

ABUSIVE SUPERVISION AND SUBORDINATE CHARACTERISTICS: A RELATIVE  
IMPORTANCE ANALYSIS

By

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## ABSTRACT

BROOKS T. DURHAM. The Impact of Subordinate Characteristics on Perceptions of Abusive Supervision: A Relative Importance Analysis. (Under the direction of Dr. DAVID J. WOHR).

Abusive supervision is defined as the sustained display of hostile verbal and nonverbal behaviors, *excluding physical contact* by a supervisor or leader. Abusive supervision is pervasive in the workplace and has many pernicious consequences, ranging from job dissatisfaction to supervisor-related aggression, to home-life disturbances. These problems are costly to organizations, particularly in the form of lost time, lack of productivity, and turnover. Research to date suggests that perceptions of abusive supervision may be driven as much by, if not more than, subordinate characteristics rather than supervisor behavior. The fundamental issue is that although abusive supervision is defined in terms of supervisor behavior, it is assessed via subordinate perceptions of supervisor behavior. While many studies have concentrated on the impact of specific subordinate characteristics on perceptions of abusive supervision, researchers have tended to focus on specific characteristics in isolation. Thus, the literature would benefit from a more comprehensive treatment that examines the collective effect of multiple subordinate characteristics as well as their relative importance with respect to ratings of abusive supervision. This survey-based study focused on demographics, personality, core self-evaluation, and the WUSI scale developed by Harvey, Butler, and Brees (2016). The results were analyzed using regression analysis and supplemented by dominance weights analysis. I found that, collectively, subordinate characteristics accounted for 47% of the variance in subordinate perceptions of abusive supervision and that the WUSI scale clearly dominated, representing 59% of this effect size.

Keywords: Abusive supervision, relative importance, subordinate characteristics, WUSI.

DEDICATION

Lauren Marie Durham

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## LIST OF ABBREVIATIONS

AS	Abusive Supervision
BFI	Big Five Inventory
Big Five	openness, conscientiousness, extraversion, agreeableness, Neuroticism
CFA	Confirmatory Factor Analysis
CSE	Core self-evaluation
CWB	Counterproductive Workplace Behaviors
CWB-O	Counterproductive Workplace Behaviors Organization
DW	Dominance Weight
HEXACO	Honesty-Humility, Emotionality, Extraversion, Openness to Experience, Agreeableness, Conscientiousness
LMX	Leader-Membership Exchange Theory
NA	Negative Affectivity
PA	Positive Affectivity
PANAS	Positive Affectivity Negative Affectivity Scale (PANAS-GEN)
RI	Relative Importance
SDR	Social Desirability Responding
WUSI	Waspishness - Umbrageous Sensitivity – Insecurity (Scale)

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## Chapter 1: Introduction

Arguably the most well-studied early leadership literature is Plato's *Republic*, with its main themes of the concepts of "just" and "good" men. The Greek word, *arete*, refers to rulers "performing political power by virtue and correctness" (Ronald, 2014, p. 52). Several thousand years later, contemporary scholars have maintained this focus on the positive side of leadership (Kellerman, 2004; Padilla, Hogan & Kaiser, 2007). Historical studies have primarily focused on understanding what it means to be a good, as well as an effective, leader (Einarsen, Aasland & Skogstad, 2007; Kelloway, Mullen & Francis, 2006; Shaw, Erickson & Harvey, 2011; Tierney & Tepper, 2007). In keeping with the Greek tradition of heroes, the Great Man theory of the 19<sup>th</sup> century focused on the leaders' innate characteristics, such as bravery and wisdom. Thus, leaders are born, not taught, and aspiring leaders should emulate such attributes (Carlyle & Adams, 1907). Following the Great Man theory, trait theory proposed that leaders possessed specific attributes that made them effective, and these traits were both innate and learned (Hoffman, Woehr & Maldagen-Youngjohn, & Lyons, 2011). This democratized the academic leadership realm so that others could attain greatness, as leadership was no longer conditioned upon divine providence.

By the 20<sup>th</sup> century, many scholars began to move away from trait theories due to external validity issues. No one set of effective leadership traits could be compiled and applied to all leaders. Modern leadership theories, focusing on styles, attributes, characteristics, and the leader's situational aspects, can be categorized as behavioral, contingency, process, transactional, and transformational (Kahn, Nawaz, and Kahn, 2016).

Behavioral leadership theory differs from trait theory such that it considers the actions effective leaders take and how they behave in their leadership position. McGregor (1960) proposed an XY behavioral theory of management (X and Y leaders). The former type is demanding, anti-social, and strict; the latter is participative, rewarding, and inclusive. Building on McGregor's theory, Mouton and Blake (1964) expanded the binary XY theory into a managerial grid with the Y-axis representing a people orientation continuum and the X-axis a performance orientation. Behavioral theory, however, would not prove to be the unifying theory of leadership. For example, Steve Jobs, co-founder of Apple Computer, certainly was a theory X leader as evidenced by his penchant for bullying workers with public humiliation (Isaacson, 2011). His success, however, does not hold to the XY theory. Something more than just Jobs's behavior had to explain the iPhone's success.

Extending behavioral theory, contingency theory asserts that no single leadership style consistently leads to positive results; everything is situational (Fiedler, 2005). For example, Fiedler's (1967) contingency model purported that effective leadership is a function of a "Leader \* Situation" interaction (Strube & Garcia, 1981, p. 307). In other words, certain leadership styles are better suited for specific situations. Similar theories include path-goal (Evans, 1970; House, 1971), situational (Hershey & Blanchard, 1969), normative decision (Vroom & Yetton, 1972), and Leader-Membership Exchange (LMX) (Dansereau, Cashman & Graen, 1973; Graen, Liden & Hoel, 1982). Contingency theory examines both the leader and the follower. For example, LMX literature, which focuses on the dyadic relationship between leaders and members was an evolutionary step from traditional theories that focused on just the leader's characteristics.

Process leadership theory continued the evolutionary nature of leadership theories by suggesting that effective leaders are servants of the organization who act as stewards by focusing

on their followers' needs so that followers develop and become more knowledgeable. This stands in stark contrast to the earliest leadership theories, which posited that leaders are to lead their followers. Servant leaders focus on all employees and their needs as equal members of the organization (Greenleaf, 1977). Other process leadership theories include learning organizations (Easterby-Smith, 1997), charismatic leaders (House, 1977), and adaptive leadership (Heifetz, Grashow & Linsky, 2009).

By the 1980s, academics began exploring transactional leadership, which expanded upon the LMX research. House and Shamir (1993) described the leader-member relationship as based on arrangements and rewards, ranging from praise to financial incentives. A criticism of transactional leadership is that it can stifle creativity and negatively impact an employee's job satisfaction (Khan et al., 2016). While equally concerned with motivating employees, transformational leadership relies more on leaders' inspirational and belief-based efforts. Transformational leaders inspire employees by engendering a shared mission and vision of the organization's goals. Transactional leadership is better suited for individual task performance (Wang, Tsui & Xin, 2011), while transformational leadership leads to positive organizational citizenship behavior (Gooty, Gavin, Johnson, Frazier & Snow, 2009).

These theories do not suggest that all leadership literature is focused on honorable deeds. Niccolò Machiavelli's ruler in *The Prince* certainly understood the benefits of ruling by force and fear. Similarly, one could argue that Genghis Kahn's enemies saw his brutal war tactics as destructive, possibly genocidal. Scholars maintain, however, that these two rulers were ultimately effective leaders, with the ends justifying the means, by focusing on their accomplishments and benefits for society instead of their detrimental effects. Ultimately, these leaders were effective in so much as they expanded the kingdom.

Over the past several decades, scholars have undertaken studies specifically exploring the darker, or destructive, leadership forms (Popper, 2001). Schyns and Shilling (2013) suggested two principal reasons for the increasing interest in studies of the dark side of leadership. First, there have been questions regarding the costs and prevalence this sort of leadership represents, and second, evidence suggests that the impacts on subordinates are rather grave. Destructive leadership encompasses a broad spectrum of behaviors, and as such, scholars have assigned it a plethora of definitions. Some have even denied including destructive leadership as real leadership since, by definition, leadership must be a positive action (Howell & Avolio, 1993; Kellerman, 2004; Padilla et al., 2007). Padilla et al. (2007), however, challenge this absolute denial by suggesting that even good leaders (e.g., Mother Teresa) have done things (e.g., use of private jets and donations) that could be perceived as "not good."

Researchers have found that the higher-order construct "Dark Triad" of personality traits (Paulhus & Williams, 2002), which consists of narcissism, Machiavellianism, and psychopathy, have mixed results concerning destructive leadership. Narcissistic leaders have a continual need for attention and adulation (Raskin & Terry, 1988; Rhodewalt & Peterson, 2009); if this need for adulation goes unmet, the supervisor may retaliate against the subordinate and exhibit abusive behaviors (Waldman, Wang, Hannah, Owens & Balthazard, 2018). Machiavellian leaders are misanthropes, status strivers, and manipulators (Christie & Geis, 1970). Psychopathic leaders are impulsive; they lack guilt and empathy and exhibit anti-social behaviors (Hare, 2003). These emotionally detached leaders will exploit their subordinates and misuse them to achieve their own goals (Boddy, 2006). According to the Psychopathy Checklist-Revised (Hare, 2003), the psychopathy construct comprises four dimensions: Interpersonal (lying and manipulating), Affective (lack of guilt and empathy), Lifestyle (prone to boredom and impulsiveness), and Anti-

Social (behavior problems and lack of control) (Hare, 2003; Mathieu & Babiak, 2016). While it is considered the most destructive trait of the Dark Triad (Williams, Nathanson & Paulhus, 2010), there are few in-depth studies of leadership and psychopathy, possibly due to businesses' fear of evaluating their management and the lack of measurement tools (Babiak & Hare, 2006). The research that does exist speaks to the psychopathic supervisor's positive association with general destructive leadership, such as unfair workplace treatment and bullying.

Destructive leadership aimed at individuals, namely, subordinates, is a form of workplace harassment defined as "acts that repeatedly and persistently aim to torment, wear down or frustrate a person, as well as all, repeated behaviors that ultimately would provoke, frighten, intimidate or bring discomfort to the recipient" (Einarsen, 1999, p. 16). It is essential to bifurcate subordinate-directed abuse into two subcategories, physical and psychological. The former involves physical contact, assault, and violence. Sexual harassment covers these forms (Terpstra & Baker, 1991) and, more than likely, so do criminal behavioral studies. Keashly, Trott, and MacLean (1994) found that physical assaults were less prevalent in the workplace than non-physical assaults.

Non-physical assault includes bullying (Einarsen, Raknes & Matthiesen, 1994; Hadjifotiou, 1983), petty tyranny (Ashforth, 1994), emotional abuse (Keashly, 1997), victimization (Aquino & Thau, 2008), and abusive supervision (Tepper, 2000). Some scholars contend that these constructs are subject to a certain degree of overlapping and redundancy (Acquino & Thau, 2008; Einarsen et al., 2007; Hershcovis, 2011). Given the extensive focus and definitional differences, Einarsen et al. (2007) proposed a unifying definition: "The systematic and repeated behavior of a leader, supervisor or manager that violates the legitimate interest of

the organization by undermining and/or sabotaging the organization's goals, tasks, resources and effectiveness and/or the motivation, well-being, or job satisfaction of subordinates" (p. 208).

Tepper (2000) defined abusive supervision as "the sustained display of hostile verbal and nonverbal behaviors, *excluding physical contact*" (p. 178). While there is a certain amount of theoretical overlapping among these hierarchical forms of harassment (see Appendix A for a summary of similar non-physical forms of subordinate-directed abuse), abusive supervision has several hallmark definitional characteristics. First, it consists of actions that continue until (a) the subordinate ends the relationship; (b) the supervisor ends the relationship; or (c) the supervisor changes his or her behavior (Tepper, 2000; Tepper, 2007). Second, the supervisor carries out this abusive behavior to attain a result, but not automatically to inflict harm (Tepper, 2000; Tepper, 2007). Examples of such leaders include Steve Jobs and Bobby Knight, known for their tempers (Bies, Tripp & Shapiro, 2016; Tepper, Duffy & Breaux-Soignet, 2011). Finally, abusive supervision, by its very definition, is a subjective assessment by the subordinate (Tepper, 2000), which "may be colored by the characteristics of the observer and/or subordinate (e.g., personality, demographic profile)" (Tepper, 2007, p. 263).

The focus of the present study was on the subjective assessment aspect of abusive supervision. Specifically, I examined the extent to which perceiver characteristics impact perceptions of abusive supervision. While the current literature has examined the role of subordinate characteristics regarding perceptions of abusive supervision, much of this work has focused on these traits in isolation (Wang, Van Iddekinge, Bishoff & Zhang, 2019). Thus, my primary goal was to examine the full nomological net surrounding perceiver characteristics and perceptions of abusive supervision.

In the more than two decades since Tepper (2000) codified abusive supervision, it is apparent that it is occurring in the workplace (Zhang & Liu, 2018; Kiewitz et al., 2012) and has a substantial negative impact. Research suggests that there is an estimated annual cost of \$23 billion to U.S. firms due to "increases in absenteeism, health care costs, and productivity losses" (Martinko, Harvey, Sikora, and Douglas, 2011, p. 751). Actual abusive leader behavior, however, is considered rare. According to Tepper, Simon, and Park (2017), "available evidence puts the percentage of abused employees at approximately 10%" (p. 125). This low base rate has two diametrically competing explanations. First, subordinates, fearful of reprisal, are afraid to make claims against their supervisor (Tepper, Duffy, Henle & Lambert, 2006). Alternatively, according to Brees, Martinko, and Harvey (2016), initial higher estimates were inflated because some subordinates interpreted non-abusive behavior as abusive, or more importantly, *some simply are prone to perceive abuse that has not happened.*

Academically, scholars have shown that certain subordinate characteristics account for specific amounts of variance in ratings of abusive supervision. Specifically, research has examined the role of demographic, tenure, and personality characteristics, as well as core self-evaluation (CSE) and attitudes (e.g., Harvey, Butler & Brees, 2016; Henle & Gross, 2014; Klumper et al., 2019; Pradhan, Jena, & Mohapatra, 2018; Zhang, Kwan, Zhang, & Wu, 2014). Indeed, it may be argued that the literature on abusive supervision has reached saturation, as is evidenced by the abundance of recent meta-analyses and reviews (Mackey, Frieder, Brees & Martinko, 2017; Martinko, Harvey, Brees & Mackey, 2013; Tepper, 2007; Wang et al., 2019; Zhang & Bednall, 2016; Zhang & Liao, 2015; Zhang & Liu, 2018). Since Tepper's (2000) seminal article, the number of published papers has grown dramatically. Published empirical works have gone from "14 articles published between 2001 and 2005, to 62 between 2006 and

2010, and 152 between 2011 and 2015" (Tepper et al., 2017, p. 124). Nonetheless, a fundamental limitation is that research has primarily focused on the characteristics in isolation. The most closely related empirical study to this one is that of Wang et al. (2019). In their two-study publication, the authors challenge the often-used supervisor-centric model of abusive supervision and how supervisor behaviors influence subordinates' feelings and attitudes.

Drawing on reversing-the-lens and followership theories (Shamir, 2007; Uhl-Bien, Riggo, Lowe & Carsten, 2014), Wang et al. (2019) use a combination of meta-analysis, vignette ratings, and surveys to estimate that subordinate perceptions and measurement error explain as much as, if not more than, supervisory behaviors (i.e., up to 67%), of the explained variance in perceptions of abusive supervision. The authors, however, show only the relationship between abusive supervision and each subordinate characteristic in isolation, making it all the more important to examine the combined effect and relative importance of these subordinate characteristics and perceptions of abusive supervision.

Little, if any, research examines the joint impact and relative contribution of the various subordinate characteristics. This lack of investigation leaves several important issues unaddressed: (a) the variance in perceptions of abusive supervision that can be collectively accounted for by subordinate characteristics; (b) the relative contribution of the various subordinate characteristics with respect to perceptions of abusive supervision; and (c) the extent to which attitudinal measures, such as Harvey et al.'s (2016) Waspishness – Umbrageous Sensitivity – Insecurity (WUSI) scale, represent something different than subordinate personality or demographic characteristics.

Thus, the goals of the present study were twofold. First, I integrated and replicated much of the existing work on the role of subordinate characteristics in perceptions of abusive

supervision. Second, and more importantly, I extended the existing literature by directly addressing the issues of joint impact and relative contribution. I begin with a theoretical framework, including a review of abusive supervision theory. Next, I discuss the related literature and develop the hypotheses and research questions. I outline my methodological approach, including a review of the research design, participant details, measures and scales, and procedures for collecting the data and analysis methods. Finally, I conclude by presenting the results and discussing their implications.

## Chapter 2: Literature Review and Hypotheses Development

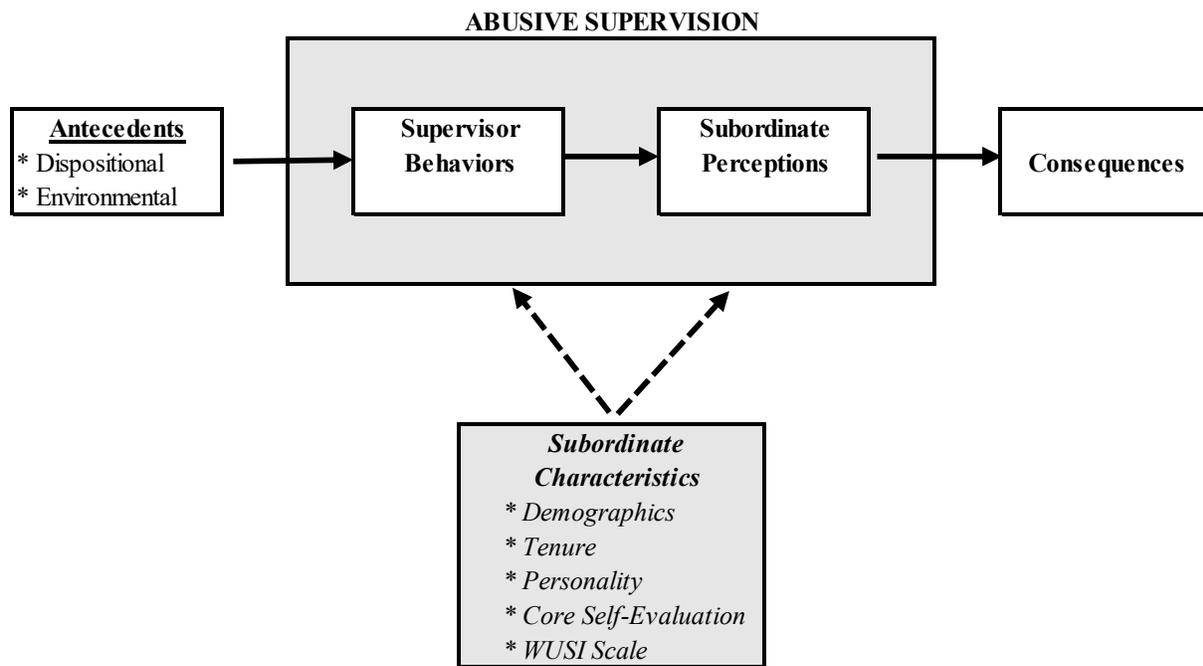
Tepper (2000) defines abusive supervision as "the sustained display of hostile verbal and nonverbal behaviors, *excluding physical contact*" (p. 178). These behaviors can span a broad spectrum, including "public ridicule, invasion of privacy, taking undue credit, inappropriately assigning blame and rudeness" (Tepper et al., 2006, p. 101). While abusive supervision is conceptually defined as explicit behavior on the supervisor's part, operationally, abusive supervision is assessed via subordinate perceptions of supervisor behavior. Specifically, Tepper's (2000) abusive supervision scale (see Appendix B) requires subordinates to rate their supervisor with respect to the relative frequency of occurrence using 15 behavioral questions. Thus, abusive supervision assessments are driven both by actual supervisor behavior and subordinate perception.

In essence, the assessment of abusive supervision is akin to psychological climate, such that assessments represent subjective interpretations of objective events (e.g., James & James, 1989; Jones & James, 1979). From this perspective, a supervisor exhibiting the same behaviors may be viewed very differently by different subordinates. In addition, the supervisor's intention underlying their behavior is considered only from the subordinate's perspective. While a supervisor might have good intentions (e.g., correcting poor performance), if the subordinate perceives the behavior as abusive, it is abusive supervision.

As represented in Figure 1, abusive supervision is a function of supervisor behaviors and subordinate perceptions of those behaviors. Antecedents of supervisor behaviors are dispositional characteristics (e.g., personality, ability, etc.) of the supervisor and environmental/contextual factors (e.g., organizational culture, external pressure, etc.).

Subordinate perceptions are driven both by the supervisor's behavior and subordinate characteristics. Here, subordinate characteristics are viewed as either demographic (e.g., gender, race, and age), tenure-based (with organization and supervisor), personality, CSE, or attitudes/values (WUSI scale). Finally, consequences are the individual and organizational outcomes resulting from abusive supervision (e.g., dissatisfaction, counterproductive work behavior, turnover, etc.). The current study's primary focus is the collective and relative impact of subordinate characteristics on perceptions of abusive supervision.

FIGURE 1: Overall Model of Abusive Supervision



Abusive supervision is defined much like psychological climate; that is, a subjective interpretation of objective events. James and Jones (1974) used psychological climate to explain how people infer meaning and interpret actions and treatment by their supervisors and co-workers, with actions interpreted as either good or bad (Osgood, Suci, & Tannenbaum, 1957). These cognitive appraisals or values comprise four distinct factors or desires: a) clarity,

harmony, and justice; b) challenge and responsibility; c) support and recognition; and d) friendly social relations (James et al., 1976). As a subordinate interacts with their supervisor, a cognition-affect process will play a significant role in perceptions of abusive supervision as the subordinate struggles to satisfy these desires. Concomitantly, this can explain why different subordinates will perceive the same supervisory behaviors differently. Kernan, Racicot, and Fisher (2016) found a negative correlation between a perceived psychological climate intolerant of abuse and perceptions of abusive supervision.

Argyris (1960) first used the term *psychological contract*. Rousseau (1989) further developed this construct as the reciprocal relationship between the subordinate and supervisor (Schein, 1980); that is, subordinate perceptions and beliefs regarding the supervisor's treatment of the subordinate and how the subordinate treats the supervisor (Rousseau, 1989). Conflict and, by extension, perceptions of abusive supervision could arise since this contract is purely subjective, and both parties may not necessarily hold the same values (Shore & Tetrick, 1994). For example, an employee may have a strong belief that everyone should greet one another every morning. If the supervisor does not extend a greeting, they could be perceived as giving the subordinate the "silent treatment" and, therefore, be perceived as abusive.

Moreover, these values may change over time, even if they were at one point congruent. If, for example, the organization implements a new internet monitoring system and the supervisor addresses internet misuse with the subordinate, this could be perceived as "invading my privacy." (Tepper, 2000). In terms of psychological contract theory, there are perceptual *promises* within the supervisor-subordinate dyad; when these promises are broken, the contract is *violated* (Rousseau, 1989) or *breached* (Robinson & Morrison, 2000). Kernan et al. (2016) found a significant, positive correlation between such a felt violation and perceptions of abusive

supervision. Choi, Kim, and Yun (2019) found that the negative relationship between abusive supervision and LMX was moderated by psychological contract fulfillment, such that higher levels of psychological fulfillment improved LMX quality.

As a perceptual construct, abusive supervision is grounded in *meaning*. Psychologists have measured workplace environmental perceptions as a) the *meaning* assigned by the individual and b) how individuals respond to these perceptions (James & James, 1989). These two conditions form the mechanism by which the subordinate copes with daily interactions with their supervisor. The first condition gets more to the heart of this study. The subordinate's psychological composition and experiences assign valuation to the surrounding environment. According to Mandler (1982), over time, the subordinate will develop *schemas* grounded in feelings of (in)equity, threats, and opportunities. The critical point is that subordinates enter their work relationships with previously formed frameworks for interpreting their work environment and, in this study, their supervisor's behavior. When subordinates make a subjective interpretation of supervisory behaviors, they are attributing meaning. Ultimately, this leaves plenty of room for negative interpretations regardless of the supervisors' actions. To its logical conclusion, there may be situations where no matter what the supervisor does, individual subordinates may be predisposed to perceptions of abusive supervision.

As with meaning, climate, and contract, Heider (1958) introduced the concept of attribution theory; that is, people see causes as either situational (external) or dispositional (internal). *Situational causes* are those we attribute to situations outside of our control; *dispositional causes* are those we attribute to various internal characteristics. The dispositional internal causation portion of attribution theory further advanced with Jones and Davis's (1965) corresponding inference research, which suggested that internal attributions allow us to make

predictions about the future behaviors of people. In keeping with Tepper's (2000) definition of "the sustained display of hostile verbal and nonverbal behaviors" (p. 178), Kelley's (1967) covariation model posited that *consistency* of behavior determines how a person will perceive another's tendency for continued, future behaviors. Consistency is expanded further with hostile attribution biases, that is, subordinates tend to interpret ambiguous behavior as hostile behavior directed at them (Wu, Zhang, Chiu, Kwan & He, 2014). Brees et al. (2016) found that attribution styles, explicitly hostile attributions, were positively and significantly related to perceptions of abusive supervision.

Weiner (1985) defined attributions as explanations of behavioral outcomes based on two dimensions, locus of control and stability. Locus of control is how we interpret situations as being caused either by our actions or outside our control. Subordinates with a high internal locus of control tend to perceive their abilities as controlling their success or failure. They generally are more optimistic and have higher scores on scales such as CSE. Conversely, the low external locus subordinate will attribute their success or failure to factors outside their control; that is, their supervisor, company culture, or co-workers. These individuals may be more pessimistic since they externalize their challenges.

According to the attribution dimension of stability, when a person believes that something occurred due to a stable factor, they are more likely to perceive it as continually happening since the behavior was not due to "unstable" chance (Weiner, 1985). Put in the context of abusive supervision, a subordinate that perceives a supervisor as disagreeable and continually being disagreeable will probably score that supervisor higher on the abusive supervision scale (Martinko et al., 2011) since the problematic behavior is never-ending. On the

other hand, if the subordinate perceives the behavior as unstable (e.g., the supervisor was not acting normally in that situation), they might not make a blanket assessment of abuse.

Appraisal theory also ties into the abusive supervision construct. Initially developed for examining emotions and responses, appraisal theory focuses on interpretations of incidents rather than the actual incident (Roseman, 2013). At the individual level of interpretation, different subordinates may appraise the same event differently and, ultimately, experience different emotions (Scherer, Schorr & Johnstone, 2001). General appraisal theory was refined to include cognitive appraisal theory, which addresses ambiguous situations where there is no clear understanding of how to react (Lazarus & Folkman, 1984); for example, the supervisor does not invite an employee to a meeting versus a physical assault where an appropriate reaction is apparent (e.g., fight or flight). As with abusive supervision, cognitive appraisal theory "rests on the individual's subjective interpretation of a transaction" (Lazarus & Folkman, 1984, p. 46). Further, abusive supervision is well aligned with cognitive appraisal theory since it does not involve apparent stimuli, such as physical assault; it is, by definition, ambiguous, since the supervisor's intent is not defined. According to Harvey et al. (2016), cognitive appraisal theory has shown that some subordinates may be overcome by emotion when faced with perceived threats and ignore contextual factors that could frame the situation in a less negative fashion (see David, Schnur & Belloiu, 2002).

