefficients were determined for the four dimensions: challenge appraisal (.85); threat appraisal (.79); centrality appraisal (.84); and resource availability appraisal (.87).

Coping Styles.

I first assessed empirical studies that have used Knapp et al.'s coping typology. In their complete-link cluster analysis utilizing two separate working-class Anglo and Hispanic U.S. based samples, Wasti and Cortina (2002) determined fourteen items that formed cluster structures that fit the typology dimensions. These items were adapted by Wasti and Cortina from Fitzgerald's (1990*) Coping with Harassment Questionnaire*. Of the 14-items, I utilized thirteen of their items; keeping twelve from the original scale, rewording one item, and dropping an item. From the advocacy seeking dimension, I dropped the item *file a grievance*. My reasoning was due to union leadership stating that they have not filed a grievance related to workplace victimization in the past ten years.

Further, grievances cannot be filed against vulnerable adults. I also reworded the confrontation and negotiations item, *ask the instigator to leave me alone.* Wasti and Cortina (2002) mentioned that the items were not clearly confrontational, and in their study had labeled the items as being within a *negotiations* dimension. However, to stay true to theory, I searched the literature and found a one-item measure that Malamut and Offermann (2001) used – *I asked or told the person to stop (orally or in writing)* – which they argued as being in the *confrontation* domain. Both items are very similar; however, I perceived the latter more so a confrontation item. This item is indicated in bold below – alongside the other item for this dimension that is a negotiation item.

The following phrase, "When I experience a negative workplace interaction, I . . .," preceded the following items: a) Tell myself that it is not really important, b) try to forget it, c) try to stay away from the instigator, d) stay out of the instigator's way, and e) avoid being alone with the instigator (5 avoidance and denial coping items); f) try to let the instigator know that I do not like what he/she is doing and g) **ask or tell the instigator to stop (orally or in writing)** (2 confrontation and negotiation coping items); h) talk about it with someone I trust, i) talk to someone for understanding and support, and j) ask someone for advice (3 social coping items); k) talk with a supervisor, manager, or union representative, l) report the instigator, and m) make a formal complaint (3 advocacy seeking coping items).

The participant assessed the frequency that he/she generally used the various coping styles in the past six months when dealing with workplace victimizations instigated by patients/residents or their family members. To aid the participant, I changed the initial four point scale to a Likert 5-point that goes from 1 – I don't do this at all., 2 –

I do this a little bit, 3 – I do this a medium amount, 4 – I do this fairly often, 5 – I do this a lot.

To ensure that all four dimensions held to Knapp et al.'s theoretical arguments, I conducted a CFA to discern if a four-factor model was better/worse fit than a one-factor model. The one-factor CFA resulted the following: $\chi^2(65, N = 529) = 1052.5$, p < .001 with fit indices of RMSEA = .17 and CFI = .60. Given the conventional standards, the four-factor CFA was definitely a better fit with $\chi^2(58, N = 529) = 270.2$, p < .001; RMSEA = .08 and CFI = .91. The chi-square difference test also revealed the four-factor model as a better fit: $\chi^2(7, N = 529) = 782.3$, p < .001.

Reliability estimates for the four coping dimensions are as follows: Avoidance and Denial (.72); Confrontation and Negotiation (.70; Spearman Brown reliability); Social Coping (.84); Advocacy Seeking (.77).

Contextual Variables: Social Systems

Leadership Relationship with the Workgroup: LMX.

Graen and Ulh-Bien (1995) have recommended the LMX 7 as the preferred measure. Example items for the seven item measure are as follows: Indicate your level of agreement to the followings statements about your leader: a) I usually know where I stand with my manager; b) My manager has enough confidence in me that he or she would defend and justify my decisions if I was not present to do so; c) My working relationship with my manager is effective. All items were on a five-point Likert, 1 – strongly disagree to 5 – strongly agree. The reliability coefficient for LMX was .94.

Workgroup LMX climate level was created by aggregating the individual-level LMX perceptions to create a mean score for each shift workgroup. Theoretically different

quality relationships exist between various workgroup members and leadership; therefore, group agreement is not necessarily a requirement for aggregation (Ford & Seers, 2006 – these researchers promoted using an additive model, Chan, 1998). Nonetheless, I have calculated intraclass correlation coefficients and interrater agreement indices to understand the measures' between-/within-group variance and agreement properties as described below in the *Multilevel Considerations* section.

Workgroup LMX climate strength was calculated by taking the standard deviation of the individual-level workgroup LMX climate level scores of the direct care workers in a specific shift workgroup (i.e., the dispersion model: "meaning . . . is in the dispersion or variance among lower level units" Chan, 1998: p. 236). Thus, each shift workgroup had its own value for workgroup LMX climate strength. Each shift workgroup's LMX climate strength value was multiplied by *a negative one* (-1) so that interpretation would be easier; hence, workgroup's with less variance would be interpreted as having a stronger LMX climate; while workgroup's with greater variance would be interpreted has having weaker climates. In the literature, this operationalization and statistical technique have been justified and substantiated (cf. Roberson, Sturman, & Simons, 2007; Schneider, Salvaggio, & Subirats, 2002). Aggregation justification for this construct and the other contextual variables can be found below in the *Multilevel Considerations* section.

Workgroup Relationships: Workgroup Conflict.

Items from Jehn's (1995) intragroup conflict scale are utilized. Three items compose the relationship conflict scale while three items compose the task conflict scale. Participants are asked how much or how often does conflict occur in their workgroup

(referent-shift consensus modeling, Chan, 1998). Items for each are as follows: a) how much relationship tension is there in your workgroup; b) how much emotional conflict is there in your workgroup; c) how often do people get angry while working (relationship conflict); a) how much conflict of ideas is there in your workgroup; b) how often do you have disagreements with the members of your workgroup about the tasks you are working on; c) how often do peope in your workgroup have conflicting opinions about the assignments you are working on (task conflict). Both scales are five point Likert (1 – None, 5 – A lot). In this study, I desired to understand the influence of workgroup conflict, in general, rather than focus on the conflict domains separately. Thus, I combined the six items to measure individual *workgroup conflict climate perceptions*. I justified this due to the fact that the correlation of the two scales was .84. Additionally, I conducted a CFA to discern a better fit between a one-factor and two-factor model. The chi-square difference test clearly revealed that there was not a significant difference between the two: $\chi^2(1, N = 553) = 0.2$, n.s. Cronbach's alpha for the six items was .93. Workgroup conflict climate was calculated by aggregating the individual scores to the group mean for each shift workgroup.

Workgroup Relationships: Workgroup Knowledge Sharing.

De Dreu's (2007) information sharing scale was used; De Dreu's scale originally had six items. However, given that work groups in long term care facilities have limited workgroup meetings and that the following items are likely irrelevant to this study's context, two items related to behavior during meetings were dropped. A third item, *communicating is a problem in my workgroup*, was also removed. This item is more so a workgroup conflict item than workgroup knowledge sharing. Even if communication is

not a problem in the workgroup – this does not guarantee that knowledge sharing will occur. Hence, three items were used to measure individual perceptions of workgroup knowledge sharing. Participants were asked how often each statement occurs in their workgroup (referent-shift modeling). Items are as follows: a) I get new facts, insights, and ideas from my colleagues; b) members of my workgroup inform each other about work-related issues; c) the quality of information exchange in my workgroup is good. The scale is five-point Likert: 1 – Rarely to 5 – Very Often. The reliability coefficient for the three items was .87. Workgroup knowledge sharing climate was calculated by aggregating the individual scores to the group mean for each shift workgroup.

Contextual Variables: Technical Systems

Organizational Structure: Formalization.

Items from this scale characterize if rules and policies are written down and understood. This measure is taken from Pugh et al. (1968). Examples of the five item scale are as follows: a) the organization has a large number of written rules and policies and b) there is a formal orientation program for most new members of the organization. The scale is a five-point Likert (1 – very inaccurate; 5 – very accurate). Cronbach's alpha was .84. Organizational formalization climate was calculated by aggregating the individual scores to the organizational mean for each organization.

Organizational Structure: Centralization.

When measuring centralization, two aspects of centralization are typically measured: hierarchy of authority (i.e., one's ability to make decisions regarding his/her tasks) and participation in decision making (i.e., one's influence in organizational decisions; Hage & Aiken, 1967, 1969). Four items were asked for participation in

decision making. The participant was asked how frequently he/she participated in organizational decisions (direct consensus modeling, Chan, 1998). Example items are as follows: a) how frequently do you usually participate in decisions on the adoption of new policies and b) how frequently do you participate in the decision to hire new staff. Five items were used to measure hierarchy of authority. Example items are as follows: a) even small matters have to be referred to someone higher up for a final answer and b) any decision I make has to have my boss' approval. Hierarchy of authority initially was a four-point scale (1 – Definitely False, 4-Definitely True). Schminke et al. (2002) changed it into a 7-point Likert. For this study, to maintain consistency, I changed it to a 5-point Likert scale, 1- Strongly Disagree, 5 – Strongly Agree. Following Schminke et al. (2000), I also used a 5-point Likert scale for participation in decision making, 1 – Strongly Disagree, 5 – Strongly Agree. The reliability coefficients for both were as follows: .87 (hierarchy of authority) and .82 (participation in decision making). Organizational hierarchy of authority and organizational participation in decision making climates were calculated by aggregating the participants' scores to the organizational mean for each organization.

Organizational Structure: Complexity.

Complexity can be measured by horizontal, hierarchical, or geographical differentiations (Hall, 1999). In long term facilities, hierarchical and geographical differentiations are likely similar thus little variation across facilities can be determined. However, organizational horizontal complexity which measures the level of knowledge needed and developed, specialization, and challenge associated to work tasks may vary. Thus, *complexity of work* measures the demands and challenging nature of the job, as

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well as the utilization and development of skills to perform tasks. Frese, Kring, Soose, and Zempe's (1996) scale was utilized but adapted so that participants can respond to items similarly. Participants responded to how often they engaged in the following at work: a) receive tasks that are extraordinary and particularly difficult; b) make very complicated decisions; c) use all of your knowledge and skills; d) learn new things. The items are on a five point Liker: 1 – rarely to 5 – very often. Cronbach's alpha was .56.

Multilevel Considerations

In this study, the organizational structure constructs (i.e., technical systems) were conceptualized at the organizational level; while the workgroup social constructs (i.e., social systems) were conceptualized at the shift level. The composition modeling approach taken was additive, direct consensus, referent-shift consensus, or dispersion modeling. To justify aggregation, I needed to assess within-group agreement ($r_{wg(j)}$), between-group variance in relationship to total variance (ICC(1)), and group mean reliability (ICC(2); Bliese, 2000; James, Demaree, & Wolk, 1984; Kozlowski & Klein, 2000).

Organizational complexity climate was intended to be one of the main multilevel independent variables in this study. However, after finding insignificant intraclass correlation coefficients, a low individual-level reliability estimate, and an average $r_{wg(j)}$ of .48 (i.e., below adequate interrater agreement, cf. LeBreton & Senter, 2008), I decided that complexity is best explored at the individual level. It likely is difficult to achieve agreement at the workgroup or organizational level due to the fact that perceptions of job complexity may be very different across individuals. These perceptual differences could be attributed to one's occupational or organizational status, tenure, age, time spent with

disabled patients, personality, etc. Due to the fact that I kept workplace complexity perceptions at the individual level and did not operationalize at the group level, I did not test hypotheses 13-16.

Except for the complexity variable, the remaining constructs' ICC F-statistics were significant at p < .01 – indicating justification for aggregation (Klein et al., 2000). The ICC(1)s ranged from .09 - .15 with an average of .10 across constructs – signifying group membership has a medium effect size on participants' scores (LeBreton & Senter, 2008; Murphy & Myors, 1998). The ICC(2)s ranged from .35 to .56 with an average of .46 across constructs. The recommended cutoff for ICC(1) is .12, and ICC(2) is .60 (cf. Bliese, 2000; Glick, 1985; James, 1982). However, when Schneider, White, and Paul (1998) were justifying aggregation of their study's constructs with mean ICC(1) value at .09 and mean ICC(2) value at .47, they made the following argument: "Although our values are slightly below these recommended levels, they are moderate values for these statistics and do not seem low enough to prohibit aggregation" (Schneider et al., 1998, p. 155; cf. Schneider et al., 2002). Following Schneider and colleagues, I deemed the ICC results as moderate values for the ICC statistics and appropriate for aggregation.

Further, the organizational and shift level constructs' average $r_{wg(j)}$s (i.e., group interrater agreement across scale items for each construct) were calculated: organizational formalization climate (.77; 93% of groups at or above .60); organizational hierarchy of authority climate (.73; 86% of groups at or above .60), organizational participation in decision making climate (.77; 81% of groups at or above .60), workgroup knowledge sharing climate (.58; 60% of groups at or above .60), workgroup conflict climate (.66; 73% of groups at or above .60), and LMX climate level (.76; 81% at or above .60). All of

the values were approximately at or above James' (1982) suggested .60 cutoff for $r_{wg(j)}s$; others have agreed with this standard (cf. Mayer, 2004; Schneider et al., 1998, 2002).

Control Variables

Given the review of the literature and nature of the sample, seven additional variables were controlled for: a) age; b) tenure at employer; c) education; d) individual neurotic personality perceptions; e) percent of time caring for patients/residents with neurological/psychological disorders; f) union affiliation; and g) work complexity. Race and gender were not controlled for given that the sample is fairly homogenous in these regards.

Direct care workers with more life and on-the-job experience may appraise an aggressive act from a patient/resident much differently than a direct care worker that is younger, new to the field, or is a newcomer to the organization; therefore, age and tenure were controlled. Further, employer tenure was utilized given that participants reported negative events occurring at the specific, current employer.

Educational achievement controlled for one's level of educational experience and training that may aid one in their response to victimization encounters. Individuals were asked to indicate the highest level of education achievement: 1 = less than high school, 2 = high school, 3 = technical training/some college, 4 = associate's degree, 5 = college educated, 6 = some graduate work, 7 = advanced degree. With more training and knowledge, one may be more affective or have a specific toolset to remedy situations.

Given personality may be a factor in determining how one responds to workplace victimizations, I controlled for neuroticism as an individual difference. More neurotic individuals perhaps recall and report more negative incidents than less-neurotic

individuals (cf. Blaney, 1986). Thus, these more neurotic individuals perhaps are more inclined to experience threat and centrality appraisals, and may not view resources as readily available. I utilized a brief measure of the Big-Five personality domains developed by Gosling, Rentfrow, and Swann (2003). The ten item personality inventory asks individuals from 1 – Strongly Disagree to 7 – Strongly Agree how much they agree that the statements represent them. However, in this dissertation, I utilized a five-point Likert for survey consistency and participant ease. The neurotic items are as follows: a) calm, emotionally stable and b) anxious, easily upset. *Calm, emotionally stable* was reverse-coded. The two items were averaged with high scores indicating a more neurotic personality. Spearman Brown reliability was determined to be .53.

A one-item measure was developed to understand a participant's percent of time that s/he works with patients/residents with neurological and/or psychological disorders. It was thought that those that work with these patients more frequently may report more frequent victimization experiences, as well as cognitions and coping that follow these negative experiences. Participants reported based on the following scale: $1 = 0 – 20\%$; $2 = 20 – 40\%$; $3 = 40 – 60\%$; $4 = 60 – 80\%$; $5 = 80 – 100\%$.

Union organization was controlled given that the sample comes from two unique unions, and the industrial relations' climate and resources received from the union by members may differ for the two unions. Union affiliation was dummy coded: $1 =$ Union A; $0 =$ Union B.

Given that work complexity was deemed inappropriate to aggregate, I opted to control for it. One's cognitions and coping styles resulting from workplace victimization may be indirectly influenced by one's job that is consistently challenging and difficult

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and requires utilization of one's full knowledge and continued learning. General work stress related to job complexity can compound with victimization stress that ultimately could lead to worsened outcomes. Work complexity perceptions can also proxy for workplace, workgroup, and occupational status and/or position, the content of the job, as well as the types of workplace interactions one may have with others in the workplace.

Additionally, threat, centrality, challenge, and resource availability cognitive appraisals were controlled when coping constructs were the dependent variable. Coping styles are likely influenced by cognitions per the transactional psychological stress theoretical assumptions (Lazarus & Folkman, 1984).

Analytical Approach

Given the multilevel nature of the data collected and the nature of this dissertation's questions, to adequately test the hypotheses that social and technical systems have direct effects on workplace victims' cognitive appraisals and coping styles, as well as cross-level effects on the relationship between victimizations and cognitive appraisals and between victimizations and coping styles, hierarchical linear modeling (HLM) was utilized – specifically *intercept-as-outcomes* (i.e., to test climate direct effects on appraisals and coping) and *slopes-as-outcomes* (i.e., to test climate cross-level effects on appraisals and coping) HLM analyses (Raudenbush & Bryk, 2002).

In this dissertation, the social system hypotheses (i.e., workgroup LMX climate level and strength, workgroup conflict climate, and workgroup knowledge sharing climate effects on victims' cognitive appraisal and coping style outcomes) were modeled by looking at the workgroup climate predictors (i.e., direct and cross-level effects) at the second-level and the individual predictors (i.e., controls and victimization variables) at

the first-level. For the technical system hypotheses (i.e., organizational formalization and centralization climate effects on victims' cognitive appraisal and coping style outcomes), in separate analyses, the organizational climate effects (i.e., direct and cross-level effects) were modeled at the second-level; while the individual independent variables (i.e., controls, cognitive appraisals, and victimization variables) were at the first-level.

Given arguments by Enders and Tofighi (2007) and Raudenbush and Bryk (2002), conditions in these data suggest that separate modeling is the best approach compared to simultaneously modeling the social and technical systems' effects due to the following factors: 1) separation makes the analyses more parsimonious; 2) degrees of freedom are usurped with adding additional predictors at higher levels – especially in small samples; 3) this dissertation's hypotheses do not involve the influence of social systems (i.e., the workgroup level) on technical systems (i.e., the organizational level) and vice versa – thus, social and technical effects, in essence, can be considered two separate questions; 4) centering individual-level predictors becomes somewhat problematic in a combined model and results may differ from separate modeling. Further clarification of point four is detailed below.

Enders and Tofighi (2007) have determined that in multilevel modeling when direct and cross-level effects are modeled that first-level predictors should be centered around the group mean; while the second-level predictors should be centered around the grand mean. This ensures that the first and second-level predictors are orthogonal and aids in improved interpretation of HLM coefficients (i.e., centering provides a meaningful and interpretable zero point).   However, in a combined model (i.e., individuals nested in shift workgroups, nested in long term care facilities), the question

arises about how to adequately center the first-level predictors especially when direct and cross-level effects on the individual-level are hypothesized at *both* the workgroup and organizational levels. If the individual-level predictors are centered using the shift workgroup mean, then, the organizational-level predictors are not necessarily orthogonal with the individual-level predictors which can influence the significance of the direct and cross-level effects. The same would be true for direct and cross-level workgroup effects if the individual-level is centered utilizing the organizational mean. If three-levels were modeled to investigate social and technical simultaneous effects, one approach perhaps would be to center the first-level around the workgroup mean, to center the second-level (or workgroup level) around the organizational mean, and to center the third-level (or organizational level) around the grand mean. This approach, though, is most accurate when there are hypothesized direct and cross-level relationships between the first and second-levels, *as well as hypothesized direct and cross-level relationships between the second and third-levels*. In this dissertation, this was not the case – direct and cross-level relationships *were not* hypothesized between workgroup and organizational levels. Hence, to maintain that the first-level predictors are adequately orthogonal to the higher-level predictors, I followed Enders and Tofighi's (2007) suggestion and kept the social and technical systems' analyses separate: (1) modeling the social system effects with a two-level model (i.e., individuals nested in shift workgroups, with the individual scores centered around the shift workgroup mean and the second-level predictors grand mean centered) and (2) modeling the technical system effects also with a two-level model (i.e., individuals nested in organizations, with the individual scores centered around the organizational mean and the second-level predictors grand mean centered).

To test social system effects on the cognitive appraisal outcomes (i.e., threat, centrality, challenge, and resource availability), a full mixed model was utilized – including the level 1 main effects, the level 2 direct effects, the cross-level interactions (two-way and three-way interactions). Using threat cognitive appraisals as an example, the predicted equation is:

Y_{ij} (threat cognitive appraisal) = γ_{00} +

First Level Controls
γ_{10} (age) + γ_{20} (education) + γ_{30} (neuroticism) + γ_{40} (work complexity perceptions) + γ_{50} (% time work with neurological/psychological patients) + γ_{60} (tenure at employer) + γ_{70} (union dummy) +

First Level Main Effects
γ_{80} (direct victimization) + γ_{90} (indirect victimization) + γ_{100} (sexual harassment) +

Second Level Main Effects
γ_{01} (workgroup LMX climate level) + γ_{02} (workgroup LMX climate strength) + γ_{03} (workgroup conflict climate) + γ_{04} (workgroup knowledge sharing climate) +

Cross-Level Effects
γ_{81} (direct victimization * workgroup LMX climate level) + γ_{82} (direct victimization * workgroup LMX climate strength) + γ_{83} (direct victimization * workgroup conflict climate) + γ_{84} (direct victimization * workgroup knowledge sharing climate)

+ γ_{91} (indirect victimization * workgroup LMX climate level) + γ_{92} (indirect victimization * workgroup LMX climate strength) + γ_{93} (indirect victimization * workgroup conflict climate) + γ_{94} (indirect victimization * workgroup knowledge sharing climate)

+ γ_{101} (sexual harassment * workgroup LMX climate level) + γ_{102} (sexual harassment * workgroup LMX climate strength) + γ_{103} (sexual harassment * workgroup conflict climate) + γ_{104} (sexual harassment * workgroup knowledge sharing climate) +

Second Level Two-Way Workgroup LMX Climate Interaction
γ_{05} (workgroup LMX climate level * workgroup LMX climate strength) +

γ_{85} (direct victimization * workgroup LMX climate level * workgroup LMX climate strength)

+ γ_{95} (indirect victimization * workgroup LMX climate level * workgroup LMX climate strength)

+ γ_{105} (sexual harassment * workgroup LMX climate level * workgroup LMX climate strength)   (1)

To test the social systems' effects on coping style, the four coping styles variables

(i.e., avoidance and denial, confrontation and negotiation, social, and advocacy seeking

coping styles) were the dependent variables, and the above equation was modified by

adding the following cognitive controls:

+ γ_{110} (threat cognitive appraisals) + γ_{120} (centrality cognitive appraisals) + γ_{130} (challenge cognitive appraisals) + γ_{140} (resource availability cognitive appraisals)
          (2)

To test the technical systems' effects on the cognitive outcomes, a full mixed

model was utilized – including the level 1 main effects, the level 2 direct effects, the

cross-level interactions. Using threat cognitive appraisals as an example, the predicted

equation is:

Y_{ij} (threat cognitive appraisal) = γ_{00} +

First Level Controls
γ_{10} (age) + γ_{20} (education) + γ_{30} (neuroticism) + γ_{40} (work complexity perceptions) + γ_{50} (% time work with neurological/psychological patients) + γ_{60} (tenure at employer) + γ_{70} (union dummy) +

First Level Main Effects
γ_{80} (direct victimization) + γ_{90} (indirect victimization) + γ_{100} (sexual harassment) +

Second Level Main Effects
γ_{01} (organizational formalization climate) + γ_{02} (organizational hierarchy of authority climate) + γ_{03} (organizational participation in decision making climate) +

γ_{81} (direct victimization * organizational formalization climate) + γ_{82} (direct victimization * organizational hierarchy of authority climate) + γ_{83} (direct victimization * organizational participation in decision making climate)

+ γ_{91} (indirect victimization * organizational formalization climate) + γ_{92} (indirect victimization * organizational hierarchy of authority climate) + γ_{93} (indirect victimization * organizational participation in decision making climate)

+ γ_{101} (sexual harassment * organizational formalization climate) + γ_{102} (sexual harassment * organizational hierarchy of authority climate) + γ_{103} (sexual harassment * organizational participation in decision making climate)

$$(3)$$

To test the technical systems' effects on coping style, the four coping styles variables were the dependent variables, and the above equation was modified by adding the following cognitive controls:

+ γ_{110} (threat cognitive appraisals) + γ_{120} (centrality cognitive appraisals) + γ_{130} (challenge cognitive appraisals) + γ_{140} (resource availability cognitive appraisals)

$$(4)$$

Results

The descriptive statistics and correlations among the study's variables are shown in Table 2. These are based on the 509 direct care workers that were determined to be in one of the 97 distinct shift workgroups within the 43 long term care facilities.

[INSERT TABLE 2 ABOUT HERE]

Before estimating the full equations above, null models with no predictors were estimated to separate the variance into within-workgroup and between-workgroup (social systems), as well as into within-organization and between-organization (technical systems). See Table 3. This was done to assess the degree of between-group variance in victims' cognitive appraisals and coping styles. Across the board for cognitive appraisals and coping styles, these partitioned variances illustrated that the majority of the variance

is within-group. Differences across groups were minimal. However, the analysis did show significant systematic between-workgroup variation in resource availability cognitive appraisals (p < .01) and in advocacy seeking coping (p < .05). Additionally, the analysis revealed significant systematic between-long term care facility variation in threat cognitive appraisals (p < .01), in centrality cognitive appraisals (p < .05), and in resource availability cognitive appraisals (p < .01). As seen in Table 3, the variance in appraisals and coping that resided in between-shift workgroup and between-long term care facilities ranged from almost 0% to 10% (note: a few variance estimates appear as zero; however, this is due to rounding; the intraclass correlation formula can be found in Hofmann, Griffin, & Gavin, 2000, p. 480).

[INSERT TABLE 3 ABOUT HERE]

Social Systems' Effects

To test hypotheses 1, 3, 5, 7, 9 and 11, HLM equation 1 above was used; equation 1's purpose was to discern the workgroup social systems' main and cross-level effects on victims' threat, centrality, challenge, and resource availability cognitive appraisals. Four models were estimated for each of the four cognitive appraisal analyses. In Tables 4 through 7, the first model looked at the controlled variables' effects; the second model measured the victimization variables and workgroup social climates' direct effects; the third model investigated the workgroup social climates' cross-level two-way interactions; while the fourth model specifically determined the effects of the three-way interaction of the victimization variables with workgroup LMX climate level and climate strength on the four cognitive appraisal outcomes (i.e., the full model).

To test hypotheses 2, 4, 6, 8, 10 and 12, HLM equation 2 above was used; equation 2's purpose was to discern the workgroup social systems' main and cross-level effects on victims' coping styles: avoidance and denial coping, confrontation and negotiation coping, social coping, and advocacy seeking coping. Four models were estimated in each of the coping analyses. In Tables 8 through 11, the first model looked at the controlled variables and the cognitive appraisals' effects; the second model measured the victimization variables and workgroup social climates' direct effects; the third model investigated the workgroup social climates' cross-level two-way interactions; while the fourth model specifically determined the effects of the three-way interaction of the victimization variables with workgroup LMX climate level and climate strength on the four coping style outcomes (i.e., the full model).

Hypothesis 1: Workgroup LMX Climate Level Main Effects (Intercept-as-Outcomes) and Cognitive Appraisals

Hypothesis 1 predicted that workgroup LMX climate level would have a positive relationship with (1a) challenge and (1b) resource availability appraisals; while a negative relationship with (1c) threat and (1d) centrality appraisals. A significant positive relationship between workgroup LMX climate level and resource appraisals was found ($\gamma_{01} = .30$, $p < .05$) supporting hypothesis 1b (Table 7, Model 2). Workgroups that have higher LMX climate levels are associated with direct care workers having increased levels of resource availability appraisals after experiencing victimizations instigated by patients/residents and/or their families. Hypotheses 1a, 1c, and 1d were not supported (Tables 4, 5, 6 – Model 2).

Hypothesis 2: Workgroup LMX Climate Level Main Effects (Intercept-as-Outcomes) and Coping Styles

Hypothesis 2 posited positive relationships between workgroup LMX climate level and (2a) social coping, (2b) confrontation and negotiation coping, and (2c) advocacy seeking; LMX climate level was expected to be negatively related to (2d) avoidance and denial coping. LMX climate level was found to have a positive relationship with advocacy seeking coping (Table 11, Model 2, $\gamma_{01} = .22$, $p < .05$, one-tailed test) supporting hypothesis 2c. Workgroups with increased LMX climate levels are associated with individuals seeking advocacy in the organization when victimizations occur. Hypotheses 2a, 2b, and 2d were not supported.

Hypothesis 3: Workgroup LMX Climate Level, LMX Climate Strength Cross-Level Effects (Slopes-as-Outcomes) and Cognitive Appraisals

Hypothesis 3 posited that when victimizations are at a high level, workgroups that have both a high LMX climate and high LMX climate strength would experience levels of (3a) challenge and (3b) resource availability appraisals that are higher than other LMX climate level, LMX climate strength workgroup categories. The high LMX climate level, high LMX climate strength workgroup also was expected to experience levels of (3c) threat and (3d) centrality that were lower than the other workgroup categories.

In Tables 4 -7, Model 4 shows that a significant three-way interaction occurred among direct victimization, workgroup LMX climate level, and LMX climate strength for all cognitive appraisals: threat ($\gamma_{85} = -.47$, $p < .05$); centrality ($\gamma_{85} = -.78$, $p < .01$); challenge ($\gamma_{85} = .41$, $p < .05$), and resource availability ($\gamma_{85} = .58$, $p < .05$). This provides some initial support for the hypotheses 3a – 3d related to direct victimization. Further, a significant three-way interaction was found among sexual harassment, workgroup LMX

climate level and strength for resource availability appraisals ($\gamma_{105} = -.94$, p < .05). The direction of the interaction appeared contrary to the hypothesis. To further support hypothesis 3, the form of the three-way interactions should conform to the hypothesized patterns. Therefore, the significant results above were plotted and are discussed below.

Direct Victimization x Workgroup LMX Climate Level x Workgroup LMX Climate Strength – Threat Appraisals.

For the three-way interaction between the relationship of direct victimization and threat appraisal, Figure 4a depicts the relationship between direct victimization and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is high (+1 SD); while Figure 4b shows the relationship between direct victimization and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is low (-1 SD).