This two-way-street concept of abusive supervision as some combination of supervisor behaviors and subordinate perceptions is similarly represented in the LMX literature. Grounded in role theory (Graen, 1976; Graen & Scandura, 1987) and social exchange theory (Cropanzano & Mitchell, 2005), LMX was first introduced as focusing on dyadic relationships between leaders and followers and that each dyadic relationship between individuals can be different

(Dulebohn, Bommer, Liden, Brouer & Ferris, 2012). Theoretically, the quality of the LMX relationship is dependent on the leader's characteristics and the ultimate selection of followers by leaders (i.e., dyadic dynamics). Eventually, the literature naturally evolved to include follower characteristics (Gooty, Serban, Thomas, Gavin & Yammarino, 2012). Much like abusive supervision perceptions, the quality of these dyadic relationships can be impacted by follower (subordinate) characteristics. Martinko et al. (2011) supported this by linking perceptions of poor LMX quality positively to perceptions of abusive supervision. Moreover, Martinko, Sikora, and Harvey (2012) proposed that abusive supervision is a subset of leader-member relationship perceptions. Wang et al. (2019) built on similar findings by introducing reversing-the-lens theory (Shamir, 2007), also referred to as followership theory (Baker, 2007; Uhl-Bien et al., 2014). These theories challenge the notion that leader-follower dyads represent a closed system, where only the leader-centric view matters, rather than a dyadic relationship that depends on both parties (Hollander, 1992).

### **Antecedents**

Since abusive supervision is potentially a function of both actual supervisor behavior and subordinate perceptions of that behavior, there are antecedents that potentially impact behavior and perceptions. These include dispositional characteristics of the supervisor and environmental or organizational characteristics as well as demographic, tenure, personality, and dispositional characteristics of the perceiver (subordinate) and the organizational context.

Although initially not a significant focus of research, investigations into antecedents of abusive supervision have increased, from 0% by 2006, to 22% between 2006 and 2010, and 30% between 2011 and 2015 (Tepper et al., 2017, p. 124). Most antecedent research has concentrated

on two perspectives, supervisor and subordinate, with the former initially receiving the most empirical investigation. Supervisory antecedents of abusive supervision are summarized as stressors and negative affective states, leadership style, personality, and other characteristics (e.g., demographic and tenure).

Supervisors' affective state has been extensively studied. Negative affectivity is an "emotional situation caused by pressure and unpleasant environment, including anger, aversion, guilt, fear and tension" (An & Wang, 2016, p. 67). Supervisor anger can manifest as a broad spectrum of abusive behaviors (Eissa, Lester & Gupta, 2019; Li, Zhang, Law, & Yan, 2015; Liao, Li, De Pater, & Wang, 2015). Even milder forms of negative affectivity, such as irritation, are positively related to perceptions of abusive supervision (Pundt & Schwarzbeck, 2018). Moreover, it is natural to assume that abuse begets abuse. The abusive supervision cycle could be precipitated by the abusive supervisor's manager perpetuating the same behaviors (Restubog, Scott & Zagenczyk, 2011). To this end, how the supervisor relates to their organization vertically and horizontally determines their affective state (Hoobler & Hu, 2013). Negative organizational interactions can result in stressors and possibly increase abusive supervision perceptions (Harris, Harvey & Kacmar, 2011).

The supervisor's leadership style can contribute to perceptions of abusive supervision. Several studies identify an authoritative leadership style as positively related to subordinate perceptions of abusive supervision (Aryee, Chen, Sun, & Debrah, 2007; Cheng, Chou, Wu, Huang & Farh, 2004; Kiazad, Restubog, Zagenczyk, Kiewtiz & Tang, 2010). Drawing on interactional justice literature (Burton, Mitchell & Lee, 2005), authoritative leaders with strong will and insistence on formal protocols can cause employees to feel a lack of freedom. On the

other hand, ethical, supportive, and transformational leadership styles are negatively related to abusive supervision perceptions (Zhang & Bednall, 2015).

The Big Five is, arguably, the most utilized construct in personality research. Big Five traits consist of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Studies linking supervisor personality traits to perceptions of abusive supervision are well documented. Interestingly, the findings regarding the link between abusive supervision and supervisor personality are varied. Camps, Stouten, and Euwema (2016) found that supervisor Big Five personality traits accounted for only an additional 8% of the variance in abusive supervision; only conscientiousness revealed a significant, positive relationship. One year later, Eissa and Lester (2017) found that supervisors low in neuroticism, and high in agreeableness, and conscientiousness act as positively related moderators of the relationship between role overload and frustration with abusive supervision. Using the HEXACO personality construct, Breevaart and Vries (2017) echoed these findings; that is, supervisors high in agreeableness and honesty-humility were perceived as less abusive.

There has been relatively limited research focusing on abusive supervision and the Dark Triad of personality (Paulhus & Williams, 2002): narcissism, Machiavellianism, and psychopathy (Wisse & Sleebos, 2016). Nevertheless, each of these egocentric traits has been positively associated with dishonest behaviors (Jonason & Webster, 2010; Wisse & Sleebos, 2016) and have shown moderate to strong associations with each other (O'Boyle, Forsyth, Banks, & McDaniel, 2012). Spain, Harms, and LeBreton (2014) suggest that the Dark Triad is another approach to understanding destructive leadership that goes beyond the Big Five.

Narcissism is "a preoccupation with grandiose fantasies of self-importance, a need for admiration, and a lack of empathy, which appears by early adulthood and manifests in a variety

of settings" (APA, 2000, p. 717). Intuitively, narcissistic supervisors tend to become aggressive when they feel disrespected (Bushman & Baumeister, 1998; Morf & Rhodewalt, 2001), which may elicit perceptions of abuse. Waldman et al. (2017) studied supervisors high in narcissism and their abusive tendencies when they felt that subordinates did not provide sufficient adulation.

Machiavellian supervisors are manipulative, with questionable views of morality and ethics; they lack empathy and affect (Christie & Geis, 1970; Wu & LeBreton, 2011). Kiazad et al. (2010) suggested that subordinates perceived high Machiavellian supervisors as more abusive than those with fewer such tendencies due to their predisposition for aggressive behaviors. Zhang and Bednall (2016), however, found only partial support for their hypothesis linking supervisor Machiavellianism to abusive supervision.

Leaders high in psychopathy are characterized as highly impulsive thrill-seekers with low levels of empathy and anxiety (Paulhus & Williams, 2002). Regarding the Big Five, psychopathic supervisor personality is positively related to the openness trait but negatively related to neuroticism and conscientiousness (Rauthmann, 2012). Paulhus (2014) posits that psychopathy is the only Dark Triad trait associated with high criminality levels, possibly making it the most destructive (Williams et al., 2010), and is positively related to counterproductive workplace behaviors (CWB) (Matyas, 2004; Sarchione, Cuttler, Muchinsky, & Nelson-Gray (1998). Interestingly, O'Boyle et al. (2012) found that authority weakens this negative association, suggesting that these leaders may find alternative avenues to express their dark side or simply are better able to control these impulses. Nevertheless, subordinates' perceptions of abusive supervision were positively associated with supervisors' ratings of psychopathic traits (Mathieu & Babiak, 2016).

A minimal amount of research has examined the organizational level and perceptions of abusive supervision, suggesting that there are limitations due to multilevel data collection issues (Zhang & Bednall, 2016). Perceived organizational support significantly reduced subordinate turnover intentions resulting from perceptions of abusive supervision (Haar, de Fluiter & Brougham, 2016). In a similar study, Ma, Zhou, and Mu (2020) found that organizational identification (i.e., oneness with the organization) reduced employee-sabotaging behavior, such as customer-oriented service sabotage. Laurijssen, Wisse, and Sanders (2016) found that a more robust organizational ethical culture reduced perceptions of abusive supervision (Wisse & Sleebos, 2016).

Citing increasing globalization of the workplace, Vogel et al. (2015) explored the differences in perceptions of abusive supervision due to cultural differences between Anglo and Confucian Asian cultures. In addition to reduced perceptions of abusive supervision due to the fairness heuristic theory (Lind, Kulik, Ambrose, & de Vera Park, 1993; Tyler & Lind, 1992), Confucian Asian cultures were more comfortable with higher power distances. This macro-level viewpoint is in line with the present study (i.e., there are forces at play beyond the supervisor's intent) and puts the focus back into a contextual framework rather than an absolute or objective phenomenon.

## **Consequences**

This discussion regarding the perceptual subjectivity of abusive supervision is not a veiled attempt to absolve abusive supervisors. If perceptions did not matter, abusive supervision would be a benign phenomenon with no repercussions. The literature, by and large, suggests the opposite, focusing to a great extent on the potential consequences of supervisor behavior. By

2015, there were 228 empirical papers published on abusive supervision, with a majority (74%) focused on potential consequences (Tepper et al., 2017, p. 124), which may undoubtedly be a result of its prevalence and impact. Research suggests that supervisory abuse "affects an estimated 13.6% of the U.S. workers" (Schat, Frone & Kelloway, 2006, p.262). Moreover, researchers estimate an annual cost of \$23 billion to U.S. firms because of "increases in absenteeism, healthcare costs, and productivity losses" (Martinko et al., 2011, p. 751). At the subordinate level, the negative effects are widespread and well-studied: problem-drinking (Bamberger & Bacharach, 2006), emotional exhaustion (Akram, Li, & Akram, 2019), turnover (Richard et al., 2018; Pradhan & Jena, 2017), and overall degradation of employee well-being (Akram et al., 2019; Han, Harms, & Bai, 2017; Carlson, Ferguson, Perrewé, & Whitten, 2011; Tepper, Moss, Lockhart, & Carr, 2007).

These effects can spill out across the organization as well. First, the subordinate's co-workers will observe either the abusive supervisor or the distressed subordinate. Several studies found that various third-party reactions to abusive supervision include the third party exhibiting abusive behaviors, in essence, allying with the supervisor since the subordinate was perceived as deserving the abuse (Ogunfowora, Weinhardt, & Hwang, 2019; Mitchell, Vogel, & Folger, 2015; Peng, Schaubroeck, & Li, 2014). Second, the distressed subordinate can retaliate; these CWB's are generally defined as unwanted, unethical, or criminal. Additionally, counterproductive workplace behaviors explicitly directed at the organization (CWB-O) include stealing, deception, and vandalism. Sulea, Fine, Fischmann, Sava, and Dumitru (2013) suggested that these CWB-Os are retaliatory and based on a reciprocity norm; that is, employees treat the organization in the same way they feel they are being treated (Gouldner, 1960). Further, Harris et al. (2011) and Mitchell and Ambrose (2007) theorized that displaced aggression (Dollard, Doob, Miller,

Mowrer & Sears, 1947) may cause the employee to be fearful of retaliating against the abuser; instead, they direct their anger towards the organization or other employees.

Recently, scholars have investigated the potential positive consequences of abusive supervision. Zhang and Liu (2018) identified nine papers related to positive effects. These counterintuitive findings are not remarkable; for example, the U.S. military has a long history employing what could be considered abusive supervision techniques (Tepper, 2000). Bies et al. (2016) offered a similar perspective by suggesting that employees might be motivated by the abuse if they see that the leader is successful. Further, Tepper et al. (2017) suggested that abuse may, at times, be intended as performance-enhancing behavior.

While not necessarily perceiving abuse positively, the organization may benefit when third parties begin exhibiting pro-social behavior to alleviate abused subordinates' suffering (Priesemuth, 2013). Mitchell et al. (2015) found similar results, where co-workers supported the abused subordinate, which engendered positive group dynamics, a phenomenon akin to increased social bonds with co-workers (Vogel & Mitchell, 2017). The possibility of confounding positive results from traditionally abusive behaviors further necessitates investigation into subordinate-related characteristics. More importantly, there is a need to collectively examine these characteristics to better understand the whole picture and identify overlaps between the various constructs.

The proceeding discussion highlights the research, to date, on antecedents of supervisor behavior and the consequences of subordinate perceptions of abusive supervision. It is clear that abusive supervision has direct implications for significant individual and organizational outcomes and that supervisor behavior, and its direct antecedents are vital components with respect to subordinate perceptions. It must also be noted, however, that subordinate perceptions

are driven to some extent by the subordinate's unique background and characteristics. The current study's primary focus was the collective and relative impact of subordinate characteristics on perceptions of abusive supervision, with subordinate characteristics framed in terms of demographic variables (age, race, gender), tenure (organizational and supervisor-subordinate), personality, CSE, and attitudes/values. These characteristics are examined in more detail below, and specific hypotheses and research questions are developed.

## **Hypothesis and Research Question Development**

### **Demographics and Tenure Characteristics**

Relatively limited research has focused on potential demographic and tenure group differences in perceptions of abusive supervisors, although these characteristics have often been included in abusive supervision research as requisite and arbitrary “control” variables. Moreover, “researchers often control for follower characteristics to partial out their potential effects on relations of interest” (Wang et al., 2019, p. 70). For example, subordinate age was included in 65 studies (Zhang & Bednall, 2016). However, little if any conceptual or empirical work has directly addressed the potential role of demographic group differences. In their meta-analysis, Mackey et al. (2017) suggested that the lack of correlation between demographics and subordinate perceptions of abusive supervision could be explained by the fact that different types of subordinates report abuse. This lack of correlation suggests that there are no group differences in abusive supervision.

Nonetheless, especially in the United States, as the workplace becomes increasingly diverse, examining potential group differences with respect to perceptions of abusive supervision

is an essential extension of the existing literature. The U.S. civilian labor force statistics for gender have unquestionably changed since World War II. In 1945, the percentage of the workforce was 71.4% men and 28.6% women. By 2016, the percentage of men was 53.2%, and the percentage of women had risen to 46.38% (Bureau of Labor Statistics – Women's Division, 2020). Drawing on social role theory (Eagly and Wood, 1999), female subordinates rated their supervisors less harshly (i.e., abusive supervision) since they are more willing to accept lower-status roles and tend to be more tolerant (Eagly & Johannesen-Schmidt, 2001; Wang et al., 2019). McCord, Joseph, Dhanani, and Beus (2018) also found that men were more likely than women to perceive abusive supervision. In a study of Indian workers' reactions to abusive supervision, however, Pradhan et al. (2018) found that women were more likely than men to leave their jobs when perceiving abusive supervision, suggesting that women react more negatively to such perceptions.

Concerning race, in 1972, the workforce ratio of White to African American was 8.9:1; by 2019, this same ratio dropped to 6.1:1, a 31% decrease (Bureau of Labor Statistics, 2019). Also, African Americans represented roughly 10% of the total U.S. labor force in 1972; by 2016, this had increased to 12% (Bureau of Labor Statistics, 2018). Although the workforce was changing for all races, this is not the most salient representation of workforce data. The data for White demographics goes back to 1954, but data for African Americans goes back only to 1972 (Bureau of Labor Statistics, 2019). It is one thing for a minority to feel unrepresented by a ratio; it is quite another not to be counted. Stigma consciousness posits that racial minorities, well aware of their lower social status, are more sensitive to perceiving mistreatment in the workplace (Allport, 1979; Pinel, 1999; Wang et al., 2019). These statistics, and the fact that research has primarily focused on demographics and tenure as controls, give credence to the first

demographic-related hypotheses and the need to investigate the role subordinate race and gender play in perceptions of abusive supervision:

*H1: Collectively, subordinate demographic and tenure characteristics will account for a significant proportion of the variance in subordinate perceptions of abusive supervision.*

*H1a: Perceptions of abusive supervision will differ based on subordinate gender such that women will report fewer perceptions of abusive supervision.*

*H1b: Perceptions of abusive supervision will differ based on subordinate race such that non-White subordinates will report increased perceptions of abusive supervision.*

Subordinate age has been negatively related to perceptions of abusive supervision regarding both the supervisor and subordinate (Wang et al., 2019; Zhang & Bednall, 2016). Age, however, has primarily been used as a control rather than as a specific predictor. Regarding subordinate age, scholars have drawn on theories of waning aggression as workers grow older. Additionally, there are cultural tendencies in how supervisors treat aging workers. As to how older workers may be less inclined to perceive abusive supervision, Pinquart (2001) found that an increase in age did not lead to decreases in negative affect; rather, older workers have the lowest high-arousal emotions (e.g., restlessness and anxiety). Ng and Feldman (2010) theorized that older workers, with more career success and positive employee attitudes, will also have increased levels of supervisor ratings. One can extend this and theorize that older workers will experience fewer intense emotions and, therefore, will be less likely to perceive supervisory behaviors as abusive. Studies have shown that as workers age, they will exhibit less anger than younger workers since they usually have higher levels of financial security and fewer pressures

at home (e.g., fewer childcare responsibilities) (Ross & Mirowsky, 2008; Ross & Van Willigen, 1996; Schieman, 1999).

As managers continue to age and new, younger employees enter the workforce, there will be more chances for a disconnect concerning generational differences. The Pew Research Center found that by 2017, Millennials represented 56% of the workforce, with Gen Xr's and Baby Boomers representing only 53% and 41%, respectively (Fry, 2018). The different generations will have differing opinions on ethics and engagement (Lapoint & Liprie-Spence, 2017), which could result in conflict and possible perceptions of abuse. For example, Millennials, utilizing more social media than older generations (LaPoint & Liprie-Spence, 2017), may perceive their Baby Boomer supervisors' disallowing of cell phones as invasive and constituting abusive behavior. Zhang and Liao (2015) suggest that aging subordinates have better coping strategies (Gross et al., 1997) and more self-control (Tsorbatzoudis, Travlos & Rodafinos, 2013); consequently, they may handle abusive supervisory behaviors better. Therefore, I theorize that age and perceptions of abusive supervision are negatively related:

*H1c: Perceptions of abusive supervision will differ based on subordinate age such that older subordinates will report fewer perceptions of abusive supervision.*

The general victimization literature suggests that increased tenure of the supervisor-subordinate dyad will lead to abusive supervision (Aquino & Thau, 2008). Wang et al. (2019) supported this finding in a meta-analysis of dyad tenure and perceptions of abusive supervision ( $r = .05$ ). Conversely, the literature has found that reactions to perceptions of abusive supervision (e.g., anger, anxiety, emotional exhaustion) are negatively related to dyadic tenure (Viswesvaran, Sanchez & Fisher's, 1999; Zhang & Liao, 2015), which could simply mean that

increased tenure with the supervisor will allow for more opportunities to experience abusive supervision. This increased dyadic tenure, however, may lead to familiarity, so the subordinate's negative reactions to abusive supervision will be less dramatic. Therefore, I hypothesize that supervisor/subordinate tenure will be positively related to abusive supervision perceptions:

*H1d: Supervisor/subordinate tenure will be positively related to perceptions of abusive supervision such that higher levels of abusive supervision will be reported in longer-tenured supervisor/subordinate dyads.*

Moreover, given the possibility of a high correlation between dyadic tenure and subordinate age, I investigated the unique impact of supervisor-subordinate tenure over and above that of subordinate age:

*H1e: Supervisor/subordinate tenure will account for a unique proportion of the variance in perceptions of abusive supervision over and above that of subordinate age.*

In addition to examining subordinate demographics as stand-alone characteristics, I investigated the association between subordinate perceptions of abusive supervision and demographic "matches" between supervisors and subordinates. That is, similarities between the dyads will be negatively related to subordinate perceptions of abusive supervision such that we tend to favor similar and familiar things; several theories support this assertion.

## **Similarity**

Byrne (1971) initially proposed as the similarity-attraction paradigm's premise that we are attracted to people with whom we share values and opinions because it is rewarding to do so

within the context of romantic relations. Taken to its logical conclusion, Bryne's theory does not necessarily have to be limited to romance. Anecdotally, one could argue that we spend a considerable amount of time with our supervisors and, ideally, work towards similar goals. The continued diversification of the U.S. workforce, however, is closer to the opposite end of the spectrum: dissimilarity. Tepper, Moss, and Duffy (2011) examined perceived deep-level dissimilarities, or differences between supervisor-subordinate dyads, on values, attitudes, and personalities. Such dissimilarities are harder to codify since they represent multi-level constructs instead of surface-level dissimilarities, such as age and gender.

Regarding the individual, dissimilarity "refers to an individual's difference on the same variables compared to other group members" (Hobman & Bordia, 2006, p. 484). The authors differentiate between visible (gender, race, and age) and professional or value (deep level) dissimilarities. Visible dissimilarities are easily observed (Jackson, 1996). Jehn, Chadwick, and Thatcher (1997) found that these visible individual demographic differences promoted relationship conflict and in the current study, I focused on visible-level dissimilarities. Mackey et al. (2017) suggested that demographic variables (e.g., age, gender, race) have perfect reliability as data points since they are easily observable. In a team-based study, visible dissimilarities (e.g., gender) were positively related to conflict (Hobman & Bordia, 2006); this should be the same for supervisor-subordinate dyads and perceptions of abusive supervision. From the victim precipitation model perspective, Tepper et al. (2011) found that the supervisor's perceived dissimilarities with the subordinate were positively related to perceptions of abusive supervision. Social identity theory suggests that people identify with those having similar characteristics and differentiate them as in-groups and out-groups (Tajfel, 1969). Therefore, I hypothesize that matches between the supervisor and subordinate's demographic characteristics

will account for a significant proportion of variance in subordinate perceptions of abusive supervision:

*H2: Matches between supervisor and subordinate demographic characteristics will account for a significant proportion of the variance in subordinate perceptions of abusive supervision.*

The dyadic gender dissimilarities between supervisors and subordinates have received little attention in abusive supervision research (Atwater et al., 2016). Zhang and Bednall's (2016) meta-analysis identified only four studies that found an association between gender dissimilarities and perceptions of abusive supervision. The authors found that gender dissimilarity was positively associated with perceptions of abusive supervision (Zhang & Bednall, 2016). Several non-abusive supervision studies found that while the individual's demographics do not predict the quality of LMX, there was evidence that similarities might do so (Gerstner & Day, 1997; Green, Anderson & Shivers, 1996). For example, Bhal, Ansari, and Aafaqi (2007) found that gender match between the supervisor and subordinate was positively related to LMX-affect (off-job and personal interactions) and perceived organizational support.

Park, Carter, DeFrank, and Deng (2018) found a moderating effect of the supervisor-subordinate relational context, where gender dissimilarity was positively related to perceptions of abusive supervision and psychological distress. As with the LMX studies, the authors asserted that gender similarity reinforced feelings of in-group membership and expectations of unbalanced favorable treatment due to feelings of similarity. Regarding teammate ratings, Williams, Woehr, Loignon, Loughry, and Ohland (2018) found that when women rated male teammates, ratings were significantly lower than when men rated men, women rated women, or

men rated women. This suggests either gender bias or that men perform less well when working with women; both suggest that the effects of gender dissimilarity are unclear and need further examination.

Conversely, because dissimilar gender dyads may feel innately different and not identify as quickly, they may be more prone to perceive abuse. These anticipatory perceptions of abusive supervision are supported by sex discrimination, which is more prevalent between male supervisors and female subordinates than for different gender compositions (Avery, Wang, Volpone & Zhou, 2013). Therefore, I hypothesize that:

*H2a: Gender match between supervisor and subordinate will be negatively related to perceptions of abusive supervision such that same-gender supervisor/subordinate dyads will report lower levels of abusive supervision.*

To the best of my knowledge, little, if any, research on abusive supervision and race currently exists. Wang et al. (2019) located three studies examining the relationship between follower race (i.e., White) and follower perceptions of abusive supervision. Using the terms *abusive supervision* and *race*, my literature search of the Business Source Complete database yielded only five results. Of the studies identified, only one uses both terms in the title and appears only in the 2019 Academy of Management Annual Proceedings. A doctoral thesis completed in 2018 that examined the implicit racial biases of managers and perceptions of abusive supervision (Bergh, 2018) found that managers' implicit racial bias is associated with perceptions of abusive supervision. Of the remaining literature, abusive supervision is reviewed under a general discussion of workplace mistreatment.

The prevailing view is that minorities perceive an unequal amount of workplace abuse relative to White subordinates and that this mistreatment can stem from historical stereotypes, since race is a readily visible surface dissimilarity (McCord et al., 2018). Inherently, race demographic mismatch suffers from the same pitfall as gender. As with gender, abusive supervision studies have restricted race dissimilarities to control variables and not as specific predictors of abusive supervision perceptions. Several highly cited abusive supervision meta-analyses and literature reviews make no mention of race or race mismatch (Mackey et al., 2017; Zhang & Bednall, 2016; Zhang & Liu, 2018). Therefore, I hypothesize that race match between supervisor and subordinate will be negatively related to perceptions of abusive supervision:

*H2b: Race match between supervisor and subordinate will be negatively related to perceptions of abusive supervision such that lower levels of abusive supervision will be reported by same-race supervisor/subordinate dyads.*

### **Personality Characteristics**

Epistemologically, the term "abusive supervision" initially points us in the direction of the supervisor. This apparent supervisor-focused approach is evidenced by Tepper (2000), who referred to abuse as an act by supervisors, yet included subordinate characteristics due to the subjective nature of perception (Martinko et al., 2011). Personality is an individual's relatively stable and consistent tendency to think, feel, and behave (Ones, 2005); it is a unique composite of many characteristics that vary among the population. These composites, or traits, allow researchers to predict patterns of behaviors, responses, and attitudes that people will consistently exhibit. Additionally, personality characteristics moderate employee reactions to general

workplace events (Judge, Woolf & Hurst, 2009), which may explain why some subordinates perceive abusive supervision and others do not.

Two perspectives associate personality with abusive supervision. First, scholars have drawn upon criminology studies and victim precipitation theory to explain how personality could trigger abusive behavior. While this theory had begun to lose support in academia and practice by the 1980s on the grounds of “victim-shaming” and ignoring social contexts, it has resurfaced with workplace aggression research (Cortina, Rabelo & Holland, 2018). Subordinate personalities could trigger abusive behaviors from supervisors, either passively or actively. Certain personality types could make the subordinate appear weak and susceptible to aggression (passive), especially if the supervisor is prone to this type of behavior. Olweus (1978) classified these individuals as submissive victims with limited ability to protect themselves. Conversely, Olweus (1993) referenced provocative victims, suggesting that some subordinates exhibit traits that make supervisors angry or uncomfortable (active), thus unleashing abusive retaliatory behaviors to encourage compliance with group norms.

Secondly, and the main view of this study, the subordinate's personality profile could increase tendencies to perceive abusive supervision. This predisposition may cause them to be naturally mistrusting or to feel like a victim, regardless of the supervisor's behavior or intent. On the other hand, some subordinates may have personalities that predispose them to ignore abusive behaviors and use coping mechanisms to deal with supervisors. In the following section, I explore this second perspective in greater detail.

While there are many conceptualizations of personality, research has typically focused on the Big Five (e.g., Goldberg, 1992; John & Srivastava, 1999; Judge, Martocchio & Thoreson, 1997; Wang, Harms & Mackey, 2015). Most research, to date, has examined personality as a

potential moderator of the relationship between perceptions of abusive supervision and outcomes (Matthews, Kelemen & Bolino, 2021). For example, in one of the earliest abusive supervision studies, Tepper, Duffy, and Shaw (2001) suggest that conscientiousness and agreeableness moderate the relationship between abusive supervision and the subordinate's dysfunctional resistance towards the supervisor. Little, if any, research has examined subordinate personality as a direct antecedent of subordinate perceptions of abusive supervision. To date, and to the best of my knowledge, only two empirical studies have specifically investigated subordinate Big Five personality traits as direct predictors of subordinate perceptions of abusive supervision. Henle and Gross (2012) hypothesized that subordinates' emotional stability, conscientiousness, and agreeableness are negatively related to subordinates' perceptions of abusive supervision. Wang et al. (2019) found the same and included extraversion as negatively related to subordinates' perceptions of abusive supervision.