[INSERT FIGURE 4a and 4b ABOUT HERE]

According to Dawson and Richter (2006), researchers have been prone to accept three-way interaction findings on the basis of face validity (i.e., simply plotting the interaction and making an assessment based on the plot) without discerning if the slopes are significantly different. Utilizing their slope difference test which tests significant differences among the four slopes, I further probed the four plotted lines.

The slopes for the four workgroup categories were as follows: high LMX climate level, high LMX strength (.04); low LMX climate level, high LMX strength (.27); high LMX climate level, low LMX strength (.14); and low LMX climate level, low LMX strength (.04).

The slope difference between the high LMX climate level, high LMX climate strength workgroup and the low LMX climate level, high LMX climate strength

workgroup was significant (p < .05). The slope difference between the low LMX climate

level, high LMX climate strength workgroup and the low LMX climate level, low LMX

strength workgroup was also significant (p < .01). By comparing the slopes in Figures 4a

and 4b, at high levels of direct victimization, the highest levels of threat appraisals were

observed in workgroups with low LMX climate level, high LMX climate strength; while

the lowest level was shared with the three remaining workgroup LMX categories.

> Direct Victimization x Workgroup LMX Climate Level x Workgroup LMX
> Climate Strength – Centrality Appraisals.

For the three-way interaction between the relationship of direct victimization and

centrality appraisal, Figure 5a depicts the relationship between direct victimization and

low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is high (+1 SD);

while Figure 5b shows the relationship between direct victimization and low (-1 SD) and

high (+1 SD) LMX climate level when LMX strength is low (-1 SD).

[INSERT FIGURE 5a and 5b ABOUT HERE]

The slopes for the four workgroup categories were as follows: high LMX climate

level, high LMX strength (-.07); low LMX climate level, high LMX strength (.15); high

LMX climate level, low LMX strength (.31); and low LMX climate level, low LMX

strength (-.02).

Further probing the four slopes, the slope difference between the high LMX

climate level, high LMX climate strength workgroup and the high LMX climate level,

low LMX climate strength workgroup was significantly different (p < .05). The slope

difference between the high LMX climate level, low LMX climate strength workgroup

and the low LMX climate level, low LMX strength workgroup also was significant (p <

.05). By comparing the slopes in Figures 5a and 5b, when direct victimization was higher, the highest levels of centrality appraisals were seen in workgroups with high LMX climate level, low LMX climate strength; while the lowest levels were observed in workgroups with high LMX climate level, high LMX climate strength.

Direct Victimization x Workgroup LMX Climate Level x Workgroup LMX Climate Strength – Challenge Appraisals.

For the three-way interaction between the relationship of direct victimization and challenge appraisal, Figure 6a depicts the relationship between direct victimization and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is high (+1 SD); while Figure 6b shows the relationship between direct victimization and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is low (-1 SD).

[INSERT FIGURE 6a and 6b ABOUT HERE]

The slopes for the four workgroup categories were as follows: high LMX climate level, high LMX strength (.09); low LMX climate level, high LMX strength (.03); high LMX climate level, low LMX strength (-.20); and low LMX climate level, low LMX strength (.02).

When comparing the four slopes, the slope difference between the high LMX climate level, high LMX climate strength workgroup and the high LMX climate level, low LMX climate strength workgroup was significant (p < .05). Further, the slope difference between the high LMX climate level, low LMX climate strength workgroup and the low LMX climate level, low LMX climate strength workgroup also was significant (p < .05). At high levels of direct victimization, the worst levels of challenge appraisals occurred for the high LMX climate level, low LMX climate strength

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workgroups; while, those workgroups that had the highest levels of challenge appraisal were high LMX climate level, high LMX climate strength.

Direct Victimization x Workgroup LMX Climate Level x Workgroup LMX Climate Strength – Resource Availability Appraisals.

For the three-way interaction between the relationship of direct victimization and resource availability appraisal, Figure 7a depicts the relationship between direct victimization and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is high (+1 SD); while Figure 7b shows the relationship between direct victimization and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is low (-1 SD).

[INSERT FIGURE 7a and 7b ABOUT HERE]

The slopes for the four workgroup category lines were as follows: high LMX climate level, high LMX strength (-.02); low LMX climate level, high LMX strength (-.18); high LMX climate level, low LMX strength (-.25); and low LMX climate level, low LMX strength (-.01).

By comparing the four slopes, the following significant slope differences were found: the slope difference between the high LMX climate level, low LMX climate strength workgroup and the low LMX climate level, low LMX climate strength workgroup ($p < .05$) and the slope difference between the low LMX climate level, high LMX climate strength workgroup and the low LMX climate level, low LMX climate strength workgroup ($p < .05$). Thus, when direct victimizations were at high levels, high LMX climate level, high LMX climate strength workgroups appeared better off; while the low LMX climate level, high LMX climate strength and low LMX climate level, low LMX climate strength workgroups shared the worst levels of resource appraisals.

Sexual Harassment x Workgroup LMX Climate Level x Workgroup LMX Climate Strength – Resource Availability Appraisals.

For the three-way interaction between the relationship of sexual harassment and resource availability appraisal, Figure 8a depicts the relationship between sexual harassment and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is high (+1 SD); while Figure 8b shows the relationship between sexual harassment and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is low (-1 SD).

[INSERT FIGURE 8a and 8b ABOUT HERE]

The slopes for the four workgroup categories were as follows: high LMX climate level, high LMX strength (-.12); low LMX climate level, high LMX strength (.19); high LMX climate level, low LMX strength (.17); and low LMX climate level, low LMX strength (-.18,).

The only slopes that were significantly different from each other were the slopes from the low LMX climate level, high LMX climate strength workgroup and the low LMX climate level, low LMX climate strength workgroup (p < .01). These patterns did not conform to hypothesis 3.

Summary of Hypothesis 3.

After reviewing Figures 4 through 8, hypothesis 3 partially was supported. The significant three-way interactions provided evidence that the relationships between direct victimization and challenge (hypothesis 3a), resource availability (hypothesis 3b), threat (hypothesis 3c) and centrality appraisals (hypothesis 3d) were influenced by workgroup LMX climate level and workgroup LMX climate strength – and conformed, on the most part, to the predicted form. At high levels of direct victimization, high LMX climate

level, high LMX climate strength workgroups generally experienced appraisals that were better off than other workgroups. However, the relationship between sexual harassment and resource appraisals did not conform to prediction. Therefore, hypotheses 3a – 3d were only supported relative to direct victimization encounters.

Hypothesis 4: Workgroup LMX Climate Level, LMX Climate Strength Cross-Level Effects (Slopes-as-Outcomes) and Coping Styles

Hypothesis 4 posited that at high levels of victimization, high LMX climate level, high LMX climate strength workgroups would experience higher levels of (4a) social coping, (4b) confrontation and negotiation, and (4c) advocacy seeking than other LMX workgroup categories; while (4d) avoidance and denial would be at a lower level compared to the other LMX workgroup categories. Hypotheses 4a – 4c were not supported.

However, a significant three-way interaction finding was determined between the relationship of indirect victimization and avoidance and denial (Table 8, Model 4, $\gamma_{95} =$ .67, p < .05). Yet, the sign of the coefficient did not seem consistent with hypothesis 4d's prediction. To discern the pattern of the significant three-way interaction, I plotted the four workgroup lines.

For the three-way interaction between the relationship of indirect victimization and avoidance and denial coping, Figure 9a depicts the relationship between indirect victimization and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is high (+1 SD); while Figure 9b shows the relationship between indirect victimization and low (-1 SD) and high (+1 SD) LMX climate level when LMX strength is low (-1 SD).

The slopes for the four workgroups were as follows: high LMX climate level, high LMX strength (.52); low LMX climate level, high LMX strength (-.08); high LMX climate level, low LMX strength (.04); and low LMX climate level, low LMX strength (-.10).

When comparing the slopes, the following slope differences were found significant: the slope difference between the high LMX climate level, high LMX climate strength workgroup and the high LMX climate level, low LMX climate strength workgroup (p < .05); between the high LMX climate level, high LMX climate strength workgroup and the low LMX climate level, high LMX climate strength workgroup (p < .01); and between the high LMX climate level, high LMX climate strength workgroup and the low LMX climate level, low LMX climate strength workgroup (p < .01). According to the graph, high LMX climate level, high LMX climate strength workgroups experience the highest level of avoidance and denial coping than the other workgroup categories. Nonetheless, the patterns did not conform to hypothesis 4d's prediction. Thus, overall, hypotheses 4a – 4d were not supported.

Hypothesis 5: Workgroup Conflict Climate Main Effects (Intercept-as-Outcomes) and Cognitive Appraisals

Hypothesis 5 predicted that workgroup conflict climate would have a positive main effect on (5a) threat and (5b) centrality appraisals; while negatively related to (5c) challenge and (5d) resource availability appraisals. Significant main effect relationships were determined between workgroup conflict climate and threat (Table 4, Model 2, $\gamma_{03} =$ .35, p < .01), centrality (Table 5, Model 2, $\gamma_{03} = .37$, p < .01), and resource availability

cognitive appraisals (Table 7, Model 2, γ_{03} = -.24, p < .01). Hypotheses 5a, 5b, and 5d were supported. No significant finding was determined for hypothesis 5c (Table 6, Model 2). Workgroups with prevalent conflict climates are related to victims' increased threat and centrality appraisals; while associated with victims' decreased resource availability appraisals.

Hypothesis 6: Workgroup Conflict Climate Main Effects (Intercept-as-Outcomes) and Coping Styles

Hypothesis 6 posited positive relationships between workgroup conflict climates and self-response and self-focused coping styles, specifically with (6a) avoidance and denial coping. Further, it was hypothesized that workgroup conflict climates would be negatively related to (6b) social coping, (6c) confrontation and negotiation, and (6d) advocacy seeking. Workgroup conflict climates were not found to be related to avoidance and denial. However, a significant positive association was found between workgroup conflict climates and social coping (Table 10, Model 2, γ_{03} = .20, p < .05, one-tailed test), as well as advocacy seeking coping (Table 11, Model 2, γ_{03} = .24, p < .05). These findings were contrary to the proposed hypotheses and theoretical arguments. Hypotheses 6a – 6d were not supported.

Hypothesis 7: Workgroup Conflict Climate Cross-Level Effects (Slopes-as-Outcomes) and Cognitive Appraisals

Hypothesis 7 predicted the following: At high levels of workplace victimization, high workgroup conflict climates will enhance (7a) threat and (7b) centrality appraisals; while ameliorating (7c) challenge and (7d) resource availability appraisals. There were no significant cross-level interactions determined between workgroup conflict climate and appraisals. Thus, hypotheses 7a – 7d were not supported.

Hypothesis 8: Workgroup Conflict Climate Cross-Level Effects (Slopes-as-Outcomes) and Coping Styles

The following was posited for hypothesis 8: At high levels of workplace victimization, high workgroup conflict climates will enhance (8a) avoidance and denial coping; while ameliorating (8b) social coping, (8c) confrontation and negotiation, and (8d) advocacy seeking. No cross-level interactions were determined between workgroup conflict climate and coping styles. Hence, hypotheses 8a – 8d were not upheld.

Hypothesis 9: Workgroup Knowledge Sharing Climate Main Effects (Intercept-as-Outcomes) and Cognitive Appraisals

Workgroup knowledge sharing climates were expected to have a positive main effect on (9a) challenge and (9b) resource availability appraisals. A negative direct association was predicted between workgroup knowledge sharing climates and (9c) threat and (9d) centrality appraisals. Workgroup knowledge sharing climates were found to be positively related with challenge (Table 6, Model 2, $\gamma_{04} = .22$, p < .01) and resource availability appraisals (Table 7, Model 2, $\gamma_{04} = .33$, p < .01). Hypotheses 9a and 9b were supported. Increased knowledge sharing climates in workgroups are associated with direct caregivers' increased challenge and resource availability appraisals when confronted with workplace victimization. Significant findings were not found for hypotheses 9c and 9d.

Hypothesis 10: Workgroup Knowledge Sharing Climate Main Effects (Intercept-as-Outcomes) and Coping Styles

Hypothesis 10 proposed that workgroup knowledge sharing climates promote coping styles that are supported and instigator focused responses, specifically (10a) social coping, (10b) confrontation and negotiation and (10c) advocacy seeking; while

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negatively related to (10d) avoidance and denial coping styles. Workgroups that have greater knowledge sharing climates were related to individuals utilizing the following coping styles at higher levels after victimizations occur: confrontation and negotiation ($\gamma_{04} = .32$, p < .01); social coping ($\gamma_{04} = .24$, p < .05, one-tailed test); and advocacy seeking ($\gamma_{04} = .19$, p < .05, one-tailed test). Hypotheses 10a – 10c were fully supported (Tables 9 – 11, Model 2). Knowledge sharing climates were not related to avoidance and denial coping; thus, hypothesis 10d was not supported (Table 8, Model 2).

Hypothesis 11: Workgroup Knowledge Sharing Climate Cross-Level Effects (Slopes-as-Outcomes) and Cognitive Appraisals

It was predicted that at high levels of workplace victimizations, high workgroup knowledge sharing climates would enhance (11a) challenge and (11b) resource availability appraisals; while buffering (11c) threat and (11d) centrality appraisals. The only significant cross-level finding for hypothesis 11 was the two-way interaction between indirect victimization and workgroup knowledge sharing climate predicting centrality appraisals (Table 5, Model 3, $\gamma_{94} = .24$, p < .05). However, the direction of the coefficient did not provide preliminary support for hypothesis 11d.

Figure 10 shows the relationship between indirect victimization and centrality appraisals at low (-1 SD) levels of workgroup knowledge sharing climate and at high (+1 SD) levels of workgroup knowledge sharing climate. Both lines had positive slopes, but only the high knowledge sharing climate's simple slope was significant: low workgroup knowledge sharing climate (.12, *n.s.*) and high workgroup knowledge sharing climate (.37, p < .01). The graph suggests that centrality appraisals are exacerbated when indirect victimization and workgroup knowledge sharing are mutually at high levels. The patterns

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did not conform to prediction. Thus, hypotheses 11a – 11d's predictions were not confirmed (Tables 4 – 7, Model 3).

[INSERT FIGURE 10 ABOUT HERE]

Hypothesis 12: Workgroup Knowledge Sharing Climate Cross-Level Effects (Slopes-as-Outcomes) and Coping Styles

Hypothesis 12 proposed that high workgroup knowledge sharing climates enhance (12a) social coping, (12b) confrontation and negotiation, and (12c) advocacy seeking when high levels of victimizations are present. The relationship between victimizations and (12d) avoidance and denial coping was predicted to be ameliorated at high levels of victimization and knowledge sharing climate. The only significant finding was the interaction between sexual harassment and workgroup knowledge sharing climate predicting advocacy seeking coping (Table 11, Model 3, γ_{104} = .27, p < .05).

Figure 11 shows the relationship between sexual harassment and advocacy seeking at low (-1 SD) levels of workgroup knowledge sharing climate and at high (+1 SD) levels of workgroup knowledge sharing climate. The simple slopes and their significance were as follows: low workgroup knowledge sharing climate (-.08, *n.s.*) and high workgroup knowledge sharing climate (.21, p < .01). Figure 11 illustrates that at high levels of sexual harassment in the workplace, high workgroup knowledge sharing climates promoted enhanced levels of seeking advocacy in the workplace. Only hypothesis 12c was supported relative to sexual harassment. Hypotheses 12a, 12b, and 12d were not supported (Tables 8 – 10, Model 3).

[INSERT FIGURE 11 ABOUT HERE]

Effect Sizes for Social Systems' Main Effects

To discern the effect size of main effects, two approaches were utilized. The first

approach evaluates the difference between the between-group variance in the intercept

term across workgroups (i.e., the random-coefficient regression's τ_{00}) and the residual

intercept variance after having added the workgroup social climates to the model (i.e.,

the intercept-as-outcomes' τ_{00}; Hofmann, et al., 2000). Though quite different from the

traditional OLS R^2, this pseudo-R^2 in actuality is the percent reduction of variance in the

intercept:

$$R^2 \text{ for level 2 intercept model} =$$
$$(\tau_{00} \text{ random regression} - \tau_{00} \text{ intercept-as-outcomes}) / \tau_{00} \text{ random regression}$$

$$(5)$$

Equation 5 solely provides an R^2 value relative to the amount of between-group variance

available in the intercept and is not calculated based upon the total variance in the

dependent variable.

The second approach identifies the percentage of explained first-level (R_1^2) and

second-level variance (R_2^2) – also referred as the proportional reduction in errors of

prediction (Snijders & Bosker, 1999). R_1^2 is one minus the ratio of the conditional

model's combined variance from both levels to the null model's combined variance. This

expresses the percent of variance explained in the dependent variable by a predictor or set

of predictors.

$$R_1^2 =$$
$$1 - ((\sigma^2_{conditional} + \tau_{00conditional}) /$$
$$(\sigma^2_{null} + \tau_{00null}))$$

$$(6)$$

$R_2{}^2$ compares the sum of the conditional model's group averaged first-level

variance and the second-level variance to the sum of the null model's group averaged

first-level variance and second-level variance. This ratio is subtracted from 1 to discern

the percentage of explainable between-unit variance contributed by a predictor or group

of predictors (Snijders & Bosker, 1999). The equation is provided below.

$$R_2{}^2 =$$
$$1 - ((\sigma^2{}_{conditional} / \text{avg. group size}) + \tau_{00conditional}) /$$
$$(\sigma^2{}_{null} / \text{avg. group size}) + \tau_{00null}))$$

(7)

For each model in the tables, a $R_1{}^2$ and $R_2{}^2$ were calculated. It is assumed that an

estimate of the incremental variance explained by a predictor or group of predictors can

be assessed by subtracting the previous model's $R_1{}^2$ or $R_2{}^2$ from the current model's $R_1{}^2$

or $R_2{}^2$. For example, the control variables' contribution (Model 1) can be subtracted from

the direct effect model's (intercept-as-outcomes) contribution (Model 2) to discern a

reasonable estimate of the percentage attributed to the group of direct effect predictors in

the current model.

Cognitive Appraisals: Between-Workgroup Variance in the Intercept Explained.

Using equation 5 above, the aggregate workgroup social climates explained 62%

of the between-workgroup variance in the intercept for threat appraisals, 73% of the

intercept variance for centrality appraisals, 59% of the intercept variance for challenge

appraisals, and 98% of the intercept variance for resource availability appraisals.

Cognitive Appraisals: Between- & Within-Workgroup Variance Explained.

Thus, using equations 6 and 7 above and differencing described, I have computed

the following effects: the main effects explained 25% of the between-workgroup variance

and 15% of the variance in individual threat appraisals; explained 26% of the between-workgroup variance and 17% of the variance in centrality appraisals; explained 19% of the between-workgroup variance and 8% of the variance in challenge appraisals; and explained 39% of the between-workgroup variance and 16% of the variance in resource availability appraisals.

Coping Styles: Between-Workgroup Variance in the Intercept Explained.

Again, I utilized equations 5. Workgroup social climates in aggregate explained 33% of the between-workgroup variance in intercepts for confrontation and negotiation coping; 45% of the intercept variance for social coping; and 21% of the intercept variance for advocacy seeking coping.

Coping Styles: Between- & Within-Workgroup Variance Explained.

The main effects explained 8% of the between-workgroup total variance and 2% of the variance in confrontation and negotiations; 1.3% of the between-workgroup variance and 2% of the variance in social coping; and 8% of the between-workgroup variance and 2% of the variance in advocacy seeking (equations 6 and 7 utilized).

Effect Sizes for Social Systems' Cross-Level Effects

For cross-level effects, to discern the amount of between-workgroup variation in slopes, a similar equation to equation 5 was employed. As seen below, equation 8 compares between-workgroup variation in slopes between a model that has no cross-level effects (intercept-as-outcomes model) and a model with cross-level effects (slopes-as-outcomes) model (cf. Hofmann et al., 2000). This equation only tells one about the percentage change in the variation in the slope and does not provide detail about total variance.

$$R^2 \text{ for level 2 slope model} =$$
$$(\tau_{11} \text{ intercept-as-outcomes} - \tau_{11} \text{ slopes-as-outcomes}) / \tau_{11} \text{ intercept-as-outcomes}$$
(8)

In addition to equation 8, equations 6 and 7 are used to understand the between- and within-workgroup variation explained by the cross-level effects.

Cognitive Appraisals: Between-Workgroup Variance in the Slopes Explained.

As prior, only effect sizes for significant findings are reported. The workgroup knowledge sharing climate cross-level effects explained 45% of the between-workgroup variation in slopes in the relationship between indirect victimization and centrality appraisals. The workgroup LMX cross-level effects explained 26% of the between-workgroup variation in slopes in the relationship between direct victimization and centrality appraisals; 41% between direct victimization and threat appraisals; and approximately 1% between direct victimization and resources available appraisals.

The percent change for the relationship between direct victimization and challenge, as well as the relationship between sexual harassment and resources available, were not reported due to the fact that the ratio is negative. With a traditional R^2 in OLS, when adding predictors and/or interactions to a model, typically, variance explained will increase while decreasing the residual variance. However, in HLM, this is not necessarily the case. Singer and Willett (2003) explain reasoning for this more coherently:

> "In the multilevel model for change, additional predictors generally reduce variance components and increase pseudo-R^2 statistics. But because of explicit links among the model's several parts, you can find yourself in extreme situations in which the addition of predictors *increases* the variance components' magnitude. This is most likely to happen when all, or most of the outcome variations is exclusively either" within- or between-groups. "Then, a predictor added at one level reduces the residual variance at that level but potentially *increases* the residual variance(s) at the other level" (p. 104).

As noted earlier in this study, a majority of the variance for appraisals and coping are within-group. Though these values, at times, can be negative, scholars, such as Snijders and Bosker (1999), have asserted that significant findings should not be negated – but one should err on the side of caution when interpreting effect size.

Cognitive Appraisals: Between- & Within-Workgroup Variance Explained.

Using equations 6 and 7, the within- and between-workgroup variation R^2s are detailed below. In total, the cross-level effects explained approximately 5% of the between-workgroup variance and 5% of the variance in individual centrality appraisals; 2% of the between-workgroup variance and 3% of the variance in threat appraisals; 0.4% of the between-workgroup variance and 1.2% of the variance in challenge appraisals; 2% of the between-workgroup variance and 3% of the variance in resource availability appraisals.

Coping Styles: Between-Workgroup Variance in the Slopes Explained.

For the workgroup LMX cross-level effects, a little over 14% of the between-workgroup variation in slopes (equation 8) was explained in the relationship between indirect victimization and avoidance and denial coping. Effect size for percent change in between-workgroup variance in slopes could not be reported for the workgroup knowledge sharing climate cross-level effects (i.e., between the relationship of sexual harassment and advocacy seeking) given it was negative (note: reasons why variance explained would be negative were explained earlier in the text; Singer & Willett, 2003).

Coping Styles: Between- & Within-Workgroup Variance Explained.

Using equations 6 and 7, the between-group and within-group explained variances were determined for the cross-level interaction effects on coping styles. The cross-level

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effects accounted for approximately 2.5% of the variance between-workgroups; while accounting for 4% of the variance in avoidance and denial coping. The cross-level effects explained 20% of the between-workgroup variance; while 2% of the variance was explained in advocacy seeking coping.

Technical Systems' Effects

To test hypotheses 17, 19, 21, and 23 (note: hypotheses 13 – 16 were not tested given that complexity was deemed as inadequate to aggregate), HLM equation 3 above was used. Equation 3's purpose was to discern the organizational technical systems' main and cross-level effects on victims' cognitive appraisals. In Tables 12 through 15, the first model looked at the controlled variables; the second model measured the victimization variables and organizational structure climates' direct effects; and the third model investigated the organizational structure climates' cross-level effects (i.e., two-way interactions).

To test hypotheses 18, 20, 22, and 24, HLM equation 4 above was used. Equation 4's purpose was to discern the organizational technical systems' main and cross-level effects on victims' coping styles. In Tables 16 through 19, the first model looked at the controlled variables along with the cognitive appraisal variables; the second model measured the victimization variables and organizational technical climates' direct effects; and the third model investigated the organizational technical climates' cross-level effects.

Since technical systems (i.e., formalization, hierarchy of authority and participation in decision making) are operationalized at the organizational level, in addition to the reduced sample (i.e., 509 direct care worker nested in 43 homes), the full sample could also be utilized for analyses: 553 participants nested in 49 homes. I ran

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separate analyses with the full and reduced samples for both cognitive appraisal and

coping analyses to see if findings were consistent. For the most part, findings were

consistent. Therefore, I have reported findings using the reduced sample of 509 direct

care workers nested in 43 long term care facilities.

Hypothesis 17: Organizational Formalization Climate Main Effects (Intercept-as-Outcomes) and Cognitive Appraisals

Hypothesis 17 posited that formalization climates would positively influence

(17a) challenge and (17b) resource availability appraisals; while negatively influence

(17c) threat and (17d) centrality appraisals. A significant finding was determined between

formalization climates and resource availability appraisals (Table 15, Model 2, $\gamma_{01} = .66$,

$p < .05$). More formalized organizations were associated to increased levels of individual

resource availability appraisals after victimizations occur. Hypothesis 17b was supported;

while 17a, 17c, and 17d were not.

Hypothesis 18: Organizational Formalization Climate Main Effects (Intercept-as-Outcomes) and Coping Styles

Hypothesis 18 posited that formalization climates would be directly related to

(18a) social coping, (18b) confrontation and negotiation, and (18c) advocacy seeking.

Yet, formalization climates would be negatively associated with (18d) avoidance and

denial coping. No significant findings were determined; thus, hypotheses 18a – 18d were

not supported.

Hypothesis 19: Organizational Formalization Climate Cross-Level Effects (Slopes-as-Outcomes) and Cognitive Appraisals

Hypothesis 19 predicted that organizational formalization climates would enhance

(19a) challenge and (19b) resource appraisals and ameliorate (19c) threat and (19d)

centrality appraisals across levels of victimization experiences. Three significant two-way interaction relationships were determined and are discussed below.

Direct Victimization x Organizational Formalization Climate – Centrality Appraisals.

The relationship between the two-way interaction of formalization climate and direct victimization predicting centrality appraisals was significant (Table 13, Model 3, γ_{81} = -0.36, p < .01). Figure 12 depicts the relationship between direct victimization and centrality appraisals by levels of high (+1 SD) formalization climate and low (-1 SD) formalization climate. The simple slopes and their significance were as follows: high organizational formalization climate (-.07, *n.s.*) and low organizational formalization climate (.15, p < .01). The high formalization climate's slope conformed to prediction, but it was not significant. Though not predicted, exacerbated centrality appraisals occurred in low formalization climates as victimization levels moved from low to high.

[INSERT FIGURE 12 ABOUT HERE]

Indirect Victimization x Organizational Formalization Climate – Centrality Appraisals.

Further, contrary to expectation, the second significant interaction occurred between indirect victimization and organizational formalization climate predicting centrality appraisals (Table 13, Model 3, γ_{91} = .56, p < .01). Figure 13 depicts the relationship between indirect victimization and centrality appraisals by levels of high (+1 SD) formalization climate and low (-1 SD) formalization climate. Both lines were positive sloping, and the simple slope and significance are reported as follows: high formalization climate (.42, p < .01) and low formalization climate (.10, *n.s.*). From low to

high levels of indirect victimization, centrality appraisals were heightened for high

formalization climates.

[INSERT FIGURE 13 ABOUT HERE]

Sexual Harassment x Organizational Formalization Climate – Resource Availability Appraisals.

The third significant finding was with the interaction between formalization and

sexual harassment predicting resource availability appraisals (Table 15, Model 3, $\gamma_{101} =$

.43, p < .05). Figure 14 illustrates the relationship between sexual harassment and

resource appraisals by levels of high (+1 SD) formalization climate and low (-1 SD)

formalization climate. The simple slopes and their significance are as follows: high

formalization climate (.10, *n.s.*) and low formalization climate (-.15, p < .05). The high

formalization climate slope conformed to prediction, but it was not significant. The low

formalization slope depicts that the resource availability appraisals are ameliorated across

levels of sexual harassment.

[INSERT FIGURE 14 ABOUT HERE]

Summary of Hypothesis 19.

Given the three findings, the patterns of the interactions did not conform to

hypotheses 19a – 19d. Findings were counter to prediction. Two findings showed how

low formalizations can exacerbate the relationship between direct victimization and

centrality appraisals and between sexual harassment and resource appraisals as the

particular victimization moves from low to high levels. In these two cases, the high

formalization climates appeared to stabilize behaviors across victimization levels. In

contrast, high formalization climates were shown to exacerbate centrality appraisals as indirect victimization moved from low to high levels.

Hypothesis 20: Organizational Formalization Climate Cross-Level Effects (Slopes-as-Outcomes) and Coping Styles

Two-way interactions were predicted between organizational formalization climates and victimizations: as levels of victimizations increase, (20a) social coping, (20b) confrontation and negotiation, and (20c) advocacy seeking experiences would be enhanced at high levels of formalization climates, and (20d) avoidance and denial coping would be buffered. No significant results were found; thus, hypotheses 20a – 20d were not supported.

Hypothesis 21: Organizational (De)centralization Climate Main Effects (Intercept-as-Outcomes) and Cognitive Appraisals

As noted earlier, organizational centralization climates were measured using two distinct constructs: hierarchy of authority climate and participation in decision making climate. Lowered levels of hierarchy of authority and increased levels of decision making are qualities of less bureaucratic, decentralized environments. Hypothesis 21 posited the positive relationships between decentralized environments and (21a) challenge and (21b) resource availability appraisals. Additionally, decentralized climates were expected to negatively influence (21c) threat and (21d) centrality appraisals.

There were no relationships determined between participation in decision making climates and cognitive appraisals. However, the hierarchy of authority climate was significantly and positively related to threat (Table 12, Model 2, γ_{02} = .43, p < .01) and harm appraisals (Table 13, Model 2, γ_{02} = .39, p < .01); while negatively related to resource appraisals (Table 15, Model 2, γ_{02} = -.32, p < .05, one-tailed test). Environments

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that foster increased levels of hierarchy of authority climates (centralized climates) are related to individuals' increased levels of threat and centrality appraisals and decreased levels of resource availability appraisals. Hence, the hypotheses supported were hypotheses 21b, 21c, and 21d for hierarchy of authority.

Hypothesis 22: Organizational (De)centralization Climate Main Effects (Intercept-as-Outcomes) and Coping Styles

Decentralized climates were predicted to positively influence (22a) social coping, (22b) confrontation and negotiation, and (22c) advocacy seeking coping – while negatively related to (22d) avoidance and denial coping. Significant results were not determined, and hypotheses 22a – 22d did not hold.

Hypothesis 23: Organizational (De)centralization Climate Cross-Level Effects (Slopes-as-Outcomes) and Cognitive Appraisals

Hypothesis 23 predicted that decentralized environments when interacted with victimizations would enhance (23a) challenge and (23b) resource availability appraisals, while buffering (23c) threat and (24d) centrality appraisals. No significant results were found; thus, hypotheses 23a – 23d were not supported.

Hypothesis 24: Organizational (De)centralization Climate Cross-Level Effects (Slopes-as-Outcomes) and Coping Styles

Hypothesis 24 proposed that high levels of decentralized organizational climates would enhance the relationships between victimizations and (24a) social coping, (24b) confrontation and negotiation, and (24c) advocacy seeking; while, buffering (24d) avoidance and denial. Four significant findings were determined and are discussed below.

Sexual Harassment x Organizational Hierarchy of Authority Climate – Confrontation and Negotiation Coping.

The second significant finding was the interaction between hierarchy of authority climate and sexual harassment predicting confrontation and negotiation coping (Table 17, Model 3, γ_{102} = -.22, p < .05). Figure 15 illustrates the relationship between sexual harassment and confrontation and negotiation coping at high levels (+1 SD) of hierarchy of authority and low levels (-1 SD). Only the high hierarchy of authority climate's slope was significant: high hierarchy of authority (-.09, p < .05); low hierarchy of authority (.08, *n.s.*). The negatively sloped line for high levels of hierarchy of authority (more centralized climate) suggests that from low to high levels of sexual harassment, the levels of confrontation and negotiation coping were buffered. This finding provides some support for hypothesis 24b.

[INSERT FIGURE 15 ABOUT HERE]

Direct Victimization x Organizational Participation in Decision Making Climate – Avoidance and Denial Coping.

The first significant result was the interaction between participation in decision making climate and direct victimization predicting avoidance and denial coping (Table 16, Model 3, γ_{83} = -.29, p < .05). Figure 16 depicts the relationship between direct victimization and avoidance and denial coping at high levels (+1 SD) of participation in decision making climates and low levels (-1 SD) in participation in decision making climates. Simple slopes and significance are listed as follows: high participation in decision making climate (-.10, p < .05) and low participation in decision making (.07, *n.s.*). As direct victimization goes from low to high levels, the graph suggests that high levels of participation in decision making ameliorated the relationship between direct

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victimization and avoidance and denial coping. Comparing the two lines, high

participation in decision making climates had the lowest level of avoidance and denial

coping at high levels of direct victimization. These patterns provided some support for

hypothesis 24d.

[INSERT FIGURE 16 ABOUT HERE]

Sexual Harassment x Organizational Participation in Decision Making Climate – Social Coping.

The third significant finding was the interaction between participation in decision

making climate and sexual harassment predicting social coping (Table 18, Model 3, γ_{103}

= -.30, p < .01). Figure 17 shows the relationship between sexual harassment and social

coping at high levels (+1 SD) of participation in decision making climate and low levels

(-1 SD). The figure depicts the slightly positive sloping line for the low participation in

decision making climate (.03, n.s.) with a negative sloping line for the high participation

in decision making climate (-.14, p < .01). From low to high levels of sexual harassment,

the lowest levels of social coping occurred when both sexual harassment and

participation in decision making were at high levels (i.e., social coping was ameliorated).

This finding does not support hypothesis 24a.

[INSERT FIGURE 17 ABOUT HERE]

Direct Victimization x Organizational Participation in Decision Making Climate – Advocacy Seeking Coping.

The final significant finding was the interaction between participation in decision

making climate and direct victimization predicting advocacy seeking coping (Table 19,

Model 3, γ_{83} = -.30, p < .05). Figure 18 provides the relationship between direct

victimization and advocacy seeking coping at high levels (+1 SD) of participation in

decision making climate and low levels (-1 SD). The figure illustrates the slightly positive slope for low participation in decision making (.03, *n.s.*) and the negative slope for high participation in decision making (-.14, p < .01). From low to high levels of direct victimization, the relationship with advocacy seeking coping was ameliorated for high participation in decision making climates (decentralized). The lowest levels of advocacy seeking coping occurred when both direct victimization and participation in decision making were at high levels. This finding is contrary to hypothesis 24c.

[INSERT FIGURE 18 ABOUT HERE]

Summary of Hypothesis 24.

Overall, the findings above had support for hypothesis 24b between the relationship of sexual harassment and confrontation and negotiation and hypothesis 24d between the relationship of direct victimization and participation in decision making. Both showed that in decentralized climates improved coping styles emerged especially at high levels of victimization. However, the final two findings illustrated the opposite of these findings. Supported coping responses (i.e., social coping and advocacy seeking) appeared buffered at high levels of victimization and decentralized climates. Thus, hypotheses 24a and 24c were not supported.

Effect Sizes of Technical Systems' Main Effects

Cognitive Appraisals: Between-Organization Variance in the Intercept Explained.

To discern approximate effect sizes for the significant main effect findings for between-organization variance in the intercept, equation 5 again was utilized. Organizational technical climates together explained 46% of the between-organizational

variance in the intercept for threat appraisals; 54% of the intercept variance for centrality appraisals; and 65% of the intercept variance for resource availability appraisals.

Cognitive Appraisals: Between- & Within-Organization Variance Explained.

Equations 6 and 7 were utilized to determine the between- and within-organization variances explained. In total, the main effects explained approximately 29% of the between-organization variance and 13% of the variance in threat appraisals; 22% of the between-organization variance and 13% of the variance in centrality appraisals; and 40% of the between-organization variance and 10% of the variance in resource availability appraisals.

Effect Sizes of Technical Systems' Cross-Level Effects

Cognitive Appraisals: Between-Organization Variance in the Slopes Explained.

Using equation 8 to calculate effect size for the between-organization variance in the slopes, formalization climates explained 45% of the between-organization variance in slopes between indirect victimization and centrality appraisals; while 66% was explained in the relationship between direct victimization and centrality appraisals.

Cognitive Appraisals: Between- & Within-Organization Variance Explained.

The cross-level effects explained .32% of the between-organization variance and 3% of the variance in centrality appraisals. Further, .5% of the variance in resource availability appraisals was explained by cross-level interactions (note: other effect sizes could not be interpreted given a negative value, cf. Singer & Willett, 2003).

Coping Styles: Between-Organization Variance in the Slopes Explained.

Utilizing equation 8, the between-organization variance in slopes was calculated for the significant findings. Hierarchy in decision making climates explained 34% of the

between-organization variance in slopes in the relationship between sexual harassment and confrontation and negotiation coping. Participation in decision making climates explained 64% of the between-organization variance in slopes in the relationship between direct victimization and avoidance and denial coping. Additionally, participation in decision making climates explained 44% of the between-organization variance in slopes in the relationship between sexual harassment and social coping. Participation in decision making also explained 36% of the between-organization variance in slopes in the relationship between direct victimization and advocacy seeking coping.

Coping Styles: Between- & Within-Organization Variance Explained.

Using equations 6 and 7 as before, the following between-and within-organization variance explained estimates were calculated: (1) the cross-level effects explained 1.2% of the between-organization variance and 1.5% of the variance in avoidance and denial coping; (2) the cross-level effects explained 1.1% of the variance in confrontation and negotiation coping; (3) the cross-level effects accounted for 1.5% of the between-organization variance and 1.3% of the variance in social coping; and (4) the cross-level effects explained 1.4% of the variance in advocacy seeking coping (note: as stated prior, some effect sizes are not reported given negative values, cf. Singer & Willett, 2003).

Discussion and Theoretical Explanation

Blending transactional psychological stress and sociotechical systems theories, this study investigated social (i.e., workgroup LMX climate level and strength, workgroup conflict climate, and workgroup knowledge sharing climate) and technical systems' (i.e., organizational centralization, complexity, and formalization climates) direct and cross-level influences on direct care employees' cognitive appraisals and

coping styles that result from being victimized by patients, residents, and these clients'

families (i.e., direct, indirect, and sexual harassment victimization). Trist and colleagues

and Cox and colleagues have explored how social and technical systems influence

organizational and individual outcomes, but investigation is missing in further

understanding the appraisal and coping processes that are posited as precursors to these

outcomes (i.e., transactional psychological stress processes, Lazarus & Folkman, 1984).

The selection of social and technical climates was based on the tenets of sociotechnical

systems theory. Complexity was later removed as an organizational technical climate and

used as a psychological climate control after it was deemed inappropriate for aggregation

for multilevel purposes.

This study investigated these questions from a multilevel, multi-workgroup,

organizational perspective using multilevel methods. Further, this study examined the

transactional psychological stress processes in a more holistic fashion than previous

studies. Though a few studies have explored remotely similar questions utilizing

psychological climates at the individual level (cf. Frederikson & Dewe, 1996; Malamut &

Offermann, 2001), this is believed to be one of the first studies, if not the first, to explore

social and technical system direct and cross-level effects on cognitive appraisals and

coping styles at a meso-level.

Social Systems' Influence

Workgroup Leadership Climates

Starting with social systems, it was posited that leadership climates that provide

workgroups control of their tasks and environment, as well as provide workgroups

"interruption" support (e.g., aiding workgroups when victimizations are encountered

through coaching or other resources) and other resources would facilitate improved victims' cognitive appraisals and coping styles. Findings showed that greater workgroup leadership climate levels were related to higher resource availability appraisals and advocacy seeking coping styles. This implies the supportive role of leadership climates where victims view their leadership as a resource and may ultimately seek organizational support when victimizations are encountered. Direct relationships between leadership climate levels and other cognitive appraisals (e.g., threat, centrality, and challenge appraisals) and coping styles (e.g., avoidance and denial, confrontation and negotiation, and social coping) were not found.

Further, it was hypothesized that leadership may act as a toxic handler (Frost, 2007) or, perhaps, a normalizer of dirty work (Ashforth, Kreiner, Clark, & Fugate, 2007) in aiding workgroup employees to deal with victimizations and overcome the emotional and psychological toxins and taint associated with being victimized by clients. It was found that at high levels of direct victimization, high LMX climate level, high LMX climate strength workgroups were better off in the levels of their centrality (i.e., events are not as central or harmful), challenge (i.e., encounters provide more learning and potential future benefit), and resource availability appraisals compared to other groups. For threat appraisals, a slightly different pattern emerged. At high levels of direct victimization, the high LMX climate level, high LMX climate strength workgroup shared the lowest level of threat appraisals with two other workgroup categories compared to the highest level experienced by the low LMX climate level, high LMX climate strength workgroup. This implies that stronger and more positive leadership climates that embody

good relations with all group members consistently and equally are more beneficial and have potential to aid workgroup members through their direct victimization encounters.

These interactions were only found with direct victimizations and not indirect victimizations and sexual harassment. Perhaps, leadership climates, working as a toxic handler, only function when victimizations are related to workgroup tasks or when victimizations can be visibly seen as impacting tasks. In long term care facilities that have high direct victimization, workers understand that their daily work routine will comprise of aggressive patients and residents, and this behavior is expected – it is *part of the job*. These behaviors may likely be more visible and understood by leadership so that they are more prepared and inclined to assist and support individuals and workgroups. Sexual harassment and indirect victimization may be out of leadership's realm of control for proper assuaging of these incidents given that these behaviors may not be as detectable and may be more difficult to witness. Plus, leadership may not be adequately trained to handle these latter behaviors.

As far as leadership relations with coping are concerned, interestingly, only one three-way interaction that occurred with LMX climates and coping was determined with avoidance and denial coping. Contrary to what was posited, when comparing the four LMX workgroup categories, at high levels of indirect victimization, workgroups with strong and consistent positive relationships with leadership actually experienced avoidance and denial coping at the highest level compared to other group. Further, from low to high levels of indirect victimization, the high LMX climate level, high LMX climate strength workgroups' avoidance and denial coping levels were enhanced to this highest level.

This result may be a function of the type of victimization experienced, as well as a function of leadership providing more control and autonomy to workgroups in strong and consistent positive leadership climates. Indirect victimization often is not as detectable as direct victimization, and reports may be largely based on hearsay, information from others, and perceptions. Given these characteristics, if workgroup members in these positive environments approach their leadership regarding indirect victimizations, leadership may question the authority and self-regulation that they have allotted to the workgroups and may question if workgroups are able to effectively and efficiently conduct their tasks, etc. Indirect victimizations may be hard to gauge and measure for leadership and, perhaps, leadership is not even cognizant of their occurrence. Hence, for workgroups in these positive environments, it may be easier to deal with indirect victimizations by trying to forget about them or avoid these occurrences by escape mechanisms rather than alerting leadership.

Workgroup Conflict Climates

Further, I posited how interactions within the workgroup could be influential on victims' cognitive appraisals and coping styles. Specifically, I hypothesized that workgroup conflict climates would negatively influence cognitive appraisals, as well as supported and instigator focused coping styles, while promoting coping such as avoidance and denial. High workgroup conflict climates were found to be positively related to high threat and centrality appraisals, while negatively related to resource availability appraisals. These findings confirmed the literature that workgroup conflict can induce stress that leads to negative cognitions and behaviors (e.g., Dijkstra, van Dierendonck, & Evers, 2005). Workgroup conflict environments may engender

individuals to believe that they have little situational control and that there is grave malfunction in the workplace attributed to its people and tasks performed (De Dreu & Beersma, 2005). With conflict compounded with victimizations from clients, cognitive overload (cf, Carnevale & Probst, 1998) can occur for members, or workgroups could succumb to a "loss-spiral" (cf. Hobfoll, 1989) where resources are lacking to master a negative event – which may facilitate workgroup conflict's direct relationships with these levels of threat, centrality, and resource availability appraisals.

Contrary to my hypotheses, workgroup conflict was found to be positively related to social coping and advocacy coping. Scholars have determined that workplace conflict is not necessarily detrimental to the workplace and that perhaps organizational performance is influenced positively by conflict (De Dreu & West, 2001; Jehn, 1994, 1995). Workgroup conflict may lead workgroups to avoid group think and interdependently resolve victimizations or escalate them appropriately. Thus, pursuing social coping to adequately resolve issues and advocacy seeking coping to escalate victimizations may not be foreign behaviors when conflict is present in the workgroup. However, interactions between victimizations and conflict were not found to be related to cognitive appraisals or coping styles.

Workgroup Knowledge Sharing Climates

In contrast to workgroup conflict climates, workgroup knowledge sharing climates were predicted to positively influence cognitive appraisals and supported and instigator focused coping styles. Greater knowledge sharing climates were found to be directly related to increased challenge and resource availability appraisals, as well as confrontation and negotiation, social, and advocacy seeking coping styles. Theoretical

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and empirical work has shown how knowledge sharing in workgroups can help to develop and expand shared workgroup mental models that promote workgroup functioning – particularly in times of workgroup interruptions such as workplace victimization (Ashforth & Kreiner, 2002; Mathieu et al., 2000; Zellmer-Bruhn, 2003). These mental models perhaps are the blueprints for proper handling of workplace victimization. Therefore, in the presence of workgroup knowledge sharing climates, workgroup members may see victimizations as learning tools and that resources are more readily available and may activate coping styles that are more problem-focused.

Interaction effects were only found between knowledge sharing climates and indirect victimizations predicting centrality appraisals and between knowledge sharing climates and sexual harassment predicting advocacy seeking coping. Across levels of indirect victimization, high knowledge sharing climates were found to exacerbate centrality appraisals in which the highest levels of centrality appraisals were experienced at high levels of indirect victimization and high level of knowledge sharing climates. This was contrary to what was hypothesized. However, indirect victimizations are typically instigated behind one's back (e.g., being gossiped about), and often the victim may learn of the victimization through another individual who witnessed the event. Thus, it is logical to find that one's appraisals are more harmful and central to the individual especially when knowledge sharing climates are prevalent in the workgroup. Education seems to inform individuals of the indirect victimizations in their environment; new knowledge may promote greater perceptions of harm. Given the old adage, *no news is good news*, perhaps, *new news is bad news*. Alternatively, knowledge exchange climates may notify all organizational stakeholders that these negative interactions are endemic in

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the organization; thus, individuals are more aware, and future remedies and policy may be implemented to potentially mitigate the incidents and assuage centrality appraisals.

Further, concurring with what was hypothesized, across levels of sexual harassment, high knowledge sharing climates were found to encourage and enhance advocacy seeking coping – the highest levels of advocacy coping occurred when sexual harassment and knowledge sharing climates were simultaneously higher. Again, this fits with the expanded workgroup mental model argument, in environments with high sexual harassment and high knowledge sharing climates, workgroup members will have the toolkit to escalate these negative interactions through the proper channels.

Technical Systems' Influence

The technical system hypotheses were grounded in institutional theory – the organization as the institution – where specific centralization and formalization structures are embedded within a particular organization and this embeddedness dictates and guides collective and individual cognitions and behaviors (cf. Zucker, 1983, 1987). Organizational formalization and decentralization climates were hypothesized to positively influence and enhance cognitive appraisals and supported and instigator focused coping styles.

Organizational Formalization Climates

Consistent with the prediction, formalization climates were determined to have a positive main effect with resource availability appraisals – as formalization climates increase, so do resource availability appraisals. Rules that are formally written down and understood by organizational members have been shown to engender perceptions of organizational justice and confidence that everyone is being treated equally, as well as

perceptions that one's work and position in the workplace are valued by the organization (Posdakoff et al., 1986; Schminke et al., 2002). Feelings of organizational support have potential to elicit one to have appraisals of resources available especially during times of victimization exposure. Formalization climates, however, were not directly related to threat, centrality, or challenge appraisals.

Additionally, formalization climates were only found to have cross-level effects with direct and indirect victimization predicting centrality appraisals, as well as an interaction effect with sexual harassment predicting resource availability appraisals. No cross-level effects were found with coping styles. Though the findings did not generally support the predictions, in low formalization climates, centrality appraisals were exacerbated as direct victimization went from low to high levels. The highest levels of harm were experienced by organizational members in low formalization climates at high levels of direct victimization (i.e., compared to those in high formalization climates). Similarly, resource availability appraisals were exacerbated in low formalization climates. At high levels of sexual harassment, the lowest level of resource appraisal was found for low formalization climates (i.e., compared to those organizations with high formalization climates). For both analyses, however, appraisals in high formalization climates were fairly consistent across victimization levels.

From these findings, the absence of formalization in an environment appears to negatively influence organizational members. When rules were nonexistent or were not clearly understood, individual appraisals were not as resilient. This could lead to perceptions that the organization is not fulfilling its supportive role and duties. Though having policies and procedures that are officially written down and understood by

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organizational members may not necessarily improve individual appraisals, the presence

and utilization of rules in an organization may facilitate victims to perceive

organizational support. Organizational support perceptions, vis-à-vis formalization

climates, may have a stabilizing effect on organizational members – in which individuals

experience appraisals similarly at low and high levels of victimization. This stabilizing

effect may be best for the organization because it knows what to expect from its

employees, in terms of appraisals and appraisal levels, and can act accordingly, no matter

the level of victimization.

In a further finding, centrality appraisals for high formalization climates were

exacerbated as levels of indirect victimization moved from low to high. The highest level

of harm was experienced when indirect victimization and formalization climates were

simultaneously higher (i.e., compared to those in low formalization climates). This is

inconsistent with prediction. However, coupled with the findings above, this finding has

implications for how a similar climate may impact victimization types differently. As

previously noted, direct victimizations may be better observed and documented; hence,

rules and protocol related to direct victimization are likely better instituted and

established in organizations to protect and/or instruct workers how to handle and report

these direct interactions. Indirect victimizations, though, are more difficult to identify and

prove, and, perhaps, even in highly formalized organizations, rules are not established to

remedy these occurrences. Thus, in high formalization climates, organizational members

may become even more so frustrated because rules are not necessarily established to

protect workers when indirect victimization occurs – leading to greater centrality

appraisals. It further should be noted that the assumption taken in this dissertation that

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social and technical climates may affect victimization types similarly is an assumption that should not necessarily be taken in future studies and is more thoroughly discussed in the limitations section.

Organizational Centralization Climates

Further analyses found that (de)centralized climates had a direct relation with threat, centrality, and resource appraisals; these findings supported predictions. High hierarchy of authority climates (i.e., the lack of latitude in decision making individuals have with their tasks) were related to high threat and centrality appraisals, while negatively related to resource availability appraisals. Employee involvement in organizational and task decisions has been linked to workers' perceptions of voice and choice in the organization, as well as environmental control and fairness perceptions (Lind, Kanfer, & Early, 1990; Schminke et al., 2000, 2002). Without this voice and choice, organizational members may feel ostracized from their job and organization, and when this is coupled with victimization, employees may have appraisals that are threatening, harmful, and void of resources. Hierarchy of authority did not have a direct effect on coping styles, and further, participation in organizational decision making had no main effect on either appraisals or coping.

Though centralization climate cross-level effects were not found for cognitive appraisals, interactions were found predicting coping styles. Consistent with prediction, avoidance and denial coping was ameliorated in high participation in decision making climates (i.e., decentralized climate) as levels of direct victimization went from low to high. Further, confrontation and negotiation coping was exacerbated in high hierarchy of authority climates (i.e., centralized climate) as levels of sexual harassment moved from

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low to high. When employees have more voice and choice in the organization, they are likely to feel empowered and cope in a problem-focused manner rather than avoid the situation – especially when negative encounters may be an aspect or related to their task or job (i.e., high direct victimizations are recurring and likely anticipated by workers in long term care facilities). However, in more bureaucratic organizations, norms instruct that one should not confront his/her attacker unless cleared previously through management. Hence, a more rigid chain of command exists, and employees must consult their leadership prior to any action; thus, it would seem that confrontation and negotiation would decrease especially in more highly centralized environments.

Contrary to prediction, advocacy seeking was ameliorated when participation in decision making and direct victimization were both at high levels. A similar relationship was found between sexual harassment and social coping. In line with more voice and choice providing perceptions of environmental control, perhaps, those with greater control perceive they can handle victimizations on their own and do not turn to interpersonal and/or organizational outlets to escalate the incidents. Plus, due to laws that exist to protect vulnerable adults, perhaps, the caregiver does not want attention brought to him/her. Caregivers working through the incidents on their own without pursuing support may be more favorable to the organization. Costs are associated with advocacy seeking, and productivity is impacted when pursued given the interruption to the workflow and the internal and external investigation that might be triggered. However, without advocacy and informing others, all stakeholders involved may not understand the true existence of victimizations in the workplace, and in the long term, without organizational action, may impact the individual and organization negatively.

Further, it was interesting to find that organizational formalization climates only interacted with cognitive appraisals; while organizational (de)centralized climates solely interacted with coping styles. Levels of formalization climates are based on the aggregate knowledge that rules are formally composed and utilized and are understood by organizational members. Knowledge alone may not be enough of an impetus for one to behave or act in accordance to a specific coping manner; prior knowledge may only influence one's thought processes after victimizations are encountered. However, (de)centralization deals with the abundance or lack of influence in decision making related to tasks and organizational policy and change. Hence, these climates are behaviorally oriented and perhaps are more inclined to dictate individual behavior. One's behavioral influence on the workplace and consistent practice of one's control or lack of control of his/her environment may be much more influential in triggering specific coping behaviors related to victimizations.

Summary

This is one of the first studies, if not the first, to investigate, from a multilevel perspective, social and technical systems' influence on cognitive appraisals and coping styles, as well as their impact on the relationships between victimizations and appraisals and coping. This question is contrary to the propositions of transactional psychological stress theory. Scholars, from this tradition, have posited that stress occurs at the individual level; hence, appraisals and coping are an individual phenomenon (Lazarus & Folkman, 1984; Lazarus, 1995). However, from the dissertation's findings, workgroup and organizational climates have been found to influence the dimensions of cognitive

appraisals and coping styles that result from victimizations – via main and moderating relationships.

Given theoretical assertions and first hand observations in the healthcare field, many of the direct effect findings were straightforward and mostly abided by prediction (e.g., high leadership climate levels were related to perceptions that resources were available; workgroup knowledge sharing climates were related to social coping). Yet, as outlined in the prior discussion, it still is beneficial and imperative to know how specific social and technical systems directly impact specific appraisals and coping, especially in environments where victimizations are prevalent. Though some results were apparent, others were not. For example, in regards to workgroup conflict climates, findings showed that some conflict in the workgroup may be warranted because it may elicit individuals to pursue social coping and organizational advocacy when victimized. This perhaps indicates the benefits of conflict for individuals and organizations.

From the cross-level analyses, some of the most important takeaways are as follows. Strong and consistent positive leadership climates are valuable to caregivers especially in regards to their cognitive appraisals related to direct victimization. In these strong leadership climates, leadership perhaps is providing adequate resources for employees to cognitively manage the negative incidents. Further, leadership may be taking the role of a toxic handler which may help to buffer victimization incidents and/or provide normalcy in the environment. Additionally, organizations may likely desire to have rules in place and ensure that caregivers are knowledgeable about the existence of policy. Organizational formalization may not provide added benefits by ameliorating negative cognitions and/or coping styles. However, it appears, in some cases, to stabilize

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behavior. This employee predictability may be an asset to an organization. Finally, organizations may want to reflect on the level of empowerment and employee engagement they provide to their workers because decentralized environments appear to have a mixed effect on coping styles. In more decentralized climates, empowerment appears to bring benefit by negating avoidance and denial coping choices, while potentially encouraging employees to be proactive in handling matters on their own. However, decentralized climates were also found to ameliorate supported coping options (i.e., social coping and advocacy). Organizations likely do not want to be in the business (particularly when regulated by local, state, and/or national authorities) of fostering environments that encourage caregivers not to inform and escalate issues to colleagues and, especially, to the organization. Thus, organizations should consider designing programs that integrate employee influence and power with appropriate reporting and escalation systems. Many of these points are further expounded upon in the theoretical and organizational implications sections.

Limitations and Future Directions

There are several limitations to this dissertation. First, common method bias and social desirability are concerns. The observed correlations of the variables may be artificially affected due to social desirability. Some examples are as follows: direct care workers not desiring to admit that they are being victimized; workers having issue with their patients/residents, colleagues, and/or leadership in general and choose to over exaggerate the extent of victimization experiences and/or their perceptions of the workplace context; and caregivers fearing retaliation from their supervisors and/or workgroup. However, it is perceived that social desirability is remedied given the

confidential nature of the survey and study, as well as that the survey was mailed to the individual's home and/or given to the participant via a labor union representative and not an employer representative. The participant also mailed the completed survey from their home directly to the researcher. Hence, there was no intermediary (besides the postal service) between the exchanges of data from participant to researcher.

Further, all the data were also collected from one source, raising common method bias concerns. However, the multilevel nature of this study mitigates these concerns somewhat. The second-level predictors for both the social and technical systems' HLM analyses were aggregated and created based on statistical methods that justify aggregation into workgroup and organizational climates (e.g. $r_{wg(j)}$, ICC(1), and ICC(2)). Plus, procedural approaches were used to evaluate this issue, and I am confident that the extent of common method biases in the data is not extensive and not wholly responsible for these results (cf. Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). For *procedural remedies*, given that the survey was completed at home, the participant should have decreased *evaluation apprehension* related to workplace concerns. *Survey anonymity* was preserved due to the data were retrieved confidentially and no participant can be identified. *Predictor and criterion measurement separation* was maintained because measures were not asked in the sequence similar to the models. Finally, *scale item quality* has assisted in diminishing common method variance: (a) items had familiar terms; (b) avoided unfamiliar nomenclature or syntax and provided examples if needed; (c) kept short, succinct, focused items while avoiding double-barreled items (cf. Podsakoff et al., 2003).

Additionally, the cross-level findings in this dissertation aid in assuaging concerns that results are artifactual. Method variance does not explain the finding of a significant interaction. It can explain a direct relationship between two variables, but not the relationships pattern over a third variable. The literature also has frequently commented on how complicated it is for a researcher to identify moderating relationships in field studies – particularly when investigating three-way interactions (McClelland & Judd, 1993). Testaments to the robustness of this study's results are that the three-way interactions with direct victimization and LMX climate level and strength predicting cognitive appraisals were discerned and also abided by the dissertation's propositions.

Despite the limits of self-report data, I argue that for several of the variables of interest I needed to ask the participant directly. Lazarus and Folkman (1987) have argued that it is "extremely difficult, perhaps impossible, to measure without using self-report" . . . "it requires great wisdom, skill, and luck to be able" to make inferences about another's thoughts and feelings given the personal nature of appraisal (p. 162). Hence, these scholars suggest that appraisals would be one of the most difficult constructs to study without self-report data. Similarly, it is difficult to measure one's coping styles without asking the individual directly. Further, measuring one's exposure to victimization through other means such as asking colleagues and/or supervisors can also lead to response biases. Finally, studies have shown that it is one's perceptions of the self and contexts that are most affective in altering appraisals and coping and may have more influence on these relationships (cf. Cohen & Hoberman, 1983; Cohen & McKay, 1984). Given the second-level social and technical predictors were composed utilizing these individual responses and were, ultimately, aggregated to the workgroup and

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organizational level based on statistical consensus methods, common method bias was attentively monitored and precaution taken.

Further, this dissertation made an assumption that social and technical climates would impact the relationships between the three types of victimizations and cognitive appraisals and coping similarly. From the study's findings, this was not necessarily the case. For example, the interactions between LMX climate level, LMX climate strength, and direct victimization were significantly influential with cognitive appraisals; however, with sexual harassment and indirect victimization there was little to be found. Other examples are that knowledge sharing interacted with indirect victimization in predicting centrality appraisals and interacted with sexual harassment in predicting advocacy seeking coping, but with other relationships with the differing victimizations and cognitions and coping nothing was determined. With technical climates, high participation in decision making was found to interact with direct victimization to influence avoidance and denial and advocacy seeking coping, yet, again, there were relationships that were not found – especially with cognitive appraisals. Understanding why certain climates interact with certain victimization types to influence specific cognitive appraisals and coping styles needs further theoretical and empirical work. This dissertation is a stepping stone in this nascent literature and motivates future work in this area.