The first of the Big Five personality traits, openness to experience (openness) (McCrae & John, 1992), is a measure of how willing an individual is to embrace new ideas and experiences. Individuals scoring high on openness are imaginative, curious, and artistic, while those scoring low in openness might be perceived as reluctant, pragmatic, and closed-minded. Costa and McCrae (2010) suggested that openness is also a measure of education and intelligence and that it is linked to increased psychological well-being (McCrae & Costa, 1991). Extant literature has shown a moderate association between openness and other constructs such as happiness and positive affectivity (Steel, Schmidt & Shultz, 2008). Research has failed to show any significant link between openness and perceptions of abusive supervision (Mackey et al., 2017; Nielsen, Glasø & Einarsen, 2017, Wang et al., 2019).

Conscientiousness is a measure of dependability and responsibility, as well as the ability to delay gratification. Highly conscientious subordinates can be described as productive and efficient employees, while those low in conscientiousness could be perceived as careless and unorganized (Costa & McCrae, 2010). The literature has found that conscientiousness is negatively associated with perceptions of abusive supervision, with Wang et al.'s (2019) finding ( $r = -.18$ ). Nandkeolyar, Shaffer, Li, Ekkirala, and Bagger (2014) found that employees high in conscientiousness were less prone to perceptions of abusive supervision since they were more likely to adopt productive coping strategies. Reflecting on victim precipitation theory, these high achievers may be less likely to provoke abusive behavior from supervisors, given their efforts to complete tasks thoroughly.

Extroverts are described as active, assertive, enthusiastic, and predisposed to positive emotions (McCrae & John, 1992; Watson & Clark, 1997). The opposite are introverts, who are pessimistic, quiet, and cautious. (McCrae & John, 1992). Nielson et al. (2017) cite a study by Milam, Spitzmueller, and Penny (2009) on workplace incivility, which found that extroverts may not perceive supervisor behavior as aggressive since positive emotions are a key component of high extraversion. Thus, extraverted subordinates may not perceive abusive supervision as readily as introverts, who tend to perceive supervisory behavior as unfavorable. Wang et al. (2019) found extraversion to be negatively related to subordinate perceptions of abusive supervision ( $r = -.09$ ).

Agreeableness measures a person's tendency towards kind and sympathetic behaviors. Subordinates scoring low in agreeableness can be perceived as cold, harsh, and rude (Thompson, 2008). Agreeableness significantly impacts interpersonal relationships because it influences social perception; those high in agreeableness strive to "maintain positive relations with others"

(Tackman & Srivastava, 2016, p. 576). Extant research has shown that subordinates scoring higher in agreeableness will exhibit fewer CWBs (Sulea et al., 2013), fewer dysfunctional behaviors (Tepper et al., 2001), less aggression (Brees, Mackey, Martinko & Harvey, 2014), and increased job satisfaction (Nielsen et al., 2017). In a meta-analytic review of agreeableness and perceptions of abusive supervision, Wang et al. (2019) found a negative association ( $r = -.17$ ).

Neuroticism, which describes a subordinate's susceptibility to feelings of psychological distress and anxiety (Neuroticism, 2009), is a relatively stable personality trait over time (Lahey, 2009) that is often used interchangeably with ratings of emotional stability. Highly neurotic individuals are emotionally unstable, worrisome, and self-pitying, while those low in neuroticism are emotionally stable and balanced (McCrae & John, 1992). Intuitively, an emotionally unstable and self-pitying subordinate would tend to perceive even the slightest adverse action as abusive, and the data supports this. Studies have shown that neuroticism leads to higher work stress and problem drinking (Bamberger & Bacharach, 2006), subordinate workplace aggression (Brees et al., 2014), subordinate workplace deviance (Garcia, Wang, Lu, Kiazad & Restubog, 2015), and low levels of task performance (Wang et al., 2015). Drawing on victim precipitation theory, since highly neurotic individuals tend to react with anger and express negative emotions (Henle & Gross, 2014), supervisors and co-workers may find working with these subordinates difficult (Watson & Clark, 1984). Naturally, supervisors will be inclined to apply increasingly negative measures to control these individuals; coupled with the fact that highly neurotic subordinates will react negatively, a never-ending, self-fulfilling cycle of action and reaction begins. Of the Big Five personality traits, neuroticism has been the most studied and is the highest correlated ( $r = .29$ ) to perceptions of abusive supervision (Wang et al., 2019). Thus, I posit the following hypotheses for subordinate Big Five personality traits:

*(H3) Collectively, subordinate personality characteristics (as reflected in the Big Five personality traits) will account for a significant proportion of the variance in subordinate perceptions of abusive supervision.*

*H3a: Subordinate conscientiousness will be negatively related to perceptions of abusive supervision such that subordinates with higher conscientiousness traits will report lower levels of perceptions of abusive supervision.*

*H3b: Subordinate extraversion will be negatively related to perceptions of abusive supervision such that subordinates with higher extraversion traits will report lower levels of perceptions of abusive supervision.*

*H3c: Subordinate agreeableness will be negatively related to perceptions of abusive supervision such that subordinates with higher agreeableness traits will report lower levels of perceptions of abusive supervision.*

*H3d: Subordinate neuroticism will be positively related to perceptions of abusive supervision such that subordinates with higher neuroticism traits will report higher levels of perceptions of abusive supervision.*

While the Big Five model is one of the most often-used constructs of personality, other personality models, such as affectivity, may aid in further explaining subordinates' perceptions of abusive supervision. Affect is the conscious *subjective* aspect of emotions or feelings (Affect, 2020). Conceptually, there is a distinction between emotional *states* and emotional *traits*. The former are temporary and short-lived feelings, and the latter are comparatively stable, longer-term attributes (Strelau, 2001). Traits tend to be stable over time as opposed to transient emotions (e.g., having a bad day). Those with positive affect are enthusiastic and alert, while

negative affect is characterized as general distress and disengagement (Watson, Clark & Tellegen, 1988). Over time, researchers have questioned the uniqueness of the two constructs and developed theories that demonstrated some correlation. Watson and Tellegen (1985) proposed positive and negative affect as two distinct traits, emphasizing that they are not necessarily opposites and can co-exist separately. For example, alone, negative affectivity could predict anxiety, whereas conditions such as depression could display both negative and positive affectivity (Crawford & Henry, 2004).

*H4: Collectively, subordinate negative and positive affectivity will account for a significant proportion of the variance in subordinate perceptions of abusive supervision.*

Regarding abusive supervision literature, scholars have primarily focused on negative affect. Subordinates high in negative affect tend to exhibit negative moods, such as anger, guilt, and nervousness, and tend to have negative thoughts and emotions (Watson & Tellegen, 1985). A correlation between abusive supervision and negative affect was found by Aquino, Grover, Bradfield, and Allen (1999) regarding higher subordinate workplace victimization perceptions. Negatively affected workers tend to appear weak and disgruntled and, therefore, may provoke supervisors to behave aggressively towards them. Tepper et al. (2006) found that subordinates higher in negative affectivity were more likely to report perceptions of abusive supervision even when supervisory behavior was ambiguous. Attribution theory suggests that subordinates high in negative affect may remember more negative events than others (Aquino & Thau, 2008). Concerning LMX theory, subordinates high in negative affectivity will form fewer effective bonds with their supervisor and, therefore, find themselves in the out-group (Tse, Ashkanasy & Dasborough, 2012). Zhang and Bednall's (2016) meta-analysis regarding subordinate negative

affect and abusive supervision found a positive relationship ( $\bar{r} = 0.32$ ). As the subordinate feels more and more abused, their negative affect increases (An & Wang, 2016; Hoobler & Hu, 2013; Michel, Newness & Duniewicz, 2016). Therefore, I hypothesize that subordinate negative affectivity will be positively related to perceptions of abusive supervision.

*H4a: Subordinate negative affectivity will be positively related to perceptions of abusive supervision such that subordinates with higher negative affectivity traits will report higher levels of perceptions of abusive supervision.*

Studies have shown that people with higher positive affect have greater job satisfaction (Nikolaev, Shir & Wiklund, 2020) and are more successful (Lyubomirsky, King & Diener, 2005). Harvey, Stoner, Hochwarter, and Kacmar (2007) found that subordinates high in positive affectivity experienced less emotional exhaustion, turnover, and overall job tension when experiencing abusive supervision. Similarly, positive affectivity was associated with fewer perceptions of workplace bullying (Hong, Chien-Hou, Hwang, Hu & Chen, 2014). Schyns and Shilling (2013) found that positive affectivity was negatively related to subordinate perceptions of abusive supervision ( $r = -.094$ ). Therefore, I posit that subordinate positive affectivity will be negatively related to abusive supervision.

*H4b: Subordinate positive affectivity will be negatively related to perceptions of abusive supervision such that subordinates with higher positive affectivity traits will report lower levels of perceptions of abusive supervision.*

## Core self-evaluation

Core self-evaluation is an essential variable in several realms as it is a person's primary appraisal of their worth and effectiveness (Judge, Erez, Bono & Thoresen, 2003). Judge, Locke, Durham, and Kluger (1998) describe CSE as a higher-order trait with links to four personality sub-traits (Sears & Hackett, 2011): self-esteem, self-efficacy, emotional stability, and attribution theory's locus of control. The literature has found that higher CSE is associated with job satisfaction (Judge & Bono, 2001; Lemelle & Scielzo, 2012). Those with higher CSE will tend to rate their jobs as having higher intrinsic characteristics (Judge et al., 1998) and will likely seek out more challenging jobs (Judge, Bono & Locke, 2000). While connected to neuroticism, CSE was developed to determine what personality models could not explain: how individuals self-evaluate (Kacmar, Collins, Harris & Judge, 2009; Neves, 2014). This self-evaluation, or self-worth, component gives CSE a higher-order personality ranking than that of the Big Five (Neves, 2014) since it requires looking beyond inherent traits. Judge, Heller, and Klinger (2008) found that CSE is a better predictor of job satisfaction than the Big Five. Studies have suggested that CSE's four components have loaded on a single factor, further justifying it as a higher-order trait (Judge et al., 1998; Judge et al., 2003; Neves, 2014).

Wu and Hu (2009) found that subordinates' CSE was negatively related to perceptions of abusive supervision ( $r = -.17, p < .05$ ). In an opposing but supportive study, Neves (2014) found that low core self-evaluating subordinates present themselves as more vulnerable targets to abusive supervisors due to negative self-image. Correspondingly, Klumper et al. (2018) echoed these findings and added that subordinates reporting lower CSE, and lower cognitive abilities (lower coping skills) respond with increased forms of employee deviance. The subordinate will reduce their intrinsic motivations as they internalize the harmful effects of abusive supervision.

Zhang et al. (2014) found that subordinates with higher CSE mediated this effect and did not suffer reductions in creativity associated with perceptions of abusive supervision. In a meta-analysis by Wang et al. (2019), CSE was negatively related to perceptions of abusive supervision ( $r = -.22$ ). Also, subordinates with higher CSE will experience greater role clarity and better working relationships with their supervisors (i.e., greater LMX) (Sears & Hackett, 2011). Therefore, based on an association with higher job satisfaction, the Big Five, and role clarity, I posit that higher CSE will be negatively related to perceptions of abusive supervision.

*H5: Subordinate CSE will be negatively related to perceptions of abusive supervision such that subordinates with higher CSE will report lower levels of perceptions of abusive supervision.*

### **The propensity to perceive abusive supervision.**

Up to this point, I have discussed constructs that describe the subordinate and their relationship with perceptions of abusive supervision. Besides the characteristics described, some authors have started to research propensities to perceive abuse. Propensity addresses the concept of attitudes, or "a mental position consisting of a feeling, emotion, or opinion evolved in response to an external situation" (Attitude, 2011, p. 5). Harvey et al. (2016) have developed a measure of the propensity to perceive abusive supervision, the WUSI scale (Waspishness-Umbrageous Sensitivity-Insecurity). First, they propose the need for additional abusive supervision research due to the perceptual biases inherent in Tepper's (2000) abusive supervision scale. Second, they state a tendency to overlook the *subjectivity* element of abusive supervision, as some scholars interpret their findings as objective ratings (Martinko et al., 2013). Finally, they developed this measure to "remove the trait-like factors that might inflate abusive

supervision perceptions" (Harvey et al., 2016, p. 192). Grounded in negative affectivity, trait, cognitive appraisal, and Big Five personality theories, the authors operationalize their construct with a two-study, three-factor, fifteen-item survey instrument.

*Waspishness.* Waspishness, a term associated with the stinging insect, is used to describe someone who is "quick to resent a trifling affront or injury" and "irascibly or petulantly spiteful" (Waspishness, n.d.). Waspish individuals may react to seemingly trivial behaviors with quick anger and retaliation; thus, this trait has similarities to neuroticism (Harvey et al., 2016).

*Umbrageous Sensitivity.* Supervisory behaviors such as yelling at a subordinate or expressing unjustified anger could easily provoke a person ranked exceptionally low in Waspishness. Therefore, the authors included the Umbrageous Sensitivity dimension to account for the less than conspicuous acts of abusive supervision. Examples include supervisors who do not appropriately credit their employees or engage in the silent treatment (Tepper, 2000), both of which are ostensibly minor infractions and possibly unintentional. This finding is in keeping with research purporting that mistreatment of employees has moved from egregious behaviors to less evident and vague actions (Cortina, 2008; McCord et al., 2018).

*Insecurity.* This final dimension includes subordinates with a high propensity to react poorly to critical feedback. By introducing the element of fear and tying it to studies showing its negative impact on cognitive appraisal (Telch, Brouillard, Telch, Agras & Taylor, 1989), Insecurity was intended to parse out a subordinate's overreaction to routine and necessary supervisor feedback.

The original study demonstrated that each of the three WUSI components was significantly related to perceptions of abusive supervision (Waspishness:  $r = 0.27$ ,  $p < 0.05$ ; Umbrageous Sensitivity:  $r = 0.29$ ,  $p < 0.01$ ; Insecurity:  $r = 0.38$ ,  $p < 0.001$ ; overall scale:  $r =$

0.37,  $p < 0.01$ ). A regression of the Study 2 respondent abusive supervision scores onto their respective WUSI scores suggests that the scale explained roughly 14% of the variance ( $R^2 = 0.14$ ,  $p < 0.01$ ) of subordinates' perceptions of abusive supervision (Harvey et al., 2016, p. 200-201).

The Harvey et al. (2016) WUSI study drew from a population of part-time graduate (MBA) and undergraduate students enrolled in an introductory business class. The students were shown videos of an actor giving pre-recorded feedback to an employee, rather than personal experience with a supervisor. The authors suggest that future researchers conduct additional testing of the WUSI scale using a more diverse population, including full-time employees with more work experience. Therefore, I propose that each of the three dimensions of the WUSI scale will account for a significant proportion of subordinate perceptions of abusive supervision.

*H6: Collectively, subordinate WUSI (Waspishness – Umbrageous Sensitivity – Insecurity) will account for a significant proportion of the variance in subordinate perceptions of abusive supervision.*

The extent to which the WUSI construct is different from personality and CSE, however, is not clear. Harvey et al. (2016) suggested that controlling for CSE and WUSI traits will help researchers better understand WUSI's ability to predict subordinates' propensity to perceive abusive supervision. Concerning negative affectivity, the authors did not find as much of a positive correlation (overlap) with the three dimensions as expected. They observed significant positive correlations between negative affectivity and Waspishness ( $r = 0.22$ ,  $p < .05$ ) and between negative affectivity and Umbrageous Sensitivity ( $r = 0.22$ ,  $p < .05$ ). Insecurity showed a positive correlation ( $r = 0.21$ ) with negative affectivity; however, it did so at a level ( $p = 0.06$ )

considered non-significant (Harvey et al., 2016, p. 199). Further, they conducted an exploratory factor analysis and found that none of the negative affectivity elements cross-loaded with the WUSI items above 0.25. One question from each of the three WUSI dimensions cross-loaded slightly below the 0.25 level: "It takes me a long time to calm down after someone makes me angry" (Waspishness = 0.23); "My feelings are hurt easily" (Umbrageous Sensitivity = 0.23); and "My boss does not think I am a high performer" (Insecurity = 0.23) (Harvey et al., 2016, p. 199). With these findings, the authors concluded that, *based on their sample population*, the WUSI scale correlated moderately with both positive and negative affectivity and showed independent factor structures (Harvey et al., 2016, p. 200).

As for the WUSI scale's ability to explain variance over and above that of negative affectivity, Harvey et al. (2016) found that negative affectivity explained roughly 8% ( $R^2 = 0.08$ ,  $p < 0.01$ ) of abusive supervision perceptions. Upon removing the variance of negative affectivity, the WUSI scale explained an additional 10% of the variance ( $\Delta R^2 = 0.10$ ,  $p < 0.01$ ) (Harvey et al., 2016, p. 201). Their findings suggest that 18% of abusive supervision perceptions can be explained by subordinate-related characteristics (negative affectivity and WUSI). Moreover, the authors suggest that as an affective state measurement, the WUSI scale might be a reasonable control for additional studies utilizing attribution styles.

While some abusive supervision research has examined all the subordinate characteristics described (e.g., Harvey et al., 2016; Henle & Gross, 2014; Kluemper et al., 2019; Wu & Hu, 2009; Zhang & Bednall, 2016), these characteristics have not been examined collectively in an empirical study. To the best of my knowledge, no study has examined the total variance explained for these characteristics and subordinates' perceptions of abusive supervision. I seek

to extend the knowledge base of abusive supervision by developing a more inclusive predictive model, which leads to my first research question:

*RQ1: How much total variance in perceptions of abusive supervision is accounted for by demographic characteristics, personality, CSE, and WUSI?*

To better understand the predictive effects of these four characteristics on subordinate perceptions of abusive supervision, I examined the unique impact of each and their relative importance. With respect to unique contribution, I expected that each set of subordinate characteristics would account for a unique proportion of variance in abusive supervision ratings. Hence, I propose:

*H7: Subordinate demographic characteristics, personality, core self-evaluation, and WUSI will each account for a unique proportion of the variance in ratings of abusive supervision.*

Relative importance is a supplement to multiple regression analysis that "partition[s] explained variance among multiple predictors to understand better the role played by each predictor in a regression equation" (Tonidandel & LeBreton, 2011, p. 1). To measure relative importance, I utilized dominance analysis (Beduscu, 1993; Azen & Beduscu, 2003). In psychological research with multiple predictors, the chance for overlapping of variables is often a risk (Stadler, Cooper-Thomas & Greiff, 2017). Personality literature is replete with studies suggesting various overlapping issues between constructs. Rusting and Larsen's (1997) study of Eysenck's (1981) model found that extraversion was positively related to positive affect, while neuroticism was positively related to negative affect (Rusting & Larsen, 1997; Tellegen, 1985;

Watson & Clark, 1984; Watson, Clark & Tellegen, 1988). Kluemper et al. (2017) established a positive association between CSE and cognitive ability. Specific to the present study, the WUSI scale has many possible connections to other constructs (negative affectivity and Big Five personality traits); one may expect a certain amount of overlap among my chosen subordinate characteristics. To the best of my knowledge, I could not locate any abusive supervision study utilizing relative importance analysis to further understand subordinate characteristics.

Therefore, I propose my second research question:

*RQ2: What is the relative importance of demographic characteristics, personality, core self-evaluation, and WUSI for predicting perceptions of abusive supervision?*

## Chapter 3: Methodology

First, I provide an overview of the research study and how the data was handled following UNCC IRB guidelines. Next, I discuss the participants of the study and sample size determination, then review the procedures used to administer the study. After describing the measures and variables, I present an initial analysis of the data.

### Design Synopsis

I used a cross-sectional survey instrument (Creswell & Creswell, 2018) comprised of 116 items drawn from existing scales and 11 demographic/tenure questions employing quantitative methods. I administered the survey using the Qualtrics (XM)<sup>TM</sup> software. All respondents were notified that the survey was voluntary, confidential, and anonymous, and that all information was used solely for research purposes (see Appendix C, Cover Letters and Informed Consent).

### Participants

#### *Subordinate Demographic and Tenure variables*

For inclusion in the study, participants were (a) adults (18 years old or older), (b) full-time employees (employed in a primary job for 30 hours per week or more), and (c) employed by their current employer for at least one year. Qualtrics screened respondents based upon a full list of information collected during the online survey (see Appendix B, Instructions and Scales). Participants were limited to those employed in the United States to avoid any cultural differences identified in several abusive supervision studies (e.g., Lin, Wang & Chen, 2013; Vogel et al.,

2015; Wulani, Purwanto & Handoko, 2014; Zhang & Liu, 2018). Participants were also asked to report their race, gender, current industry, and tenure with the organization.

### *Supervisor Demographic Variables*

Participants were asked to provide demographic information (age, gender, and race) of their current supervisor, tenure with this supervisor, and the supervisor's initials (to focus participant responses on a specific individual). In the abusive supervision survey section (Tepper, 2000), the supervisor's initials were embedded in the instructions.

### *Sample size*

The target sample size was 300. Using the APriori Sample Size Calculator for Multiple Regression Power Analysis <https://www.danielsoper.com/statcalc/calculator.aspx?id=1>, a sample size of 300 resulted in a statistical power level of 0.933 ( $f^2 = 0.10$ ; 19 predictors;  $P < 0.05$ ). Results of this power analysis and predictor count can be found in Appendix D. In the end, I obtained a total of 315 responses, 15 more than requested.

## **Procedure**

Before full deployment of the survey, I conducted a pilot study of 30 respondents to assess any unforeseen problems in the programming protocols, gauge the amount of time required to complete the survey, and perform an initial scale reliability validation. A summary of the pilot study can be found in Table 1 (Appendix E); I discuss the findings in Chapter 4.

Qualtrics contacted potential respondents (see Appendix C, Cover Letters and Informed Consent) and sent a link to the Qualtrics (XM)<sup>TM</sup> software. The pilot survey of 30 respondents took approximately one week. The full survey took approximately the same amount of time, with data collection commencing in November 2020.

Deployment of the survey yielded a population representative of U.S. organizations' race and gender demographics. Further, the data was collected from a diverse population regarding industry, the results of which can be found in Table 2 (Appendix E). All respondents had to review and agree to the Informed Consent letter (see Appendix C) and were encouraged to print out the consent form. Finally, respondents could exit the survey at any time; exited surveys were excluded from the final data set. All participants were required to answer the demographic questions first and were exited from the survey automatically if they did not meet the screening criteria (see Appendix B). The six scales (abusive supervision, Big Five, PANAS, CSE, social desirability, and WUSI) were randomly ordered.

### *Pilot*

With respect to the pilot study, the only questionable finding was that the Big Five openness scale had a Cronbach's alpha of ( $\alpha = 0.439$ ). I verified the scale for correct wording and decided to revisit the reliability issue after collecting the full study data since openness was not specifically used in any of the hypotheses. Further, extant literature has not found any significance with respect to perceptions of abusive supervision and openness. The extraversion and social desirability scales were relatively close to the generally accepted Cronbach's alpha of ( $\alpha = 0.7$ ) (Creswell & Creswell, 2018) and ( $\alpha = 0.629$  and  $\alpha = 0.693$ ), respectively. I did not conduct correlation or regression analysis of the pilot survey due to the small sample size.

### *Complete Survey Launch*

Survey responses for the full launch were collected in November 2020. In total, I received 1,031 responses. After removing approximately 69% of the responses, the final data set included 315 responses, 15 more than initially requested. A summary of the total responses and

reasons for elimination appear in Table 3 (Appendix E). All syntax for the SPSS analysis is in Appendix F.

## **Measures**

### *Big Five Model of Personality*

I used John and Srivastava's (1999) Big Five Inventory (BFI) 44-item scale to assess the Big Five personality dimensions. The BFI measures openness (10 questions;  $\alpha = 0.81$ ), conscientiousness (9 questions;  $\alpha = 0.82$ ), extraversion (8 questions;  $\alpha = 0.88$ ), agreeableness (9 questions;  $\alpha = 0.79$ ), and neuroticism (8 questions;  $\alpha = 0.84$ ); overall scale ( $\alpha = 0.83$ ) (John & Srivastava, 1999, pp. 116-117). Respondents were asked to select a response based on "I See Myself as Someone Who..." using a 5-point Likert scale (1 = *Disagree Strongly* to 5 = *Agree Strongly*). Several questions were reversed scored. Sample statements included "Does a thorough job" and "Can be moody" (see Appendix B).

### *Positive and Negative Affectivity*

I used the Watson et al. (1988) PANAS-GEN 20-item scale to assess positive and negative affectivity (PA, 10 questions,  $\alpha = 0.86 - 0.90$ ; NA, 10 questions,  $\alpha = 0.84 - 0.87$ ). The scale comprises words that describe the respondent's feelings and emotions using a 5-point Likert scale (1 = *Very slightly or not at all* to 5 = *Extremely*). Sample statements included "Interested," "Excited," and "Ashamed" (see Appendix B).

### *Core self-evaluation*

Core self-evaluation was measured using the 12-item CSE scale developed by Judge et al. (2003) ( $\alpha = 0.81 - 0.87$ ), which measures the four dimensions of CSE: global self-esteem, non-neuroticism, internal locus of control, and generalized self-efficacy. Examples of statements

include "I am confident I get the success I deserve in life" and "Sometimes I feel depressed."

The survey utilized a 5-point Likert scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*). The even-numbered statements were reversed scored (i.e., 1=5, 2=4, 3=3, 4=2, 5=1) (see Appendix B).

#### *Attitudes/Propensity*

The propensity for perceiving abusive supervision was assessed via the 15-item WUSI scale developed by Harvey et al. (2016), which measures three dimensions: Waspishness (5 questions,  $\alpha = 0.80$ ), Umbrageous Sensitivity (5 questions,  $\alpha = 0.75$ ), and Insecurity (5 questions,  $\alpha = 0.81$ ); full scale (15 questions,  $\alpha = 0.88$ ). The survey comprises general statements, such as "I am generally quick to anger when someone criticizes me" and "I often feel as if I am going to be fired." The survey utilized a 5-point Likert scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*). (see Appendix B).

#### *Abusive Supervision*

Abusive supervision was measured using Tepper's (2000) 15-item scale, which focuses on subordinate perceptions of their supervisor's behaviors. Sample items include "My supervisor ridicules me," "My supervisor tells me my thoughts or feelings are stupid," and "My supervisor gives me the silent treatment." Items were measured on a 5-point scale (1 = *I cannot remember him/her ever using this behavior with me* to 5 = *He/She uses this behavior very often with me.*) The full scale appears in Appendix B ( $\alpha = 0.93$ ). I also embedded the supervisor's initials in the instructions.

#### *Social Desirability*

Social desirability was measured using Strahan and Gerbasi's (1972) 10-item social desirability scale. Sample items include "I'm always willing to admit it when I make a mistake"

and "I like to gossip at times," measured on a 5-point Likert scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*). The full scale appears in Appendix B ( $\alpha = 0.83$ ).

#### *Attention-Check Items and Speed Tests*

I included three attention-check items to eliminate minimal effort responses (Berinsky, Margolis & Sances, 2014): "Please select Agree Strongly to show that you read this question" (Question 33 in BFI); "If you have read this question, please select Disagree" (Question 5 in Social Desirability); and "Please select Neutral to show you read this question" (Question 6 in WUSI). To be included in the final survey population, respondents had to answer all three attention-check questions correctly. Given the short answers to some of the survey questions, these attention-check items' location was based on obfuscating the attention statements. For example, the PANAS scale utilized only single-word statements, which would make the attention-check statement evident to the viewer. Additionally, responses more than two standard deviations from the average time that the rest of the respondents took to complete the survey were removed.

#### **Initial Analysis and Data Verification**

The complete dataset was downloaded onto the UNCC VPN H: drive and imported into SPSS. Since I collected the 315 responses using the a priori parameters as detailed, the complete data set was acceptable for use after formatting the column headers. I then reviewed each of the three attention-check questions to ensure that they matched the desired responses and examined the complete dataset for missing responses. Next, I verified that all completed responses were obtained from respondents 18 years or older, working full-time for firms in the United States, and had tenure greater than one year with their current employer. Finally, I ensured that the

software properly coded the survey responses using the Likert scale (1 through 5). All verification steps were completed with no issues. Once this verification analysis was complete, I reversed scored all the necessary items in SPSS. I then calculated the composite scores for the abusive supervision, Big Five, positive and negative affectivity, CSE, social desirability, and WUSI scales. Upon inspecting the subordinate gender results, I found that two respondents selected "2" for "other." Given this was not a significant number, I recoded these responses as "system missing" to provide more robust results for the hypotheses utilizing the subordinate gender data and match.

## Chapter 4: Results

Means, standard deviations, coefficient alpha reliability estimates, and intercorrelations for all study variables are presented in Table 5 (Appendix E). All scales demonstrated adequate reliability except for the Big Five Factor openness scale ( $\alpha = .667$ ), which was slightly below the optimal value range ( $\alpha = .7$  to  $\alpha = .9$ ) (Creswell & Creswell, 2018). Item analysis indicated one problematic item (Question 41), "Has few artistic interests" (John & Srivastava, 1999). Excluding this item resulted in an alpha value of ( $\alpha = .738$ ). Thus, all further analyses using Openness were based on the modified scale. It should be noted, however, that no formal hypotheses were specifically posited for Openness.

### Examination of Potential Common Method Bias

Given that the present study's data was obtained via a single survey design (i.e., same-source, self-report, cross-sectional), I want to address the possibility of common method bias (Vanderstoep & Johnston, 2008). It is important to note that the literature on common method bias tends to indicate that while common methods may introduce a degree of bias, it is not sufficient to invalidate the results (Doty & Glick, 1998; Spector, 1987; Spector, 2006). There are other potential problems with distinct source research (Kammeyer-Mueller, Steel, & Rubinstein, 2010). Nevertheless, before testing the proposed hypotheses and research questions, I examined the extent to which a single method factor fits the study data. Specifically, I tested a single factor model whereby each of the assessed variables loaded onto a single latent factor. This Confirmatory Factor Analysis (CFA) was performed using the Lavaan R package (Rosseel, 2012) (see Appendix G). Results indicated that a single factor accounted for less than 40% of

the common variance across the variables ( $AVE = 38.9$ ,  $\Omega = .001$ ). Furthermore, the model provided a poor fit to the data ( $\chi^2 = 528.169$ ,  $df = 65$ ,  $p = .000$ ,  $CFI = .773$ ,  $NFI = .751$ ,  $RMSEA = .150$ ). Therefore, these results suggested that a single common method factor does not overwhelmingly influence the data (Chang, Van Witteloostuijn & Eden, 2010, Tehseen, Ramayah & Sajilan, 2017). Since no clear alternative models are conceptually viable, I did not test any alternative factor structure.

Notwithstanding the absence of an indication of a common method factor, I took the additional step of using Social Desirability Responding (SDR) (Strahan & Gerbasi, 1972) to control the hypotheses testing and research question analysis. The results indicated a significant, negative relationship between SDR and subordinate perceptions of abusive supervision ( $R = .229$ ,  $p = .000$ ,  $\beta = -.229$ ). Except for H1, H1a, and H2b, SDR had no impact on the significance or pattern of results obtained.

There are several interpretations of the SDR construct in the extant literature. To this end, SDR has been considered a form of common method bias whereby the responder is biased towards answering in a fashion that they either believe is the “good” answer or appears to be more socially acceptable (Crowne & Marlow, 1960; Furnham, 1986; Lavrakas, 2008; Paulhaus, 1991). Conversely, SDR is considered a reflection of specific personality characteristics or predispositions (Crowne & Marlowe, 1964; McCrae & Costa, 1983). The former interpretation reinforces using SDR as a control variable before examining the impact of other respondent characteristics, especially given the same-source data in the present study (Vesely & Klöckner, 2020). The latter interpretation, however, may be a function of other personality characteristics (e.g., conscientiousness, agreeableness, etc.); therefore, controlling for SDR might remove relevant variance. Thus, I examined all hypotheses with and without controlling for SDR. As

indicated, while SDR did impact the magnitude of the estimates obtained, there was no impact on the pattern of results.

### **Hypotheses Tests and Results**

Hypothesis 1 predicted that subordinate demographic and tenure characteristics would account for a significant proportion of the variance in subordinate perceptions of abusive supervision. To test H1, I regressed abusive supervision on subordinate demographic and tenure variables. Regression equations and results are presented in Table 6 (Appendix E). Initially, results indicated an  $R^2$  consistent with H1, but non-significant ( $R^2 = .031$ ,  $p = .086$ ). The inclusion of SDR as a control, however (i.e., SDR was entered into the hierarchical regression equation before subordinate demographic and tenure variables and the change in  $R^2$  was examined), indicated a statistically significant effect on the set of subordinate demographic and tenure variables ( $\Delta R^2 = .038$ ,  $p = .026$ ). These results are consistent with a suppression effect in which a predictor's inclusion increases the predictive power of another variable or a set of variables (Conger, 1974; Horst, 1941; Watson, Clark, Chmielewski & Kotov, 2013). Thus, H1 was partially supported.

Hypothesis 1a predicted that perceptions of abusive supervision would differ based on subordinate gender such that women will report fewer perceptions of abusive supervision. To test H1a, I regressed abusive supervision on subordinate gender. Initially, the results indicated an  $R$  consistent with H1, but non-significant ( $R = .103$ ,  $p = .070$ ,  $\beta = .103$ ). Including SDR as a control, however, indicated a statistically significant effect on the set of subordinate demographic and tenure variables ( $\Delta R = .138$ ,  $p = .011$ ). Further, the beta-weight of ( $\beta = .141$ ,  $p = .011$ ) indicates that women will report fewer perceptions of abusive supervision. These results are

consistent with the suppression effect detailed in H1; that is, females are less likely to perceive abusive supervision. Thus, H1a was partially supported.

Hypothesis 1b predicted that perceptions of abusive supervision would differ based on subordinate race such that non-White subordinates will report increased perceptions of abusive supervision. To test this hypothesis, White responses were coded “0” and all others were coded “1.” The results before and after controlling for SDR were non-significant ( $R = .053$ ,  $p = .346$ ,  $\beta = -.053$ ;  $\Delta R = .045$ ;  $p = .432$ ,  $\beta = -.043$ ). Thus, H1b was not supported.

Hypothesis 1c predicted that subordinate age would be negatively related to perceptions of abusive supervision such that older subordinates will perceive their supervisor's behaviors as less abusive. The results before and after controlling for SDR were significant ( $R = .126$ ,  $p = .026$ ,  $\beta = -.126$ ;  $\Delta R = .126$ ,  $p = .022$ ,  $\beta = -.126$ ); that is, older subordinates will perceive their supervisor's behaviors as less abusive. Thus, H1c was supported.

Hypothesis 1d predicted that supervisor/subordinate tenure would be positively related to perceptions of abusive supervision such that higher levels of abusive supervision will be reported in longer-tenured supervisor/subordinate dyads. The results before and after controlling for SDR were non-significant ( $R = .009$ ,  $p = .870$ ,  $\beta = -.009$ ;  $\Delta R = .000$ ;  $p = .923$ ,  $\beta = -.005$ ). Thus, H1d was not supported.

Hypothesis 1e predicted that tenure of the supervisor/subordinate dyad would account for a unique proportion of the variance in perceptions of abusive supervision over and above that of subordinate age. The results before and after controlling for SDR were significant ( $R = .126$ ,  $p = .026$ ,  $\beta = -.126$ ;  $\Delta R = .126$ ,  $p = .022$ ,  $\beta = -.126$ ). Hypothesis 1d however, posits that subordinate/supervisor tenure would be positively related to perceptions of abusive supervision and was not supported ( $R = .009$ ,  $p = .870$ ,  $\beta = -.021$ ); after SD added ( $\Delta R = .000$ ;  $p = .923$ ,  $\beta = -$

.005). In addition, the results of a hierarchical regression of abusive supervision on subordinate age and then on dyadic tenure ( $R^2 = .018$ ,  $p = .026$ ;  $\Delta R^2 = .002$ ,  $p = .457$ ), after SDR was added ( $\Delta R^2 = .070$ ,  $p = .022$ ;  $\Delta R^2 = .002$ ,  $p = .399$ ), also indicated non-significance. Thus, H1e was not supported.

Hypothesis 2 predicted that the match between supervisor and subordinate demographic characteristics would account for a significant proportion of the variance in subordinate perceptions of abusive supervision. To analyze this, I created code in SPSS for the match variables. First, I ran a cross-tabulation for the dyads RACEsub by RACEsup and GENDsub by GENDsup. I then coded for and created variables to capture the "match" (RACEMatch and GENDMatch), with an equal match coded as "1" (when both variables return the same score for 0 = female, 1 = male, 2 = other) and a non-match coded as "0." To test H2, I regressed abusive supervision on supervisor/subordinate demographic match variables (Race and Gender). The results indicated an  $R^2$  consistent with H2, but non-significant before and after controlling for SDR ( $R^2 = .008$ ,  $p = .268$ ;  $\Delta R^2 = .009$ ,  $p = .211$ ). Thus, H2 was not supported.

Hypothesis 2a predicted that gender match between supervisor and subordinate would be negatively related to perceptions of abusive supervision such that same-gender supervisor/subordinate dyads will report lower levels of abusive supervision. The results before and after controlling for SDR were non-significant ( $R = .063$ ,  $p = .263$ ,  $\beta = .063$ ;  $\Delta R = .063$ ;  $p = .254$ ,  $\beta = .063$ ). Thus, H2a was not supported.

Hypothesis 2b predicted that race match between supervisor and subordinate would be negatively related to perceptions of abusive supervision such that lower levels of abusive supervision will be reported by same-race supervisor/subordinate dyads. The results before and

after controlling for SDR were non-significant ( $R = .072$ ,  $p = .202$ ,  $\beta = .072$ ;  $\Delta R = .078$ ,  $p = .147$ ,  $\beta = .008$ ). Thus, H2b was not supported.

Hypothesis 3 predicted that, collectively, subordinate personality characteristics (as reflected in the Big Five personality traits) would account for a significant proportion of the variance in subordinate perceptions of abusive supervision. To test H3, I regressed abusive supervision on the Big Five personality traits (including the revised Openness scale). The results before and after controlling for SDR indicated an  $R^2$  consistent with H3 ( $R^2 = .144$ ,  $p = .000$ ;  $\Delta R^2 = .092$ ,  $p = .000$ ). Thus, H3 was supported.

Hypothesis 3a predicted that subordinate conscientiousness would be negatively related to perceptions of abusive supervision such that subordinates with higher conscientiousness traits will report lower levels of perceptions of abusive supervision. The results before and after controlling for SDR were significant ( $R = .318$ ,  $p = .000$ ,  $\beta = -.318$ ;  $\Delta R = .237$ ,  $p = .000$ ,  $\beta = -.272$ ); that is, subordinates with higher conscientiousness traits will perceive their supervisor's behavior as less abusive. Thus, H3a was supported.

Hypothesis 3b predicted that subordinate extraversion would be negatively related to perceptions of abusive supervision such that subordinates with higher extraversion traits will report lower levels of perceptions of abusive supervision. The results before and after controlling for SDR were non-significant ( $R = .016$ ,  $p = .782$ ,  $\beta = -.016$ ;  $\Delta R = .000$ ;  $p = .765$ ,  $\beta = .017$ ). Thus, H3b was not supported.

Hypothesis 3c predicted that subordinate agreeableness would be negatively related to perceptions of abusive supervision such that subordinates with higher agreeableness traits will report lower levels of perceptions of abusive supervision. The results before and after controlling for SDR were significant ( $R = .314$ ,  $p = .000$ ,  $\beta = -.314$ ;  $\Delta R = .223$ ,  $p = .000$ ,  $\beta = -$

.274); that is, subordinates with higher agreeableness traits will perceive their supervisor's behavior as less abusive. Thus, H3c was supported.

Hypothesis 3d predicted that subordinate neuroticism would be positively related to perceptions of abusive supervision such that subordinates with higher neuroticism traits will report higher levels of perceptions of abusive supervision. The results before and after controlling for SDR were significant ( $R = .266$ ,  $p = .000$ ,  $\beta = .266$ ;  $\Delta R = .167$ ,  $p = .002$ ,  $\beta = .201$ ); that is, subordinates with higher neuroticism traits will perceive their supervisor's behavior as more abusive. Thus, H3d was supported.

Hypothesis 4 predicted that, collectively, subordinate negative and positive affectivity would account for a significant proportion of the variance in subordinate perceptions of abusive supervision. To test H4, I regressed abusive supervision on subordinate negative and positive affectivity. The results before and after controlling for SDR indicated an  $R^2$  consistent with H4 ( $R^2 = .187$ ,  $p = .000$ ;  $\Delta R^2 = .142$ ,  $p = .000$ ). Thus, H4 was supported.

Hypothesis 4a predicted that subordinate negative affectivity would be positively related to perceptions of abusive supervision such that subordinates with higher negative affectivity traits will report higher levels of perceptions of abusive supervision. The results before and after controlling for SDR were significant ( $R = .402$ ,  $p = .000$ ,  $\beta = .402$ ;  $\Delta R = .335$ ,  $p = .000$ ,  $\beta = .376$ ); that is, subordinates with higher negative affectivity will perceive their supervisor's behavior as more abusive. Thus, H4a was supported.

Hypothesis 4b predicted that subordinate positive affectivity would be negatively related to perceptions of abusive supervision such that subordinates with positive affectivity traits will report lower levels of perceptions of abusive supervision. The results before and after

controlling for SDR were non-significant ( $R = .022$ ,  $p = .697$ ,  $\beta = -.022$ ;  $\Delta R = .063$ ;  $p = .259$ ,  $\beta = .066$ ). Thus, H4b was not supported.

Hypothesis 5 predicted that subordinate CSE would be negatively related to perceptions of abusive supervision such that subordinates with higher CSE will report lower levels of perceptions of abusive supervision. The results before and after controlling for SDR were significant ( $R = .325$ ,  $p = .000$ ,  $\beta = -.325$ ;  $\Delta R = .247$ ,  $p = .000$ ,  $\beta = -.278$ ); that is, subordinates with higher CSE will perceive their supervisor's behavior as less abusive. Thus, H5 was supported.

Hypothesis 6 predicted that, collectively, subordinate WUSI would account for a significant proportion of the variance in subordinate perceptions of abusive supervision before and after controlling for SDR ( $R^2 = .413$ ,  $p = .000$ ;  $\Delta R^2 = .361$ ,  $p = .000$ ). Individually, all three characteristics were significantly and positively related to subordinate perceptions of abusive supervision before and after controlling for SDR: Waspishness ( $R^2 = .119$ ,  $p = .000$ ,  $\beta = .345$ ;  $\Delta R^2 = .069$ ,  $p = .000$ ,  $\beta = .316$ ); Umbrageous Sensitivity ( $R^2 = .173$ ,  $p = .000$ ,  $\beta = .416$ ;  $\Delta R^2 = .121$ ,  $p = .000$ ,  $\beta = .423$ ); and Insecurity ( $R^2 = .410$ ,  $p = .000$ ,  $\beta = .640$ ;  $\Delta R^2 = .358$ ,  $p = .000$ ,  $\beta = .632$ ). Thus, H6 was supported.

Hypothesis 7 predicted that subordinate demographic, Big Five, PANAS, CSEs, and WUSI characteristics would each account for a unique proportion of the variance in ratings of abusive supervision over and above the other variable sets. To test H7, I regressed abusive supervision onto four of the five sets and then repeated the process with a different set onto the remaining four until each set was uniquely examined. I then examined the  $\Delta R^2$  each individual set added to each hierarchical regression. Before and after controlling for SDR, only PANAS ( $\Delta R^2 = .031$ ,  $p = .000$ ;  $\Delta R^2 = .032$ ,  $p = .000$ ) and WUSI ( $\Delta R^2 = .199$ ,  $p = .000$ ;  $\Delta R^2 = .202$ ,  $p =$

.000) accounted for a unique proportion of the variance in ratings of abusive supervision over and above the other four variable sets. The remaining sets had minimal effect and were non-significant before and after controlling for Social Desirability: subordinate demographics ( $\Delta R^2 = .004$ ,  $p = .548$ ;  $\Delta R^2 = .004$ ,  $p = .552$ ); Big Five ( $\Delta R^2 = .008$ ,  $p = .507$ ;  $\Delta R^2 = .010$ ,  $p = .329$ ); and CSE ( $\Delta R^2 = .001$ ,  $p = .545$ ;  $\Delta R^2 = .001$ ,  $p = .559$ ). Thus, H7 was partially supported.

To test H7 against extant abusive supervision literature, I ran the same hierarchical regressions but eliminated WUSI, given its dominant impact on the results. Also, the elimination of WUSI allowed for a better comparison to related abusive supervision research since, to the best of my knowledge, the WUSI findings have yet to be replicated. As with the H7 analysis that included WUSI, removal shows that PANAS again accounted for a unique proportion of the variance in abusive supervision ratings and increased the effect size ( $\Delta R^2 = .083$ ,  $p = .000$ ;  $\Delta R^2 = .083$ ,  $p = .000$ ). The Big Five ( $\Delta R^2 = .036$ ,  $p = .013$ ;  $\Delta R^2 = .032$ ,  $p = .024$ ) and CSE ( $\Delta R^2 = .020$ ,  $p = .004$ ;  $\Delta R^2 = .020$ ,  $p = .004$ ) became significant before and after controlling for SDR. Only subordinate demographics remained non-significant ( $\Delta R^2 = .005$ ,  $p = .573$ ;  $\Delta R^2 = .004$ ,  $p = .603$ ). All output from this post-hoc analysis of H7 appears in Table 13 (Appendix E).

To summarize, I found support for H1c, H3, H3a, H3c, H3d, H4, H4a, H5, and H6; I did not find support for H1b, H1d, H1e, H2, H2a, H2b, H3b, and H4b. I found partial support for H1, H1a, and H7. These findings are summarized in Table 7 (Appendix E, Hypotheses Summary and Findings) and Table 6 (Appendix E, Regression Equations and Results).

## **Research Questions Tests and Results**

Research question 1 (RQ1) posited, "How much total variance in perceptions of abusive supervision is accounted for by demographic characteristics, personality, core self-evaluation,

and WUSI?" To answer RQ1, I regressed abusive supervision onto all the subordinate characteristic sets (demographics, Big Five, PANAS, CSE, and WUSI) and examined the  $R^2$  before and after controlling for SDR. The results indicated that 47.3% of the variance in perceptions of abusive supervision can be attributed to subordinate characteristics ( $R^2 = .473$ ,  $p = .000$ ); after controlling for SDR ( $\Delta R^2 = .420$ ;  $p = .000$ ).

Research question 2 (RQ2) posited, "What is the relative importance of demographic characteristics, personality, core self-evaluation, and WUSI for predicting perceptions of abusive supervision?" Dominance weights analysis is a useful supplement to multiple regression since it helps explain each predictor's function in the regression equation (Azen & Budescu, 2003). Regression coefficients and zero-order correlations are equal when the predictors are unrelated (Johnson & LeBreton, 2004). Since there is evidence that several of the predictors will be correlated (e.g., subordinate age and tenure, negative affectivity, and WUSI), dominance weights analysis augments the traditionally used multilinear regression for abusive supervision research by examining the  $R^2$  value for all sets of predictors. It provides the relative contribution each set makes to the overall  $R^2$  by considering the unique relationship with the subordinate perceptions of abusive supervision and the relationship when combined with the other dependent variables (i.e., sets of subordinate demographics, Big Five, PANAS, CSE, and WUSI) (Azen & Budescu, 2003; Budescu, 1993; Johnson, 2000).

To answer RQ2, I populated the Dominance Analysis Excel spreadsheet for five predictors created by Dr. James LeBreton (2003), based upon Budescu (1993), with the subordinate characteristic sets of  $R^2$  values for each of the combinations of independent variables, as illustrated in Table 8 (Appendix E). The results illustrated that the WUSI scale dominated the five subordinate predictors (0.281), with the remaining predictors' rescaled

dominance in descending order: PANAS (0.087), Big Five (0.053), CSE (0.034), and demographic characteristics (.018). In other words, of the total variance explained (47.3%), WUSI uniquely accounts for 28.1%. The LeBreton calculator provides an alternative view of the total variance explained by dividing the general dominance estimates by the overall  $R^2$  and multiplying the outcome by 100 to express the results in percentages (i.e., rescaled dominance). Therefore, the rescaled dominances for the predictors are: WUSI, 59.397%; PANAS, 18.471%; Big Five, 11.195%; CSE, 7.089%; and Demographics, 3.848%.

## **Chapter 5: Discussion**

The present study's primary goal was to examine the collective impact of theoretically relevant differences in individuals' perceptions of abusive supervision. I specifically examined the cumulative proportion of variance in subordinate ratings of abusive supervision, which was accounted for by several established subordinate characteristics: demographics (age, gender, race), Big Five personality traits, positive and negative affectivity (PANAS), core self-evaluation (CSE), and attitudes and predispositions to perceive abuse as reflected in the WUSI (Waspishness – Umbrageous Sensitivity – Insecurity) scale. In addition, I examined the relative importance and proportion of unique variance in ratings of abusive supervision accounted for by each set of subordinate characteristics. Both approaches offer novel theoretical, methodological, and practical contributions to the abusive supervision literature. Overall, results indicate that subordinate characteristics collectively accounted for 47.3% of the variance in subordinate perceptions of abusive supervision and predispositions to perceive abuse, as reflected in the WUSI scale, which was the dominant predictor of abusive supervision perceptions (59.4% of the explained variance).

### **Contributions to the Abusive Supervision Literature**

This study contributes both theoretically and methodologically to the existing abusive supervision literature by collectively examining a broad set of subordinate characteristics. While each characteristic has been examined to some extent in previous literature, this is the first study that examines all in a single and empirical fashion. Specifically, a sample of 315 full-time working adults rated the extent to which their supervisor exhibited behaviors indicative of

abusive supervision as well as provided data pertaining to a broad set of individual difference constructs (demographics, Big Five, positive and negative affectivity, CSE, and WUSI). My results indicate that, collectively, subordinate characteristics accounted for approximately 47% of the overall variance in subordinate perceptions of abusive supervision. Previous research has estimated that subordinate characteristics may account for up to 67% of the variance in abusive supervision ratings (Wang et al., 2019). Wang et al. (2019), however, were unable to disentangle the relative impact of actual leader behavior, subordinate characteristics, and measurement error. Results of the present study suggest that Wang et al. likely overestimated the overall impact of subordinate characteristics.

Another critical difference between the present study and that of Wang et al. (2019) was the inclusion of attitudes and predispositions to perceive abuse (i.e., WUSI). Here, the WUSI scale accounted for a large proportion of the variance explained; findings were still substantially below those of Wang et al. The inclusion of additional individual difference constructs, however, may increase the amount of variance explained. Many scholars have investigated perceptual differences with traits such as narcissism (Burton & Hoobler, 2011), political skill (Whitman, Halbesleben & Shanine, 2013), proactive voice behavior (Frieder, Hochwarter & DeOrtentiis, 2015), and social adaptability (Mackey, Ellen, Hochwarter & Ferris, 2013). Thus, while the current findings suggest that a little over half of the variance in perceptions of abusive supervision remains unexplained, more variance may be attributable to additional subordinate characteristics. It is essential to note, however, that actual supervisor behavior likely accounts for a large portion of the variance not explained in the present study. This possibility is consistent with theoretical conceptualizations that both perceiver and target effects (and potential interactions between the two) influence subordinate perceptions of abusive supervision.

With respect to individual variable correlations with perceptions of abusive supervision, results were largely consistent with previous research. Specifically, regarding personality, neuroticism and negative affectivity had a significant, positive relationship with subordinate perceptions of abusive supervision, while conscientiousness and agreeableness had a significant, negative association, as did CSE. Finally, for demographics and tenure, only subordinate age had a significant relationship with subordinate perceptions of abusive supervision, such that older workers perceived less abuse from their supervisors.

Several hypothesized characteristics were not found to be related to subordinate perceptions of abusive supervision. Extraversion and positive affectivity were hypothesized to negatively correlate with subordinate perceptions of abusive supervision, which is consistent with extant research. It is important to note, however, that neither has been found to have much association with abusive supervision within the meta-analytic literature. Second, both have received little investigation; for example, Zhang and Bednall (2016) cited only two extraversion studies and none for positive affectivity. Future researchers should extend this research by investigating combinations of these traits rather than individually (e.g., perceptions of abusive supervision by introverted and positively affected subordinates). The possibility exists that just one trait may not represent the subordinate's overall personality.

Regarding demographics, the lack of significant findings points to several future research opportunities and is a possible limitation of this study. Challenges for using gender as a binary characteristic have begun to gain traction. First, using a binary gender may speak more to sex and not the concept of multi-gender identification (see Lips, 2020). Second, studies combining social role theory, sex, and gender (e.g., Eagly & Wood, 1999; Eagly, Wood & Diekmann, 2000) may suggest that not only has the scope of gender identification expanded but how people are

conditioned to act in modern society has also changed. For example, the increased presence of women in the workplace (Bureau of Labor Statistics – Women's Division, 2020) may mean that women spend less time at home. This may lead to changes in labor division in the home, such that both men and women are now sharing home responsibilities; this feeling of parity at home may extend to the workplace. Both possibilities suggest that gender differences in the workplace are overstated. Further, these changing roles may also change both the subordinate's and the supervisor's perceptions, which may explain the lack of association between gender match and perceptions of abusive supervision.

I found no association between race and subordinate perceptions of abusive supervision, which offers both future research opportunities and possibly suggests some limitations. First, the present study offered only six singular options for race, which negates any chance for those identifying as multi-ethnic. Second, the analysis was limited to White and non-White perceptions of abusive supervision, which may have led to a broad generalization of race and abuse perceptions. Third, race was not delineated according to nationality, ethnicity, and cultural values. Results could have been confounded if a person identified as Asian but has lived in the United States their entire life, thus not adhering to the Confucian cultural norms discussed in extant literature (Vogel et al., 2015, Zhang & Liu, 2018). Finally, because abusive supervision is a subordinate perception of supervisor behaviors, it is not clear whether it is a function of perceiver perception or is initiated by perceiver characteristics. For example, a subordinate with primarily Asian and African American ethnicity may be treated differently by different supervisors, depending on how the supervisor perceives the subordinate's race (e.g., relying on visible surface dissimilarity such as skin tone).

Lack of support for the demographic hypotheses may also be due to overarching issues with respect to intersectionality (Crenshaw, 1989; Crenshaw, 1990). Stated explicitly, the demographic categories used may have been too broad; future studies may require a finer degree of intersectionality. For example, if women genuinely perceive less abusive supervision, but non-Whites perceive more, intersectionality suggests that there may be confounding results as combinations of race and gender are considered among subordinates. Moreover, this intersectionality issue could undoubtedly be extended to supervisory perceptions of subordinates and the resulting behaviors.