Finally, findings may not be generalizable outside health care, outside the Midwest United States, and/or outside unionized environments. However, health care is an excellent industry to study given the high base rates of victimization in the workplace. Findings found and implications determined in healthcare studies have potential to be

applied to workplaces where base rates may be lower and difficult to detect – especially in environments where client interactions are difficult to measure or cannot be monitored or where incidents dealing with clients are isolated events and are difficult for participants to recall. Nonetheless, future studies should be conducted in different industries, regions, non-union contexts, and cross-culturally to understand if these relationships under study and findings hold.

In addition to the suggestions for future directions flowing from the limitations detailed above, conceptual ideas for further work are also offered. Appraisals of victimization incidents may change over time (i.e., reappraisals are likely to occur, Lazarus & Folkman, 1984). In addition, one's perception of his/her general coping style with victimization may not be how an individual actually copes in the moment when confronted with a victimization incident (Newton, 1989). A longitudinal survey design may be necessary to adequately study this future research question regarding appraisals, reappraisals, and actual coping. One possible method would be an experience sampling study that allows individuals to convey victimization experiences and appraisals and coping at designated time intervals over a specified period of time.

In the current study, I investigated solely how one generally appraises and copes with victimizations in the past six months. How one generally perceives herself/himself as appraising and coping with these incidents may be different than how one actually appraises and copes with a specific incident. Future research should similarly explore this dissertation's research questions but from a specific incident approach to detect if relationships differ.

This study also only investigated victimizations instigated by clients. Social and technical climates may influence the relationship between victimizations and appraisals and coping very differently depending on the instigator. Does the instigator type influence how certain climates interact with certain victimization types to influence specific appraisals and coping? Further work should consider this. Additionally, the social and technical climates under study in this dissertation are limited given the abundance of workgroup and organizational climates that could also be studied. There are other theoretical foundations besides sociotechnical systems to pursue. Scholars should take an initial theoretical approach to discern adequate climates to study; however, the breadth of questions is endless related to climate influence on victims' appraisals and coping. Example questions, especially in a labor union context, would be how do union social support, instrumentality, industrial relation, and steward leadership climates impact victims' transactional stress processes.

Though cognitive appraisals were controlled for in the coping analyses, appraisals were significantly related to the coping styles – as expected per the transactional psychological stress theory. Further research could explore how social and technical climates impact the relationship between victims' appraisals and coping styles. Perhaps the interaction between social and technical systems and cognitive appraisals will have ameliorating and/or enhancing effects on coping styles. This is an interesting question because it asks if climates have the potential to influence victims' cognitions and ultimately impact victims' coping behaviors.

Additionally, findings in this dissertation have shown that some climates may not be beneficial. For example, in environments where sexual harassment may be endemic,

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individuals were found to pursue the least social coping in organizations that provide the most employee engagement and influence (e.g., participation in decision making climates). This might suggest that individuals internalize the sexual harassment incident and do not pursue the appropriate internal and external aid. Hence, there is potential for a *dark side* to workgroup and organizational climates. Future work should explore this dark side to climates.

Theoretical Implications

In his transactional psychological stress theory, Lazarus (1995) would argue that appraisals and coping that result from stressful encounters are an individual phenomenon and that organizational and workgroup contexts should have no influence on these processes. Scholars, across several decades, though, have insisted theoretically that organizations are strong and that contexts are consistent and embedded within organizations that may influence and even dictate cognitions and behaviors and provide meaning to specific encounters (Cooper, Dewe, & O' Driscoll, 2001; Davis-Blake & Pfeffer, 1989; Harris, 1995; Malamut & Offermann, 2001; Newton, 1989; Zucker, 1983). Further, some scholars have argued that the individual-level of analysis may not be the appropriate level to understand how work conditions impact these transactional stress processes and that institutional and other contextual levels should be explored (Brief & George, 1995). Many of these alternative assumptions have been gathered from theoretical work. Yet, little, if any, empirical work has been conducted to substantiate the conflicting arguments – particularly in the area of contextual influences on the relationship between workplace victimizations and victims' appraisals and coping, especially from a multilevel perspective.

However, this dissertation specifically investigated how social and technical climates at a multilevel may have direct relationships with appraisals and coping, as well as cross-level effects between the relationship of victimizations and victims' appraisals and coping. Contrary to Lazarus' assertions, workgroup and organizational contexts were found to have effects on caregivers' appraisals and coping styles that resulted from victimizations instigated by their clients and/or clients' families. Therefore, transactional psychological stress theory may be in need of some theoretical revamping particularly in its assessment of organizational and workgroup influences on the transactional stress processes. Appraisals and coping definitely occur at the individual-level; however, strong and consistent contexts likely play a factor in the individual's experience with appraisals and coping. Again, this dissertation is one of many baby steps in expanding this theoretical argument. Thus, this dissertation and its findings elicit a call to scholars in this literature for future theoretical and empirical work.

Organizational Implications

This dissertation's findings are illustrative that organizations should definitely be cognizant of the influence that their organizational and workgroup social and technical contexts have on an individual's appraisals and coping. Organizations should regularly evaluate their climates to discern if they are effective and to see how they are impacting individual appraisals, behaviors, performance, as well as organizational and workgroup performance. If these systems are not working according to objectives, organizational leadership, teamed with employees and other stakeholders, should reevaluate these contexts and potentially redesign and/or institute new policy, procedures, structure, and systems that benefit the health of the individual and organization.

Leadership Relations

Strong leadership climates, in which personnel share equally good relations with management, were shown to mitigate threat and harm appraisals that resulted from direct victimization; while, at the same time, promoted individual appraisals that engendered beliefs that resources were available in the organization and that benefits and learning could be achieved after experiencing direct victimizations. Organizations should ensure that their leadership is trained to deal with these incidents and can effectively lead when these interruptions occur. Examples of effective leadership would be to periodically introduce and/or reinforce existing strategies that effectively combat and/or remedy negative client interactions. Additionally, leaders may prepare employees how to adequately handle and care for new incoming patients that may have a history of abusive interactions. Further, leaders must possess an adequate skill set – related to both cognitive and emotional ability – to adequately "buffer" or "take on" the pain of the workplace in order to neutralize the impact of victimizations. Organizations must be mindful of this when selecting and retaining leaders. Hence, organizations will need to find and retain leaders that can juggle the normal day-to-day duties along with these added responsibilities – while also maintaining positive, equitable relationships with each member of the workgroup. Therefore, routine employee appraisals of leadership likely are warranted to ensure that the leadership treats members of the workgroup fairly and is consistent in this treatment. As discussed prior, consensus (i.e., leaderships' equitable treatment across workgroup members) seems to be a critical ingredient for bettered appraisal outcomes particularly in environments where direct victimization by clients is prevalent.

The interaction effects between leadership and direct victimization may have been significantly determined because direct victimization may be considered *part of the job* by leaders and followers, and leadership can more easily and effectively influence and adjust aspects of the workgroups' tasks and jobs. Yet, if sexual harassment and indirect victimization are endemic in the organization, even though these behaviors may not be considered as *part of the job*, they still have infiltrated the workplace and likely have negative implications. Organizations may desire to learn how leadership can also effectively handle indirect victimization and sexual harassment incidents. This will require the organization to institute policy, protocol and additional education for its leadership, as well as its followers. Additionally, added monitoring may be needed to capture and better measure the existence of sexual harassment and indirect victimization in the workplace.

Unlike the direct victimization findings above, when indirect victimization and sexual harassment are endemic in the organization and, at the same time, strong leadership relationship climates exist, evidence has shown that beneficial appraisals and coping may not occur. For example, victims may pursue avoidance and denial coping mechanisms at greater levels when indirect victimization, LMX climate levels, and LMX climate strength are simultaneously higher – instead of utilizing more proactive actions such as alerting colleagues and seeking organizational advocacy. Further, though LMX climate levels were found to directly influence resource availability appraisals, at high levels of sexual harassment, workgroups with positive, consistent relations with leadership had a lowered resiliency in regards to resource availability appraisals. Thus, even in the presence of strong leadership climates, organizations should design and

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implement and/or improve existing confidential and comprehensive monitoring, reporting and resolution tools a) to better guarantee both employee and patient safety; b) to educate organizational stakeholders that these incidents actually occur; c) to assure that workers will not necessarily be blamed, scolded for the incident happening, or viewed as an ineffective organizational performer; d) to ensure that employees perceive that resources are available and that employees understand and actually utilize these tools; and e) to make certain that future occurrences are mitigated and hopefully ameliorated. Though strong and consistent positive relations exist between leadership and followers in an organization, the organization still must be cognizant that even good relations, at times, can and must be tweaked and improved.

Workgroup Conflict

Though workgroup conflict was negatively related to resource appraisals and positively related to threat and centrality appraisals, it was positively related to social coping and advocacy seeking mechanisms. Therefore, organizations may want a balance in workgroups regarding conflict. Ensuring that workgroup members are heterogeneous with differing backgrounds may effectively accomplish this conflict balance that may eliminate group think and that facilitates better coping mechanisms for the organization through social coping and advocacy seeking. Through these coping styles, workgroup and organizational stakeholders are likely informed of victimization occurrences, and the organization and workgroup can act accordingly to limit and/or mitigate future occurrences through changing assignments, providing training and education, and/or alerting the proper legal authority.

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Workgroup Knowledge Sharing

Encouraging effective knowledge sharing climates may also be instrumental for the workgroup and organization. Knowledge sharing climates were directly linked to individuals perceiving that benefits and learning can occur after victimizations are encountered, as well as that resources are available. More problem-focused coping mechanisms were also related with knowledge sharing climates. Though knowledge sharing climates seemed to exacerbate centrality appraisals when high indirect victimizations were prevalent, perhaps, this is a good thing because it notifies the workgroup members that indirect victimization is actually a problem. Therefore, future centrality appraisals have potential to be mitigated if the workgroup and organization implore tactics to identify and remedy indirect victimizations.

To further facilitate workgroup knowledge sharing, the organization can implement knowledge management applications that enable workgroup members to store issues and their resolutions. Tools should also be in place so that workgroup members can easily query and retrieve these best practices, as well as easily send and receive information among members through information dissemination mechanisms (e.g., newsletters, bulletin board postings, FAQ documentation, and email).

Organizational Formalization

Organizations should also ensure that they have policy and protocol officially written down and ensure that all employees understand and utilize these policies. First exposure to policies and protocols can be established at new hire orientation. Reminders can occur at employee development meetings and/or at annual performance evaluations. Greater formalization climates were determined to directly impact better individual

resource appraisals. However, in contrast, low formalization climates were shown to exacerbate centrality appraisals when direct victimization was high and exacerbate resource availability appraisals when sexual harassment was high. The presence of rules may likely be an initial indicator for most employees that the organization is supportive. As the study found, simply having rules in place can potentially stabilize victims' responses across levels of victimization and can make individual behaviors more predictable for the organization. In addition to normal day-to-day workplace policy, organizations should implement comprehensive policy and escalation procedures that not only cover direct victimizations, but also cover indirect victimization and sexual harassment. The lack of indirect victimization being covered in workplace rules and procedures, for example, may be increasingly frustrating to organizational members as demonstrated in this study's findings.

Organizational Centralization

Employee engagement and influence in organizational task and decision making is also an aspect that organizations should likely implement. However, as evidence has shown, there may be a balance that organizations should consider related to the share of authority allotted between organizational members and their leadership. More bureaucratic environments were found to promote threat and harm appraisals; while these climates were negatively related to individual's perceptions of resources available. Providing organizational members with more voice may alleviate these concerns. However, according to findings, though more organic, decentralized environments were related to decreased levels of avoidance and denial coping, they were also related to decreased levels of advocacy coping when direct victimizations were high. If the

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organization prefers that their members handle situations alone without organizational support, perhaps, this is the means to achieve it, empower workers, and sustain proper organizational performance. Yet, organizations may want to implement employee engagement and influence that allows employee empowerment and action but also incorporates a check mechanism that requires employees to communicate incidents to management so that the workplace is even more so effective and efficient – protecting the employee, the patient/resident, and the organization.

Integrative Thought

In closing, these suggestions may not work for all workplaces, and organizational leadership will need to find an appropriate balanced portfolio that works for the specific organizational context. However, in unionized workplace contexts, management is urged to jointly team with workers and unions to determine this appropriate mix for the workplace. If management is strategic, effective utilization of the unions and union leadership can help assimilate workers and get them on board to continue workplace practices and procedures; as well as unions can assist with change management when changes to the organization and its systems are in order. If unions are strategic, they can work with management to create and help evaluate these bettered environments. This joint effort can aid in assuaging negative union attitudes, as well as perhaps can provide the union a bigger bargaining chip at the collective bargaining table.

Conclusion

This study is one of the first, if not the first, to investigate social and technical system climates' direct and cross-level influences on the relationships between victimizations and cognitive appraisals and coping styles – particularly from a multilevel

perspective. Specifically, this dissertation looked at how workgroup and organizational climates impacted long term care facility caregivers' general appraisals and coping when confronted with victimizations (i.e., direct, indirect, and sexual harassment victimizations) instigated by patients, residents, and/or these clients' families. Utilizing an amalgamation of sociotechnical systems and transactional psychological stress theories, this study determined that leadership, workgroup knowledge sharing, workgroup conflict, formalization, and centralization climates have influence on victims' appraisals and coping. This is contrary thinking given the assumptions of Lazarus and colleagues' transactional psychological stress theory – in which they posit that cognitive appraisals and coping are solely an individual phenomenon. Though findings, for the most part, determined that strong social and technical climates provide a beneficial influence, some climates were not as effective, and management should take this into consideration when continuing pre-existing climates and/or implementing new systems. In addition to theoretical implications, organizational implications are provided to guide management, as well as unions, in these considerations. It should be noted that the social and technical systems under study did not necessarily influence appraisals and coping similarly, nor did these systems interact similarly with the various types of victimizations. Further theoretical and empirical exploration is needed to uncover these unanswered questions in this nascent literature. Nonetheless, this dissertation is one of the first steps to more fully understand how workgroup and organizational climates may impact victims' transactional stress processes that result from client instigated victimization.

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Tables

Table 1. Hypotheses: Social Systems and Technical Systems – Contextual Influences on Workplace Victims' Cognitive Appraisals and Coping Styles.

Social Systems	Multilevel Constructs	Hypotheses
Workgroup Relationships with Leadership	**Leader-Member Exchange (LMX) Climate Level & Strength**	**Hypothesis 1: Workgroup LMX climate levels are positively related to individual (1a) challenge appraisals and (1b) perceptions of resource availability; while negatively related to individual (1c) threat and (1d) centrality appraisals.**
		Hypothesis 2: Workgroup LMX climate levels are positively related to individual coping styles that are (2a) social coping, (2b) confrontation and negotiation, and (2c) advocacy seeking; while negatively related to (2d) avoidance and denial.
		Hypothesis 3: When workplace victimization is at a high level, individuals in high LMX climate level, high LMX climate strength workgroups experience levels of (3a) challenge and (3b) resource availability appraisals that are higher than the other workgroup LMX categories; while experiencing levels of (3c) threat and (3d) centrality appraisals that are lower than the other workgroups.
		Hypothesis 4: When workplace victimization is at a high level, individuals in high LMX climate level, high LMX climate strength workgroups utilize (4a) social coping, (4b) confrontation and negotiation, and (4c) advocacy seeking at a higher level than the other workgroup LMX categories; while utilizing (4d) avoidance and denial at a lower level than the other workgroups.

Table 1, continued. Hypotheses: Social Systems and Technical Systems – Contextual Influences on Workplace Victims' Cognitive Appraisals and Coping Styles.

Social Systems	Multilevel Constructs	Hypotheses
Workgroup Member Relationships	**Workgroup Conflict Climate**	**Hypothesis 5: Workgroup conflict climates are positively related to individual (5a) threat and (5b) centrality appraisals; while negatively related to individual (5c) challenge appraisals and (5d) perceptions of resource availability.**
		Hypothesis 6: Workgroup conflict climates are positively related to (6a) avoidance and denial coping; while negatively related to individual coping styles that are (6b) social coping, (6c) confrontation and negotiation, and (6d) advocacy seeking.
		Hypothesis 7: At high levels of workplace victimization, high workgroup conflict climates enhance individual (7a) threat and (7b) centrality appraisals; while ameliorating (7c) challenge appraisals and (7d) perceptions of resource availability.
		Hypothesis 8: At high levels of workplace victimization, high workgroup conflict climates enhance (8a) avoidance and denial coping; while ameliorating individual coping styles that are (8b) social coping, (8c) confrontation and negotiation, and (8d) advocacy seeking.
	Workgroup Knowledge Sharing Climate	**Hypothesis 9: Workgroup knowledge sharing climates are positively related to individual (9a) challenge appraisals and (9b) perceptions of resource availability; while negatively related to individual (9c) threat and (9d) centrality appraisals.**
		Hypothesis 10: Workgroup knowledge sharing climates are positively related to individual coping styles that are (10a) social coping, (10b) confrontation and negotiation, and (10c) advocacy seeking; while negatively related to (10d) avoidance and denial.
		Hypothesis 11: At high levels of workplace victimizations, high workgroup knowledge sharing climates enhance individual (11a) challenge appraisals and (11b) perceptions of resource availability; while ameliorating individual (11c) threat and (11d) centrality appraisals.
		Hypothesis 12: At high levels of workplace victimizations, high workgroup knowledge sharing climates enhance individual coping styles that are (12a) social coping, (12b) confrontation and negotiation, and (12c) advocacy seeking; while ameliorating (12d) avoidance and denial.

Table 1, continued. Hypotheses: Social Systems and Technical Systems – Contextual Influences on Workplace Victims' Cognitive Appraisals and Coping Styles.

Technical Systems	Multilevel Constructs	Hypotheses
Organizational Structure	**Organizational Complexity Climate**	**Hypothesis 13: Organizational complexity climates are positively related to individual (13a) challenge appraisals and (13b) perceptions of resource availability; while negatively related to individual (13c) threat and (13d) centrality appraisals.**
		Hypothesis 14: Organizational complexity climates are positively related to individual coping styles that are (14a) social coping, (14b) confrontation and negotiation, and (14c) advocacy seeking; while negatively related to (14d) avoidance and denial.
		Hypothesis 15: At high levels of workplace victimizations, high organizational complexity climates enhance individual (15a) challenge appraisals and (15b) perceptions of resource availability; while ameliorating individual (15c) threat and (15d) centrality appraisals.
		Hypothesis 16: At high levels of workplace victimizations, high organizational complexity climates enhance individual coping styles that are (16a) social coping, (16b) confrontation and negotiation, (16c) advocacy seeking; while ameliorating (16d) avoidance and denial.
	Organizational Formalization Climate	**Hypothesis 17: Organizational formalization climates are positively related to individual (17a) challenge appraisals and (17b) perceptions of resource availability; while negatively related to individual (17c) threat and (17d) centrality appraisals.**
		Hypothesis 18: Organizational formalization climates are positively related to individual coping styles that are (18a) social coping, (18b) confrontation and negotiation, and (18c) advocacy seeking; while negatively related to (18d) avoidance and denial.
		Hypothesis 19: At high levels of workplace victimizations, high organizational formalization climates enhance individual (19a) challenge appraisals and (19b) perceptions of resource availability; while ameliorating individual (19c) threat and (19d) centrality appraisals.
		Hypothesis 20: At high levels of workplace victimizations, high organizational formalization climates enhance individual coping styles that are (20a) social coping, (20b) confrontation and negotiation, and (20c) advocacy seeking; while ameliorating (20d) avoidance and denial.

Table 1, continued. Hypotheses: Social Systems and Technical Systems – Contextual Influences on Workplace Victims' Cognitive Appraisals and Coping Styles.

Technical Systems	Multilevel Constructs	Hypotheses
Organizational Structure	**Organizational Centralization Climate**	**Hypothesis 21: Organizational decentralized climates are positively related to individual (21a) challenge appraisals and (21b) perceptions of resource availability; while negatively related to individual (21c) threat and (21d) centrality appraisals.**
		Hypothesis 22: Organizational decentralized climates are positively related to individual coping styles that are (22a) social coping, (22b) confrontation and negotiation, and (22c) advocacy seeking; while negatively related to (22d) avoidance and denial.
		Hypothesis 23: At high levels of workplace victimizations, high organizational decentralized climates enhance individual (23a) challenge appraisals and (23b) perceptions of resource availability; while ameliorating individual (23c) threat and (23d) centrality appraisals.
		Hypothesis 24: At high levels of workplace victimizations, high organizational decentralized climates enhance coping styles that are (24a) social coping, (24b) confrontation and negotiation, and (24c) advocacy seeking; while ameliorating (24d) avoidance and denial.

Table 2. Correlations and Descriptive Statistics Among Study Variables.

Variables	Mean	SD	N	1	2	3	4	5	6	7	8	9	10
1. Age	42.32	13.59	509	--									
2. Education	3.11	0.93	509	-0.10 *	--								
3. Neuroticism	2.24	0.77	509	-0.02	-0.08	*0.53*							
4. Work complexity perceptions	2.86	0.81	509	0.02	0.02	0.02	*0.56*						
5. % work with neurological/psychological disorder	3.70	1.33	509	0.00	-0.05	0.07	0.15 **	--					
6. Tenure at employer	9.55	9.75	509	0.55 **	-0.16 **	0.09 *	0.05	0.11 *	--				
7. Union	0.45	0.50	509	0.00	0.02	0.08	0.02	-0.02	0.08	--			
8. Direct victimization	2.44	1.52	509	-0.17 **	-0.03	0.14 **	0.14 **	0.23 **	0.04	0.04	*0.94*		
9. Indirect victimization	1.44	0.84	509	-0.06	-0.03	0.07	0.17 **	0.12 **	0.06	0.07	0.46 **	*0.85*	
10. Sexual harassment	1.69	1.22	509	-0.19 **	-0.02	0.12 **	0.13 **	0.17 **	-0.03	0.04	0.65 **	0.30 **	*0.87*
11. Threat cognitive appraisal	2.03	0.80	501	0.02	0.04	0.30 **	0.14 **	0.17 **	0.15 **	0.06	0.37 **	0.32 **	0.28 **
12. Centrality cognitive appraisal	1.94	0.87	498	0.04	0.04	0.27 **	0.18 **	0.13 **	0.12 **	0.08	0.36 **	0.33 **	0.32 **
13. Challenge cognitive appraisal	3.25	0.84	495	-0.05	0.04	-0.27 **	0.10 *	-0.06	-0.08	-0.10 *	-0.13 **	-0.20 **	-0.12 **
14. Resource availability appraisal	3.23	1.14	497	-0.03	-0.01	-0.17 **	0.00	-0.11 *	-0.12 **	-0.10 *	-0.20 **	-0.23 **	-0.12 **
15. Avoidance & denial coping	2.84	0.91	495	-0.03	0.03	0.00	0.13 **	0.11 *	0.03	0.00	0.13 **	0.18 **	0.12 **
16. Confrontation & negotiation coping	2.58	1.14	498	-0.13 *	0.11 *	-0.16 **	0.11 *	-0.01	-0.03	0.03	0.11 *	0.02	0.07
17. Social coping	3.20	1.08	498	-0.04	0.05	-0.07	0.16 **	0.01	0.08	-0.01	0.08	0.00	0.05
18. Advocacy seeking coping	2.45	1.05	497	-0.06	0.11 *	-0.15 **	0.12 **	0.03	-0.03	-0.01	0.03	0.02	0.05
19. Leader-member exchange	3.29	0.95	507	0.08	-0.06	-0.12 **	0.01	-0.12 **	-0.01	0.06	-0.21 **	-0.21 **	-0.14 **
20. Workgroup conflict perceptions	2.71	1.01	509	0.07	-0.03	0.11 *	0.24 **	0.18 **	0.17 **	0.01	0.25 **	0.26 **	0.19 **
21. Workgroup knowledge sharing perceptions	3.30	1.02	509	-0.01	0.02	-0.05	0.04	-0.05	-0.07	-0.09 *	-0.11 *	-0.16 **	-0.04
22. Formalization	3.66	0.80	509	0.00	-0.02	-0.02	0.02	-0.11 *	-0.11 *	-0.10 *	-0.15 **	-0.21 **	-0.07
23. Hierarchy of authority	3.14	0.90	506	0.10 *	-0.06	0.04	0.14 **	0.18 **	0.19 **	-0.02	0.22 **	0.21 **	0.15 **
24. Participation in decision making	1.57	0.71	508	0.05	0.00	-0.01	0.12 **	-0.04	0.03	0.03	-0.11 *	-0.01	-0.05
25. Workgroup LMX climate level	3.29	0.49	509	0.08	-0.02	-0.10 *	-0.07	-0.11 *	0.03	0.09 *	-0.12 **	-0.14 **	-0.07
26. Workgroup LMX climate strength	-0.83	0.36	509	0.05	0.00	0.02	-0.04	-0.08	0.04	0.07	-0.06	-0.14 **	-0.07
27. Workgroup conflict climate	2.71	0.55	509	0.03	-0.05	0.05	0.16 **	0.12 **	0.10 *	0.01	0.19 **	0.20 **	0.12 **
28. Workgroup knowledge sharing climate	3.30	0.53	509	0.03	0.04	-0.04	-0.03	-0.07	-0.01	-0.16 **	-0.07	-0.07	-0.01
29. Organizational formalization climate	3.65	0.29	509	-0.01	0.10 *	-0.04	-0.07	-0.11 *	-0.12 **	-0.34 **	-0.11 *	-0.12 **	-0.01
30. Organizational hierarchy of authority climate	3.14	0.38	509	-0.02	-0.01	0.00	0.09 *	0.14 **	0.03	-0.07	0.18 **	0.20 **	0.10 *
31. Organizational participation in decision making climate	1.56	0.28	509	0.06	0.02	0.08	0.00	0.02	0.01	0.08	-0.13 **	-0.02	-0.10 *

** $p < .01$, * $p < .05$. Reliability coefficients are on the diagonal.

Table 2, continued. Correlations and Descriptive Statistics Among Study Variables.

Variables	Mean	SD	N	11	12	13	14	15	16	17	18	19	20
11. Threat cognitive appraisal	2.03	0.80	501	0.79									
12. Centrality cognitive appraisal	1.94	0.87	498	0.71 **	0.84								
13. Challenge cognitive appraisal	3.25	0.84	495	-0.31 **	-0.33 **	0.85							
14. Resource availability appraisal	3.23	1.14	497	-0.35 **	-0.34 **	0.67 **	0.87						
15. Avoidence & denial coping	2.84	0.91	495	0.24 **	0.28 **	0.03	-0.03	0.72					
16. Confrontation & negotiation coping	2.58	1.14	498	0.01	0.06	0.25 **	0.19 **	0.24 **	0.70				
17. Social coping	3.20	1.08	498	0.11 *	0.14 **	0.22 **	0.25 **	0.27 **	0.47 **	0.84			
18. Advocacy seeking coping	2.45	1.05	497	0.06	0.00	0.23 **	0.22 **	0.17 **	0.50 **	0.50 **	0.77		
19. Leader-member exchange	3.29	0.95	507	-0.23 **	-0.23 **	0.25 **	0.41 **	-0.08	0.07	0.11 *	0.14 **	0.94	
20. Workgroup conflict perceptions	2.71	1.01	509	0.38 **	0.34 **	-0.18 **	-0.30 **	0.15 **	0.03	0.11 *	0.03	-0.31 **	0.93
21. Workgroup knowledge sharing perceptions	3.30	1.02	509	-0.18 **	-0.17 **	0.26 **	0.27 **	-0.06	0.08	0.13 **	0.07	0.30 **	-0.46 **
22. Formalization	3.66	0.80	509	-0.16 **	-0.15 **	0.19 **	0.39 **	-0.02	0.05	0.07	0.11 *	0.30 **	-0.32 **
23. Hierarchy of authority	3.14	0.90	506	0.31 **	0.24 **	-0.19 **	-0.31 **	0.22 **	0.00	0.02	-0.03	-0.32 **	0.36 **
24. Participation in decision making	1.57	0.71	508	-0.17 **	-0.10 *	0.10 *	0.13 **	-0.12 **	0.03	-0.03	0.10 *	0.25 **	-0.12 **
25. Workgroup LMX climate level	3.29	0.49	509	-0.17 **	-0.18 **	0.14 **	0.26 **	-0.06	0.02	-0.04	0.08	0.52 **	-0.34 **
26. Workgroup LMX climate strength	-0.83	0.36	509	-0.06	-0.09	0.08	0.14 **	-0.10 *	0.04	0.00	-0.01	0.13 **	-0.15 **
27. Workgroup conflict climate	2.71	0.55	509	0.25 **	0.26 **	-0.15 **	-0.29 **	0.08	-0.03	0.05	0.00	-0.32 **	0.55 **
28. Workgroup knowledge sharing climate	3.30	0.53	509	-0.13 **	-0.15 **	0.20 **	0.29 **	-0.05	0.12 **	0.06	0.08	0.20 **	-0.28 **
29. Organizational formalization climate	3.65	0.29	509	-0.10 *	-0.12 *	0.10 *	0.23 **	-0.07	0.01	0.04	0.04	0.21 **	-0.25 **
30. Organizational hierarchy of authority climate	3.14	0.38	509	0.18 **	0.16 **	-0.08	-0.17 **	0.10 *	-0.07	0.02	0.00	-0.22 **	0.27 **
31. Organizational participation in decision making climate	1.56	0.28	509	-0.07	-0.07	0.06	0.08	-0.07	0.02	-0.02	0.00	0.06	-0.10 *

** p < .01, * p < .05. Reliability coefficients are on the diagonal.

Table 2, continued. Correlations and Descriptive Statistics Among Study Variables.