I examined the role of the propensity to perceive abusive supervision; specifically, I utilized the WUSI scale developed by Harvey et al. (2016) as an indicator of this attitudinal predisposition. The WUSI scale was developed, in part, to address the fact that some abusive supervision researchers had begun to interpret their results as objective rankings, even though abusive supervision is a subjective assessment (Harvey et al., 2016; Martinko et al., 2013; Tepper 2000; Tepper 2007). Further, the WUSI scale allows researchers to address subordinates prone to negative affective states and their tendency to perceive even fundamental supervisor feedback as abusive. The present study is the first to go beyond the original development of the scale by examining its relationship with subordinate perceptions of abusive supervision. I did so by obtaining a more robust sample and investigating WUSI's relationship with subordinate characteristics. Previous research has called for further validation of the WUSI scale; the present study contributes to the literature by conducting such a validation, with my findings suggesting that WUSI accomplished its goal.

Finally, of the three WUSI traits, Insecurity was found to have the greatest association with perceptions of abusive supervision, which the authors included “to capture the extent to

which individuals are put on alert by critical feedback" (Harvey et al., 2016, p. 194). Insecurity speaks to perceptions of abusive supervision being related to actual subordinate predisposition rather than a supervisory action. Further, supervision requires communication with subordinates that, at times, may include negative feedback. A subordinate with a higher level of insecurity may perceive any negative feedback as abusive behavior by the supervisor. Perceptions of abusive supervision can also be triggered by hypervigilance to criticism, which is often found in conditions such as panic disorder (Chan & McAllister, 2014). In keeping with victim precipitation theory, a mercurial subordinate with a high level of insecurity could annoy the supervisor, leading to a continual cycle of perceived abuse.

It remains unclear if insecurity causes the subordinate to feel abuse or causes the supervisor to abuse; this is where the other two WUSI traits could provide insight into these possibilities. Umbrageous Sensitivity was included in the WUSI scale to address minor abusive behaviors (Harvey et al., 2016). Insecurity and umbrageous sensitivity are indicative of a subordinate who perceives even small affronts negatively. This is not enough evidence, however, to suggest that this would provoke a supervisor to exhibit abusive behaviors. A subordinate predisposed to insecurity and umbrageous sensitivity may internalize their feelings and maintain a neutral, outward appearance. Waspishness, however, may be the key to determining if WUSI bridges the gap between subordinate characteristics causing the abuse or if it is purely perceptual. A waspish person is eagerly angered and prone to retaliation (Harvey et al., 2016), which may include yelling at their supervisor. Outward aggression by the subordinate may necessitate a verbal reprimand in public, which may be perceived as abusive. By definition, waspishness is an outward behavioral response to supervisor behavior, while the other two traits could be easily concealed.

Additionally, all the WUSI traits were positively correlated with neuroticism and negative affectivity and negatively related to positive affectivity, as shown in Table 12 (Appendix E). It is one thing if a subordinate is pessimistic, overly sensitive, and emotionally unstable; it is quite another when this subordinate behaves aggressively towards the supervisor or organization (e.g., CWB). By analyzing supervisor-subordinate dyads, future researchers should investigate subordinate waspishness and the supervisor's perception of subordinates who exhibit this characteristic. This could provide insight into situations where the subordinate's propensity to perceive abuse is causing the supervisor to behave in an abusive manner. Many studies have examined the negative consequences for subordinates who perceive abusive supervision: problem drinking (Bamberger & Bacharach, 2006), workplace deviance (Mitchell & Ambrose, 2007), psychological stress (Tepper et al., 2007), CWB (An & Wang, 2016), and ego depletion (Mackey, Brees, McAllister, Zorn, Martinko, Harvey, 2018). Investigating whether waspish subordinates allow this anger to manifest into increased adverse outcomes may prove to be invaluable for researchers and practitioners.

I examined the unique and relative contribution of each set of subordinate characteristics with respect to perceptions of abusive supervision by conducting a dominance weights analysis (Azen & Budescu, 2003; Budescu, 1993, Johnson, 2000; Johnson & LeBreton, 2004) to address potential overlapping among the predictors. Results indicate that the predisposition to perceive abuse as reflected in the three WUSI scales was clearly the dominant predictor of abusive supervision perceptions, with an influencing factor over three times larger (i.e., rescaled dominance, 59%) than that of the next most influential predictor (PANAS scales, 19%). Moreover, results suggest that demographics played only a minor role in explaining the variance in subordinate perceptions of abusive supervision.

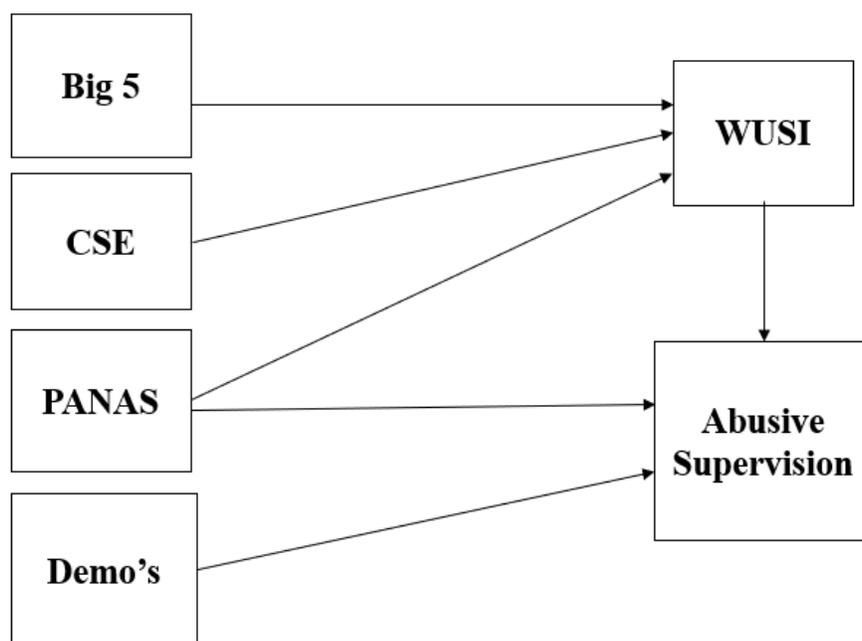
Additionally, results indicate a relatively large degree of overlap among the predictors. Examining the unique proportion of variance that each characteristic set provided indicated that only WUSI and PANAS accounted for any significant variance over and above the other characteristics. This is not surprising, since the set of attitudes and predispositions reflected in the WUSI scales are, to some extent, a function of the perceiver's differences. Perceiver characteristics such as personality and CSE likely drive a predisposition to perceive abuse, which drives perceptions of abusive supervision.

While examining such a mediational model is beyond the scope of the present study (and precluded by the current study design), I examined the extent to which perceiver characteristics predict WUSI scores. Results indicate that the other characteristics accounted for approximately 42% of the WUSI scores variance, as shown in Table 14 (Appendix E). Interestingly, positive affectivity was a significant predictor of WUSI total scores but not of abusive supervision. In addition, I examined the extent to which the other subordinate personality characteristics predicted subordinate perceptions of abusive supervision after controlling for the WUSI scores, as shown in Table 10 (Appendix E). Here, results indicate that none of the variables were related to subordinate perceptions of abusive supervision except for PANAS. This relationship between WUSI and PANAS is consistent with previous research, as shown in Table 9 (Appendix E).

Finally, I ran a post-hoc analysis of H7 and controlled for WUSI while regressing abusive supervision onto demographics, Big Five, CSE, and PANAS, as shown in Table 15 (Appendix E) and Figure 2 (below). Only demographics remained non-significant; the Big Five and CSE showed some independent variance with respect to perceptions of abusive supervision. These results are consistent with a model in which predispositions fully mediate the effects of personality on abusive supervision, and WUSI partially mediates the effects of PANAS. More to

the point, this suggests that WUSI is a more proximal predictor of abusive supervision while personality more directly impacts predispositions (WUSI).

**Figure 2 WUSI Mediation Model**



### **Additional Future Research**

An ideal addition would be to collect data from supervisor-subordinate dyads to provide a more robust understanding of the balance between supervisor actions and subordinate perceptions. Having self-reported supervisor characteristics (e.g., leadership style, personality characteristics, experience, etc.) and self-reported supervisor perceptions of the subordinate would aid in explaining the duality of abusive supervision (i.e., supervisor behaviors and subordinate perceptions being influenced by subordinate characteristics), as diagramed in Figure 1. Also, data from multiple subordinates reporting to the same supervisor would offer insight into two possibilities. First, identical supervisor behavior directed at different subordinates with

different characteristics could provide a better understanding of whether specific personalities are more prone to perceive abuse. Second, and from the reversing-the-lens standpoint (Shamir, 2007), specific subordinate characteristics and behaviors could influence supervisory behavior. From an LMX perspective, this is a very plausible possibility such that dyads sharing similar agreeableness and CSE may form stronger bonds (Sears & Hackett, 2011).

Relative to the WUSI scale, it is worth noting that four of the five Insecurity questions contain the term “my boss.” The remaining statements take a much more general approach, using phrases such as “from a manager.” Two issues could arise from this wording. First, these questions might overlap with the abusive supervision questions such that they are not as distal to Tepper’s (2000) scale as questions focusing on the respondent’s general feelings. Second, the phrase “my boss” may prime the subordinate to more closely associate the supervisor with abuse than do the other questions and the other characteristics used in this study. Both potential issues should be examined by future researchers to determine if the Insecurity scale is merely a duplication of the abusive supervision scale and if removal of “my boss” changes the correlation between the two constructs.

### **Additional Limitations**

The present study's primary limitation was its sole reliance on same-source, self-report, and cross-sectional data (Hair, Black, Babin, Anderson & Tatham, 1998, Podsakoff et al., 2003). Future research should consider utilizing various data collection techniques (e.g., in-person interview, diary, etc.), as well as collecting data from the same respondents over time (longitudinal study) to assess changes in subordinates’ perceptions of their supervisors (Schyns & Schilling, 2013). Employing these techniques could help identify overlaps between

subordinate moods and traits. This raises concerns with respect to potential common method bias. Several factors mitigate these concerns. First, I performed CFA to examine the extent to which a single factor could explain my findings. Results indicate that a single factor did not fit the data. Second, I controlled for SDR and found that this did not change the pattern of the results, suggesting that the findings are relatively robust despite potential same source bias. Nevertheless, I also found that SDR accounted for some variance in perceptions of abusive supervision. This could simply be a source of bias or, and more to the nature of this study, it may be that SDR is related to personality.

### **Implications for Practice**

Hypothesis 1a received partial support (i.e., subordinate gender influences perceptions of abusive supervision) and H1c received full support (i.e., subordinate age influences perceptions of abusive supervision). As workforce demographics continue to diversify, being conscious of these differences could avoid legal issues surrounding disgruntled employees, with evidence suggesting that leaders can adapt. Öztürk and İkiler (2021) found varied leadership styles among different generations and that leaders can adapt their styles based upon subordinates' generational differences. While not justifying external blame attribution (Bowling & Beehr, 2006; Gudjonsson & Singh, 1989; Wang, Bowling, Tian, Alarcon & Kwan, 2018) aimed at the subordinate, addressing the fact that some subordinates either perceive or elicit abuse should encourage human resource managers to provide a more inclusive training program for supervisors. This augmented perspective could also be used during investigations of supervisory abuse and, consequently, when coaching supervisors to be more aware of their future

behaviors and understand that some subordinates may be predisposed to perceive rudimentary feedback as abusive.

Third, organizations should use a tool such as the WUSI scale to prescreen candidates and employees wishing to transfer to other departments. An inexperienced supervisor, high in positive affectivity and low in negative affectivity, with a Big Five profile indicating high conscientiousness and agreeableness, might find a highly negative and emotionally unstable employee annoying or disruptive. Studies have shown that subordinate behaviors can lead to perceptions of abusive supervision: interpersonal deviance (Eissa, Lester & Gupta, 2019), organizational deviance (Lian, Ferris, Morrison & Brown, 2014), and poor performance (Liang, Lian, Brown, Hanig & Keeping, 2016; Walter, Lam, Van der Vegt, Huang & Miao, 2015). Supervisors not adequately trained in handling dynamic teams might be perceived as exhibiting several of the Tepper (2000) scale artifacts: ignores the subordinate (“Gives me the silent treatment”); complains to Human Resources about the subordinate (“Makes negative comments about me to others”); and during daily feedback (“Reminds me of my past mistakes”).

## **Conclusion**

Destructive leadership has been gaining considerable research interest since its introduction (Popper, 2001). Studies on abusive supervision have found pernicious impacts on the subordinate, the supervisor, and the organization. Since abusive supervision is the objective measure of subjective subordinate perceptions of supervisory behavior, more research is needed to understand why perceptions vary. Few, if any, studies, however, have examined the collective impact these characteristics have on perceptions of abuse; instead, they have focused on investigating these characteristics individually or as moderators.

This study found that specific subordinate personality characteristics are correlated to perceptions of abusive supervision and that they collectively explain 47% of the variance. By employing dominance analysis, the WUSI scale (Harvey et al., 2016) clearly explains most of this variance (59%), over and above other subordinate personality trait studies. Further, the WUSI scale may be more proximal to abusive supervision than the other traits. Finally, this study suggests that perceptual biases may reduce historically reported findings by controlling for SDR.

This study contributes to the abusive supervision literature theoretically and methodologically with its collective findings and the use of dominance weights analysis. It also provides beneficial insights for the practitioner regarding how some subordinates may perceive supervisors based upon subordinate personality characteristics. This can aid human resource managers, supervisors, subordinates, and others in the workplace to identify potential problems in supervisor-subordinate dyadic relationships and during supervisor training.

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## Appendix A: Summary of Similar Non-Physical Forms of Subordinate Directed Abuse

Summary of Similar Non-Physical Forms of Subordinate Directed Abuse									
Type	Date	Authors	Supervisor Perpetrated	Perceptual	Subordinate Directed	Non-Physical	Intended as Abuse	Summary	
Abusive Supervision	2000	Tepper	Yes	Yes	Yes	Yes	No	"The sustained display of hostile verbal and non-verbal behaviors, excluding physical contact" (p. 178).	
Incivility	2001	Cortina, Magley, Williams & Langhout	Not always	Yes	Not always	Yes	No	Incivility is defined as discourteous, low-intensity behavior that is considered a mild form of psychological mistreatment and ambiguous intent	
Emotional Abuse	1998	Keashley	Yes	Yes	Yes	Yes	Yes	Both verbal and non-verbal forms of repeated behavior intended to harm recipient	
Ostracism	2007	Williams & Nida	Yes	Yes	Not always	Yes	Yes	"Being ignored and excluded by one or more others". (p. 71).	
Social Undermining	2002	Duffy, Ganster & Pagon	Yes	No	Yes	Yes	No	"Behavior intended to hinder, over time, the ability to establish and maintain positive interpersonal relationships" (p. 332)	
Petty Tyranny	1997	Ashforth	Yes	No	Yes	Yes	No	"Someone who uses their power and authority oppressively, capriciously, and perhaps vindictively" (p. 126)	
Supervisors negative interpersonal behaviors	2005	Yagil	Yes	Yes	Yes	Yes	Not always	Very similar construct to abusive supervision. Conceptualized as negative behaviors by the supervisor.	
Aversive leadership	2007	Bligh, Kohles, Pearce, Justin & Stovall; Pearce & Sims, 2002	Yes	Yes	Yes	Yes	Not always	Grounded in punishment literature (e.g. Arvey & Ivancevitch, 1980); Aversive leaders use intimidate and threaten. It has been found to have a strong, negative association with team effectiveness.	

### Appendix B: Instructions and Scales

Instructions: Please answer the following questions regarding you and your current supervisor.

Question	Variable Type	Answer Options
1. Please enter your age (in YEARS)	Subordinate Demographic; Screening	Open entry; if < 18 exit survey
2. Approximately how many YEARS have you been at your current (main) employer, SELECT 0 (zero) FOR LESS THAN 1 YEAR?	Subordinate tenure; Screening	Open entry; if < 1 year skip to end of block
3. Is your current (main) employer located in the United States of America?	Screening	Yes/No option; if No skip to end of block
4. How many hours (on average) do you currently work per week at your current (main) employer?	Screening	“Less than 30 hours per week” or “Greater or equal to 30 hours per week”; if “Less than 30 hours per week” skip to end of block
5. What gender best describes you?	Subordinate Demographic	0. Female; 1. Male; 2. Other
6. Please specify the choice that best describes YOUR race/ethnicity	Subordinate Demographic	0. White; 1. Black or African American; 2. American Indian or Alaska Native; 3. Asian 4. Native Hawaiian or Pacific Islander; 5. Hispanic or Latino; 6. Other
7. Which of the following industries most closely matches the one for your current (main) employer?	Possible future research data	1. Accommodation or food services; 2. Admin, support, waste management or remediation services; 3. Arts, entertainment or recreation; 4. Construction; 5. Educational services; 6. Finance or insurance; 7. Forestry, fishing, hunting or agricultural support; 8. Health care and social assistance; 9. Information Technology; 10. Management of companies or enterprises; 11.

		Manufacturing; 12. Mining; 13. Professional, scientific or technical services; 14. Real estate or rental and leasing; 15. Retail trade; 16. Transportation or warehousing; 17. Utilities; 18. Wholesale trade; 19. Other services (except public administration); 20. Unclassified establishments
8. Please enter the first and last initials of your current (main) supervisor	Qualtrics piped text	Open alpha entry
9. Approximately how many YEARS have you worked with your current (main) supervisor ( <i>piped text from Q8</i> ). Select 0 (zero) FOR LESS THAN 1 YEAR	Dyadic tenure	Open numeric entry
10. Please specify the gender that best describes your current (main) supervisor ( <i>piped text from Q8</i> )?	Supervisor demographic	0. Female; 1. Male; 2. Other
11. Please specify the choice that best describes the race/ethnicity of your current (main) supervisor ( <i>piped text from Q8</i> ).	Supervisor demographic	0. White; 1. Black or African American; 2. American Indian or Alaska Native; 3. Asian 4. Native Hawaiian or Pacific Islander; 5. Hispanic or Latino; 6. Other

**The Big Five Inventory (BFI)** - John, O. P. & Srivastava, S. (1999). The Big-Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of Personality: Theory and Research* (Vol. 2, pp. 102-138). New York, NY: Guilford Press.

INSTRUCTIONS: Here are a number of characteristics that may or may not apply to you. Read each statement and select the appropriate response using the scale below.

1	2	3	4	5
<b>Disagree Strongly</b>	<b>Disagree a little</b>	<b>Neither agree nor disagree</b>	<b>Agree a little</b>	<b>Agree Strongly</b>

I see **Myself** as Someone Who...

1. \_\_\_ Is talkative (E)
2. \_\_\_ Tends to find fault with others (A-)
3. \_\_\_ Does a thorough job (C)
4. \_\_\_ Is depressed, blue (N)
5. \_\_\_ Is original, comes up with new ideas (O)
6. \_\_\_ Is reserved (E-)
7. \_\_\_ Is helpful and unselfish with others (A)
8. \_\_\_ Can be somewhat careless (C-)
9. \_\_\_ Is relaxed, handles stress well (N-)
10. \_\_\_ Is curious about many different things (O)
11. \_\_\_ Is full of energy (E)
12. \_\_\_ Starts quarrels with others (A-)
13. \_\_\_ Is a reliable worker (C)
14. \_\_\_ Can be tense (N)
15. \_\_\_ Is ingenious, a deep thinker (O)
16. \_\_\_ Generates a lot of enthusiasm (E)
17. \_\_\_ Has a forgiving nature (A)

18. \_\_\_ Tends to be disorganized (C-)
19. \_\_\_ Worries a lot (N)
20. \_\_\_ Has an active imagination (O)
21. \_\_\_ Tends to be quiet (E-)
22. \_\_\_ Is generally trusting (A)
23. \_\_\_ Tends to be lazy (C-)
24. \_\_\_ Is emotionally stable, not easily upset (N-)
25. \_\_\_ Is inventive (O)
26. \_\_\_ Has an assertive personality (E)
27. \_\_\_ Can be cold and aloof (A-)
28. \_\_\_ Perseveres until the task is finished (C)
29. \_\_\_ Can be moody (N)
30. \_\_\_ Values artistic, aesthetic experiences (O)
31. \_\_\_ Is sometimes shy, inhibited (E-)
32. \_\_\_ Is considerate and kind to almost everyone (A)

***Please select Agree Strongly to show you read this question*** – Attention check item

33. \_\_\_ Does things efficiently (C)
34. \_\_\_ Remains calm in tense situations (N-)
35. \_\_\_ Prefers work that is routine (O-)
36. \_\_\_ Is outgoing, sociable (E)
37. \_\_\_ Is sometimes rude to others (A-)
38. \_\_\_ Makes plans and follows through with them (C)
39. \_\_\_ Gets nervous easily (N)
40. \_\_\_ Likes to reflect, play with ideas (O)
41. \_\_\_ Has few artistic interests (O-)
42. \_\_\_ Likes to cooperate (A)
43. \_\_\_ Is easily distracted (C-)
44. \_\_\_ Is sophisticated in art, music, or literature (O)

**BFI scale scoring:** “-” denotes reversed-scored items

**Positive and Negative Effectivity Scale (PANAS-GEN) – Watson, Clark & Tellegen (1988)**

Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, (54), 1063-1070.

INSTRUCTIONS: This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you GENERALLY feel this way, that is how you feel ON AVERAGE.

Use the following scale to record your answers.

1	2	3	4	5
<b>Very slightly or not at all</b>	<b>A little</b>	<b>Moderately</b>	<b>Quite a bit</b>	<b>Extremely</b>

1. \_\_\_ Interested (PA)
2. \_\_\_ Distressed (NA)
3. \_\_\_ Excited (PA)
4. \_\_\_ Upset (NA)
5. \_\_\_ Strong (PA)
6. \_\_\_ Guilty (NA)
7. \_\_\_ Scared (NA)
8. \_\_\_ Hostile (NA)
9. \_\_\_ Enthusiastic (PA)
10. \_\_\_ Proud (PA)
11. \_\_\_ Irritable (NA)
12. \_\_\_ Alert (PA)
13. \_\_\_ Ashamed (NA)
14. \_\_\_ Inspired (PA)
15. \_\_\_ Nervous (NA)
16. \_\_\_ Determined (PA)
17. \_\_\_ Attentive (PA)
18. \_\_\_ Jittery (NA)
19. \_\_\_ Active (PA)
20. \_\_\_ Afraid (NA)

**Core self-evaluations Scale (CSES) – Judge, Erez, Bono & Thoresen (2003).** The Core self-evaluations Scale (CSES): Development of a Measure. *Personnel Psychology*, 56, 303-331.

INSTRUCTIONS: Below are several statements about you with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

Use the following scale to record your answers.

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>

1. \_\_\_\_ I am confident I get the success I deserve in life.
2. \_\_\_\_ Sometimes I feel depressed. (-)
3. \_\_\_\_ When I try, I generally succeed.
4. \_\_\_\_ Sometimes when I fail I feel worthless. (-)
5. \_\_\_\_ I complete tasks successfully.
6. \_\_\_\_ Sometimes, I do not feel in control of my work. (-)
7. \_\_\_\_ Overall, I am satisfied with myself.
8. \_\_\_\_ I am filled with doubts about my competence. (-)
9. \_\_\_\_ I determine what will happen in my life.
10. \_\_\_\_ I do not feel in control of my success in my career. (-)
11. \_\_\_\_ I am capable of coping with most of my problems.
12. \_\_\_\_ There are times when things look pretty bleak and hopeless to me. (-)

**CSES scale scoring:** “-” denotes reversed-scored items

**Waspishness – Umbrageous Sensitivity – Insecurity (WUSI) – Harvey, Butler & Brees (2016).** Propensity to Perceive Abusive Supervision: Development of an Affective Trait-Based Measure. *Academy of Management Annual Meeting Proceedings, 2015(1)*, 1–1.  
<https://doi.org/10.5465/AMBPP.2015.12482abstract>

INSTRUCTIONS: Below are several statements about you with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

Use the following scale to record your answers.

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>

1. \_\_\_\_ I am generally quick to anger when someone criticizes me. (W1)
  2. \_\_\_\_ I can be spiteful toward those who insult me. (W2)
  3. \_\_\_\_ Even minor insults make me angry. (W3)
  4. \_\_\_\_ When someone insults me I tend to stay angry for a long time. (W4)
  5. \_\_\_\_ It takes me a long time to calm down after someone makes me angry. (W5)
- Please select Neutral to show you read this question*** – Attention check item.
6. \_\_\_\_ When a manager criticizes me I take it personally. (US1)
  7. \_\_\_\_ I have been known to hold a grudge against managers who criticize me. (US2)
  8. \_\_\_\_ I have been told that I take criticism too personally. (US3)
  9. \_\_\_\_ There have been times when I took criticism from a manager too personally. (US4)
  10. \_\_\_\_ My feelings are easily hurt. (US5)
  11. \_\_\_\_ I often feel like my boss criticizes me about my performance. (I1)
  12. \_\_\_\_ I often feel as if I am being criticized by my boss during performance evaluations/reviews (I2).
  13. \_\_\_\_ I feel my boss does not think I am a high performer. (I3)
  14. \_\_\_\_ I often feel scared of my boss. (I4)
  15. \_\_\_\_ I often feel as if I am going to be fired. (I5)

**Social Desirability – Strahan, R. & Gerbasi, K. C. (1972).** Short, homogeneous versions of the Marlow-Crow Social Desirability Scale. *Journal of Clinical Psychology*, 28(2), 191-193.  
[https://doi.org/10.1002/1097-4679\(197204\)28:2<191::AID-JCLP2270280220>3.0.CO;2-G](https://doi.org/10.1002/1097-4679(197204)28:2<191::AID-JCLP2270280220>3.0.CO;2-G)

INSTRUCTIONS: Below are several statements about you with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

Use the following scale to record your answers.

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>

1. \_\_\_\_ I'm always willing to admit it when I make a mistake.
2. \_\_\_\_ I always try to practice what I preach.
3. \_\_\_\_ I never resent being asked to return a favor.
4. \_\_\_\_ I have never been irked when people expressed ideas very different from my own.

***If you have read this question, please select Disagree*** – Attention check question.

5. \_\_\_\_ I have never deliberately said something that hurt someone's feelings.
6. \_\_\_\_ I like to gossip at times. (-)
7. \_\_\_\_ There have been occasions when I took advantage of someone. (-)
8. \_\_\_\_ I sometimes try to get even rather than forgive and forget. (-)
9. \_\_\_\_ At times I have really insisted on having things my own way. (-)
10. \_\_\_\_ There have been occasions when I felt like smashing things. (-)

**Social Desirability scale scoring:** “-” denotes reversed-scored items.

**Abusive Supervision – Tepper (2000).** Consequences of Abusive Supervision. *Academy of Management Journal*, 43(2), 178–190. <https://doi.org/10.2307/1556375>

Below are several statements about you with which you may agree or disagree about your boss (Qualtrics will enter first and last initial provided by respondent in Demographics section). Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

Use the following scale to record your answers.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>I cannot remember him/her ever using this behavior with me</b>	<b>He/she very seldom uses this behavior with me</b>	<b>He/she occasionally uses this behavior with me</b>	<b>He/she uses this behavior moderately often with me</b>	<b>He/she uses this behavior very often with me</b>

My boss (first and last initial)

1. \_\_\_\_ Ridicules me.
2. \_\_\_\_ Tells me my thoughts or feelings are stupid.
3. \_\_\_\_ Gives me the silent treatment.
4. \_\_\_\_ Puts me down in front of others.
5. \_\_\_\_ Invades my privacy.
6. \_\_\_\_ Reminds me of my past mistakes and failures.
7. \_\_\_\_ Doesn't give me credit for jobs requiring a lot of effort.
8. \_\_\_\_ Blames me to save himself/herself embarrassment.
9. \_\_\_\_ Breaks promises he/she makes.
10. \_\_\_\_ Expresses anger at me when he/she is mad for another reason.
11. \_\_\_\_ Makes negative comments about me to others.
12. \_\_\_\_ Is rude to me.
13. \_\_\_\_ Does not allow me to interact with my coworkers.
14. \_\_\_\_ Tells me I'm incompetent.
15. \_\_\_\_ Lies to me.

## Appendix C: Cover Letters and Informed Consent Notification

Respondents are recruited by Qualtrics and would complete the survey using the Qualtrics (XM)<sup>TM</sup> software. All candidates were presented with the cover letter and consent below during the recruitment process. Additionally, upon commencing the survey, all respondents will be presented with the cover letter and consent and must select agree. If a respondent selects disagree they will be immediately exited from the survey. Respondents are encouraged to take a “screen shot” the cover letter and consent.

### Cover Letter and Consent

*You are being invited to participate in this research study and your participation is completely voluntary. The information that you are provided below is given so that you can decide if you wish to participate. This information is being collected by Brooks T. Durham for support of a dissertation research project for the Belk College of Business at the University of North Carolina - Charlotte; under the direction of Dr. David J. Woehr. Your participation is voluntary, and your responses will be completely anonymous and confidential. This study was approved by the University of North Carolina - Charlotte Institutional Review Board (IRB) on July 13, 2020 (Study #: 19-0787). This study will not collect any identifiable personal information and all the data collected will be for research purposes only. I thank you for your participation.*

*\* The purpose of this study is to examine individuals' perceptions of supervision in the workplace.*

*\* You must be 18 years or older to participate.*

- \* *You must be an employed, full-time working adult (> 30 hours/per week) and have been employed by this firm for at least 12 months.*
- \* *You will be discussing your thoughts on your current (main) supervisor.*
- \* *Your current (main) employer must be located in the United States of America.*
- \* *You are being asked to complete this survey by answering a series of questions about your description of yourself; your feelings and emotions; and perception of your current (main) supervisor.*
- \* *This survey will take approximately 15 minutes to complete.*
- \* *We do not believe that you will experience any risks by participating in this study.*
- \* *No benefits are being offered in exchange for your participation in this study, aside from any compensation due from Qualtrics.*

*Your privacy will be protected, and all confidentiality will be preserved to the highest possible extent. All your responses will be kept confidential and will not be attached to any personally identifiable information. This survey data may be used in future studies without additional consent from you. Your participation is voluntary. You may opt to not participate in this study (below). Also, you may opt out of participation at any time after you begin the survey.*

*If you have any questions about your rights as a participant in this study, please feel free to contact the Office of Research Compliance (UNCC) at (704) 687-1871 or [www.uncc-irb@uncc.edu](mailto:www.uncc-irb@uncc.edu)*

*You are permitted and encouraged to print out this form. If you are 18 years of age or older and have reviewed and understand that your responses are being freely provided, you may proceed with this survey.*

***To continue with the survey, please select "Yes, I consent" (below)***

## Appendix D: Power Analysis and Results

The A-Priori Sample Size Calculator for Multiple Regression was used to ensure a power level of .933. A sample size of 300 participants will ensure this power level.

The screenshot shows a web browser window with the URL `danielsoper.com/statcalc/calculator.aspx?id=1`. The page title is "CALCULATOR: A-PRIORI SAMPLE SIZE FOR MULTIPLE REGRESSION". The main content area is titled "A-priori Sample Size Calculator for Multiple Regression" and includes the following text: "This calculator will tell you the minimum required sample size for a multiple regression study, given the desired probability level, the number of predictors in the model, the anticipated effect size, and the desired statistical power level. Please enter the necessary parameter values, and then click 'Calculate'." The input fields are: "Anticipated effect size (f<sup>2</sup>): .1", "Desired statistical power level: .933", "Number of predictors: 19", and "Probability level: 0.05". A "Calculate!" button is present, and the result is displayed as "Minimum required sample size: 300".

The 19 predictors were calculated using these variables:

### **Predictor Calculation**

Demographics = 8 predictors

Big Five Personality = 5 predictors

Negative Affectivity = 1 predictor

Positive Affectivity = 1 predictor

Core Self-Evaluation = 1 predictor

WUSI = 3 predictors

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Total Predictors = 19 predictors

## Appendix E: All Tables

### Table 1: Pilot Study Results

Scale	Mean	Std. Dev	N	$\alpha$
1. Abusive Supervision	20.17	10.71	30	.962
2. Social Desirability	33.57	5.15	30	.693
3. Age Subordinate	39.83	11.97	30	-
4. Tenure with Organization	9.43	9.39	30	-
5. Gender of Subordinate	0.60	0.50	30	-
6. Race of Subordinate	0.17	0.46	30	-
7. Industry	8.60	4.07	30	-
8. Tenure of Dyad	7.27	9.04	30	-
9. Gender of Supervisor	0.73	0.45	30	-
10. Race of Supervisor	0.10	0.31	30	-
11. Big Five openness	36.20	3.81	30	.439
12. Big Five conscientiousness	36.93	5.69	30	.849
13. Big Five extraversion	26.10	4.77	30	.629
14. Big Five agreeableness	35.70	5.25	30	.729
15. Big Five Neuroticism	18.70	5.53	30	.791
16. Core Self-Evaluation	45.03	7.18	30	.835
17. Positive Affectivity	39.37	6.29	30	.865
18. Negative Affectivity	20.40	7.29	30	.900
19. WUSI Waspishness	15.90	5.82	30	.882
20. WUSI Umbrageous Sensitivity	16.37	5.88	30	.845
21. WUSI Insecurity	12.83	5.65	30	.883

**Table 2: Response Demographics**

<b>Variable</b>	<b>Demographics</b>	<b>Number</b>	<b>Percent</b>
Age Subordinate (years)	18-25	22	6.98
	26-32	57	18.10
	33-40	114	36.19
	41-48	66	20.96
	49-56	29	9.21
	57-64	23	7.30
	65-91	4	1.27
Gender Subordinate	Female	150	47.62
	Male	163	51.74
	Other Non-Binary	2	0.64
Race Subordinate	White	257	81.59
	Black or African American	29	9.21
	Amer.Indian or Native Alaskan	3	0.95
	Asian	10	3.18
	Hispanic or Latino	9	2.86
	Other	7	2.22
Tenure w/ Org. (years)	1-5	149	47.30
	6-10	89	28.25
	11-15	37	11.75
	16-20	18	5.71
	21-25	8	2.54
	26-30	7	2.22
	31+	7	2.22
Tenure w/ Supervisor (years)	0-5	211	66.98
	6-11	82	26.03
	12-17	14	4.44
	18-23	4	1.27
	23+	4	1.27
Gender Supervisor	Female	92	29.21
	Male	223	70.79

<b>Variable</b>	<b>Demographics</b>	<b>Number</b>	<b>Percent</b>
Race Supervisor	White	271	86.03
	Black or African American	27	8.58
	Amer. Indian or Native Alaskan	1	0.31
	Asian	3	0.95
	Hispanic or Latino	12	3.81
	Other	1	0.31
Industry	Accommodation/Food	9	2.86
	Admin, support, waste mgt	4	1.27
	Arts, entertainment, recreation	5	1.59
	Construction	11	3.49
	Educational services	25	7.94
	Finance or Insurance	57	18.10
	Forestry, fish, hunting, agriculture	1	0.32
	Health Care or social assistance	42	13.33
	Information Technology	71	22.54
	Management of companies	5	1.59
	Manufacturing	20	6.35
	Mining	10	3.17
	Professional, scientific, technical	4	1.27
	Real Estate	11	3.49
	Retail trade	4	1.27
	Transportation and warehousing	3	0.95
	Utilities	6	1.90
	Wholesale trade	22	6.98
	Other (except public admin)	5	1.59

**Table 3: Sample Characteristics**

	<b>Number</b>	<b>Percentage</b>
Total Qualtrics Responses	1,031	100
Less than 30 hours	(316)	30.65
Years with Company (Subordinate Tenure)	(133)	12.90
Failed 2 out of 3 Attention Checks	(111)	10.77
Did not complete	(79)	7.66
Not Paying Attention	(44)	4.27
Employer Not In USA	(11)	1.07
Test Data Pre-Qualtrics Launch	(10)	0.97
Age < 18 years	(5)	0.48
No Consent	(4)	0.39
Other	(3)	0.29
Total Eliminated by Qualtrics	(716)	95.00
Total Acceptable Qualtrics Responses	315	100.00

**Table 4: All Measures and Sets**

<b>Set</b>	<b>Measure</b>	<b># of Questions</b>	<b>Scale</b>	<b>Range</b>
Abusive Supervision	Abusive Supervision	15	1-5	15-75
Demographics and Tenure	Subordinate: gender, race, age Supervisor / Subordinate: tenure, gender, race Organization: Subordinate tenure with Org	11	n/a	n/a
Big Five Model of Personality	Openness	10	1-5	10-50
	Conscientiousness	9	1-5	9-45
	Extraversion	8	1-5	8-40
	Agreeableness	9	1-5	9-45
	Neuroticism	8	1-5	8-40
PANAS (Subordinate)	Positive Affectivity	10	1-5	10-50
	Negative Affectivity	10	1-5	10-50
CSE	Core self-evaluation	12	1-5	12-60
WUSI	Waspishness	5	1-5	5-25
	Umbrageous Sensitivity	5	1-5	5-25
	Insecurity	5	1-5	5-25
Social Desirability	Social Desirability	10	1-5	5-50

Table 5: Summary Descriptive Statistics, Zero-Order Correlations and Scale Reliabilities

Scale	Mean	Std. Dev	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1. Abusive Supervision	24.59	12.48	315	(.951)																		
2. Social Desirability	35.13	6.13	315	-.229**	(.744)																	
3. Age Subordinate	39.65	10.62	315	-.126*	-.002	-																
4. Tenure with Organization	8.60	7.66	315	-.034	.007	.554**	-															
5. Gender of Subordinate	0.52	0.50	315	.103	.149**	-.002	.074	-														
6. Race of Subordinate	0.48	1.31	315	-.067	.020	-.075	-.060	-.079	-													
7. Tenure of Dyad	5.50	5.38	315	-.009	.017	.381**	.614**	-.138*	-.113*	-												
8. Big Five Openness	37.35	5.25	315	-.044	.273**	.041	.037	.098	.020	.047	(.738)											
9. Big Five Conscientiousness	37.27	5.69	315	-.318**	.500**	.192**	.095	.098	-.008	.101	.319**	(.804)										
10. Big Five Extraversion	26.11	5.48	315	-.016	.140*	.031	-.038	.122*	.054	-.034	.304**	.283**	(.702)									
11. Big Five Agreeableness	36.85	5.31	315	-.314**	.584**	.065	.010	.003	.037	.024	.366**	.664**	.302**	(.737)								
12. Big Five Neuroticism	19.74	6.60	315	.266**	-.560**	-.151**	-.039	-.187**	.059	-.141*	-.334**	-.620**	-.392**	-.564**	(.822)							
13. Core Self-Evaluation	44.30	7.69	315	-.325**	.459**	.163**	-.006	.154**	-.001	.135*	.310**	.608**	.351**	.518**	.710**	(.837)						
14. Positive Affectivity	39.62	7.41	315	-.022	.351**	-.024	-.048	.293**	.006	.104	.457**	.516**	.404**	.483**	.553**	.591**	(.883)					
15. Negative Affectivity	19.39	7.49	315	.402**	-.456**	-.164**	-.042	-.077	-.019	-.095	-.231**	-.528**	-.248**	-.518**	.618**	-.608**	-.416**	(.884)				
16. Wusi Waspsishness	16.11	6.57	315	.345**	-.559**	-.014	.076	-.079	.065	-.009	-.230**	-.385**	-.184**	-.473**	.472**	-.449**	-.265**	.440**	(.893)			
17. Wusi Unbrageous Sensitivity	16.27	6.40	315	.416**	-.569**	-.007	.071	-.186**	-.092	-.010	-.181**	-.423**	-.196**	-.463**	.509**	-.498**	-.307**	.452**	.691**	(.855)		
18. Wusi Insecurity	12.74	6.32	315	.640**	-.319**	-.167**	-.042	.049	-.030	-.024	-.086	-.374**	-.056	-.369**	.325**	-.434**	-.142*	.424**	.488**	.574**	(.882)	

\* Correlation is significant at the 0.05 level (2-Tailed)

\*\* Correlation is significant at the 0.01 level (2-Tailed)

Entries along diagonal (in parenthesis) are coefficient alphas



**Table 6: Regression Equations and Output**

*(H1) Collectively, subordinate demographic (SBD) and tenure (SBT) characteristics will account for a significant proportion of the variance in subordinate perceptions of abusive supervision (AS).*

1.  $AS = SBD + SBT$

2.  $AS = SDR + (SBD + SBT)$

H1	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 Demo/Tenure	0.175	0.031	0.015	12.420	0.031	1.948	5	307	0.086

H1	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.235	0.055	0.052	12.182	0.055	18.192	1	311	0.000
2 Demo/Tenure	0.306	0.094	0.076	12.030	0.038	2.595	5	306	0.026

*(H1a) Perceptions of abusive supervision (AS) will differ based on subordinate gender (SBG) such that women will report less perceptions of abusive supervision.*

3.  $AS = SBG$

4.  $AS = SDR + (SBG)$

H1a	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 GenderSub	0.103	0.011	0.007	12.467	0.011	3.313	1	311	0.070	0.103

H1a	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.235	0.055	0.052	12.182	0.055	18.192	1	311	0.000	-0.235
2 GenderSub	0.273	0.075	0.069	12.076	0.019	6.489	1	310	0.011	0.141

*(H1b) Perceptions of abusive supervision (AS) will differ based on subordinate race (SBR), such that non-white subordinates will report increased perceptions of abusive supervision.*

5.  $AS = SBR$

6.  $AS = SDR + (SBR)$

H1b	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 RaceSub	0.053	0.003	0.000	12.484	0.003	0.891	1	313	0.346	-0.053

H1b	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 RaceSub	0.233	0.054	0.048	12.177	0.002	0.619	1	312	0.432	-0.043

(H1c) Subordinate age (SBA) will be negatively related to perceptions of abusive supervision (AS) such that older subordinates will perceive their supervisor's behaviors as less abusive.

7. AS = SBA

8. AS = SDR + (SBA)

H1c	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 AgeSub	0.126	0.016	0.013	12.403	0.016	5.016	1	313	0.026	-0.126

H1c	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 AgeSub	0.261	0.068	0.062	12.087	0.016	5.312	1	312	0.022	-0.126

(H1d) Supervisor/Subordinate tenure (SST) will be positively related to perceptions of abusive supervision such that higher levels of abusive supervision (AS) will be reported in the longer-tenured supervisor/subordinate dyads.

9. AS = SST

10. AS = SDR + (SST)

H1d	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 TenureDyad	0.009	0.000	-0.003	12.501	0.000	0.027	1	313	0.870	-0.009

H1d	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 TenureDyad	0.229	0.052	0.046	12.189	0.000	0.009	1	312	0.923	-0.005

(H1e) Tenure of the supervisor-subordinate (SST) dyad will account for a unique proportion of the variance in perceptions of abusive supervision (AS) over and above that of subordinate age (SBA).

11. AS = SBA + (SST)

12. AS = SDR + (SBA) + (SST)

H1e	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 AgeSub	0.126	0.016	0.013	12.403	0.016	5.016	1	313	0.026
2 TenureDyad	0.132	0.018	0.011	12.411	0.002	0.554	1	312	0.457

H1e	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
2 AgeSub	0.261	0.068	0.062	12.087	0.016	5.312	1	312	0.022
3 TenureDyad	0.265	0.070	0.061	12.093	0.002	0.713	1	311	0.399

*(H2) Match between supervisor and subordinate demographic characteristics (MDD) will account for a significant proportion of the variance in subordinate perceptions of abusive supervision (AS).*

**13. AS = MDD**

**14. AS = SDR + (MDD)**

H2	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
<b>1 Race Gender Match</b>	0.092	0.008	0.002	12.469	0.008	1.322	2	312	0.268

H2	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
<b>1 SDR</b>	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
<b>2 Race Gender Match</b>	0.249	0.062	0.053	12.148	0.009	1.564	2	311	0.211

*(H2a) Gender match between supervisor and subordinate (MDG) will be negatively related to perceptions of abusive supervision such that same-gender supervisor/subordinate dyads will report lower levels of abusive supervision (AS).*

**15. AS = MDG**

**16. AS = SDR + (MDG)**

H2a	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 Gender Match</b>	0.063	0.004	0.001	12.476	0.004	1.259	1	313	0.263	0.063

H2a	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 SDR</b>	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
<b>1 Gender Match</b>	0.237	0.056	0.050	12.164	0.004	1.305	1	312	0.254	0.063

*(H2b) Race match between supervisor and subordinate (MDR) will be negatively related to perceptions of abusive supervision (AS) such that lower levels of abusive supervision will be reported in the same race supervisor/subordinate dyads.*

**17. AS = MDR**

**18. AS = SDR + (MDR)**

H2b	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 Race Match</b>	0.072	0.005	0.002	12.469	0.005	1.638	1	313	0.202	0.072

H2b	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 SDR</b>	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.231
<b>2 Race Match</b>	0.242	0.059	0.053	12.148	0.006	2.114	1	312	0.147	0.08

*(H3) Collectively, subordinate personality characteristics (as reflected in the Big Five personality traits) (SBF) will account for a significant proportion of the variance in subordinate perceptions of abusive supervision (AS).*

**19. AS = SBF**

**20. AS = SDR + (SBF)**

H3	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
<b>1 Bfi</b>	0.379	0.144	0.130	11.642	0.144	10.385	5	309	0.000

H3	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
<b>1 SDR</b>	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
<b>2 Bfi</b>	0.379	0.144	0.127	11.661	0.092	6.586	5	308	0.000

*(H3a) Subordinate conscientiousness (SBFC) will be negatively related to perceptions of abusive supervision such that subordinates with higher conscientiousness traits will be report lower levels of perceptions of abusive supervision (AS).*

**21. AS = SBFC**

**22. AS = SDR + (SBFC)**

H3a	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 BfiC</b>	0.318	0.101	0.099	11.851	0.101	35.335	1	313	0.000	-0.318

H3a	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 SDR</b>	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
<b>2 BfiC</b>	0.328	0.108	0.102	11.827	0.056	19.435	1	312	0.000	-0.272

*(H3b) Subordinate extraversion (SBFE) will be negatively related to perceptions of abusive supervision such that subordinates with higher extraversion traits will report lower levels of perceptions of abusive supervision (AS).*

**23. AS = SBFE**

**24. AS = SDR + (SBFE)**

H3b	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 BfiE</b>	0.016	0.000	-0.003	12.500	0.000	0.077	1	313	0.782	-0.016

H3b	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 SDR</b>	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
<b>2 BfiE</b>	0.229	0.053	0.047	12.188	0.000	0.090	1	312	0.765	0.017

*(H3c) Subordinate agreeableness (SBFA) will be negatively related to perceptions of abusive supervision such that subordinates with higher agreeableness traits will report lower levels of perceptions of abusive supervision (AS).*

**25. AS = SBFA**

**26. AS = SDR + (SBFA)**

H3c	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 BfiA</b>	0.314	0.099	0.096	11.867	0.099	34.344	1	313	0.000	-0.314

H3c	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 SDR</b>	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
<b>2 BfiA</b>	0.319	0.102	0.096	11.866	0.050	17.245	1	312	0.000	-0.274

*(H3d) Subordinate Neuroticism (SBFN) will be positively related to perceptions of abusive supervision such that subordinates with higher Neuroticism traits will report higher levels of perceptions of abusive supervision (AS).*

**27. AS = SBFN**

**28. AS = SDR + (SBFN)**

H3d	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 BfiN</b>	0.266	0.071	0.068	12.050	0.071	23.899	1	313	0.000	0.266

H3d	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
<b>1 SDR</b>	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
<b>2 BfiN</b>	0.283	0.080	0.074	12.009	0.028	9.441	1	312	0.002	0.201

*(H4) Collectively subordinate Negative and Positive Affectivity (SBPANA) will account for a significant proportion of the variance in subordinate perceptions of abusive supervision (AS).*

**29. AS = SBPANA**

**30. AS = SDR + (SBPANA)**

H4	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 PANAS	0.432	0.187	0.182	11.291	0.187	35.869	2	312	0.000

H4	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
2 PANAS	0.441	0.194	0.186	11.259	0.142	27.365	2	311	0.000

*(H4a) Subordinate Negative Affectivity (SBNA) will be positively related to perceptions of abusive supervision such that subordinates with higher negative affectivity traits will be report higher levels of perceptions of abusive supervision (AS).*

**31. AS = SBNA**

**32. AS = SDR + (SBNA)**

H4a	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 NA	0.402	0.161	0.159	11.448	0.161	60.269	1	313	0.000	0.402

H4a	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 NA	0.405	0.164	0.159	11.448	0.112	41.716	1	312	0.000	0.376

*(H4b) Subordinate Positive Affectivity (SBPA) will be negatively related to perceptions of abusive supervision such that subordinates with positive affectivity traits will be report lower levels of perceptions of abusive supervision (AS).*

**33. AS = SBPA**

**34. AS = SDR + (SBPA)**

H4b	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 PA	0.022	0.000	-0.003	12.499	0.000	0.152	1	313	0.697	-0.022

H4b	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 PA	0.237	0.056	0.050	12.165	0.004	1.281	1	312	0.259	0.066

*(H5) Subordinate Core self-evaluation (SBCSE) will be negatively related to perceptions of abusive supervision such that subordinates with higher core self-evaluation will report lower levels of perceptions of abusive supervision (AS).*

**35. AS = SBCSE**

**36. AS = SDR + (SBCSE)**

H5	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 CSE	0.325	0.105	0.102	11.825	0.105	36.846	1	313	0.000	-0.325

H5	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 CSE	0.337	0.113	0.108	11.790	0.061	21.479	1	312	0.000	-0.278

*(H6) Collectively subordinate Waspishness – Umbrageous Sensitivity – Insecurity will account for a significant proportion of the variance in subordinate perceptions of abusive supervision.*

**37. AS = SBWUSI**

**38. AS = SDR + (SBWUSI)**

H6	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000

H6	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
2 WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000

**39. AS = SBW**

**40. AS = SDR + (SBW)**

H6	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 Waspishness	0.345	0.119	0.116	11.734	0.119	42.312	1	313	0.000	0.345

H6	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 Waspishness	0.348	0.121	0.115	11.740	0.069	24.355	1	312	0.000	0.316

**41. AS = SBUS**

**42. AS = SDR + (SBUS)**

H6	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 Umb. Sensitive	0.416	0.173	0.170	11.368	0.173	65.537	1	313	0.000	0.416

H6	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 Umb. Sensitive	0.416	0.173	0.168	11.386	0.121	45.621	1	312	0.000	0.423

43. AS = SBI

44. AS = SDR + (SBI)

H6	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 Insecurity	.640	0.410	0.408	9.604	0.410	217.401	1	313	0.000	0.640

H6	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ	β
1 SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000	-0.229
2 Insecurity	0.641	0.411	0.407	9.614	0.358	189.603	1	312	0.000	0.632

(H7) Subordinate demographic characteristics (SBD), personality (SBF+SBPANA), Core Self-Evaluation (SBCSE), and WUSI (SBWUSI) will each account for a unique proportion of the variance in ratings of abusive supervision (AS).

45. AS = SBD + SBF + SBPANA + SBCSE + (SBWUSI)

46. AS = SDR + (SBD + SBF + SBPANA + SBCSE) + (SBWUSI)

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 All	0.525	0.274	0.249	10.857	0.274	10.313	11	301	0.000
2 WUSI	0.687	0.473	0.448	9.299	0.199	37.449	3	298	0.000

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.235	0.055	0.052	12.182	0.055	18.192	1	311	0.000
2 All	0.523	0.274	0.245	10.874	0.219	8.213	11	300	0.000
3 WUSI	0.69	0.475	0.449	9.289	0.202	38.031	3	297	0.000

47. AS = SBD + SBF + SBCSE + WUSI + (SBPANA)

48. AS = SDR + (SBD + SBF + SBCSE + WUSI) + (SBPANA)

Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 All	0.665	0.442	0.420	9.533	0.442	19.798	12	300	0.000
2 PANAS	0.687	0.473	0.448	9.299	0.031	8.650	2	298	0.000

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.235	0.055	0.052	12.182	0.055	18.192	1	311	0.000
2 All	0.666	0.444	0.420	9.534	0.388	17.397	12	299	0.000
3 PANAS	0.690	0.475	0.449	9.289	0.032	8.986	2	297	0.000

49.  $AS = SBD + SBF + SBPANA + SBWUSI + (SBCSE)$

50.  $AS = SDR + (SBD + SBF + SBPANA + SBWUSI) + (SBCSE)$

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 All	0.687	0.472	0.449	9.289	0.472	20.554	13	299	0.000
2 CSE	0.687	0.473	0.448	9.299	0.001	0.366	1	298	0.545

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.235	0.055	0.052	12.182	0.055	18.192	1	311	0.000
2 All	0.682	0.475	0.450	9.279	0.420	18.313	13	298	0.000
3 CSE	0.690	0.475	0.449	9.289	0.001	0.343	1	297	0.559

51.  $AS = SBD + SBPANA + SBCSE + SBWUSI + (SBF)$

52.  $AS = SDR + (SBD + SBPANA + SBCSE + SBWUSI) + (SBF)$

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 All	0.682	0.465	0.449	9.288	0.465	29.254	9	303	0.000
2 BfiAll	0.687	0.473	0.448	9.299	0.008	0.862	5	298	0.507

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.235	0.055	0.052	12.182	0.055	18.192	1	311	0.000
2 All	0.682	0.465	0.447	9.301	0.410	25.720	9	302	0.000
3 BfiAll	0.690	0.475	0.449	9.289	0.010	1.159	5	297	0.329

53.  $AS = SBF + SBPANA + SBCSE + SBWUSI + (SBD)$

54.  $AS = SDR + (SBF + SBPANA + SBCSE + SBWUSI) + (SBD)$

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 All	0.685	0.469	0.449	9.285	0.469	24.150	11	301	0.000
2 DemoSub	0.687	0.473	0.448	9.299	0.004	0.709	3	298	0.548

H7	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.235	0.055	0.052	12.182	0.055	18.192	1	311	0.000
2 All	0.687	0.472	0.451	9.275	0.416	21.499	11	300	0.000
3 DemoSub	0.69	0.475	0.449	9.289	0.004	0.702	3	297	0.552

(RQ1) How much total variance in perceptions of abusive supervision (AS) is accounted for by demographic characteristics (SBD), personality (SBF+SBPANA), Core self-evaluation (SBCSE), and WUSI (SBWUSI)?

55. AS = SBD + SBF + SBCSE + SBPANA + SBWUSI

56. AS = SDR + (SBD + SBF + SBCSE + SBPANA + SBWUSI)

RQ1	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 All	0.687	0.473	0.448	9.298	0.473	19.071	14	298	0.000

RQ1	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
1 SDR	0.235	0.055	0.052	12.182	0.055	18.192	1	311	0.000
2 All	.690	0.475	0.449	9.289	0.420	16.992	14	297	0.000

(RQ2) What is the relative importance of demographic characteristics, personality, Core Self-Evaluation, and WUSI for predicting perceptions of abusive supervision?