Variables	Mean	SD	N	21	22	23	24	25	26	27	28	29	30
21. Workgroup knowledge sharing perceptions	3.30	1.02	509	*0.87*									
22. Formalization	3.66	0.80	509	0.28 **	*0.84*								
23. Hierarchy of authority	3.14	0.90	506	-0.23 **	-0.23 **	*0.87*							
24. Participation in decision making	1.57	0.71	508	0.22 **	0.22 **	-0.18 **	*0.82*						
25. Workgroup LMX climate level	3.29	0.49	509	0.20 **	0.22 **	-0.30 **	0.17 **	--					
26. Workgroup LMX climate strength	-0.83	0.36	509	0.14 **	0.10 *	-0.14 **	0.05	0.25 **	--				
27. Workgroup conflict climate	2.71	0.55	509	-0.27 **	-0.22 **	0.31 **	-0.11 *	-0.63 **	-0.28 **	--			
28. Workgroup knowledge sharing climate	3.30	0.53	509	0.52 **	0.21 **	-0.16 **	0.17 **	0.38 **	0.26 **	-0.52 **	--		
29. Organizational formalization climate	3.65	0.29	509	0.20 **	0.38 **	-0.14 **	0.09 *	0.41 **	0.15 **	-0.46 **	0.38 **	--	
30. Organizational hierarchy of authority climate	3.14	0.38	509	-0.15 **	-0.11 **	0.42 **	-0.13 **	-0.42 **	-0.27 **	0.50 **	-0.29 **	-0.32 **	--
31. Organizational participation in decision making climate	1.56	0.28	509	0.13 **	0.09 *	-0.13 **	0.40 **	0.12 **	0.02	-0.18 **	0.25 **	0.23 **	-0.30 **

** p < .01 , * p < .05. Reliability coefficients are on the diagonal.

Table 3. Null Model Intraclass Correlations (ICC) and Variance Ratios.

		Shift Workgroup ICC (N = 97)		Organization ICC (N = 43)	
Threat Cognitive Appraisal	τ_{00}	0.02	3%	0.03 **	5%
	σ^2	0.61	97%	0.60	95%
Centrality Cognitive Appraisal	τ_{00}	0.02	2%	0.04 *	5%
	σ^2	0.73	98%	0.71	95%
Challenge Cognitive Appraisal	τ_{00}	0.03	5%	0.03 †	4%
	σ^2	0.67	95%	0.67	96%
Resource Availability Cognitive Appraisal	τ_{00}	0.13 **	10%	0.13 **	10%
	σ^2	1.18	90%	1.18	90%
Avoidance & Denial Coping	τ_{00}	0.00	0%	0.02 †	3%
	σ^2	0.83	100%	0.80	97%
Confrontaion & Negotiation Coping	τ_{00}	0.02	2%	0.00	0%
	σ^2	1.26	98%	1.28	100%
Social Coping	τ_{00}	0.00	0%	0.01	1%
	σ^2	1.17	100%	1.16	99%
Advocacy Seeking Coping	τ_{00}	0.07 *	6%	0.01	1%
	σ^2	1.03	94%	1.09	99%

**$p < .01$, *$p < .05$, †$p < .10$.

τ_{00} - between-group variance

σ^2 - within-group variance

Table 4. Social Systems' Direct & Cross-Level Effects on Victims' Threat Appraisals.

		Threat Appraisals			
		1	2	3	4
Intercept	γ_{00}	1.97 **	1.96 **	1.95 **	1.96 **
Controls - individual level					
Age	γ_{10}	-0.004	0.001	0.001	0.001
Education	γ_{20}	0.08 *	0.08 *	0.09 *	0.08 *
Neuroticism	γ_{30}	0.32 **	0.29 **	0.29 **	0.30 **
Work complexity perceptions	γ_{40}	0.10 †	0.05	0.05	0.05
% of time work with neurological/psychological disorder	γ_{50}	0.08 *	0.05 †	0.05 *	0.05 †
Tenure	γ_{60}	0.01 **	0.01 *	0.01 *	0.01 *
Union	γ_{70}	0.11	0.11 †	0.10 †	0.10
Main effects - individual level					
Direct victimization	γ_{80}		0.12 **	0.10 **	0.12 **
Indirect victimization	γ_{90}		0.12 *	0.15 *	0.15 *
Sexual harassment	γ_{100}		0.04	0.05	0.04
Main effects - level 2 predictors					
Workgroup LMX climate level	γ_{01}		-0.05	-0.06	-0.06
Workgroup LMX climate strength	γ_{02}		0.01	0.07	0.06
Workgroup conflict climate	γ_{03}		0.35 **	0.35 **	0.35 **
Workgroup knowledge sharing climate	γ_{04}		0.01	0.02	0.02
Cross-level interactions					
Direct victimization x workgroup LMX climate level	γ_{81}			-0.04	-0.07
Direct victimization x workgroup LMX climate strength	γ_{82}			0.23 *	0.09
Direct victimization x workgroup conflict climate	γ_{83}			0.08	0.03
Direct victimization x workgroup knowledge sharing climate	γ_{84}			-0.02	-0.02
Indirect victimization x workgroup LMX climate level	γ_{91}			0.05	-0.04
Indirect victimization x workgroup LMX climate strength	γ_{92}			-0.10	-0.12
Indirect victimization x workgroup conflict climate	γ_{93}			-0.06	-0.06
Indirect victimization x workgroup knowledge sharing climate	γ_{94}			0.17	0.16
Sexual harassment x workgroup LMX climate level	γ_{101}			0.10	0.14
Sexual harassment x workgroup LMX climate strength	γ_{102}			-0.03	-0.002
Sexual harassment x workgroup conflict climate	γ_{103}			-0.03	-0.02
Sexual harassment x workgroup knowledge sharing climate	γ_{104}			0.01	-0.003
Two-way workgroup LMX climate interaction					
Workgroup LMX climate level x workgroup LMX climate strength	γ_{05}			0.22 †	0.18
Three-way interaction					
Direct victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{85}				-0.47 *
Indirect victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{95}				-0.02
Sexual harassment x workgroup LMX climate level x workgroup LMX climate strength	γ_{105}				0.11

** p < .01, * p < .05, † p < .10 (two-tailed test), N = 501

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Table 5. Social Systems' Direct & Cross-Level Effects on Victims' Centrality Appraisals.

		Centrality Appraisals			
		1	2	3	4
Intercept	γ_{00}	1.87 **	1.85 **	1.84 **	1.84 **
Controls - individual level					
Age	γ_{10}	0.000	0.01	0.01	0.01
Education	γ_{20}	0.09 *	0.10 *	0.11 *	0.10 *
Neuroticism	γ_{30}	0.29 **	0.26 **	0.27 **	0.27 **
Work complexity perceptions	γ_{40}	0.12 *	0.05	0.05	0.05
% of time work with neurological/psychological disorder	γ_{50}	0.04	0.01	0.01	0.001
Tenure	γ_{60}	0.01 †	0.004	0.005	0.01
Union	γ_{70}	0.14	0.16 *	0.15 *	0.15 *
Main effects - individual level					
Direct victimization	γ_{80}		0.09 *	0.06	0.09 *
Indirect victimization	γ_{90}		0.17 **	0.24 **	0.22 **
Sexual harassment	γ_{100}		0.10 *	0.11 **	0.09 *
Main effects - level 2 predictors					
Workgroup LMX climate level	γ_{01}		-0.08	-0.09	-0.08
Workgroup LMX climate strength	γ_{02}		-0.06	-0.03	-0.02
Workgroup conflict climate	γ_{03}		0.37 **	0.37 **	0.37 **
Workgroup knowledge sharing climate	γ_{04}		0.03	0.02	0.02
Cross-level interactions					
Direct victimization x workgroup LMX climate level	γ_{81}			0.11	0.06
Direct victimization x workgroup LMX climate strength	γ_{82}			0.07	-0.15
Direct victimization x workgroup conflict climate	γ_{83}			0.12	0.06
Direct victimization x workgroup knowledge sharing climate	γ_{84}			-0.06	-0.06
Indirect victimization x workgroup LMX climate level	γ_{91}			0.06	-0.06
Indirect victimization x workgroup LMX climate strength	γ_{92}			0.06	0.09
Indirect victimization x workgroup conflict climate	γ_{93}			-0.06	-0.06
Indirect victimization x workgroup knowledge sharing climate	γ_{94}			0.24 *	0.24 †
Sexual harassment x workgroup LMX climate level	γ_{101}			-0.01	0.07
Sexual harassment x workgroup LMX climate strength	γ_{102}			0.11	0.21
Sexual harassment x workgroup conflict climate	γ_{103}			-0.03	-0.004
Sexual harassment x workgroup knowledge sharing climate	γ_{104}			-0.04	-0.04
Two-way workgroup LMX climate interaction					
Workgroup LMX climate level x workgroup LMX climate strength	γ_{05}			0.15	0.17
Three-way interaction					
Direct victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{85}				-0.78 **
Indirect victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{95}				0.09
Sexual harassment x workgroup LMX climate level x workgroup LMX climate strength	γ_{105}				0.52

** p < .01, * p < .05, † p < .10 (two-tailed test), N = 498

Table 6. Social Systems' Direct & Cross-Level Effects on Victims' Challenge Appraisals.

		Challenge Appraisals			
		1	2	3	4
Intercept	γ_{00}	3.32 **	3.32 **	3.32 **	3.32 **
Controls - individual level					
Age	γ_{10}	-0.003	-0.01 †	-0.01	-0.01
Education	γ_{20}	0.03	0.02	0.02	0.02
Neuroticism	γ_{30}	-0.285 **	-0.26 **	-0.25 **	-0.26 **
Work complexity perceptions	γ_{40}	0.11 *	0.16 **	0.17 **	0.17 **
% of time work with neurological/psychological disorder	γ_{50}	-0.027	-0.01	-0.02	-0.01
Tenure	γ_{60}	-0.001	0.002	0.002	0.002
Union	γ_{70}	-0.157 †	-0.15 *	-0.15 *	-0.15 *
Main effects - individual level					
Direct victimization	γ_{80}		-0.02	0.003	-0.02
Indirect victimization	γ_{90}		-0.22 **	-0.26 **	-0.26 **
Sexual harassment	γ_{100}		-0.05	-0.05	-0.04
Main effects - level 2 predictors					
Workgroup LMX climate level	γ_{01}		0.13	0.12	0.12
Workgroup LMX climate strength	γ_{02}		0.07	0.07	0.07
Workgroup conflict climate	γ_{03}		-0.04	-0.04	-0.04
Workgroup knowledge sharing climate	γ_{04}		0.22 **	0.22 **	0.22 **
Cross-level interactions					
Direct victimization x workgroup LMX climate level	γ_{81}			-0.11	-0.08
Direct victimization x workgroup LMX climate strength	γ_{82}			0.10	0.20
Direct victimization x workgroup conflict climate	γ_{83}			-0.12	-0.08
Direct victimization x workgroup knowledge sharing climate	γ_{84}			-0.01	-0.01
Indirect victimization x workgroup LMX climate level	γ_{91}			0.25	0.33
Indirect victimization x workgroup LMX climate strength	γ_{92}			-0.06	-0.05
Indirect victimization x workgroup conflict climate	γ_{93}			0.19	0.20
Indirect victimization x workgroup knowledge sharing climate	γ_{94}			-0.05	-0.04
Sexual harassment x workgroup LMX climate level	γ_{101}			0.08	0.04
Sexual harassment x workgroup LMX climate strength	γ_{102}			0.02	-0.05
Sexual harassment x workgroup conflict climate	γ_{103}			0.05	0.03
Sexual harassment x workgroup knowledge sharing climate	γ_{104}			0.01	0.02
Two-way workgroup LMX climate interaction					
Workgroup LMX climate level x workgroup LMX climate strength	γ_{05}			0.02	0.02
Three-way interaction					
Direct victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{85}				0.41 *
Indirect victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{95}				0.04
Sexual harassment x workgroup LMX climate level x workgroup LMX climate strength	γ_{105}				-0.33

** p < .01, * p < .05, † p < .10 (two-tailed test), N = 495

Table 7. Social Systems' Direct & Cross-Level Effects on Victims' Resource Appraisals.

		Resource Appraisals			
		1	2	3	4
Intercept	γ_{00}	3.31 **	3.35 **	3.36 **	3.36 **
Controls - individual level					
Age	γ_{10}	0.001	-0.003	-0.002	-0.002
Education	γ_{20}	-0.02	-0.02	-0.04	-0.04
Neuroticism	γ_{30}	-0.27 **	-0.24 **	-0.24 **	-0.24 **
Work complexity perceptions	γ_{40}	0.05	0.10	0.10	0.10
% of time work with neurological/psychological disorder	γ_{50}	-0.09 *	-0.07	-0.07	-0.06
Tenure	γ_{60}	-0.01	-0.004	-0.01	-0.01
Union	γ_{70}	-0.22 †	-0.22 *	-0.20 *	-0.20 *
Main effects - individual level					
Direct victimization	γ_{80}		-0.08 †	-0.10 *	-0.12 *
Indirect victimization	γ_{90}		-0.25 **	-0.32 **	-0.32 **
Sexual harassment	γ_{100}		-0.04	0.004	0.01
Main effects - level 2 predictors					
Workgroup LMX climate level	γ_{01}		0.30 *	0.31 *	0.31 *
Workgroup LMX climate strength	γ_{02}		0.14	0.08	0.08
Workgroup conflict climate	γ_{03}		-0.24 **	-0.24 **	-0.24 **
Workgroup knowledge sharing climate	γ_{04}		0.33 **	0.33 **	0.33 **
Cross-level interactions					
Direct victimization x workgroup LMX climate level	γ_{81}			-0.08	-0.04
Direct victimization x workgroup LMX climate strength	γ_{82}			-0.10	0.04
Direct victimization x workgroup conflict climate	γ_{83}			0.05	0.09
Direct victimization x workgroup knowledge sharing climate	γ_{84}			-0.03	-0.01
Indirect victimization x workgroup LMX climate level	γ_{91}			0.17	0.19
Indirect victimization x workgroup LMX climate strength	γ_{92}			0.14	-0.03
Indirect victimization x workgroup conflict climate	γ_{93}			0.23	0.24
Indirect victimization x workgroup knowledge sharing climate	γ_{94}			-0.22	-0.26
Sexual harassment x workgroup LMX climate level	γ_{101}			0.09	0.03
Sexual harassment x workgroup LMX climate strength	γ_{102}			0.27 †	0.06
Sexual harassment x workgroup conflict climate	γ_{103}			-0.07	-0.08
Sexual harassment x workgroup knowledge sharing climate	γ_{104}			0.11	0.09
Two-way workgroup LMX climate interaction					
Workgroup LMX climate level x workgroup LMX climate strength	γ_{05}			-0.34	-0.35
Three-way interaction					
Direct victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{85}				0.58 *
Indirect victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{95}				-0.41
Sexual harassment x workgroup LMX climate level x workgroup LMX climate strength	γ_{105}				-0.94 *

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 497

Table 8. Social Systems' Direct & Cross-Level Effects on Victims' Avoidance & Denial Coping.

		Avoidance & Denial			
		1	2	3	4
Intercept	γ_{00}	2.83 **	2.81 **	2.81 **	2.80 **
Controls - individual level					
Age	γ_{10}	-0.001	-0.003	-0.002	-0.003
Education	γ_{20}	0.04	0.05	0.04	0.04
Neuroticism	γ_{30}	-0.02	-0.03	-0.03	-0.03
Work complexity perceptions	γ_{40}	0.03	0.003	-0.01	-0.01
% of time work with neurological/psychological disorder	γ_{50}	0.06	0.06 †	0.05	0.05
Tenure	γ_{60}	0.004	0.004	0.002	0.004
Union	γ_{70}	0.01	0.04	0.03	0.03
Threat cognitive appraisal	γ_{110}	0.09	0.09	0.10	0.11
Centrality cognitive appraisal	γ_{120}	0.27 **	0.24 **	0.23 **	0.22 **
Challenge cognitive appraisal	γ_{130}	0.11	0.14 *	0.15 *	0.14 *
Resource cognitive appraisal	γ_{140}	0.004	0.003	-0.02	-0.01
Main effects - individual level					
Direct victimization	γ_{80}		-0.03	-0.05	-0.04
Indirect victimization	γ_{90}		0.11	0.10	0.09
Sexual harassment	γ_{100}		0.03	0.06	0.04
Main effects - level 2 predictors					
Workgroup LMX climate level	γ_{01}		0.002	-0.02	-0.02
Workgroup LMX climate strength	γ_{02}		-0.23 *	-0.17	-0.17
Workgroup conflict climate	γ_{03}		0.11	0.10	0.10
Workgroup knowledge sharing climate	γ_{04}		0.01	0.02	0.02
Cross-level interactions - level 2 predictors					
Direct victimization x workgroup LMX climate level	γ_{81}			0.06	0.04
Direct victimization x workgroup LMX climate strength	γ_{82}			-0.10	-0.23
Direct victimization x workgroup conflict climate	γ_{83}			0.06	0.02
Direct victimization x workgroup knowledge sharing climate	γ_{84}			-0.10	-0.13
Indirect victimization x workgroup LMX climate level	γ_{91}			0.30	0.37 *
Indirect victimization x workgroup LMX climate strength	γ_{92}			0.10	0.34 †
Indirect victimiziation x workgroup conflict climate	γ_{93}			0.15	0.17
Indirect victimization x workgroup knowledge sharing climate	γ_{94}			-0.12	-0.08
Sexual harassment x workgroup LMX climate level	γ_{101}			0.22	0.23
Sexual harassment x workgroup LMX climate strength	γ_{102}			0.02	0.12
Sexual harassment x workgroup conflict climate	γ_{103}			0.09	0.11
Sexual harassment x workgroup knowledge sharing climate	γ_{104}			0.003	0.05

Table 8, continued. Social Systems' Direct & Cross-Level Effects on Victims' Avoidance & Denial Coping.

		Avoidance & Denial			
		1	2	3	4
Two-way workgroup LMX climate interaction					
Workgroup LMX climate level x workgroup LMX climate strength	γ_{05}			0.20	0.23
Three-way interaction					
Direct victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{85}				-0.45
Indirect victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{95}				0.67 *
Sexual harassment x workgroup LMX climate level x workgroup LMX climate strength	γ_{105}				0.40

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 491

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Table 9. Social Systems' Direct & Cross-Level Effects on Victims' Confrontation and Negotiation Coping.

		Confrontation & Negotiation			
		1	2	3	4
Intercept	γ_{00}	2.53 **	2.50 **	2.51 **	2.51 **
Controls - individual level					
Age	γ_{10}	-0.01 *	-0.01 *	-0.01 †	-0.01 †
Education	γ_{20}	0.16 **	0.16 **	0.14 *	0.15 *
Neuroticism	γ_{30}	-0.23 **	-0.23 **	-0.24 **	-0.24 **
Work complexity perceptions	γ_{40}	0.11	0.11 †	0.11 †	0.11 †
% of time work with neurological/psychological disorder	γ_{50}	0.01	0.000	-0.004	-0.004
Tenure	γ_{60}	0.01	0.01	0.01	0.01
Union	γ_{70}	0.10	0.15	0.16	0.16
Threat cognitive appraisal	γ_{110}	0.02	-0.003	-0.01	-0.01
Centrality cognitive appraisal	γ_{120}	0.27 **	0.27 **	0.27 **	0.27 **
Challenge cognitive appraisal	γ_{130}	0.26 **	0.26 **	0.27 **	0.27 **
Resource cognitive appraisal	γ_{140}	0.07	0.08	0.05	0.05
Main effects - individual level					
Direct victimization	γ_{80}		0.08	0.07	0.07
Indirect victimization	γ_{90}		-0.02	-0.08	-0.07
Sexual harassment	γ_{100}		-0.03	-0.01	-0.01
Main effects - level 2 predictors					
Workgroup LMX climate level	γ_{01}		-0.10	-0.08	-0.08
Workgroup LMX climate strength	γ_{02}		0.07	0.04	0.04
Workgroup conflict climate	γ_{03}		0.06	0.07	0.07
Workgroup knowledge sharing climate	γ_{04}		0.32 **	0.32 **	0.32 **
Cross-level interactions - level 2 predictors					
Direct victimization x workgroup LMX climate level	γ_{81}			0.05	0.06
Direct victimization x workgroup LMX climate strength	γ_{82}			-0.06	-0.01
Direct victimization x workgroup conflict climate	γ_{83}			0.06	0.07
Direct victimization x workgroup knowledge sharing climate	γ_{84}			0.03	0.03
Indirect victimization x workgroup LMX climate level	γ_{91}			0.07	0.03
Indirect victimization x workgroup LMX climate strength	γ_{92}			0.12	0.02
Indirect victimiziation x workgroup conflict climate	γ_{93}			0.21	0.20
Indirect victimization x workgroup knowledge sharing climate	γ_{94}			-0.06	-0.07
Sexual harassment x workgroup LMX climate level	γ_{101}			0.25 †	0.25 †
Sexual harassment x workgroup LMX climate strength	γ_{102}			0.09	0.08
Sexual harassment x workgroup conflict climate	γ_{103}			0.05	0.05
Sexual harassment x workgroup knowledge sharing climate	γ_{104}			0.09	0.08

Table 9, continued. Social Systems' Direct & Cross-Level Effects on Victims' Confrontation and Negotiation Coping.

		Confrontation & Negotiation			
		1	2	3	4
Two-way workgroup LMX climate interaction					
Workgroup LMX climate level x workgroup LMX climate strength	γ_{05}			-0.11	-0.11
Three-way interaction					
Direct victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{85}				0.14
Indirect victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{95}				-0.28
Sexual harassment x workgroup LMX climate level x workgroup LMX climate strength	γ_{105}				-0.02

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 493

Table 10. Social Systems' Direct & Cross-Level Effects on Victims' Social Coping.

		Social Coping			
		1	2	3	4
Intercept	γ_{00}	3.20 **	3.18 **	3.17 **	3.17 **
Controls - individual level					
Age	γ_{10}	-0.01 †	-0.01 †	-0.01 †	-0.01 †
Education	γ_{20}	0.03	0.02	0.02	0.01
Neuroticism	γ_{30}	-0.11	-0.13 †	-0.12 †	-0.11
Work complexity perceptions	γ_{40}	0.12 †	0.15 *	0.15 *	0.15 *
% of time work with neurological/psychological disorder	γ_{50}	-0.028	-0.03	-0.03	-0.04
Tenure	γ_{60}	0.02 **	0.02 **	0.02 **	0.02 **
Union	γ_{70}	-0.01	0.03	0.03	0.03
Threat cognitive appraisal	γ_{110}	0.12	0.12	0.11	0.10
Centrality cognitive appraisal	γ_{120}	0.26 *	0.30 **	0.29 **	0.28 **
Challenge cognitive appraisal	γ_{130}	0.09	0.08	0.09	0.11
Resource cognitive appraisal	γ_{140}	0.28 **	0.28 **	0.27 **	0.26 **
Main effects - individual level					
Direct victimization	γ_{80}		0.03	0.01	0.04
Indirect victimization	γ_{90}		-0.09	-0.09	-0.09
Sexual harassment	γ_{100}		-0.01	0.02	0.01
Main effects - level 2 predictors					
Workgroup LMX climate level	γ_{01}		-0.07	-0.07	-0.08
Workgroup LMX climate strength	γ_{02}		-0.01	-0.005	-0.003
Workgroup conflict climate	γ_{03}		0.20 †	0.20 †	0.20 †
Workgroup knowledge sharing climate	γ_{04}		0.24 †	0.25 *	0.25 *
Cross-level interactions - level 2 predictors					
Direct victimization x workgroup LMX climate level	γ_{81}			-0.01	-0.003
Direct victimization x workgroup LMX climate strength	γ_{82}			0.01	-0.12
Direct victimization x workgroup conflict climate	γ_{83}			-0.01	-0.05
Direct victimization x workgroup knowledge sharing climate	γ_{84}			-0.16	-0.15
Indirect victimization x workgroup LMX climate level	γ_{91}			0.25	0.18
Indirect victimization x workgroup LMX climate strength	γ_{92}			-0.16	-0.21
Indirect victimiziation x workgroup conflict climate	γ_{93}			0.12	0.12
Indirect victimization x workgroup knowledge sharing climate	γ_{94}			0.15	0.12
Sexual harassment x workgroup LMX climate level	γ_{101}			0.21	0.22
Sexual harassment x workgroup LMX climate strength	γ_{102}			0.10	0.001
Sexual harassment x workgroup conflict climate	γ_{103}			-0.02	-0.01
Sexual harassment x workgroup knowledge sharing climate	γ_{104}			0.03	0.01

Table 10, continued. Social Systems' Direct & Cross-Level Effects on Victims' Social Coping.

		Social Coping			
		1	2	3	4
Two-way workgroup LMX climate interaction					
Workgroup LMX climate level x workgroup LMX climate strength	γ_{05}			0.02	0.03
Three-way interaction					
Direct victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{85}				-0.36
Indirect victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{95}				-0.04
Sexual harassment x workgroup LMX climate level x workgroup LMX climate strength	γ_{105}				-0.52

  ** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 493

Table 11. Social Systems' Direct & Cross-Level Effects on Victims' Advocacy Seeking Coping.

		Advocacy Seeking			
		1	2	3	4
Intercept	γ_{00}	2.41 **	2.43 **	2.41 **	2.42 **
Controls - individual level					
Age	γ_{10}	-0.005	-0.005	-0.004	-0.003
Education	γ_{20}	0.16 **	0.17 **	0.16 **	0.16 **
Neuroticism	γ_{30}	-0.15 *	-0.14 †	-0.14 †	-0.14 †
Work complexity perceptions	γ_{40}	0.11 †	0.10	0.09	0.09
% of time work with neurological/psychological disorder	γ_{50}	0.02	0.03	0.03	0.03
Tenure	γ_{60}	0.01	0.01	0.01	0.01
Union	γ_{70}	0.02	-0.01	0.01	0.01
Threat cognitive appraisal	γ_{110}	0.19 †	0.18 †	0.18 †	0.18 †
Centrality cognitive appraisal	γ_{120}	-0.01	-0.01	-0.02	-0.02
Challenge cognitive appraisal	γ_{130}	0.09	0.10	0.12	0.13
Resource cognitive appraisal	γ_{140}	0.17 **	0.17 **	0.15 *	0.14 *
Main effects - individual level					
Direct victimization	γ_{80}		-0.06	-0.08	-0.08
Indirect victimization	γ_{90}		0.03	0.05	0.05
Sexual harassment	γ_{100}		0.05	0.06	0.07
Main effects - level 2 predictors					
Workgroup LMX climate level	γ_{01}		0.22 †	0.21 †	0.21 †
Workgroup LMX climate strength	γ_{02}		-0.03	-0.02	-0.03
Workgroup conflict climate	γ_{03}		0.24 *	0.23 †	0.23 †
Workgroup knowledge sharing climate	γ_{04}		0.19 †	0.20 †	0.20 †
Cross-level interactions - level 2 predictors					
Direct victimization x workgroup LMX climate level	γ_{81}			-0.03	-0.02
Direct victimization x workgroup LMX climate strength	γ_{82}			-0.16	-0.11
Direct victimization x workgroup conflict climate	γ_{83}			0.04	0.05
Direct victimization x workgroup knowledge sharing climate	γ_{84}			-0.14	-0.12
Indirect victimization x workgroup LMX climate level	γ_{91}			0.18	0.13
Indirect victimization x workgroup LMX climate strength	γ_{92}			0.07	-0.09
Indirect victimiziation x workgroup conflict climate	γ_{93}			-0.02	-0.04
Indirect victimization x workgroup knowledge sharing climate	γ_{94}			0.02	-0.001
Sexual harassment x workgroup LMX climate level	γ_{101}			0.27 †	0.27 †
Sexual harassment x workgroup LMX climate strength	γ_{102}			0.05	-0.01
Sexual harassment x workgroup conflict climate	γ_{103}			0.20	0.20
Sexual harassment x workgroup knowledge sharing climate	γ_{104}			0.27 *	0.25 *

Table 11, continued. Social Systems' Direct & Cross-Level Effects on Victims' Advocacy Seeking Coping.

		Advocacy Seeking			
		1	2	3	4
Two-way workgroup LMX climate interaction					
Workgroup LMX climate level x workgroup LMX climate strength	γ_{05}			-0.04	-0.06
Three-way interaction					
Direct victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{85}				0.18
Indirect victimization x workgroup LMX climate level x workgroup LMX climate strength	γ_{95}				-0.39
Sexual harassment x workgroup LMX climate level x workgroup LMX climate strength	γ_{105}				-0.23

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 492

Table 12. Technical Systems' Direct & Cross-Level Effects on Victims' Threat Appraisals.

		Threat Appraisals		
		1	2	3
Intercept	γ_{00}	1.98 **	1.99 **	1.99 **
Controls - individual level				
Age	γ_{10}	-0.004	0.001	0.001
Education	γ_{20}	0.08 *	0.08 *	0.08 *
Neuroticism	γ_{30}	0.30 **	0.27 **	0.26 **
Work complexity perceptions	γ_{40}	0.09 †	0.05	0.04
% of time work with neurological/psychological disorders	γ_{50}	0.07 **	0.05 †	0.05 †
Tenure	γ_{60}	0.01 **	0.01 **	0.01 *
Union	γ_{70}	0.11	0.06	0.06
Main effects - individual level				
Direct victimization	γ_{80}		0.09 **	0.08 **
Indirect victimization	γ_{90}		0.15 **	0.17 **
Sexual harassment	γ_{100}		0.03	0.04
Main effects - level 2 predictors				
Formalization climate	γ_{01}		-0.15	-0.17
Hierarchy of authority climate	γ_{02}		0.43 **	0.38 **
Participation in decision making climate	γ_{03}		0.01	-0.03
Cross-level interactions - level 2 predictors				
Direct victimization x formalization climate	γ_{81}			-0.22 †
Direct victimization x hiearchy of authority climate	γ_{82}			-0.05
Direct victimization x participation in decision making climate	γ_{83}			-0.01
Indirect victimization x formalization climate	γ_{91}			0.18
Indirect victimiziation x hiearchy of authority climate	γ_{92}			-0.01
Indirect victimization x participation in decision making climate	γ_{93}			-0.12
Sexual harassment x formalization climate	γ_{101}			0.13
Sexual harassment x hiearchy of authority climate	γ_{102}			-0.09
Sexual harassment x participation in decision making climate	γ_{103}			-0.09

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 501

Table 13. Technical Systems' Direct & Cross-Level Effects on Victims' Centrality Appraisals.

		Centrality Appraisals		
		1	2	3
Intercept	γ_{00}	1.89 **	1.88 **	1.89 **
Controls - individual level				
Age	γ_{10}	0.001	0.01 *	0.01 *
Education	γ_{20}	0.08 *	0.08 *	0.09 **
Neuroticism	γ_{30}	0.28 **	0.25 **	0.24 **
Work complexity perceptions	γ_{40}	0.13 **	0.07 †	0.07 *
% of time work with neurological/psychological disorders	γ_{50}	0.05	0.02	0.02
Tenure	γ_{60}	0.01	0.003	0.003
Union	γ_{70}	0.11	0.09	0.09
Main effects - individual level				
Direct victimization	γ_{80}		0.06	0.04
Indirect victimization	γ_{90}		0.18 **	0.26 **
Sexual harassment	γ_{100}		0.10 *	0.11 **
Main effects - level 2 predictors				
Formalization climate	γ_{01}		-0.21	-0.22
Hierarchy of authority climate	γ_{02}		0.39 **	0.36 **
Participation in decision making climate	γ_{03}		-0.01	-0.04
Cross-level interactions - level 2 predictors				
Direct victimization x formalization climate	γ_{81}			-0.36 **
Direct victimization x hiearchy of authority climate	γ_{82}			-0.05
Direct victimization x participation in decision making climate	γ_{83}			-0.04
Indirect victimization x formalization climate	γ_{91}			0.56 **
Indirect victimiziation x hiearchy of authority climate	γ_{92}			-0.08
Indirect victimization x participation in decision making climate	γ_{93}			-0.11
Sexual harassment x formalization climate	γ_{101}			0.25 †
Sexual harassment x hiearchy of authority climate	γ_{102}			-0.09
Sexual harassment x participation in decision making climate	γ_{103}			-0.07

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 498

Table 14. Technical Systems' Direct & Cross-Level Effects on Victims' Challenge Appraisals.

		Challenge Appraisals		
		1	2	3
Intercept	γ_{00}	3.31 **	3.32 **	3.32 **
Controls - individual level				
Age	γ_{10}	-0.003	-0.01 †	-0.01
Education	γ_{20}	0.01	0.01	0.01
Neuroticism	γ_{30}	-0.30 **	-0.28 **	-0.29 **
Work complexity perceptions	γ_{40}	0.14 **	0.18 **	0.19 **
% of time work with neurological/psychological disorders	γ_{50}	-0.04	-0.02	-0.03
Tenure	γ_{60}	-0.002	0.000	0.000
Union	γ_{70}	-0.14 †	-0.15 *	-0.14 *
Main effects - individual level				
Direct victimization	γ_{80}		0.000	0.001
Indirect victimization	γ_{90}		-0.19 **	-0.17 **
Sexual harassment	γ_{100}		-0.06	-0.06 †
Main effects - level 2 predictors				
Formalization climate	γ_{01}		0.11	0.09
Hierarchy of authority climate	γ_{02}		-0.11	-0.10
Participation in decision making climate	γ_{03}		0.12	0.16
Cross-level interactions - level 2 predictors				
Direct victimization x formalization climate	γ_{81}			-0.01
Direct victimization x hiearchy of authority climate	γ_{82}			-0.02
Direct victimization x participation in decision making climate	γ_{83}			-0.03
Indirect victimization x formalization climate	γ_{91}			-0.09
Indirect victimiziation x hiearchy of authority climate	γ_{92}			-0.07
Indirect victimization x participation in decision making climate	γ_{93}			0.27
Sexual harassment x formalization climate	γ_{101}			0.16
Sexual harassment x hiearchy of authority climate	γ_{102}			0.04
Sexual harassment x participation in decision making climate	γ_{103}			-0.21 †

** p < .01, * p < .05, † p < .10 (two-tailed test), N = 495

Table 15. Technical Systems' Direct & Cross-Level Effects on Victims' Resource Appraisals.

		Resource Appraisals		
		1	2	3
Intercept	γ_{00}	3.26 **	3.26 **	3.25 **
Controls - individual level				
Age	γ_{10}	0.001	-0.004	-0.003
Education	γ_{20}	-0.05	-0.05	-0.06
Neuroticism	γ_{30}	-0.27 **	-0.24 **	-0.23 **
Work complexity perceptions	γ_{40}	0.08	0.13 *	0.15 *
% of time work with neurological/psychological disorders	γ_{50}	-0.09 †	-0.06	-0.07
Tenure	γ_{60}	-0.01	-0.01	-0.01
Union	γ_{70}	-0.16	-0.09	-0.08
Main effects - individual level				
Direct victimization	γ_{80}		-0.09 †	-0.09 *
Indirect victimization	γ_{90}		-0.23 **	-0.24 **
Sexual harassment	γ_{100}		-0.02	-0.03
Main effects - level 2 predictors				
Formalization climate	γ_{01}		0.66 *	0.61 *
Hierarchy of authority climate	γ_{02}		-0.32 †	-0.30
Participation in decision making climate	γ_{03}		0.06	0.08
Cross-level interactions - level 2 predictors				
Direct victimization x formalization climate	γ_{81}			-0.03
Direct victimization x hiearchy of authority climate	γ_{82}			0.16 †
Direct victimization x participation in decision making climate	γ_{83}			0.13
Indirect victimization x formalization climate	γ_{91}			-0.33
Indirect victimiziation x hiearchy of authority climate	γ_{92}			-0.12
Indirect victimization x participation in decision making climate	γ_{93}			0.16
Sexual harassment x formalization climate	γ_{101}			0.43 *
Sexual harassment x hiearchy of authority climate	γ_{102}			-0.04
Sexual harassment x participation in decision making climate	γ_{103}			-0.23

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 497

Table 16. Technical Systems' Direct & Cross-Level Effects on Victims' Avoidance & Denial Coping.

		Avoidance & Denial		
		1	2	3
Intercept	γ_{00}	2.84 **	2.85 **	2.84 **
Controls - individual level				
Age	γ_{10}	-0.004	-0.004	-0.004
Education	γ_{20}	0.002	0.01	0.01
Neuroticism	γ_{30}	-0.02	-0.01	-0.02
Work complexity perceptions	γ_{40}	0.05	0.03	0.03
% of time work with neurological/psychological disorders	γ_{50}	0.04	0.05	0.05
Tenure	γ_{60}	0.004	0.004	0.01
Union	γ_{70}	-0.01	-0.01	-0.01
Threat cognitive appraisal	γ_{110}	0.09	0.09	0.08
Centrality cognitive appraisal	γ_{120}	0.26 **	0.24 **	0.24 **
Challenge cognitive appraisal	γ_{130}	0.12 *	0.13 *	0.13 *
Resource availability appraisal	γ_{140}	-0.01	-0.001	0.004
Main effects - individual level				
Direct victimization	γ_{80}		-0.02	-0.02
Indirect victimization	γ_{90}		0.10 †	0.08
Sexual harassment	γ_{100}		0.01	0.02
Main effects - level 2 predictors				
Formalization climate	γ_{01}		-0.07	-0.10
Hierarchy of authority climate	γ_{02}		0.17	0.19
Participation in decision making climate	γ_{03}		-0.20	-0.14
Cross-level interactions - level 2 predictors				
Direct victimization x formalization climate	γ_{81}			0.20
Direct victimization x hiearchy of authority climate	γ_{82}			-0.06
Direct victimization x participation in decision making climate	γ_{83}			-0.29 *
Indirect victimization x formalization climate	γ_{91}			0.08
Indirect victimiziation x hiearchy of authority climate	γ_{92}			0.17
Indirect victimization x participation in decision making climate	γ_{93}			0.03
Sexual harassment x formalization climate	γ_{101}			-0.16
Sexual harassment x hiearchy of authority climate	γ_{102}			-0.09
Sexual harassment x participation in decision making climate	γ_{103}			0.10

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 491

Table 17. Technical Systems' Direct & Cross-Level Effects on Victims' Confrontation & Negotiation Coping.

		Confrontation & Negotiation		
		1	2	3
Intercept	γ_{00}	2.55 **	2.57 **	2.57 **
Controls - individual level				
Age	γ_{10}	-0.01 *	-0.01 *	-0.01 *
Education	γ_{20}	0.11 *	0.11 **	0.12 **
Neuroticism	γ_{30}	-0.23 **	-0.23 **	-0.22 **
Work complexity perceptions	γ_{40}	0.12 *	0.11 *	0.12 *
% of time work with neurological/psychological disorders	γ_{50}	-0.01	-0.02	-0.01
Tenure	γ_{60}	0.01 †	0.01 †	0.01 *
Union	γ_{70}	0.09	0.05	0.06
Threat cognitive appraisal	γ_{110}	0.07	0.05	0.05
Centrality cognitive appraisal	γ_{120}	0.22 **	0.21 **	0.21 **
Challenge cognitive appraisal	γ_{130}	0.25 **	0.23 *	0.24 *
Resource availability appraisal	γ_{140}	0.10	0.11 †	0.11 †
Main effects - individual level				
Direct victimization	γ_{80}		0.08	0.08
Indirect victimization	γ_{90}		-0.02	-0.06
Sexual harassment	γ_{100}		-0.03	-0.01
Main effects - level 2 predictors				
Formalization climate	γ_{01}		-0.05	-0.03
Hierarchy of authority climate	γ_{02}		-0.18	-0.21
Participation in decision making climate	γ_{03}		0.01	-0.001
Cross-level interactions - level 2 predictors				
Direct victimization x formalization climate	γ_{81}			0.13
Direct victimization x hiearchy of authority climate	γ_{82}			-0.02
Direct victimization x participation in decision making climate	γ_{83}			-0.11
Indirect victimization x formalization climate	γ_{91}			0.18
Indirect victimiziation x hiearchy of authority climate	γ_{92}			0.26
Indirect victimization x participation in decision making climate	γ_{93}			-0.28
Sexual harassment x formalization climate	γ_{101}			-0.22
Sexual harassment x hiearchy of authority climate	γ_{102}			-0.22 *
Sexual harassment x participation in decision making climate	γ_{103}			0.17

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 493

Table 18. Technical Systems' Direct & Cross-Level Effects on Victims' Social Coping.

		Social Coping		
		1	2	3
Intercept	γ_{00}	3.20 **	3.18 **	3.19 **
Controls - individual level				
Age	γ_{10}	-0.01 *	-0.01 *	-0.01 *
Education	γ_{20}	0.02	0.02	0.01
Neuroticism	γ_{30}	-0.14 *	-0.15 *	-0.15 *
Work complexity perceptions	γ_{40}	0.12 *	0.14 *	0.15 *
% of time work with neurological/psychological disorders	γ_{50}	0.002	-0.003	-0.01
Tenure	γ_{60}	0.02 **	0.02 **	0.02 **
Union	γ_{70}	-0.002	0.04	0.03
Threat cognitive appraisal	γ_{110}	0.17	0.19 †	0.18 †
Centrality cognitive appraisal	γ_{120}	0.22 *	0.24 *	0.25 *
Challenge cognitive appraisal	γ_{130}	0.10	0.09	0.09
Resource availability appraisal	γ_{140}	0.27 **	0.27 **	0.27 **
Main effects - individual level				
Direct victimization	γ_{80}		0.02	0.04
Indirect victimization	γ_{90}		-0.07	-0.09
Sexual harassment	γ_{100}		-0.03	-0.05
Main effects - level 2 predictors				
Formalization climate	γ_{01}		0.11	0.14
Hierarchy of authority climate	γ_{02}		0.10	0.08
Participation in decision making climate	γ_{03}		-0.02	-0.05
Cross-level interactions - level 2 predictors				
Direct victimization x formalization climate	γ_{81}			0.25
Direct victimization x hiearchy of authority climate	γ_{82}			0.06
Direct victimization x participation in decision making climate	γ_{83}			0.11
Indirect victimization x formalization climate	γ_{91}			-0.39 †
Indirect victimiziation x hiearchy of authority climate	γ_{92}			-0.04
Indirect victimization x participation in decision making climate	γ_{93}			0.32
Sexual harassment x formalization climate	γ_{101}			0.05
Sexual harassment x hiearchy of authority climate	γ_{102}			0.001
Sexual harassment x participation in decision making climate	γ_{103}			-0.30 **

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 493

Table 19. Technical Systems' Direct & Cross-Level Effects on Victims' Advocacy Seeking Coping.

		Advocacy Seeking		
		1	2	3
Intercept	γ_{00}	2.45 **	2.45 **	2.44 **
Controls - individual level				
Age	γ_{10}	-0.01	-0.01	-0.01
Education	γ_{20}	0.10 *	0.10 *	0.10 *
Neuroticism	γ_{30}	-0.19 **	-0.19 **	-0.20 **
Work complexity perceptions	γ_{40}	0.11 †	0.11 †	0.12 †
% of time work with neurological/psychological disorders	γ_{50}	0.03	0.03	0.03
Tenure	γ_{60}	0.01	0.01	0.01 †
Union	γ_{70}	-0.01	0.01	0.02
Threat cognitive appraisal	γ_{110}	0.24 **	0.25 **	0.24 **
Centrality cognitive appraisal	γ_{120}	-0.02	-0.01	-0.02
Challenge cognitive appraisal	γ_{130}	0.09	0.10	0.09
Resource availability appraisal	γ_{140}	0.18 **	0.17 **	0.17 *
Main effects - individual level				
Direct victimization	γ_{80}		-0.06	-0.05
Indirect victimization	γ_{90}		0.05	0.06
Sexual harassment	γ_{100}		0.01	0.01
Main effects - level 2 predictors				
Formalization climate	γ_{01}		0.16	0.14
Hierarchy of authority climate	γ_{02}		0.03	0.03
Participation in decision making climate	γ_{03}		-0.03	0.01
Cross-level interactions - level 2 predictors				
Direct victimization x formalization climate	γ_{81}			0.23
Direct victimization x hiearchy of authority climate	γ_{82}			0.14
Direct victimization x participation in decision making climate	γ_{83}			-0.30 *
Indirect victimization x formalization climate	γ_{91}			-0.16
Indirect victimiziation x hiearchy of authority climate	γ_{92}			-0.15
Indirect victimization x participation in decision making climate	γ_{93}			0.05
Sexual harassment x formalization climate	γ_{101}			-0.09
Sexual harassment x hiearchy of authority climate	γ_{102}			-0.14 †
Sexual harassment x participation in decision making climate	γ_{103}			0.01

** $p < .01$, * $p < .05$, † $p < .10$ (two-tailed test), N = 492

Figure 1. Stressor Related Cognitive Appraisal and Coping as Precursors to Stress and Strain in the Traditional Work Stress Framework.
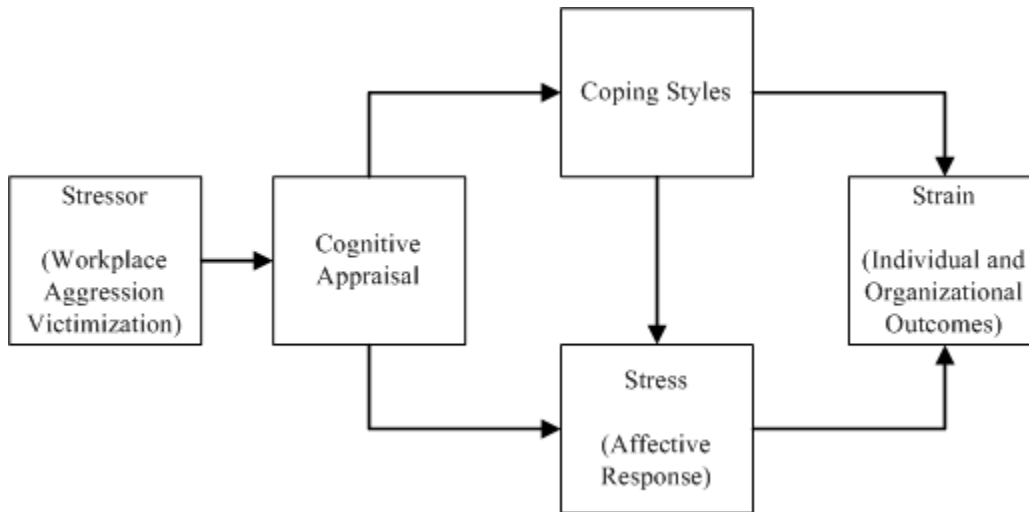
Adapted from Lazarus and Folkman (1984) and Pratt and Barling (1988).

Figure 2. Individual Coping Strategies with Workplace Victimization.

The figure below has been adopted from the work of Knapp, Faley, Ekeberg, & Dubois (1997).

Mode of Response

	Self-Response	Supported Response
Self-Focus	Avoidance & Denial	Social Coping
Initiator (i.e., instigator) Focus	Confrontation & Negotiation	Advocacy Seeking

Focus of Response

Figure 3a. Model Illustrating the Proposed Social Systems' Direct and Cross-Level
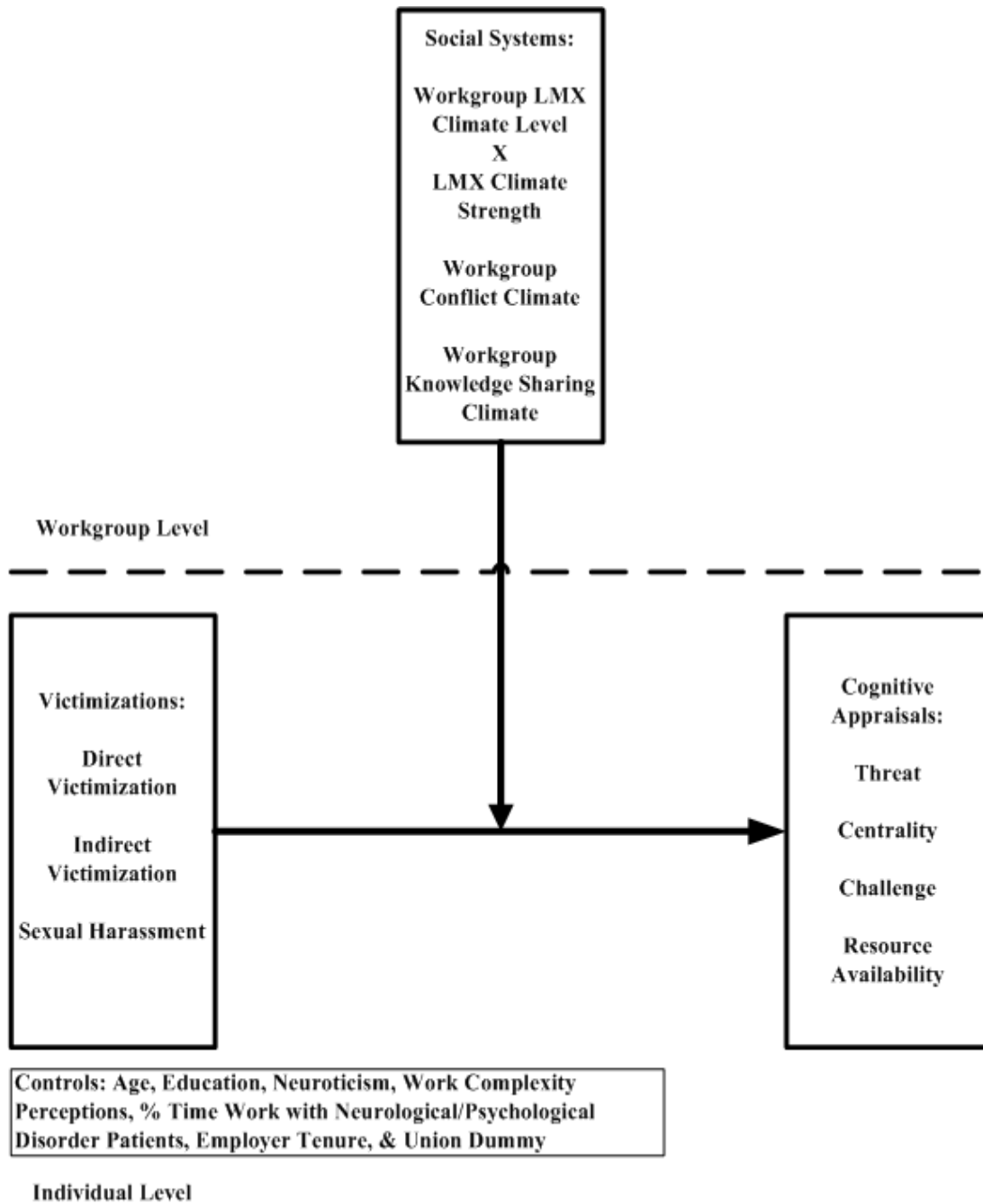Relationships between Victimizations and Cognitive Appraisals.

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Figure 3b. Model Illustrating the Proposed Social Systems' Direct and Cross-Level
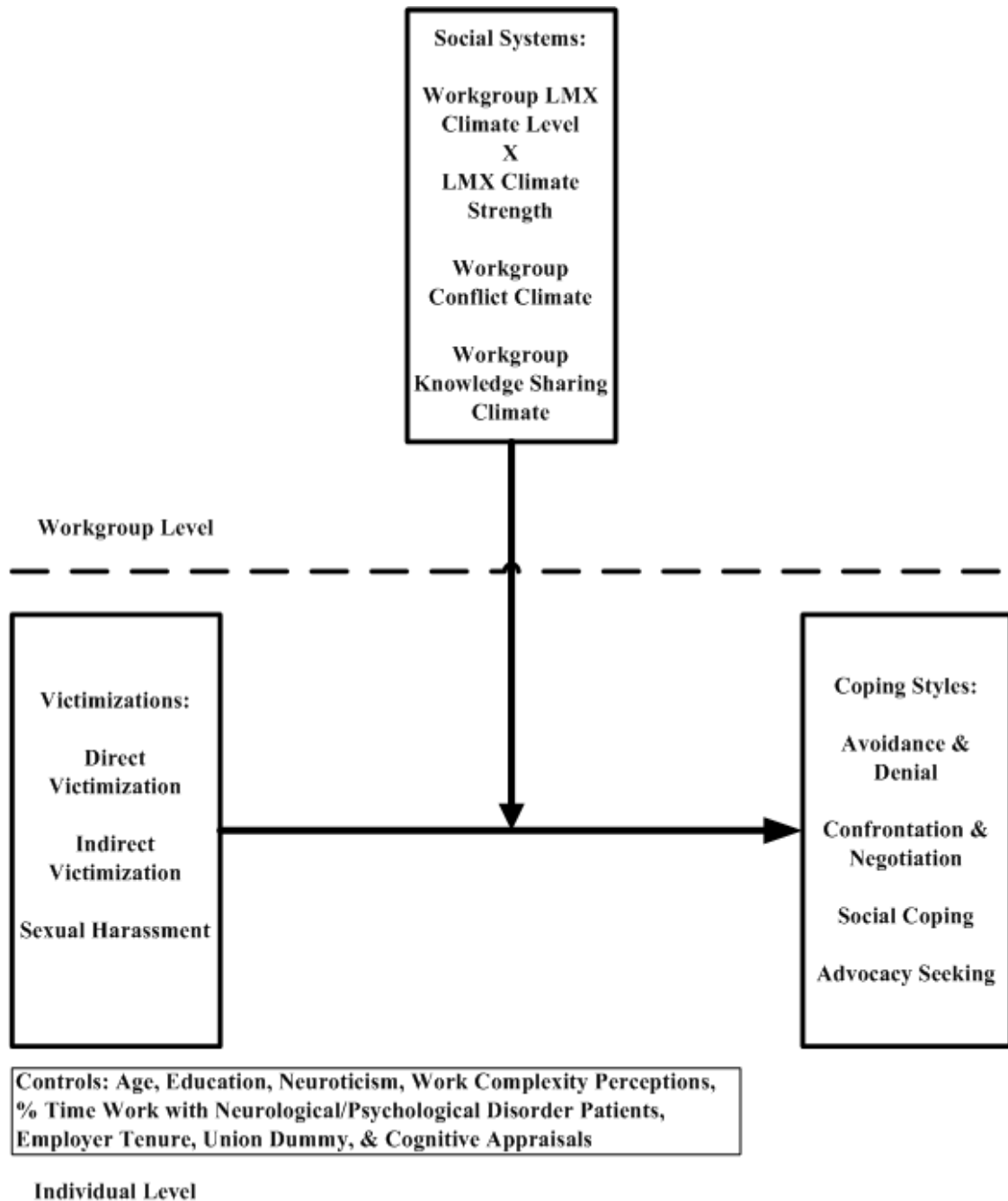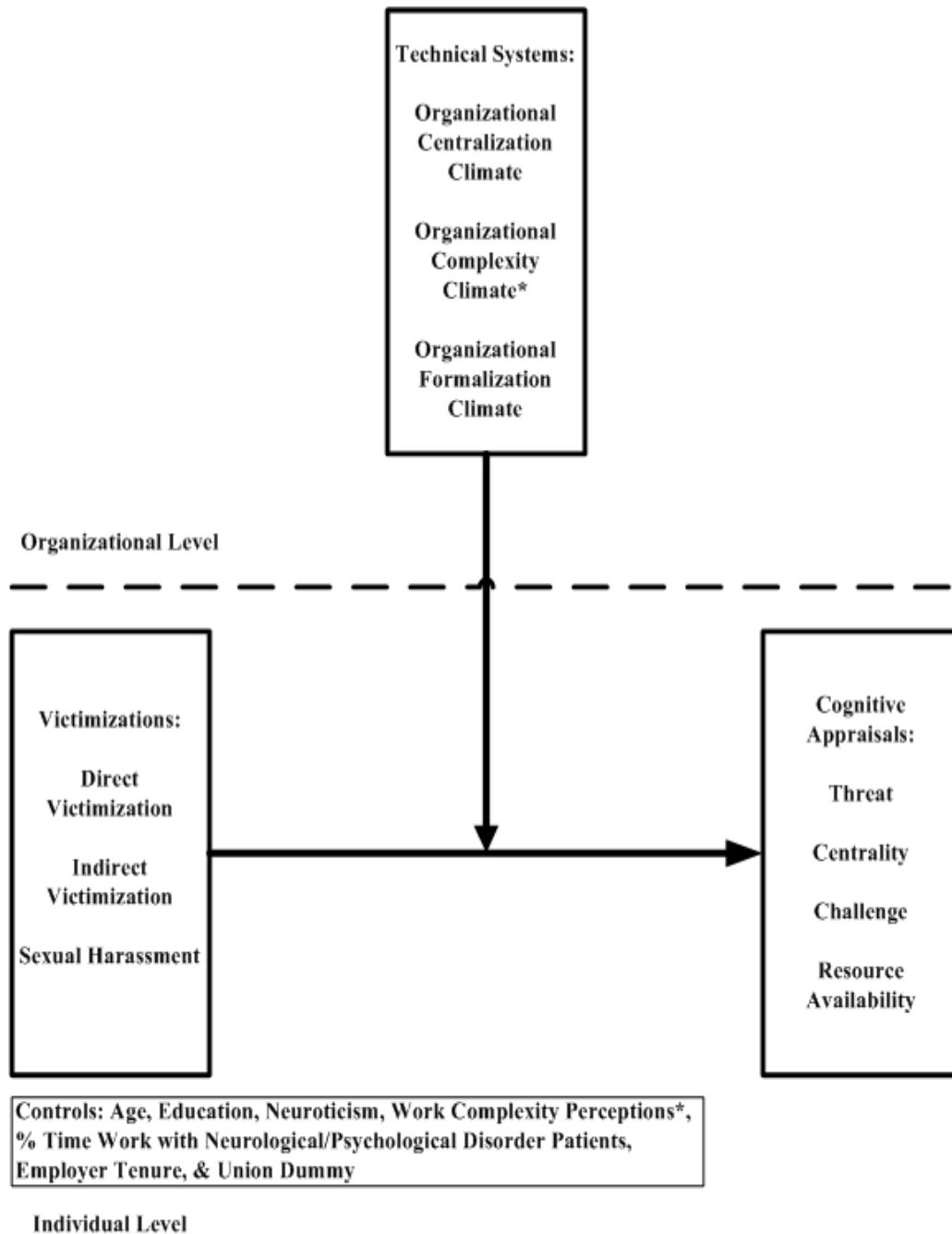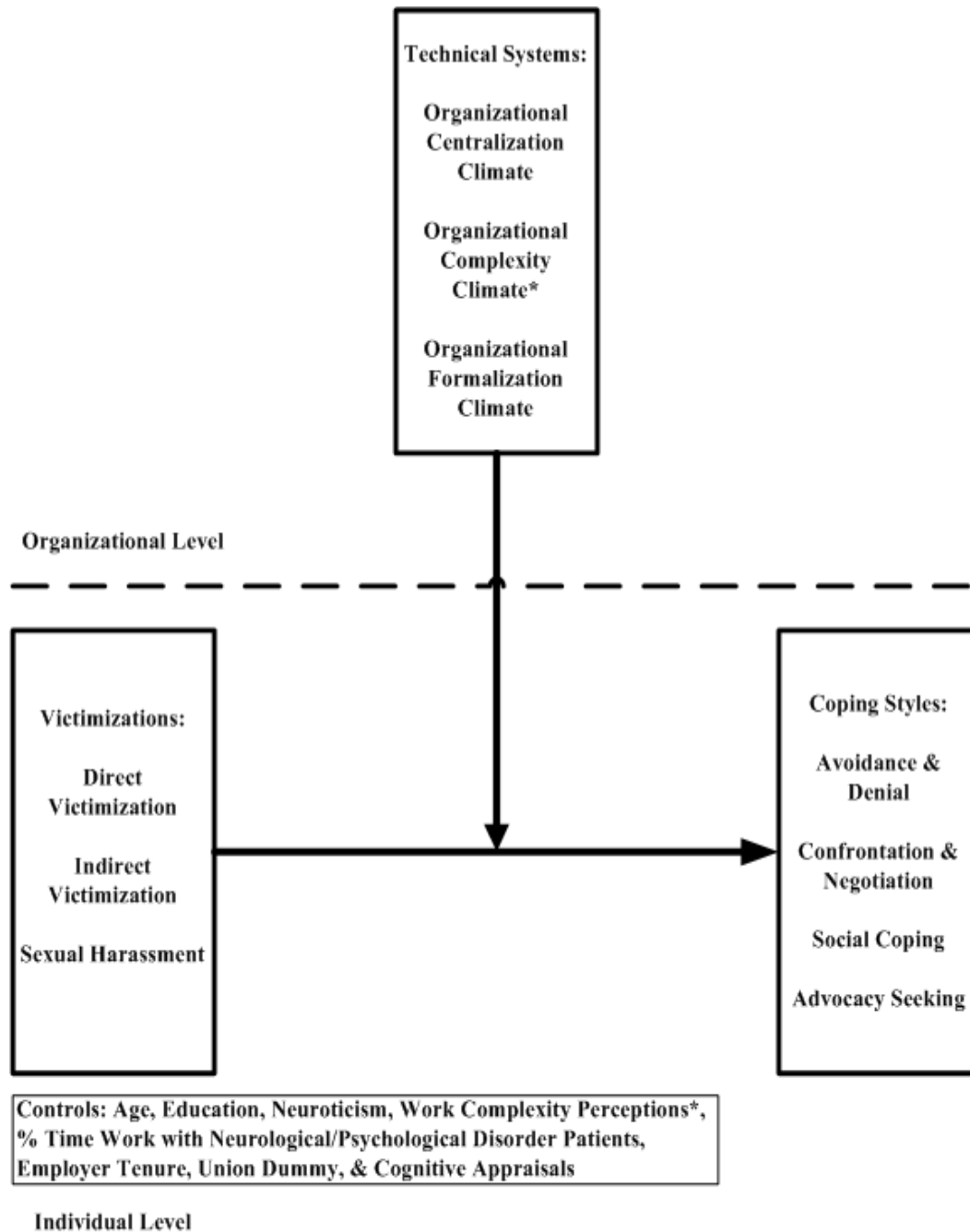Relationships between Victimizations and Coping Styles.