Reference Table 8 (Appendix E) for Dominance Weights Analysis calculator (Lebreton, 2003). The following R<sup>2</sup> and R<sup>2</sup> combinations were used for input.

Dominance Weight Input	Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.
X1	1 DemoSub	0.173	0.030	0.020	12.353
X2	1 BfiAll	0.379	0.144	0.130	11.642
X3	1 PANAS	0.432	0.187	0.182	11.291
X4	1 CSE	0.325	0.105	0.102	11.825
X5	1 WUSI	0.643	0.413	0.408	9.606

Dominance Weight Input	Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
X1,X2	1 DemoSub; BfiAll	0.412	0.170	0.148	11.552	0.170	7.759	8	304	0.000
X1,X3	1 DemoSub PANAS	0.448	0.201	0.188	11.279	0.201	15.423	5	307	0.000
X1,X4	1 DemoSub; CSE	0.37	0.137	0.126	11.701	0.137	12.216	4	308	0.000
X1,X5	1 DemoSub; WUSI	0.656	0.431	0.420	9.532	0.431	38.613	6	306	0.000
X2,X3	1 BfiAll; PANAS	0.494	0.244	0.227	10.976	0.244	14.149	7	307	0.000
X2,X4	1 BfiAll; CSE	0.407	0.166	0.149	11.512	0.166	10.183	6	308	0.000
X2,X5	1 BfiAll; WUSI	0.652	0.425	0.410	9.589	0.425	28.249	8	306	0.000
X3,X4	1 PANAS; CSE	0.476	0.226	0.219	11.030	0.226	30.351	3	311	0.000
X3,X5	1 PANAS; WUSI	0.672	0.452	0.443	9.315	0.452	50.948	5	309	0.000
X4,X5	1 CSE; WUSI	0.644	0.415	0.407	9.612	0.415	54.870	4	310	0.000

Dominance Weight Input	Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
X1,X2,X3	<b>1 DemoSub; BfiAll; PANAS</b>	0.505	0.255	0.230	10.978	0.255	10.339	10	302	0.000
X1,X2,X4	<b>1 DemoSub BfiAll CSE</b>	0.437	0.191	0.167	11.421	0.191	7.945	9	303	0.000
X1,X2,X5	<b>1 DemoSub BfiAll WUSI</b>	0.665	0.442	0.421	9.518	0.442	21.665	11	301	0.000
X1,X3,X4	<b>1 DemoSub PANAS CSE</b>	0.488	0.238	0.223	11.028	0.238	15.947	6	306	0.000
X1,X3,X5	<b>1 DemoSub; PANAS; WUSI</b>	0.681	0.463	0.449	9.287	0.463	32.805	8	304	0.000
X1,X4,X5	<b>1 DemoSub; CSE; WUSI</b>	0.658	0.432	0.419	9.535	0.432	33.191	7	305	0.000
X2,X3,X4	<b>1 BfiAll; PANAS; CSE</b>	0.515	0.265	0.246	10.837	0.265	13.820	8	306	0.000
X2,X3,X5	<b>1 BfiAll; PANAS; WUSI</b>	0.679	0.461	0.444	9.310	0.461	26.039	10	304	0.000
X2,X4,X5	<b>1 BfiAll; CSE; WUSI</b>	0.652	0.425	0.408	9.605	0.425	25.031	9	305	0.000
X3,X4,X5	<b>1 PANAS; CSE; WUSI</b>	0.673	0.454	0.443	9.316	0.454	42.608	6	308	0.000
X1,X2,X3,X4	<b>1 DemoSub; BfiAll; PANAS; CSE</b>	0.523	0.274	0.247	10.857	0.274	10.313	11	301	0.000
X1,X2,X3,X5	<b>1 DemoSub; BfiAll; PANAS; WUSI</b>	0.687	0.472	0.449	9.289	0.472	20.554	13	299	0.000
X1,X2,X4,X5	<b>1 DemoSub; BfiAll; CSE; WUSI</b>	0.665	0.442	0.420	9.533	0.442	19.798	12	300	0.000
X1,X3,X4,X5	<b>1 DemoSub; PANAS; CSE; WUSI</b>	0.682	0.465	0.449	9.283	0.465	29.254	9	303	0.000
X2,X3,X4,X5	<b>1 BfiAll; PANAS; CSE; WUSI</b>	0.68	0.462	0.443	9.319	0.462	23.661	11	303	0.000
X1,X2,X3,X4,X5	<b>1 All</b>	0.687	0.473	0.448	9.299	0.473	19.071	14	298	0.000

## Regression Variable Codes

AS: Subordinate Perceptions of Abusive Supervision [Composite]  
 MDD: Match between Supervisor and Subordinate Demographics (Gender, Race)  
 MDG: Match between Supervisor and Subordinate Gender  
 MDR: Match between Supervisor and Subordinate Race  
 SBA: Subordinate Age  
 SBCSE: Subordinate Core self-evaluation [Composite]  
 SBF: Subordinate Big Five (conscientiousness, extraversion, agreeableness, Neuroticism)  
 SBFA: Subordinate agreeableness [Composite]  
 SBFC: Subordinate conscientiousness [Composite]  
 SBFE: Subordinate extraversion [Composite]  
 SBFN: Subordinate Neuroticism [Composite]  
 SBG: Subordinate Gender  
 SBNA: Subordinate Negative Affectivity [Composite]  
 SBPA: Subordinate Positive Affectivity [Composite]  
 SBPANA: Subordinate Positive and Negative Affectivity  
 SBR: Subordinate Race  
 SBT: Subordinate Tenure with Organization (with Organization and with Supervisor)  
 SBI: Subordinate Insecurity  
 SBUS: Subordinate Umbrageous Sensitivity  
 SBW: Subordinate Waspishness  
 SBWUSI: Subordinate Waspishness + Subordinate Umbrageous Sensitivity + Subordinate  
           Insecurity  
 SDB: Subordinate Demographics (Gender, Race, Age)  
 SDR: Composite Score Socially Desirable Responding [Composite]  
 SST: Supervisor/Subordinate Tenure

**Table 7: Hypotheses and Research Questions Summary of Findings**

<b>Hyp/RQ</b>	<b>Re-Statement</b>	<b>Outcome</b>	<b>Notes</b>
H1	Subordinate demographic/tenure accounts for a significant proportion of AS	Partially supported	SDR makes significant but effect is small
H1a	Women (GENDER) will report less AS	Partially supported	SDR makes significant but effect is small
H1b	Non-white (RACE) will report more AS	Not supported	
H1c	AGE negatively related to AS	Supported	
H1d	Dyadic tenure positively related to AS	Not supported	
H1e	Dyadic tenure accounts for a significant proportion of AS over and above AGE	Not supported	
H2	Demographic match accounts for a significant proportion of AS	Not supported	
H2a	Gender match will be negatively related to AS	Not supported	
H2b	Race match will be negatively related to AS	Not supported	
H3	Big Five personality traits will account for a significant proportion of AS	Supported	
H3a	conscientiousness will be negatively related to AS	Supported	
H3b	extraversion will be negatively related to AS	Not supported	
H3c	agreeableness will be negatively related to AS	Supported	
H3d	Neuroticism will be positively related to AS	Supported	
H4	PANAS will account for a significant proportion of AS	Supported	
H4a	NA will be positively related to AS	Supported	
H4b	PA will be negatively related to AS	Not supported	
H5	CSEs will be negatively related to AS	Supported	
H6	WUSI will account for a significant proportion of AS	Supported	

<b>Hyp/RQ</b>	<b>Re-Statement</b>	<b>Outcome</b>	<b>Notes</b>
H7	Subordinate demographics, personality, CSEs and WUSI will each account for unique proportion of AS	Partially supported	Only PANAS and WUSI significant.
RQ1	Total variance of AS explained by demographics, personality, CSEs and WUSI	$R^2 = .473$ ; $p = .000$	SDR minimal change
RQ2	Relative importance of demographics, personality, CSES and WUSI	Rescaled dominance WUSI=59.397	Next closest is PANAS=18.471

**Table 8: Dominance Weights Analysis**

Y= AS                      X2= Big 5                      X4= CSE  
 X1= Demographic:      X3= PANAS                      X5= WUSI

Additional Contribution of						
Predictors	Model R <sup>2</sup>	X1	X2	X3	X4	X5
		Demo	Big 5	PANAS	CSE	WUSI
--		0.030	0.144	0.187	0.105	0.413
X1	0.030		0.140	0.171	0.107	0.401
X2	0.144	0.026		0.100	0.022	0.281
X3	0.187	0.014	0.057		0.039	0.265
X4	0.105	0.032	0.061	0.121		0.310
X5	0.413	0.018	0.012	0.039	0.002	
X1,X2	0.170			0.085	0.021	0.272
X1,X3	0.201		0.054		0.037	0.262
X1,X4	0.137		0.054	0.101		0.295
X1,X5	0.431		0.011	0.032	0.001	
X2,X3	0.244	0.011			0.021	0.217
X2,X4	0.166	0.025		0.099		0.259
X2,X5	0.425	0.017		0.036	0.000	
X3,X4	0.226	0.012	0.039			0.228
X3,X5	0.452	0.011	0.009		0.002	
X4,X5	0.415	0.017	0.010	0.039		
X1,X2,X3	0.255				0.019	0.217
X1,X2,X4	0.191			0.083		0.251
X1,X2,X5	0.442			0.030	0.000	
X1,X3,X4	0.238		0.036			0.227
X1,X3,X5	0.463		0.009		0.002	
X1,X4,X5	0.432		0.010	0.033		
X2,X3,X4	0.265	0.009				0.197
X2,X3,X5	0.461	0.011			0.001	
X2,X4,X5	0.425	0.017		0.037		
X3,X4,X5	0.454	0.011	0.008			
X1,X2,X3,X4	0.274					0.199
X1,X2,X3,X5	0.472				0.001	
X1,X2,X4,X5	0.442			0.031		
X1,X3,X4,X5	0.465		0.008			
X2,X3,X4,X5	0.462	0.011				
X1,X2,X3,X4,X5	0.473					

Average R <sup>2</sup> Across Subsets						
	X1	X2	X3	X4	X5	R <sup>2</sup>
k	Demo	Big 5	PANAS	CSE	WUSI	0.473
0	0.030	0.144	0.187	0.105	0.413	
1	0.023	0.068	0.108	0.043	0.314	
2	0.016	0.030	0.065	0.014	0.256	
3	0.012	0.016	0.046	0.006	0.223	
4	0.011	0.008	0.031	0.001	0.199	
General Dominance	0.018	0.053	0.087	0.034	0.281	
Rescale Dominance	3.848	11.195	18.471	7.089	59.397	

Note: Rescaled dominance computed by dividing general dominance estimates by R<sup>2</sup>

**Table 9: WUSI Study Overview and Comparison**

		WUSI		Present Study	
		Study 1	Study 2	No SDR	Yes SDR
<b>Age (Mean)</b>		28.22	18.6	39.65	39.65
<b>Work Exp (Mean)</b>		7.82	0.81	8.60	8.60
<b>Gender (Male)</b>		56%	58%	52%	52%
<b>Sample</b>		PT Grad	FT Undergrad	FT Adults	FT Adults
<b>N</b>		77	83	315	315
<b>AS score (mean)</b>		2.20	2.71	1.64	1.64
<b>Reliability</b>	W $\alpha$	0.81	0.80	0.89	0.89
	US $\alpha$	0.79	0.75	0.86	0.86
	I $\alpha$	0.94	0.81	0.88	0.88
	WUSI $\alpha$	0.89	0.88	0.92	0.92
<b>r</b>	W	0.30**	0.27*	0.35**	0.12**
	US	0.27*	0.29**	0.42**	0.19**
	I	0.52**	0.38***	0.64**	0.41**
	WUSI	0.37**	0.37**	0.643**	0.41**
<b>R<sup>2</sup></b>	WUSI	0.14**	0.14**	0.41**	0.36**

\* p&lt;.05

\*\* p&lt;.01

\*\*\*p&lt;.001

**1 - Present study only collected Tenure with current organization**

<b>Study 2 (r)</b>			
	1	2	3
1. Wasp	-		
2. UmbSen	0.52**	-	
3. Insecu	0.45**	0.69**	-
4. NA	0.22*	0.22*	0.21
5. PA	-0.28*	-0.13	-0.28

<b>Present Study (r)</b>			
	1	2	3
1. Wasp	-		
2. UmbSen	0.69**	-	
3. Insecu	0.49**	0.57**	-
4. NA	0.44**	0.45**	0.42**
5. PA	-0.27**	-0.31**	-0.14**

\* p<.05

\*\* p<.01

**Table 10: Abusive Supervision with WUSI Control and Personality Traits**

<b>Openness controlling for WUSI</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
Openness	0.643	0.414	0.406	9.617	0.000	0.236	1	310	0.627
<b>Openness controlling for WUSI and SDR</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
Openness	0.643	0.414	0.404	9.633	0.000	0.221	1	309	0.639
<b>Conscientiousness controlling for WUSI</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
Conscientiousness	0.647	0.419	0.411	9.579	0.005	2.733	1	310	0.099
<b>Conscientiousness controlling for WUSI and SDR</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
Conscientiousness	0.648	0.420	0.410	9.586	0.006	3.244	1	309	0.073
<b>Extraversion controlling for WUSI</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
Extraversion	0.644	0.415	0.407	9.612	0.001	0.581	1	310	0.446
<b>Extraversion controlling for WUSI and SDR</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
Extraversion	0.644	0.415	0.405	9.627	0.001	0.577	1	309	0.448

<b>Agreeableness controlling for WUSI</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
Agreeableness	0.647	0.418	0.411	9.582	0.005	2.555	1	310	0.111
<b>Agreeableness controlling for WUSI and SDR</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
Agreeableness	0.648	0.420	0.410	9.586	0.006	3.271	1	309	0.071

<b>Neuroticism controlling for WUSI</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
Neuroticism	0.644	0.415	0.407	9.608	0.002	0.867	1	310	0.353
<b>Neuroticism controlling for WUSI and SDR</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
Neuroticism	0.645	0.415	0.406	9.620	0.002	1.081	1	309	0.299

<b>Big Five controlling for WUSI</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
Big Five	0.652	0.425	0.410	9.589	0.011	1.212	5	306	0.303
<b>Big Five controlling for WUSI and SDR</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
Big Five	0.654	0.428	0.411	9.582	0.014	1.506	5	305	0.188

NA controlling for WUSI									
Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
NA	0.657	0.431	0.424	9.473	0.018	9.737	1	310	0.002
NA controlling for WUSI and SDR									
Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
NA	0.658	0.433	0.424	9.476	0.019	10.572	1	309	0.001

PA controlling for WUSI									
Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
PA	0.649	0.421	0.414	9.554	0.008	4.335	1	310	0.038
PA controlling for WUSI and SDR									
Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
PA	0.649	0.422	0.412	9.568	0.008	4.407	1	309	0.037

CSE controlling for WUSI									
Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
WUSI	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000
CSE	0.644	0.415	0.407	9.612	0.001	0.589	1	310	0.443
CSE controlling for WUSI and SDR									
Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
SDR	0.229	0.052	0.049	12.170	0.052	17.285	1	313	0.000
WUSI	0.643	0.413	0.406	9.621	0.361	63.615	3	310	0.000
CSE	0.644	0.415	0.405	9.626	0.001	0.667	1	309	0.415

**Table 11: Dominance Weights Analysis without WUSI**

**Dominance Weights Analysis, WUSI Excluded  
(James Lebreton Model, 2003)**

Y= AS                      X2= Big5                      X4= CSE  
X1= Demographic                      X3= PANAS

Predictors	Model R <sup>2</sup>	Additional Contribution of			
		X1	X2	X3	X4
		Demo	Big 5	PANAS	CSE
--		0.03	0.144	0.187	0.102
X1	0.03		0.14	0.171	0.107
X2	0.144	0.026		0.1	0.022
X3	0.187	0.014	0.057		0.039
X4	0.102	0.035	0.064	0.124	
X1,X2	0.17			0.083	0.021
X1,X3	0.201		0.052		0.037
X1,X4	0.137		0.054	0.101	
X2,X3	0.244	0.009			0.021
X2,X4	0.166	0.025		0.099	
X3,X4	0.226	0.012	0.039		
X1,X2,X3	0.253				0.021
X1,X2,X4	0.191			0.083	
X1,X3,X4	0.238		0.036		
X2,X3,X4	0.265	0.009			
X1,X2,X3,X4	0.274				

Average R-Square Across Subsets					
	X1	X2	X3	X4	R <sup>2</sup>
k	Demo	Big5	PANAS	CSE	0.274
0	0.030	0.144	0.187	0.102	
1	0.025	0.087	0.132	0.056	
2	0.015	0.048	0.094	0.026	
3	0.009	0.036	0.083	0.021	
General Dominance	0.020	0.079	0.124	0.051	
Rescale Dominance	7.238	28.771	45.255	18.735	

Note: Rescaled dominance computed by dividing general dominance estimates by the R<sup>2</sup>

Table 12: WUSI Correlations with Neuroticism and PANAS

		BfiNScore	WusiWscore	WusiUscore	WusiScore	PAscore	NAscore
BfiNScore	<b>Pearson Correlation</b>	1	.472**	.509**	.325**	-.553**	.618**
	<b>Sig. (1-tailed)</b>	-	0.000	0.000	0.000	0.000	0.000
	<b>N</b>	315	315	315	315	315	315
WusiWscore	<b>Pearson Correlation</b>	.472**	1	.691**	.488**	-.265**	.440**
	<b>Sig. (1-tailed)</b>	0.000	-	0.000	0.000	0.000	0.000
	<b>N</b>	315	315	315	315	315	315
WusiUscore	<b>Pearson Correlation</b>	.509**	.691**	1	.574**	-.307**	.452**
	<b>Sig. (1-tailed)</b>	0.000	0.000	-	0.000	0.000	0.000
	<b>N</b>	315	315	315	315	315	315
WusiScore	<b>Pearson Correlation</b>	.325**	.488**	.574**	1	-.142**	.424**
	<b>Sig. (1-tailed)</b>	0.000	0.000	0.000	-	0.006	0.000
	<b>N</b>	315	315	315	315	315	315
PAscore	<b>Pearson Correlation</b>	-.553**	-.265**	-.307**	-.142**	1	-.416**
	<b>Sig. (1-tailed)</b>	0.000	0.000	0.000	0.006	-	0.000
	<b>N</b>	315	315	315	315	315	315
NAscore	<b>Pearson Correlation</b>	.618**	.440**	.452**	.424**	-.416**	1
	<b>Sig. (1-tailed)</b>	0.000	0.000	0.000	0.000	0.000	-
	<b>N</b>	315	315	315	315	315	315

\*\* Correlation is significant at the 0.01 level (1-tailed).

**Table 13: Hypothesis 7 Post-Hoc without WUSI**

Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
<b>1 BfiAll;CSE;Demo</b>	0.437	0.191	0.167	11.421	0.191	7.945	9	303	0.000
<b>PANAS</b>	0.523	0.274	0.247	10.857	0.083	17.153	3	301	0.000

Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
<b>1 BfiAll;PANAS;Demo</b>	0.503	0.253	0.229	10.990	0.253	10.251	10	302	0.000
<b>2 CSE</b>	0.523	0.274	0.247	10.857	0.020	8.410	1	301	0.004

Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
<b>1 PANAS;CSE;Demo</b>	0.488	0.238	0.223	11.028	0.238	15.947	6	306	0.000
<b>2 BfiAll</b>	0.523	0.274	0.247	10.857	0.036	2.944	5	301	0.013

Model	R	R <sup>2</sup>	Adj. R <sup>2</sup>	Std. Error of Est.	R <sup>2</sup> Δ	F Change	df1	df2	Sig. F Δ
<b>1 BFI;PANAS;CSE</b>	0.519	0.269	0.250	10.839	0.269	13.976	8	304	0.000
<b>2 DemoSub</b>	0.523	0.274	0.247	10.857	0.005	0.666	3	301	0.573

**Table 14: Additional Post-Hoc Testing**

<b>WUSI Regressed on Subordinate Characteristics</b>									
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
Demo, Big 5, PANAS, CSE	0.650	0.423	0.401	12.697	0.423	20.020	11	301	0.000

**Table 15: Hypothesis 7 Post-Hoc WUSI Mediation Model**

## 1. Regression of Abusive Supervision on demographics, BFI, CSE &amp; PANAS (no WUSI)

	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
<b>Demo</b>	0.173	0.030	0.020	12.385	0.030	3.173	3	309	0.025
<b>Big 5</b>	0.412	0.170	0.148	11.552	0.140	10.227	5	304	0.000
<b>CSE</b>	0.437	0.191	0.167	11.421	0.021	8.006	1	303	0.005
<b>PANAS</b>	0.523	0.274	0.247	10.857	0.083	17.153	2	301	0.000

## 2. Regression of WUSI on demographics, BFI, CSE &amp; PANAS

	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
<b>Demo</b>	0.112	0.012	0.003	16.387	0.012	1.304	3	309	0.273
<b>Big 5</b>	0.585	0.342	0.325	13.483	0.330	30.488	5	304	0.000
<b>CSE</b>	0.619	0.384	0.365	13.074	0.041	20.312	1	303	0.000
<b>PANAS</b>	0.65	0.423	0.401	12.697	0.039	10.133	2	301	0.000

## 3. Regression of Abusive Supervision on WUSI

	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
<b>WUSI</b>	0.643	0.413	0.408	9.606	0.413	73.060	3	311	0.000

## 4. Regression of Abusive Supervision on demographics, BFI, CSE &amp; PANAS (WUSI Control)

	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adj. R<sup>2</sup></b>	<b>Std. Error of Est.</b>	<b>R<sup>2</sup> Δ</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Δ</b>
<b>WUSI</b>	0.648	0.419	0.414	9.582	0.419	74.386	3	309	0.000
<b>Demo</b>	0.656	0.431	0.420	9.532	0.012	2.068	3	306	0.104
<b>BFI</b>	0.665	0.442	0.421	9.518	0.011	1.187	5	301	0.315
<b>CSE</b>	0.665	0.442	0.420	9.533	0.000	0.030	1	300	0.862
<b>PANAS</b>	0.687	0.473	0.448	9.299	0.031	8.650	2	298	0.000

## Appendix F: SPSS Syntax

### \*Reverse scores.

```
RECODE q13_2BfiAneg q13_6BfiEneg q13_8BfiCneg q13_9BfiNneg q13_18BfiCneg
q13_21BfiEneg
  q13_23BfiCneg q13_24BfiNneg q13_27BfiAneg q13_31BfiEneg q13_34BfiNneg
q13_35BfiOneg q13_37BfiAneg
  q13_41BfiOneg q13_43BfiCneg q14_7SDneg q14_8SDneg q14_9SDneg q14_10SDneg
q14_11SDneg q15_2CSEneg
  q15_4CSEneg q15_6CSEneg q15_8CSEneg q15_10CSEneg q15_12CSEneg q13_12BfiAneg
(5=1) (4=2) (3=3) (2=4)
  (1=5) INTO q13_2BfiArev q13_6BfiErev q13_8BfiCrev q13_9BfiNrev q13_18BfiCrev
q13_21BfiErev
  q13_23BfiCrev q13_24BfiNrev q13_27BfiArev q13_31BfiErev q13_34BfiNrev
q13_35BfiOrev q13_37BfiArev
  q13_41BfiOrev q13_43BfiCrev q14_7SDrev q14_8SDrev q14_9SDrev q14_10SDrev
q14_11SDrev q15_2CSErev
  q15_4CSErev q15_6CSErev q15_8CSErev q15_10CSErev q15_12CSErev q13_12BfiArev.
EXECUTE.
```

### \*AS score.

```
COMPUTE
ASscore=q12_1AS+q12_2AS+q12_3AS+q12_4AS+q12_5AS+q12_6AS+q12_7AS+q12_8AS+
q12_9AS+q12_10AS+
  q12_11AS+q12_12AS+q12_13AS+q12_14AS+q12_15AS.
EXECUTE.
```

### \*BFI Open Score pre removal q41.

```
COMPUTE
BfiOScore=q13_5BfiO+q13_10BfiO+q13_15BfiO+q13_20BfiO+q13_25BfiO+q13_30BfiO+q1
3_35BfiOrev+
  q13_40BfiO+q13_41BfiOrev+q13_44BfiO.
EXECUTE.
```

### \*BFI conscientiousness Score.

```
COMPUTE
BfiCScore=q13_3BfiC+q13_8BfiCrev+q13_13BfiC+q13_18BfiCrev+q13_23BfiCrev+q13_28B
fiC+
  q13_33BfiC+q13_38BfiC+q13_43BfiCrev.
EXECUTE.
```

### \*BFI extraversion Score.

```
COMPUTE
BfiEScore=q13_1BfiE+q13_6BfiErev+q13_11BfiE+q13_16BfiE+q13_21BfiErev+q13_26BfiE+
  q13_31BfiErev+q13_36BfiE.
EXECUTE.
```

### \*BFI agreeableness Score.

```
COMPUTE
BfiAScore=q13_2BfiArev+q13_7BfiA+q13_12BfiArev+q13_17BfiA+q13_22BfiA+q13_27Bfi
Arev+
  q13_32BfiA+q13_37BfiArev+q13_42BfiA.
```

EXECUTE.

**\*BFI Neuroticism Score.**

COMPUTE

BfiNScore=q13\_4BfiN+q13\_9BfiNrev+q13\_14BfiN+q13\_19BfiN+q13\_24BfiNrev+q13\_29BfiN+  
q13\_34BfiNrev+q13\_39BfiN.

EXECUTE.

**\*SD Score.**

COMPUTE

SDscore=q14\_1SD+q14\_2SD+q14\_3SD+q14\_4SD+q14\_5SD+q14\_7SDrev+q14\_8SDrev+q14\_9SDrev+  
q14\_10SDrev+q14\_11SDrev.

EXECUTE.

**\*CSE Score.**

COMPUTE

CSEscore=q15\_1CSE+q15\_2CSErev+q15\_3CSE+q15\_4CSErev+q15\_5CSE+q15\_6CSErev+q15\_7CSE+  
q15\_8CSErev+q15\_9CSE+q15\_10CSErev+q15\_11CSE+q15\_12CSErev.

EXECUTE.

**\*Waspishness Score Only.**

COMPUTE

WusiWscore=q16\_1WusiW1+q16\_2WusiW2+q16\_3WusiW3+q16\_4WusiW4+q16\_5WusiW5.

EXECUTE.

**\*Umbrageous Sensitivity Score Only.**

COMPUTE

WusiUscore=q16\_6WusiU1+q16\_7WusiU2+q16\_8WusiU3+q16\_9WusiU4+q16\_10WusiU5.

EXECUTE.

**\*Insecurity Score Only.**

COMPUTE

WusiIscore=q16\_11WusiI1+q16\_12WusiI2+q16\_13WusiI3+q16\_14WusiI4+q16\_15WusiI5.

EXECUTE.

**\*TOTAL WUSI score.**

COMPUTE WusiTOTALscore=WusiWscore+WusiUscore+WusiIscore.

EXECUTE.

**\*Time Converted to Minutes.**

COMPUTE TIMEmins=Durationinseconds/60.

EXECUTE.

**\*PA score.**

COMPUTE

PAscore=q17\_1PA+q17\_3PA+q17\_5PA+q17\_9PA+q17\_10PA+q17\_12PA+q17\_14PA+q17\_16PA+q17\_17PA+  
q17\_19PA.