Social Systems:

**Workgroup LMX
Climate Level
X
LMX Climate
Strength**

**Workgroup
Conflict Climate**

**Workgroup
Knowledge Sharing
Climate**

Workgroup Level

- -

Victimizations:

**Direct
Victimization**

**Indirect
Victimization**

Sexual Harassment

Coping Styles:

**Avoidance &
Denial**

**Confrontation &
Negotiation**

Social Coping

Advocacy Seeking

**Controls: Age, Education, Neuroticism, Work Complexity Perceptions,
% Time Work with Neurological/Psychological Disorder Patients,
Employer Tenure, Union Dummy, & Cognitive Appraisals**

Individual Level

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Figure 3c. Model Illustrating the Proposed Technical Systems' Direct and Cross-Level Relationships between Victimizations and Cognitive Appraisals.

Technical Systems:

Organizational Centralization Climate

Organizational Complexity Climate*

Organizational Formalization Climate

Organizational Level

Victimizations:

Direct Victimization

Indirect Victimization

Sexual Harassment

Cognitive Appraisals:

Threat

Centrality

Challenge

Resource Availability

Controls: Age, Education, Neuroticism, Work Complexity Perceptions*, % Time Work with Neurological/Psychological Disorder Patients, Employer Tenure, & Union Dummy

Individual Level

*Complexity climate was removed after determining it was unfit to aggregate to the organizational level. Thus, it was used as an individual-level control.

Figure 3d. Model Illustrating the Proposed Technical Systems' Direct and Cross-Level Relationships between Victimizations and Coping Styles.

Technical Systems:

Organizational Centralization Climate

Organizational Complexity Climate*

Organizational Formalization Climate

Organizational Level

- -

Victimizations:

Direct Victimization

Indirect Victimization

Sexual Harassment

Coping Styles:

Avoidance & Denial

Confrontation & Negotiation

Social Coping

Advocacy Seeking

Controls: Age, Education, Neuroticism, Work Complexity Perceptions*, % Time Work with Neurological/Psychological Disorder Patients, Employer Tenure, Union Dummy, & Cognitive Appraisals

Individual Level

*Complexity climate was removed after determining it was unfit to aggregate to the organizational level. Thus, it was used as an individual-level control.

Figure 4a. Threat Appraisals: Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is High.
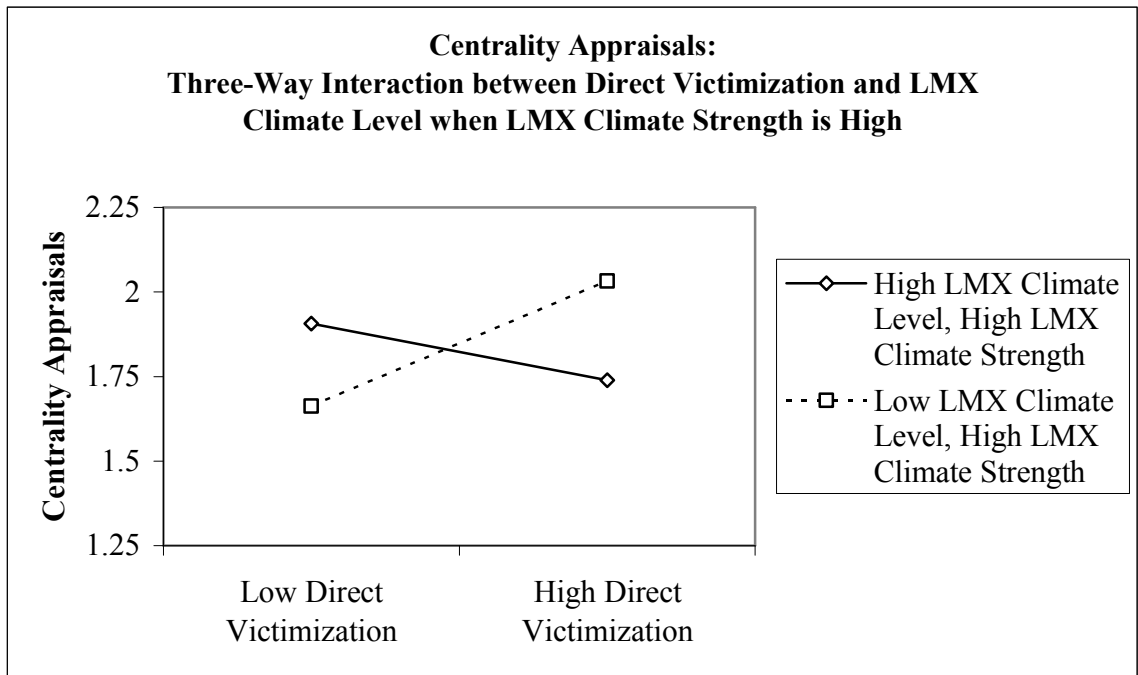

Threat Appraisals:
Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is High
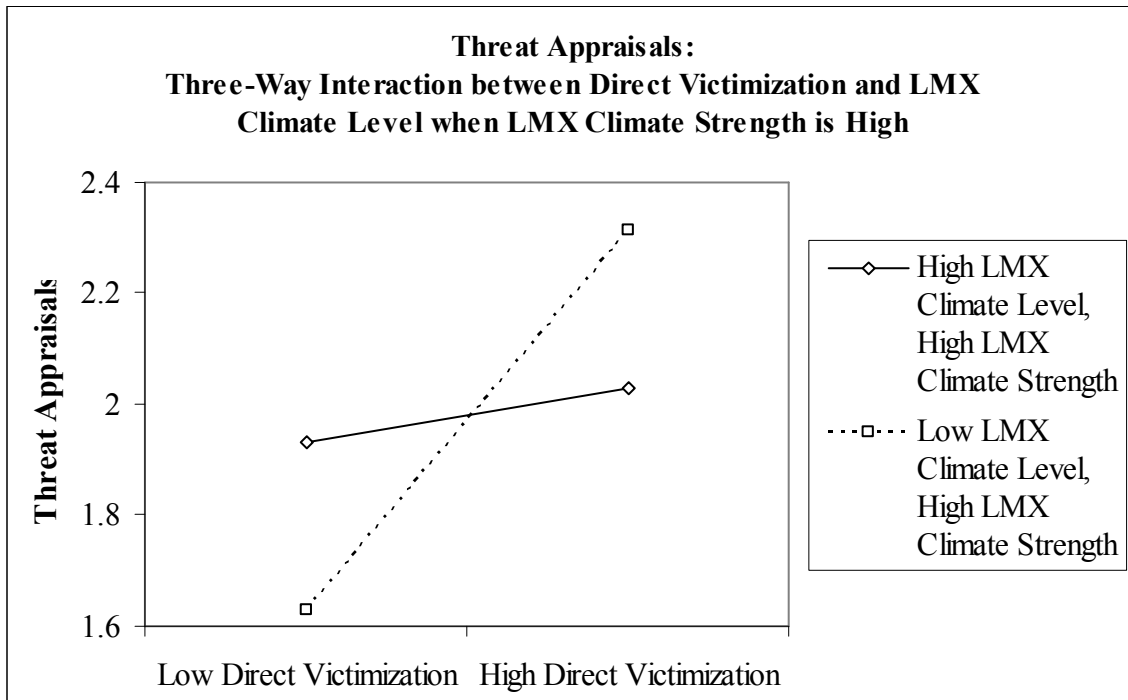
Figure 4b. Threat Appraisals: Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is Low.
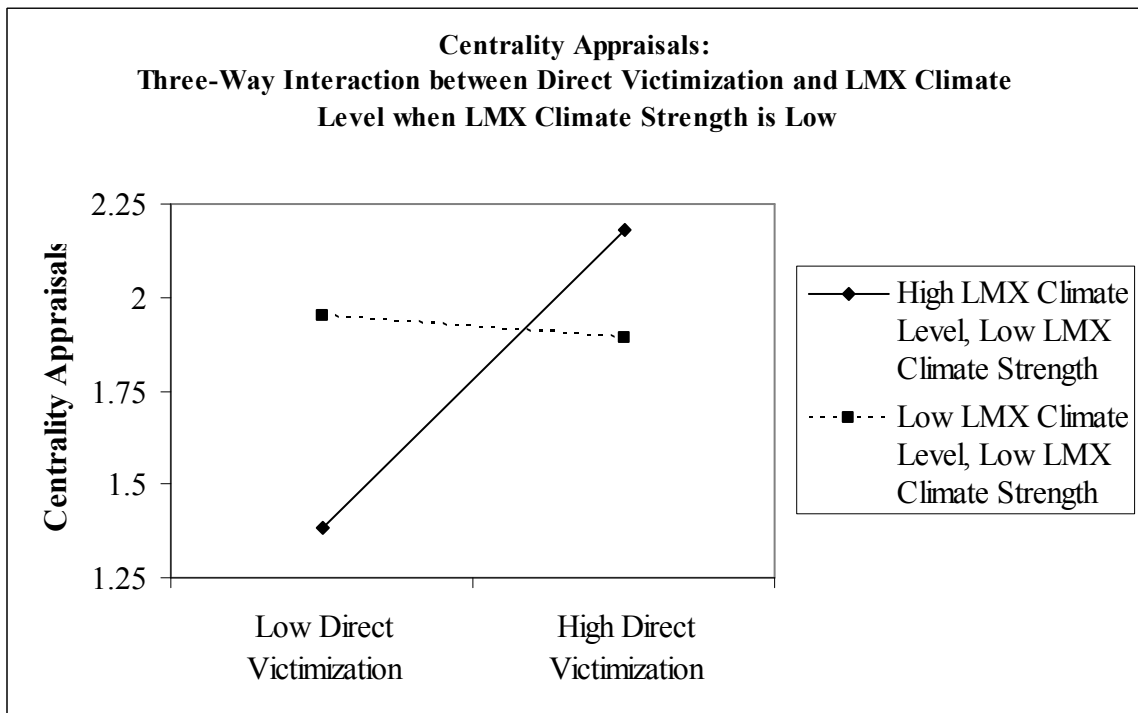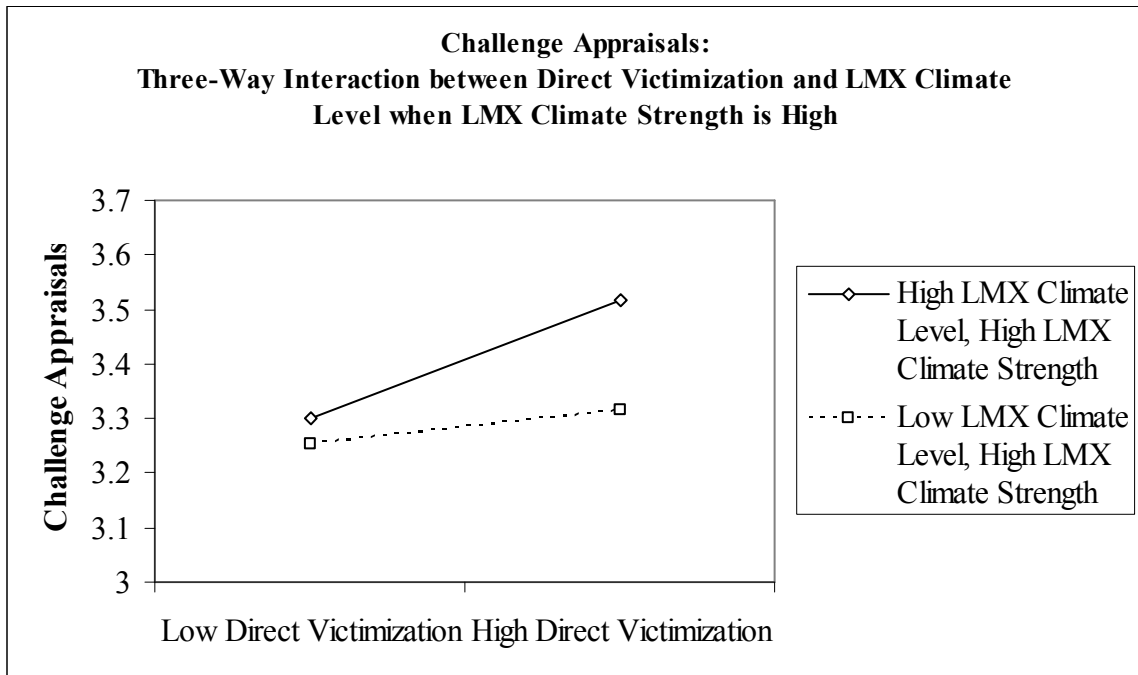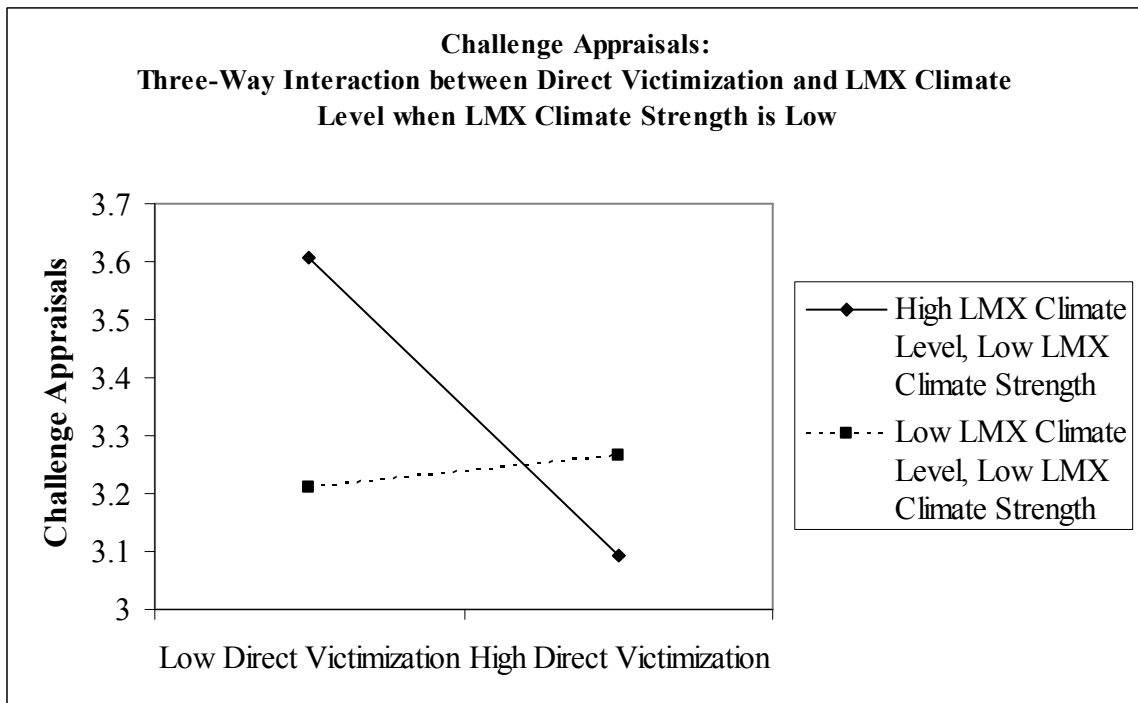

Threat Appraisals:
Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is Low
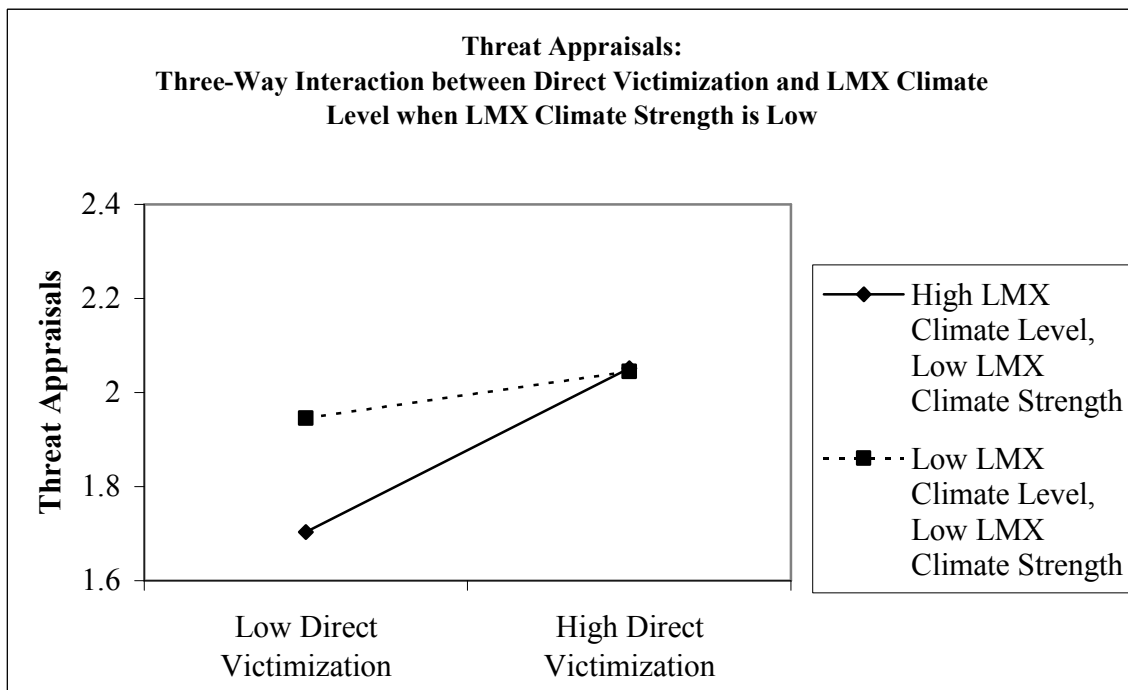
Figure 5a. Centrality Appraisals: Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is High.

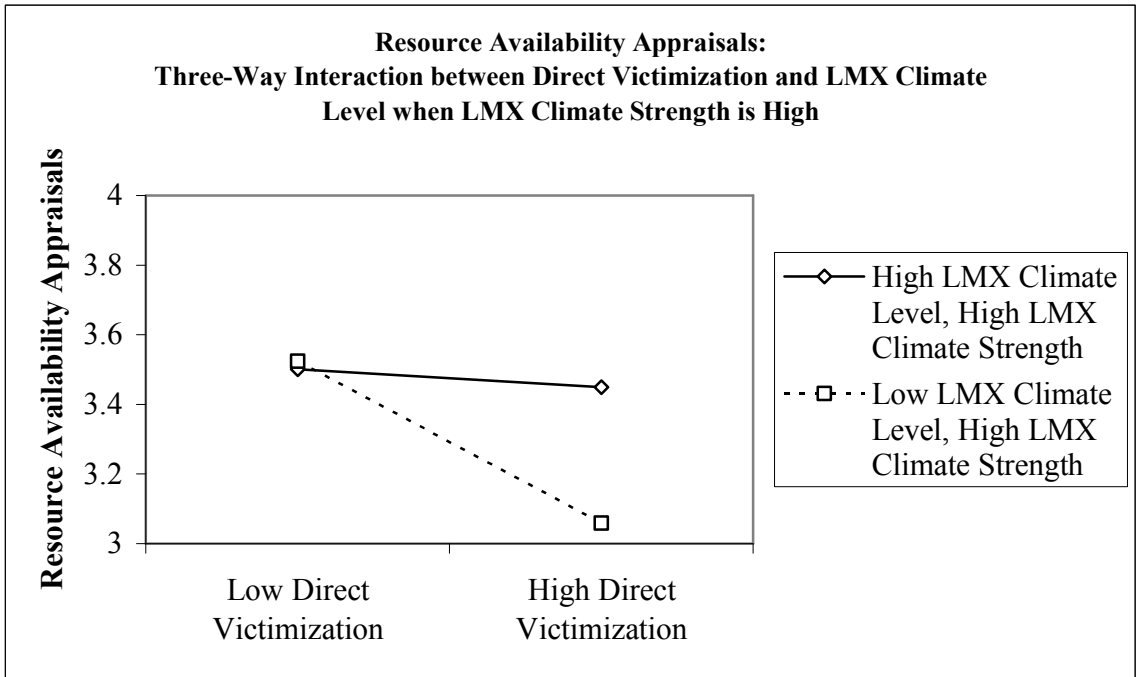**Centrality Appraisals:**
Three-Way Interaction between Direct Victimization and LMX
Climate Level when LMX Climate Strength is High

Figure 5b. Centrality Appraisals: Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is Low.

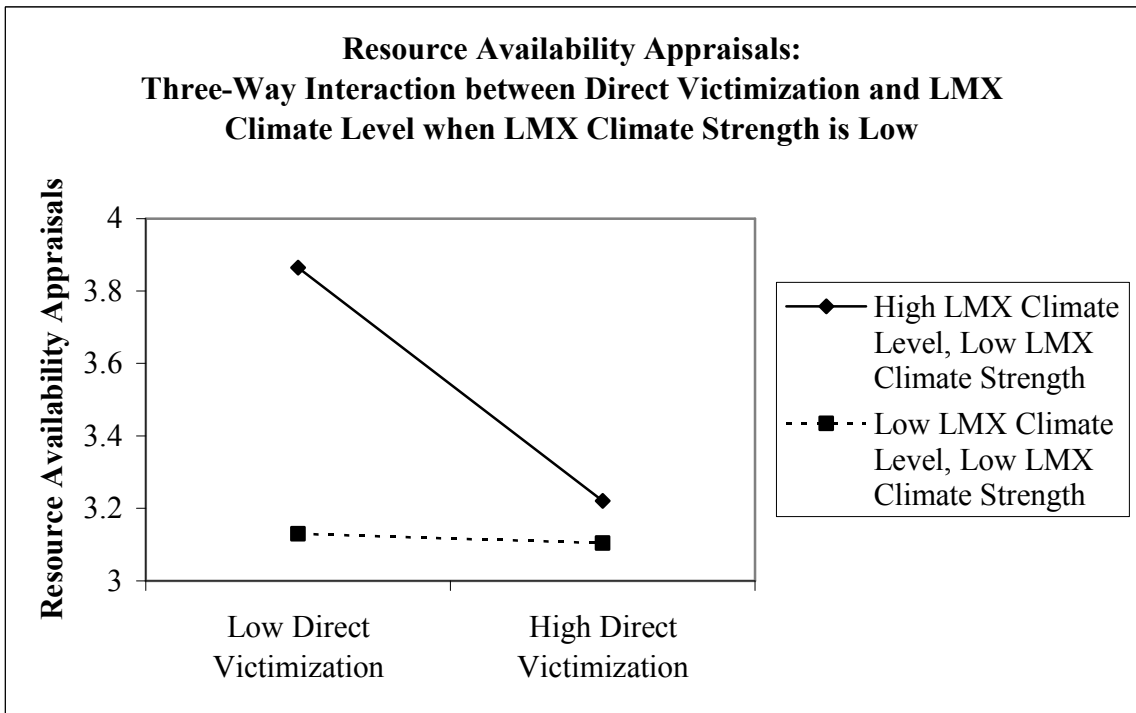**Centrality Appraisals:**
Three-Way Interaction between Direct Victimization and LMX Climate
Level when LMX Climate Strength is Low

Figure 6a. Challenge Appraisals: Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is High.

Challenge Appraisals:
Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is High

Legend:
- High LMX Climate Level, High LMX Climate Strength
- Low LMX Climate Level, High LMX Climate Strength

Figure 6b. Challenge Appraisals: Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is Low.

Challenge Appraisals:
Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is Low

Legend:
- High LMX Climate Level, Low LMX Climate Strength
- Low LMX Climate Level, Low LMX Climate Strength

Figure 7a. Resource Availability Appraisals: Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is High.
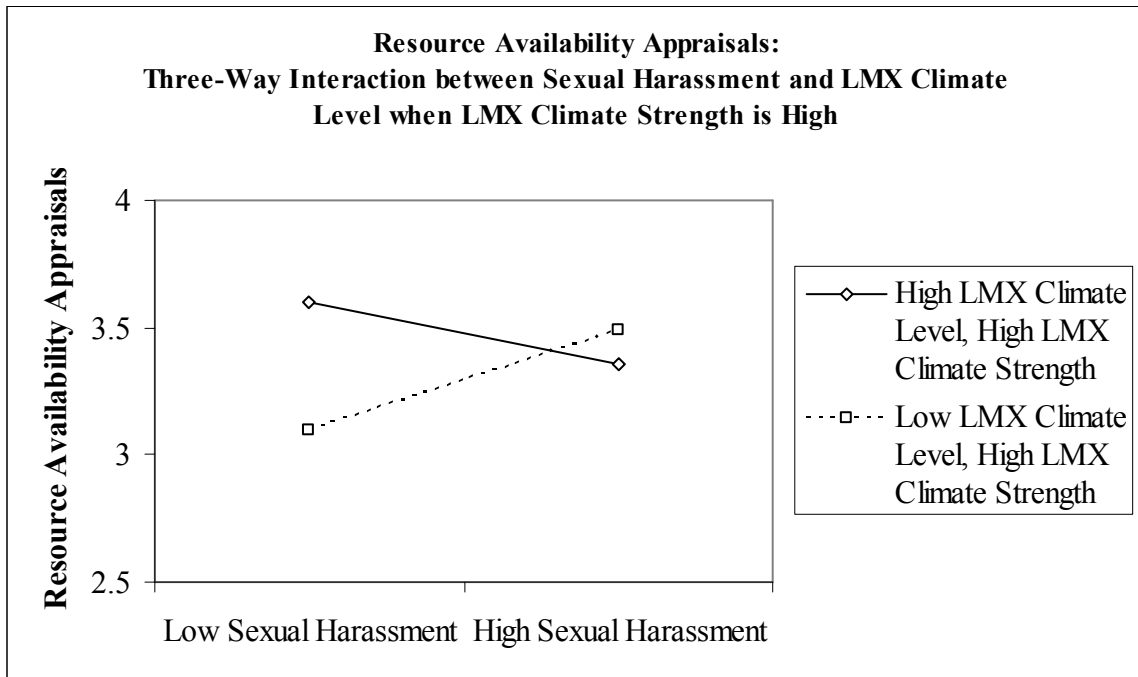

Figure 7b. Resource Availability Appraisals: Three-Way Interaction between Direct Victimization and LMX Climate Level when LMX Climate Strength is Low.
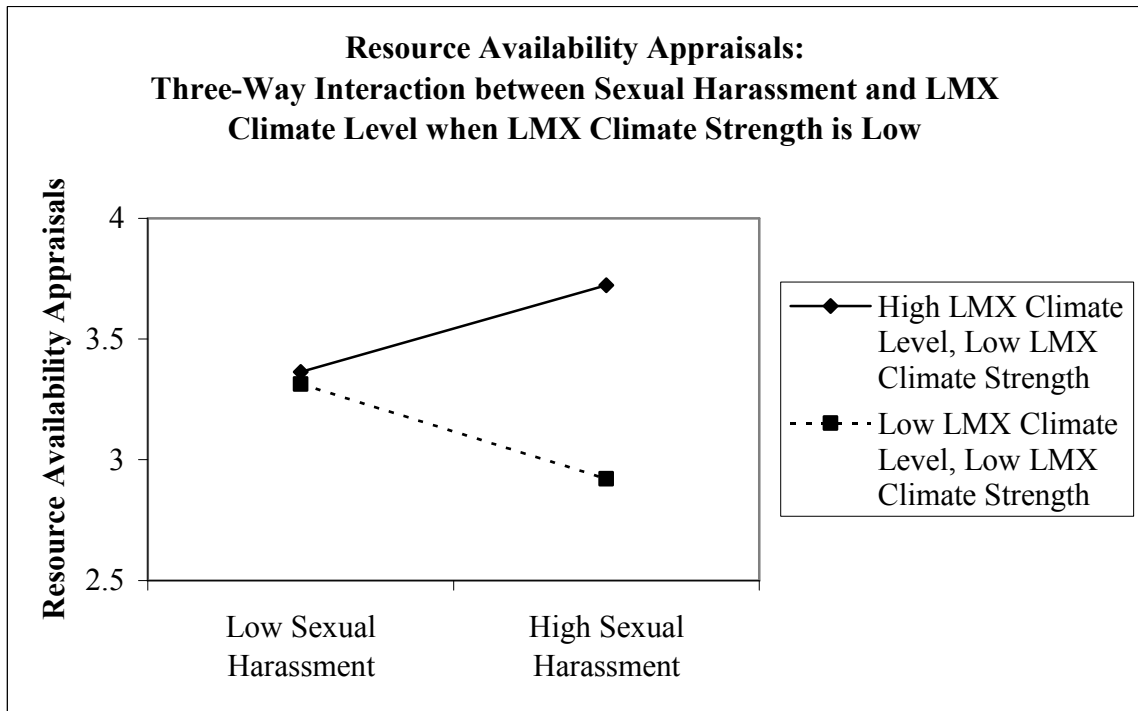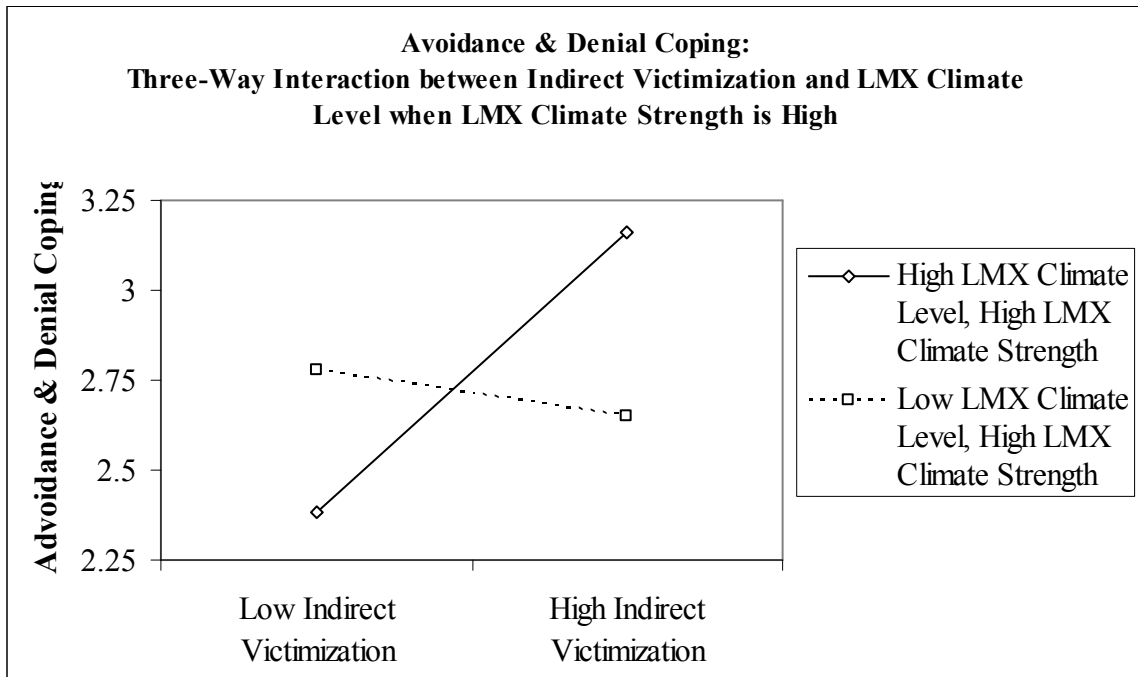
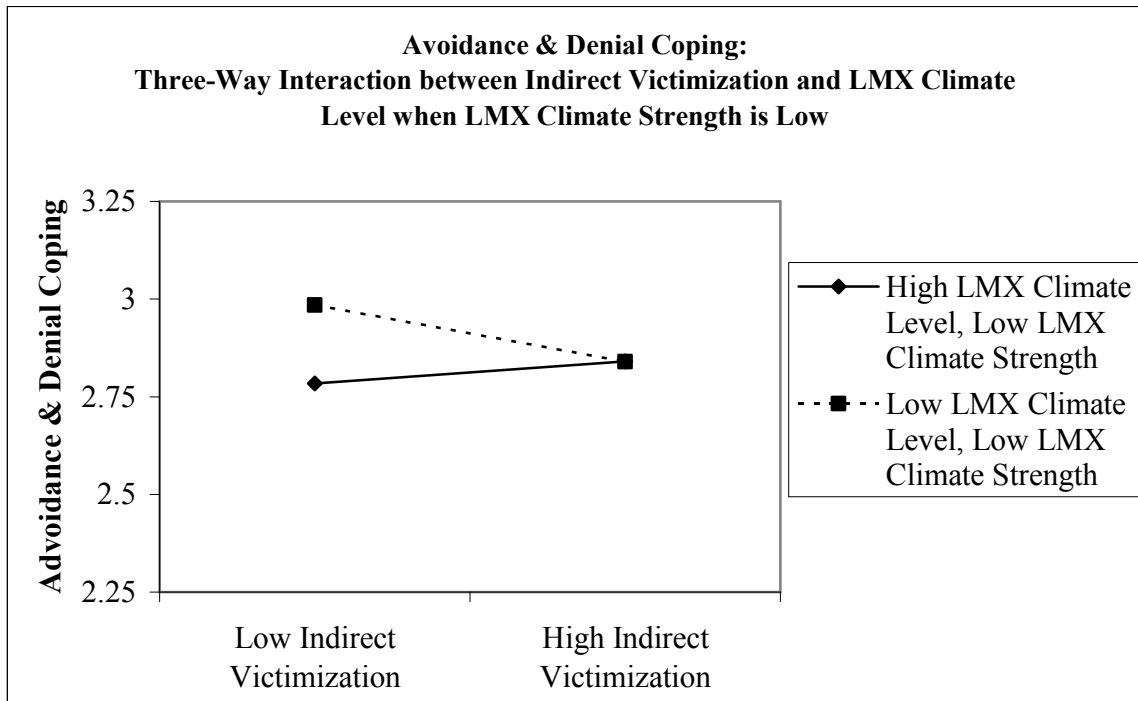*Figure 8a.* Resource Availability Appraisals: Three-Way Interaction between Sexual Harassment and LMX Climate Level when LMX Climate Strength is High.

Resource Availability Appraisals: Three-Way Interaction between Sexual Harassment and LMX Climate Level when LMX Climate Strength is High

Figure 8b. Resource Availability Appraisals: Three-Way Interaction between Sexual Harassment and LMX Climate Level when LMX Climate Strength is Low.

Resource Availability Appraisals: Three-Way Interaction between Sexual Harassment and LMX Climate Level when LMX Climate Strength is Low

Figure 9a. Avoidance & Denial Coping: Three-Way Interaction between Indirect
Victimization and LMX Climate Level when LMX Climate Strength is High.

Figure 9b. Avoidance & Denial Coping: Three-Way Interaction between Indirect
Victimization and LMX Climate Level when LMX Climate Strength is Low.

Figure 10. Centrality Appraisals: Two-Way Interaction between Indirect Victimization and Workgroup Knowledge Sharing Climate.
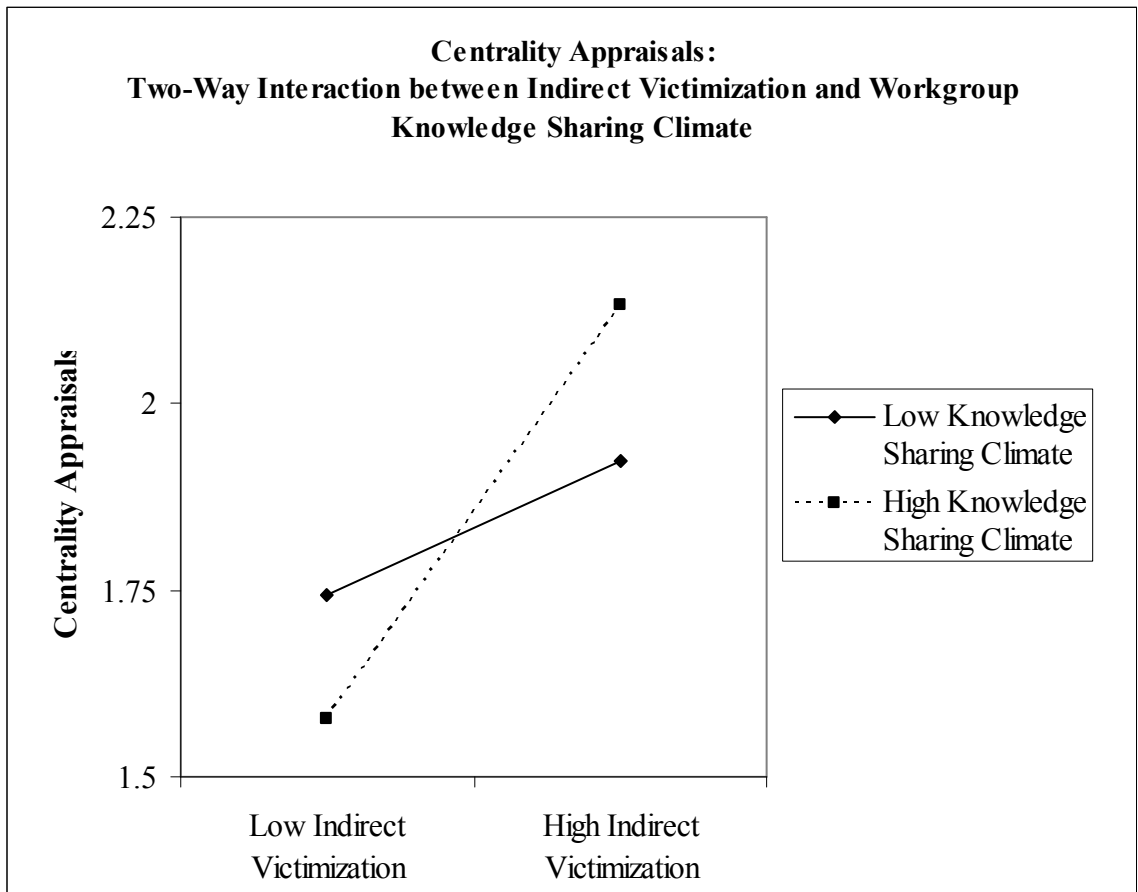
Figure 11. Advocacy Seeking: Two-Way Interaction between Sexual Harassment and Knowledge Sharing Climate.

**Advocacy Seeking:
Two-Way Interaction between Sexual Harassment and Knowledge Sharing Climate**
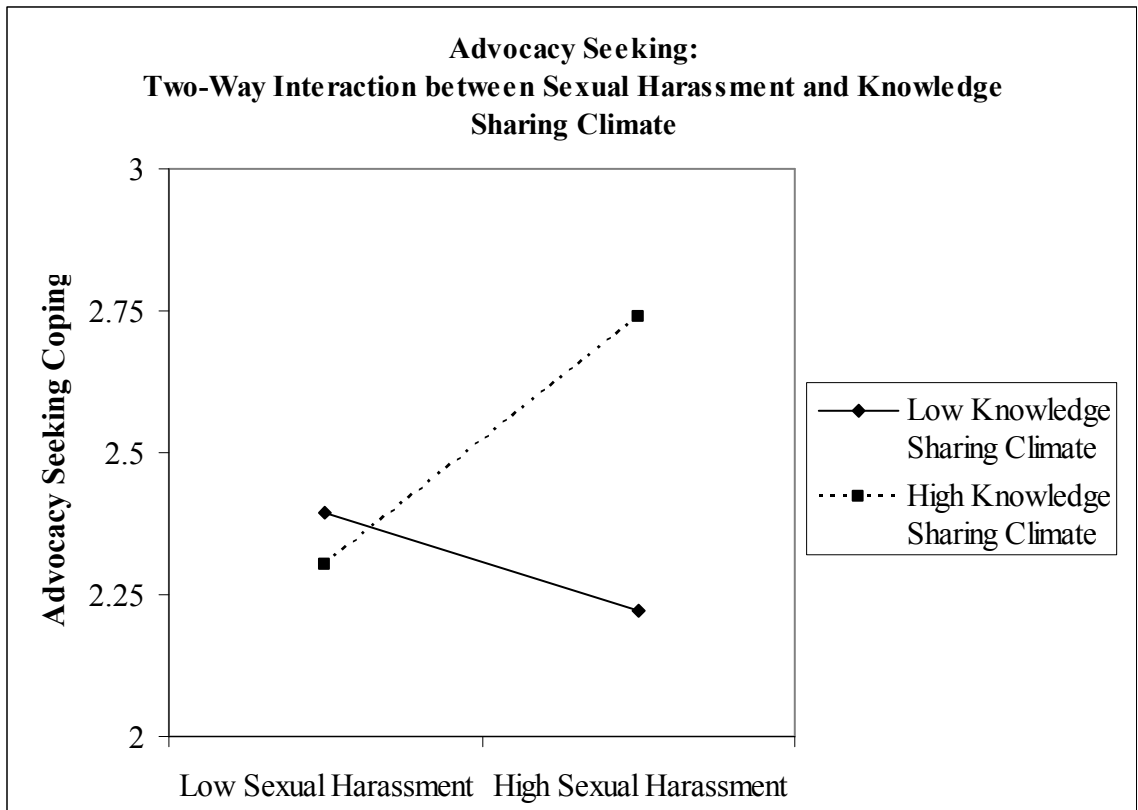
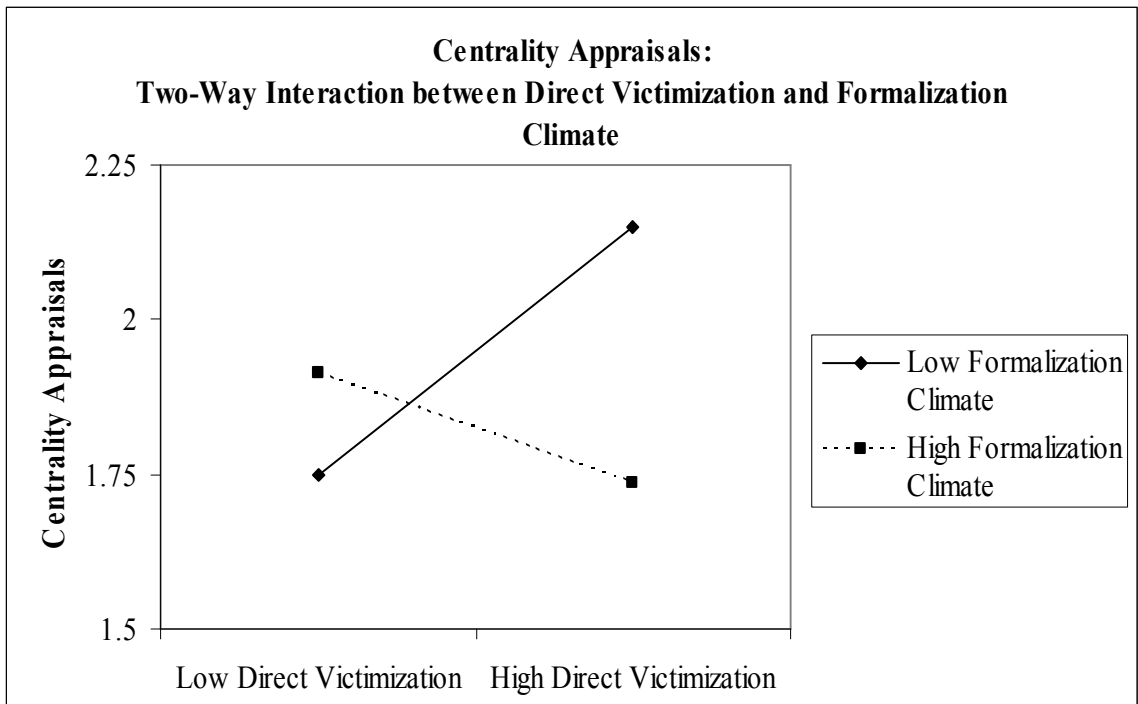*Figure 12.* Centrality Appraisals: Two-Way Interaction between Direct Victimization and Formalization Climate.

Figure 13. Centrality Appraisals: Two-Way Interaction between Indirect Victimization and Formalization Climate.
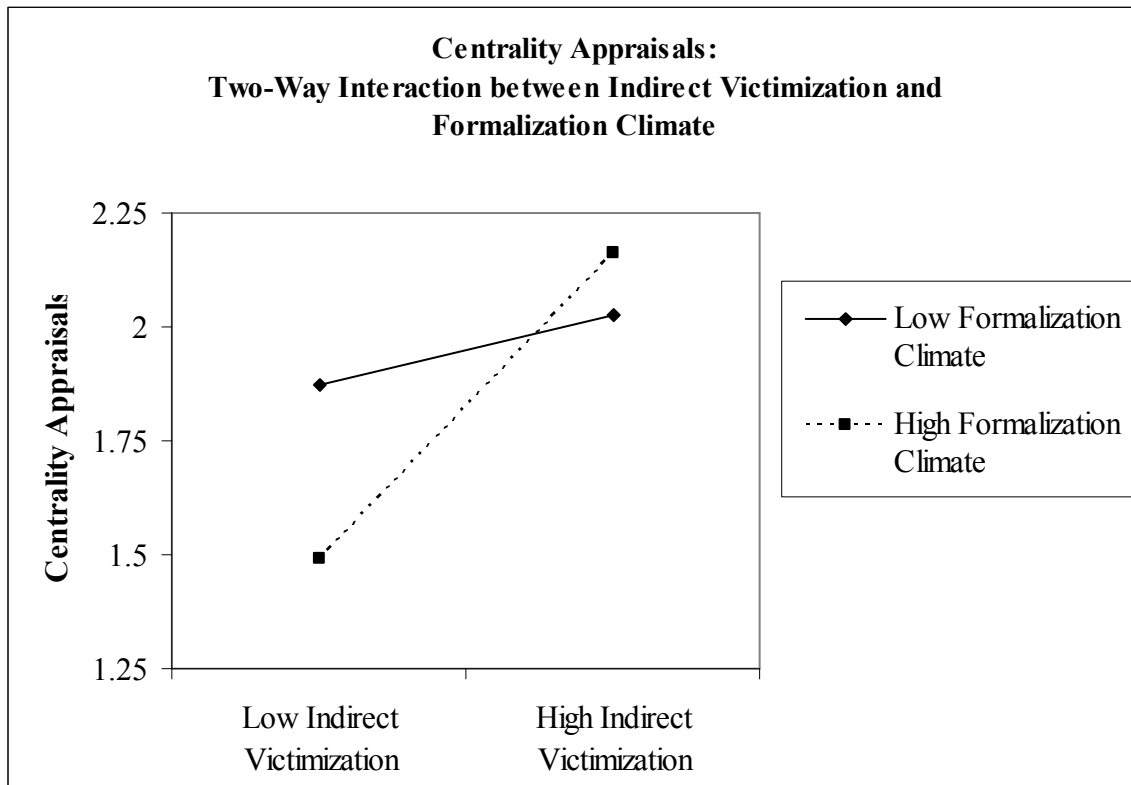
Figure 14. Resource Availability Appraisals: Two-Way Interaction between Sexual Harassment and Formalization Climate.
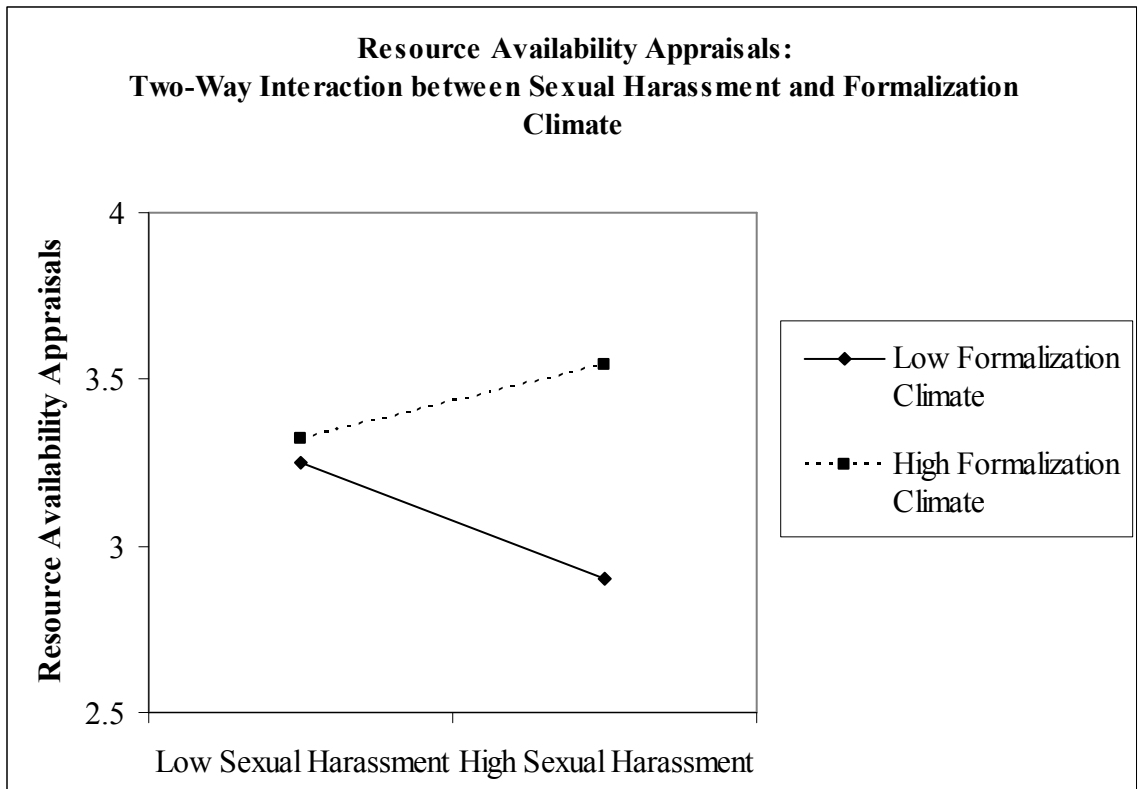

**Resource Availability Appraisals:
Two-Way Interaction between Sexual Harassment and Formalization
Climate**

Figure 15. Confrontation & Negotiation Coping: Two-Way Interaction between Sexual Harassment and Hierarchy of Authority Climate.
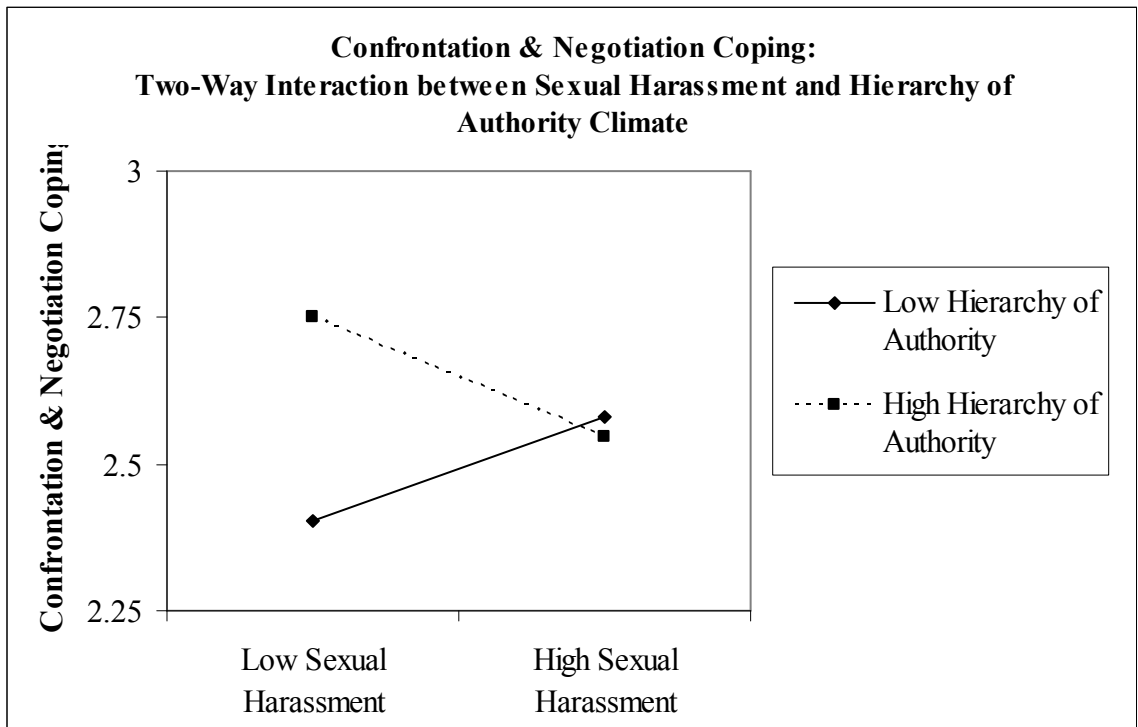
Figure 16. Avoidance & Denial Coping: Two-Way Interaction between Direct
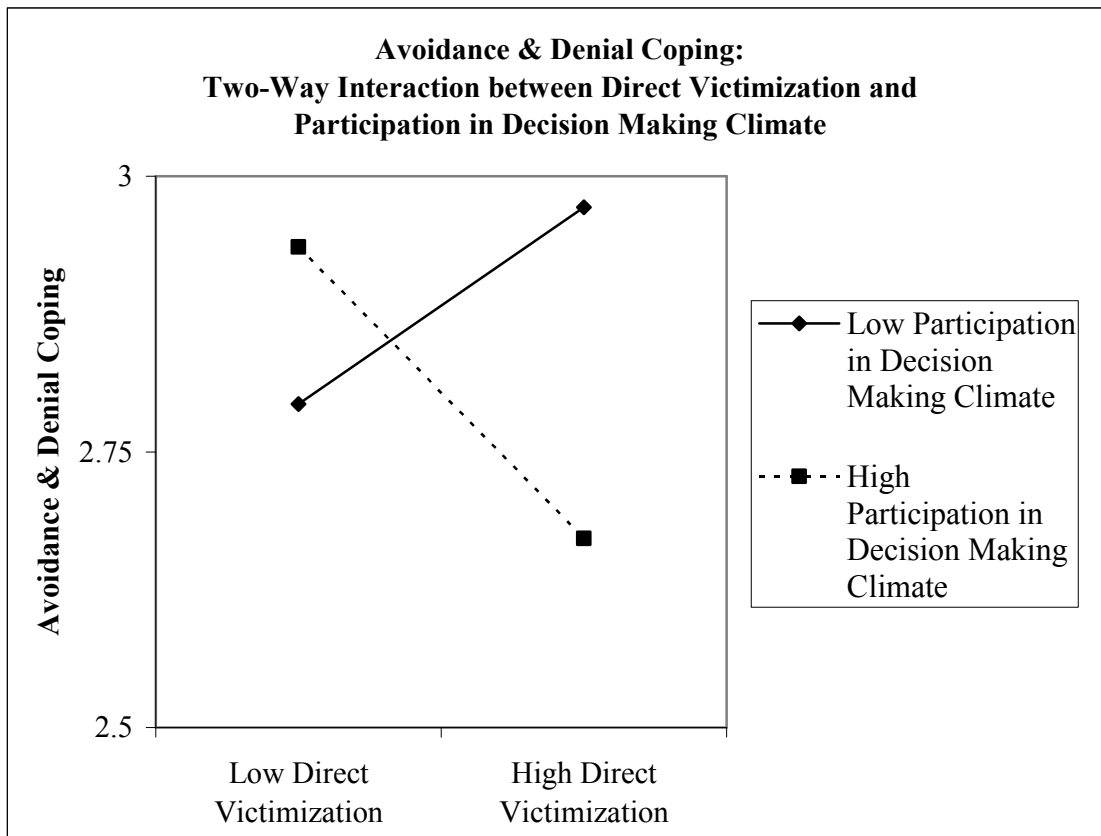Victimization and Participation in Decision Making Climate.

Figure 17. Social Coping: Two-Way Interaction between Sexual Harassment and Participation in Decision Making Climate.

Social Coping:
Two-Way Interaction between Sexual Harassment and
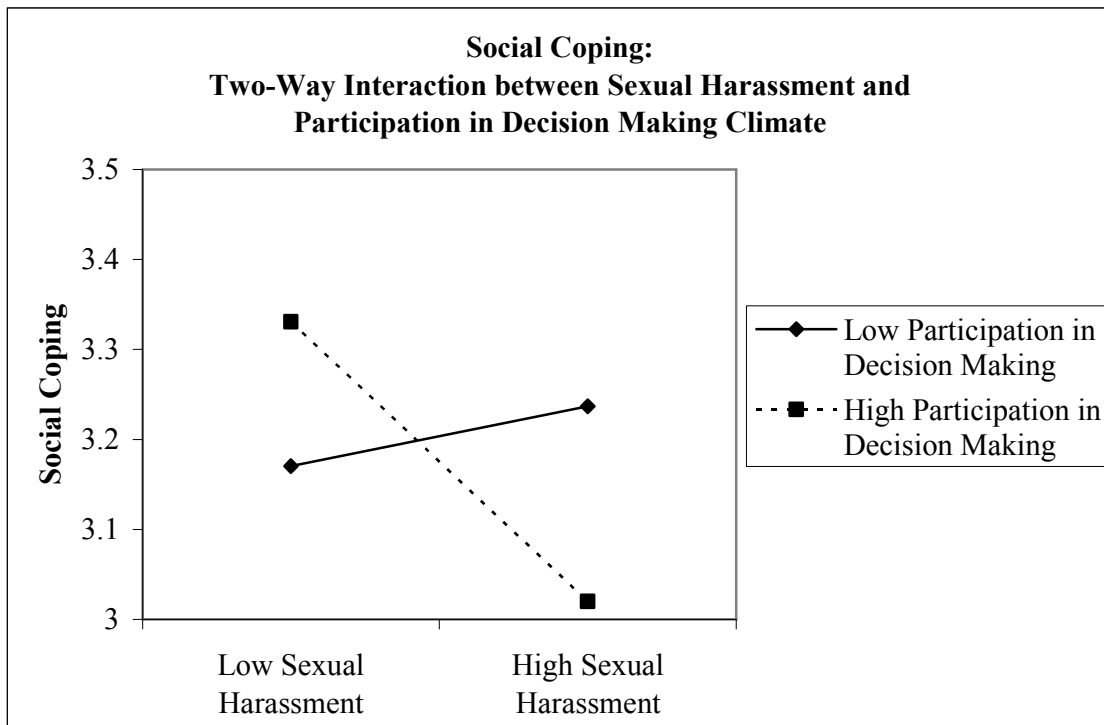**Participation in Decision Making Climate**

Figure 18. Advocacy Seeking Coping: Two-Way Interaction between Direct Victimization and Participation in Decision Making Climate.

Advocacy Seeking Coping:
Two-Way Interaction between Direct Victimization and Participation
in Decision Making Climate

- Low Participation in Decision Making Climate
- High Participation in Decision Making Climate