EXECUTE.

**\*NA score.**

```

COMPUTE
NAscore=q17_2NA+q17_4NA+q17_6NA+q17_7NA+q17_8NA+q17_11NA+q17_13NA+q17_
15NA+q17_18NA+
    q17_20NA.
EXECUTE.
*Recode Gender&RaceSub&RaceSup.
RECODE Q5GENSub (0=0) (1=1) (2=SYSMIS) INTO Q5GENSubMod.
RECODE Q6RACEsubNEW (0=0) (1 thru 6=1) INTO Q6RACEsubNEW.
RECODE Q11RACEsup (0=0) (1 thru 6=1) INTO Q11RACEsupNEW.
EXECUTE.
*Descriptives Demo& Tenure.
DATASET ACTIVATE DataSet1.
DESCRIPTIVES VARIABLES=Q1AGEsub Q5GENSubMOD Q6RACEsubNEW
Q2TENUREOrg Q9TENUREdyad Q10GENSup Q11RACEsup
    Q7INDUSTRY TIMEmins
    /STATISTICS=MEAN STDDEV VARIANCE RANGE MIN MAX KURTOSIS SKEWNESS.
*Descriptives Scales.
DESCRIPTIVES VARIABLES=ASscore BfiOScore BfiCScore BfiEScore BfiAScore
BfiNScore SDscore CSEscore
    PAscore NAscore WusiWscore WusiUscore WusiIscore WusiTOTALscore
    /STATISTICS=MEAN STDDEV VARIANCE RANGE MIN MAX KURTOSIS SKEWNESS.
*Frequencies Demo& Tenure.
FREQUENCIES VARIABLES=Q1AGEsub Q5GENSubMOD Q6RACEsubNEW
Q7INDUSTRY Q9TENUREdyad Q10GENSup Q11RACEsup
    TIMEmins
    /STATISTICS=STDDEV VARIANCE RANGE MINIMUM MAXIMUM MEAN MEDIAN
MODE SUM SKEWNESS SESKEW KURTOSIS
    SEKURT
    /ORDER=ANALYSIS.
*Frequencies Scales.
FREQUENCIES VARIABLES=ASscore BfiOScore BfiCScore BfiEScore BfiAScore
BfiNScore SDscore CSEscore
    PAscore NAscore WusiWscore WusiUscore WusiIscore WusiTOTALscore
    /STATISTICS=STDDEV VARIANCE RANGE MINIMUM MAXIMUM MEAN MEDIAN
MODE SUM SKEWNESS SESKEW KURTOSIS
    SEKURT
    /ORDER=ANALYSIS.
*Reliabilities AS.
RELIABILITY
    /VARIABLES=q12_1AS q12_2AS q12_3AS q12_4AS q12_5AS q12_6AS q12_7AS q12_8AS
q12_9AS q12_10AS
    q12_11AS q12_12AS q12_13AS q12_14AS q12_15AS
    /SCALE('Reliabilities Abusive Supervision') ALL
    /MODEL=ALPHA
    /STATISTICS=DESCRIPTIVE SCALE CORR COV
    /SUMMARY=TOTAL MEANS VARIANCE COV CORR.

```

**\*Reliabilities BFI openness.**

RELIABILITY

```

/VARIABLES=q13_5BfiO q13_10BfiO q13_15BfiO q13_20BfiO q13_25BfiO q13_30BfiO
q13_35BfiOrev
  q13_40BfiO q13_41BfiOrev q13_44BfiO
/SCALE('Reliabilities BFI openness') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE CORR COV
/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

```

**\*Reliabilities BFI openness with Q41 removed.**

RELIABILITY

```

/VARIABLES=q13_5BfiO q13_10BfiO q13_15BfiO q13_20BfiO q13_25BfiO q13_30BfiO
q13_35BfiOrev
  q13_40BfiO q13_44BfiO
/SCALE('Reliabilities BFI openness Q41 removed') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE CORR COV
/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

```

**\*Reliabilities conscientiousness.**

RELIABILITY

```

/VARIABLES=q13_3BfiC q13_8BfiCrev q13_13BfiC q13_18BfiCrev q13_23BfiCrev
q13_28BfiC q13_33BfiC
  q13_38BfiC q13_43BfiCrev
/SCALE('Reliabilities BFI conscientiousness') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE CORR COV
/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

```

**\*Reliabilities extraversion.**

RELIABILITY

```

/VARIABLES=q13_1BfiE q13_6BfiErev q13_11BfiE q13_16BfiE q13_21BfiErev
q13_26BfiE q13_31BfiErev
  q13_36BfiE
/SCALE('Reliabilities BFI extraversion') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE CORR COV
/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

```

**\*Reliabilities agreeableness.**

RELIABILITY

```

/VARIABLES=q13_2BfiArev q13_7BfiA q13_12BfiArev q13_17BfiA q13_22BfiA
q13_27BfiArev q13_32BfiA
  q13_37BfiArev q13_42BfiA
/SCALE('Reliabilities BFI agreeableness') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE CORR COV
/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

```

**\*Reliabilities Neuroticism.**

## RELIABILITY

/VARIABLES=q13\_4BfiN q13\_9BfiNrev q13\_14BfiN q13\_19BfiN q13\_24BfiNrev  
 q13\_29BfiN q13\_34BfiNrev  
 q13\_39BfiN

/SCALE('Reliabilities BFI Neuroticism') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*Reliabilities Social Desirability SD.**

## RELIABILITY

/VARIABLES=q14\_1SD q14\_2SD q14\_3SD q14\_4SD q14\_5SD q14\_7SDrev q14\_8SDrev  
 q14\_9SDrev q14\_10SDrev  
 q14\_11SDrev

/SCALE('Reliabilities Social Desirability SD') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*Reliabilities CSE.**

## RELIABILITY

/VARIABLES=q15\_1CSE q15\_2CSErev q15\_3CSE q15\_4CSErev q15\_5CSE q15\_6CSErev  
 q15\_7CSE q15\_8CSErev  
 q15\_9CSE q15\_10CSErev q15\_11CSE q15\_12CSErev

/SCALE('Reliabilities CSE') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*Reliabilities Waspishness WUSI.**

## RELIABILITY

/VARIABLES=q16\_1WusiW1 q16\_2WusiW2 q16\_3WusiW3 q16\_4WusiW4 q16\_5WusiW5

/SCALE('Reliabilities Waspishness WUSI') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*Reliabilities Umbrageous Sensitivity WUSI.**

## RELIABILITY

/VARIABLES=q16\_6WusiU1 q16\_7WusiU2 q16\_8WusiU3 q16\_9WusiU4 q16\_10WusiU5

/SCALE('Reliabilities Umbrageous Sensitivity WUSI') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*Reliabilities Insecurity WUSI.**

## RELIABILITY

/VARIABLES=q16\_11WusiI1 q16\_12WusiI2 q16\_13WusiI3 q16\_14WusiI4 q16\_15WusiI5

/SCALE('Reliabilities Insecurity WUSI') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*Reliabilities Wasp-Umbrag-Insecurity ALL.**

RELIABILITY

/VARIABLES=q16\_1WusiW1 q16\_2WusiW2 q16\_3WusiW3 q16\_4WusiW4 q16\_5WusiW5  
q16\_6WusiU1 q16\_7WusiU2  
q16\_8WusiU3 q16\_9WusiU4 q16\_10WusiU5 q16\_11WusiI1 q16\_12WusiI2 q16\_13WusiI3  
q16\_14WusiI4  
q16\_15WusiI5

/SCALE('Reliabilities WaspUmbragInsecu WUSI ALL') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*Reliabilities PA.**

RELIABILITY

/VARIABLES=q17\_1PA q17\_3PA q17\_5PA q17\_9PA q17\_10PA q17\_12PA q17\_14PA  
q17\_16PA q17\_17PA q17\_19PA

/SCALE('Reliabilities PA') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*Reliabilities NA.**

RELIABILITY

/VARIABLES=q17\_2NA q17\_4NA q17\_6NA q17\_7NA q17\_8NA q17\_11NA q17\_13NA  
q17\_15NA q17\_18NA q17\_20NA

/SCALE('Reliabilities NA') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR COV

/SUMMARY=TOTAL MEANS VARIANCE COV CORR.

**\*\*HYPOTHESIS 1\*\***

**\*H1 No SD.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT ASscore

/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW Q2TENUREOrg  
Q9TENUREdyad.

**\*H1 YES SD.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW Q2TENUREOrg  
 Q9TENUREdyad.

**\*H1a No SD GENSub.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER Q5GENSubMOD.

**\*H1a YES SD GENSub.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER Q5GENSubMOD.

**\*H1b No SD RACEsub.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER Q6RACEsubNEW.

**\*H1b YES SD RACEsub.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER Q6RACEsubNEW.

**\*H1c No SD AGEsub.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE

```

/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub.

```

**\*H1c YES SD AGEsub.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q1AGEsub.

```

**\*H1d No SD TENUREdyad.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q9TENUREdyad.

```

**\*H1d YES SD TENUREdyad.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q9TENUREdyad.

```

**\*H1e No SD TENUREdyad over AGEsub.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub
/METHOD=ENTER Q9TENUREdyad.

```

**\*H1e YES SD TENUREdyad over AGEsub.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q1AGEsub
/METHOD=ENTER Q9TENUREdyad.

```

**\*\*HYPOTHESIS 2\*\* coding for match**

CROSSTABS

```

/TABLES=Q5GENSubMOD BY Q10GENSup
/FORMAT=AVALUE TABLES
/CELLS=COUNT
/COUNT ROUND CELL.

```

CROSSTABS

```

/TABLES=Q6RACEsubNEW BY Q11RACEsupNEW
/FORMAT=AVALUE TABLES
/CELLS=COUNT
/COUNT ROUND CELL.

```

```

IF (Q11RACEsup eq Q6RACEsubNEW) RACEMatch=1..
IF (Q11RACEsup ne Q6RACEsubNEW) RACEMatch=0.
EXECUTE.
IF (Q10GENSup eq Q5GENSubMOD) GENDMatch=1..
IF (Q10GENSup ne Q5GENSubMOD) GENDMatch=0.
EXECUTE.

```

```

FREQUENCIES VARIABLES=GENDMatch RACEMatch
/ORDER=ANALYSIS.

```

**\*H2 No SD MatchDyad.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER RACEMatch GENDMatch.

```

**\*H2 YES SD MatchDyad.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)

```

/NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER RACEMatch GENDMatch.

**\*H2a No SD GENDERmatch.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER GENDMatch.

**\*H2a YES SD GENDERmatch.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER GENDMatch.

**\*H2b No SD RACEmatch.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER RACEMatch.

**\*H2b YES SD RACEmatch.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER RACEMatch.

**\*\*HYPOTHESIS 3\*\***

**\*H3 No SD BFI scores.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

**\*H3 YES SD BFI scores.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER Sdscore  
 /METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

**\*H3a No SD conscientiousness.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER BfiCScore.

**\*H3a YES SD conscientiousness.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER Sdscore  
 /METHOD=ENTER BfiCScore.

**\*H3b No SD extraversion.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER BfiEScore.

**\*H3b YES SD extraversion.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER Sdscore  
 /METHOD=ENTER BfiEScore.

**\*H3c No SD agreeableness.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER BfiAScore.

**\*H3c YES SD agreeableness.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER Sdscore  
 /METHOD=ENTER BfiAScore.

**\*H3d No SD Neuroticism.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER BfiNScore.

**\*H3d YES SD Neuroticism.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER Sdscore  
 /METHOD=ENTER BfiNScore.

**\*\*HYPOTHESIS 4\*\*****\*H4 No SD PANAS.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER PAscore NAscore.

**\*H4 YES SD PANAS.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER PAscore NAscore.

**\*H4a No SD NA.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER NAscore.

**\*H4a YES SD NA.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER NAscore.

**\*H4b No SD PA.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN

/DEPENDENT ASscore  
 /METHOD=ENTER PAscore.

**\*H4b YES SD PA.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER PAscore.

**\*\*HYPOTHESIS 5\*\***

**\*H5 no SD CSE.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER CSEscore.

**\*H5 YES SD CSE.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER CSEscore.

**\*\*HYPOTHESIS 6\*\***

**\*H6 no SD WUSI Significant Proportion.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore.

**\*H6 YES SD WUSI Significant Proportion.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER Sdscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore.

**\*H6 no SD Wasp Alone.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER WusiWscore.

**\*H6 YES SD Wasp Alone.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER Sdscore  
 /METHOD=ENTER WusiWscore.

**\*H6 no SD UMBRAG Alone.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER WusiUscore.

**\*H6 YES SD EMBRAG Alone.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT Asscore  
 /METHOD=ENTER Sdscore  
 /METHOD=ENTER WusiUscore.

**\*H6 no SD INSECUR Alone.**

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Asscore
/METHOD=ENTER WusiIscore.

```

**\*H6 YES SD INSECUR Alone.**

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Asscore
/METHOD=ENTER Sdscore
/METHOD=ENTER WusiIscore.

```

**\*\*HYPOTHESIS 7\*\*****\*H7 No SD.**

```

DATASET ACTIVATE DataSet1.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
CSEscore PAscore NAscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
CSEscore WusiWscore WusiUscore WusiIscore
/METHOD=ENTER PAscore NAscore.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
WusiWscore WusiUscore WusiIscore PAscore NAscore
/METHOD=ENTER CSEscore.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub WusiWscore
WusiUscore WusiIscore PAscore NAscore
CSEscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore PAscore NAscore CSEscore
BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW.

```

**\*H7 YES SD.**

```
DATASET ACTIVATE DataSet1.
```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore

```

```

CSEscore PAscore NAscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
CSEscore WusiWscore WusiUscore WusiIscore
/METHOD=ENTER PAscore NAscore.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
WusiWscore WusiUscore WusiIscore PAscore NAscore
/METHOD=ENTER CSEscore.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub WusiWscore
WusiUscore WusiIscore PAscore NAscore
CSEscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

```

## REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP

```

```

/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore PAscore NAscore CSEscore
BfiOScore BfiCScore
  BfiEScore BfiAScore BfiNScore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW.

```

**\*\*RESEARCH QUESTION 1\*\***

**\*RQ1 No SDR TOTAL VARIANCE EXPLAINED.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
  PAscore NAscore CSEscore WusiWscore WusiUscore WusiIscore.

```

**\*RQ1 YES SDR TOTAL VARIANCE EXPLAINED.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
  PAscore NAscore CSEscore WusiWscore WusiUscore WusiIscore.

```

**\*\*RESEARCH QUESTION 2\*\***

**\*X1 Demo.**

REGRESSION

```

/MISSING PAIRWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW.

```

**\*X2 Big Five.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE

```

```

/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

```

**\*X3 PANAS.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER PAscore NAscore.

```

**\*X4 CSE.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER CSEscore.

```

**\*X5 WUSI.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore.

```

**\*X1 X2.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENsubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore.

```

**\*X1 X3.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)

```

/NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW PAscore NAscore.

**\*X1 X4.**

REGRESSION

/MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW CSEscore.

**\*X1 X5.**

REGRESSION

/MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW WusiWscore  
 WusiUscore WusiIscore.

**\*X2 X3.**

REGRESSION

/MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore PAscore  
 NAscore.

**\*X2 X4.**

REGRESSION

/MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore CSEscore.

**\*X2 X5.**

REGRESSION

/MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA CHANGE  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore WusiWscore  
 WusiUscore WusiIscore.

**\*X3 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER PAscore NAscore CSEscore.

```

**\*X3 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER PAscore NAscore WusiWscore WusiUscore WusiIscore.

```

**\*X4 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER CSEscore WusiWscore WusiUscore WusiIscore.

```

**\*X1 X2 X3.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
  PAscore NAscore.

```

**\*X1 X2 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
  CSEscore.

```

**\*X1 X2 X5.**

```

REGRESSION

```

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
WusiWscore WusiUscore WusiIScore.

```

**\*X1 X3 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW PAscore NAscore
CSEscore.

```

**\*X1 X3 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW PAscore NAscore
WusiWscore WusiUscore WusiIScore.

```

**\*X1 X4 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW CSEscore
WusiWscore WusiUscore WusiIScore.

```

**\*X2 X3 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore PAscore NAscore
CSEscore.

```

**\*X2 X3 X5.**

```

REGRESSION

```

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore PAscore NAscore
WusiWscore WusiUscore WusiIscore.

```

**\*X2 X4 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore CSEscore
WusiWscore WusiUscore WusiIscore.

```

**\*X3 X4 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER PAscore NAscore CSEscore WusiWscore WusiUscore WusiIscore.

```

**\*X1 X2 X3 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
PAscore NAscore CSEscore.

```

**\*X1 X2 X3 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
PAscore NAscore WusiWscore WusiUscore WusiIscore.

```

**\*X1 X2 X4 X5.**

```

REGRESSION

```

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
  CSEscore WusiWscore WusiUscore WusiIscore.

```

**\*X1 X3 X4 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW PAscore NAscore
CSEscore WusiWscore WusiUscore WusiIscore.

```

**\*X2 X3 X4 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore PAscore NAscore
CSEscore
  WusiWscore WusiUscore WusiIscore.

```

**\*X1 X2 X3 X4 X5.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
  CSEscore PAscore NAscore WusiWscore WusiUscore WusiIscore.

```

***BEGIN POST HOC***

**\*Table 9 WUSI and PANAS.**

**\*AS and WUSI**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP

```

```

/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore.

```

**\*WUSI and PA NO SDR.**

```

CORRELATIONS
/VARIABLES=WusiWscore WusiUscore WusiIscore PAscore
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES XPROD
/MISSING=PAIRWISE.

```

**\*WUSI and NA NO SDR.**

```

CORRELATIONS
/VARIABLES=NAscore WusiWscore WusiUscore WusiIscore
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES XPROD
/MISSING=PAIRWISE.

```

**\*WUSI Control with O No SDR.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore
/METHOD=ENTER BfiOScore.

```

**\*WUSI Control with O and SDR.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore
/METHOD=ENTER BfiOScore.

```

**\*WUSI Control with C no SDR.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN

```

/DEPENDENT ASscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiCScore.

**\*WUSI Control with C and SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiCScore.

**\*WUSI Control with E no SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiEScore.

**\*WUSI Control with E and SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiEScore.

**\*WUSI Control with A No SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiAScore.

**\*WUSI Control with A and SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiAScore.

**\*WUSI Control with N no SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiNScore.

**\*WUSI Control with N and SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER SDscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiNScore.

**\*WUSI control with Big5 No SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP  
 /CRITERIA=PIN(.05) POUT(.10)  
 /NOORIGIN  
 /DEPENDENT ASscore  
 /METHOD=ENTER WusiWscore WusiUscore WusiIscore  
 /METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

**\*WUSI control with Big5 and SDR.**

REGRESSION  
 /DESCRIPTIVES MEAN STDDEV CORR SIG N  
 /MISSING LISTWISE  
 /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP

```

/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

```

**\*\*POST HOC H7 NO WUSI\*\***

**\*WUSI as dependent.**

```

DATASET ACTIVATE DataSet1.
REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT WusiTOTALscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore SDscore
CSEscore PAscore NAscore
Q1AGEsub Q5GENSub Q6RACEsubNEW.

```

**\*Industry to AS with and without SD.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q7INDUSTRY.

```

**\*Industry to AS with and without SD.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q7INDUSTRY.

```

**\*H7 without WUSI.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)

```

```

/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore CSEscore
/METHOD=ENTER PAscore NAscore.

```

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
PAscore NAscore
/METHOD=ENTER CSEscore.

```

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub PAscore NAscore
CSEscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

```

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER PAscore NAscore CSEscore BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW.

```

**\*H7 without WUSI yes SDR.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)

```

```

/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
  CSEscore
/METHOD=ENTER PAscore NAscore.

```

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
  PAscore NAscore
/METHOD=ENTER CSEscore.

```

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER Q5GENSubMOD Q6RACEsubNEW Q1AGEsub PAscore NAscore
  CSEscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

```

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER SDscore
/METHOD=ENTER PAscore NAscore CSEscore BfiOScore BfiCScore
  BfiEScore BfiAScore BfiNScore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW.

```

**\*WUSI as a control with CSE no SDR.**

\*WUSI as a control with CSE no SDR.

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT ASscore

/METHOD=ENTER WusiWscore WusiUscore WusiIscore

/METHOD=ENTER CSEscore.

**\*WUSI as a control with CSE yes SDR.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT ASscore

/METHOD SDscore

/METHOD=ENTER WusiWscore WusiUscore WusiIscore

/METHOD=ENTER CSEscore.

**\*WUSI as a control with NA no SDR.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT ASscore

/METHOD=ENTER WusiWscore WusiUscore WusiIscore

/METHOD=ENTER NAscore.

**\*WUSI as a control with NA yes SDR.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT ASscore

/METHOD SDscore

/METHOD=ENTER WusiWscore WusiUscore WusiIscore

/METHOD=ENTER NAscore.

**\*WUSI as a control with PA no SDR.**

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore
/METHOD=ENTER PAscore.

```

**\*WUSI as a control with PA yes SDR.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD SDscore
/METHOD=ENTER WusiWscore WusiUscore WusiIscore
/METHOD=ENTER PAscore.

```

**\*Post Hoc WUSI correlations.**

CORRELATIONS

```

/VARIABLES=BfiNScore WusiWscore WusiUscore WusiIscore PAscore NAscore
/PRINT=ONETAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE.

```

**\*\*POST HOC RQ2\*\***

**\*\*Dominance Weights NO WUSI**

**\*X1 Demo.**

REGRESSION

```

/MISSING PAIRWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW.

```

**\*X2 Big Five.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore.

```

**\*X3 PANAS.**

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER PAscore NAscore.

```

**\*X4 CSE.**

```

REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER CSEscore.

```

**\*X1 X2.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore.

```

**\*X1 X3.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW PAscore NAscore.

```

**\*X1 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW CSEscore.

```

**\*X2 X3.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)

```

```

/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore PAscore
NAscore.

```

**\*X2 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore CSEscore.

```

**\*X3 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER PAscore NAscore CSEscore.

```

**\*X1 X2 X3.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENsubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
PAscore NAscore.

```

**\*X1 X2 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENsubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
CSEscore.

```

**\*X1 X3 X4.**

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN

```

```

/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW PAscore NAscore
CSEscore.
*X2 X3 X4.
REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore PAscore NAscore
CSEscore.
*X1 X2 X3 X4.
REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ASscore
/METHOD=ENTER Q1AGEsub Q5GENSubMOD Q6RACEsubNEW BfiOScore BfiCScore
BfiEScore BfiAScore BfiNScore
PAscore NAscore CSEscore.

```

**\*\*Additional Post-Hoc WUSI Table 13 Appendix E\*\***

```

*Additional Post-Hoc WUSI & All regression.
REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT WusiTOTALscore
/METHOD=ENTER BfiOScore BfiCScore BfiEScore BfiAScore BfiNScore CSEscore
PAscore NAscore Q1AGEsub
Q5GENSubMod Q6RACEsubNEW.

```

## Appendix G: R Script and Results for Confirmatory Factory Analysis

Test Alternative Factor Models

```
# 1 Factor Model for BIG METHOD FACTOR (BMF)
```

```
model.1BMF <- '
```

```
BMF =~ ASscore + BfiOScore + BfiNScore + BfiCScore + BfiEScore + BfiAScore + SDscore +  
CSEscore + PAscore + NAscore + WusiWscore + WusiUscore + WusiIscore  
,
```

```
fit.1BMF <- cfa(model.1BMF, data=Final_CFA, sample.nobs=315)
```

```
summary(fit.1BMF)
```

```
fitMeasures(fit.1BMF,c("chisq", "df", "pvalue", "cfi", "tli", "nfi", "rmsea", "srmr"))
```

```
standardizedSolution(fit.1BMF, type = "std.all", se = TRUE, level = 0.95, cov.std = TRUE,  
GLIST = NULL, est = NULL, output = "text")
```

```
reliability(fit.1BMF)
```

```
lavInspect(fit.1BMF,"cor.lv")
```

lavaan 0.6-5 ended normally after 55 iterations

<b>Estimator</b>	ML
<b>Optimization method</b>	NLMINB
<b>Number of free parameters</b>	26
<b>Number of observations</b>	315
<b>Model Test User Model:</b>	
<b>Test statistic</b>	528.169
<b>Degrees of freedom</b>	65
<b>P-value (Chi-square)</b>	0
<b>Parameter Estimates:</b>	
<b>Information</b>	Expected
<b>Information saturated (h1) model</b>	Structured
<b>Standard errors</b>	Standard

Latent Variables:

<b>BMF =~</b>	<b>Estimate</b>	<b>Std.Err</b>	<b>z-value P</b>	<b>(&gt; z )</b>
<b>ASscore</b>	1			
<b>BfiOScore</b>	-0.397	0.073	-5.478	0.000
<b>BfiNScore</b>	1.007	0.133	7.594	0.000
<b>BfiCScore</b>	-0.802	0.108	-7.409	0.000
<b>BfiEScore</b>	-0.396	0.074	-5.317	0.000
<b>BfiAScore</b>	-0.739	0.1	-7.374	0.000
<b>SDscore</b>	-0.779	0.109	-7.139	0.000
<b>CSEscore</b>	-1.147	0.152	-7.541	0.000
<b>PAscore</b>	-0.853	0.124	-6.858	0.000
<b>NAscore</b>	1.011	0.139	7.299	0.000
<b>WusiWscore</b>	0.789	0.113	6.981	0.000
<b>WusiUscore</b>	0.812	0.114	7.135	0.000
<b>WusiIscore</b>	0.632	0.098	6.423	0.000

Variances:

	<b>Estimate</b>	<b>Std.Err</b>	<b>z-value P</b>	<b>(&gt; z )</b>
<b>.ASscore</b>	126.915	10.318	12.301	0.000
<b>.BfiOScore</b>	23.024	1.867	12.333	0.000
<b>.BfiNScore</b>	14.658	1.417	10.346	0.000
<b>.BfiCScore</b>	13.989	1.262	11.087	0.000
<b>.BfiEScore</b>	25.481	2.062	12.356	0.000
<b>.BfiAScore</b>	12.649	1.132	11.177	0.000
<b>.SDscore</b>	20.222	1.744	11.598	0.000
<b>.CSEscore</b>	21.71	2.044	10.621	0.000
<b>.PAscore</b>	34.031	2.866	11.873	0.000
<b>.NAscore</b>	26.91	2.373	11.342	0.000
<b>.WusiWscore</b>	25.317	2.151	11.771	0.000
<b>.WusiUscore</b>	22.093	1.904	11.603	0.000
<b>.WusiIscore</b>	28.498	2.354	12.106	0.000
<b>BMF</b>	28.381	7.419	3.826	0.000

fitMeasures(fit.1BAMF,c("chisq", "df", "pvalue", "cfi", "tli", "nfi", "rmsea", "srmr"))

$\chi^2$	df	p-value	cfi	tli	nfi	rmsea	srmr
528.169	65.000	0.000	0.773	0.728	0.751	0.15	0.095

standardizedSolution(fit.1BAMF, type = "std.all", se = TRUE, level = 0.95, cov.std = TRUE, GLIST = NULL, est = NULL, output = "text")

Latent Variables:

BMF =~	Estimate	Std.Err	z-value	P(> z )	ci.lower	ci.upper
ASscore	0.427	0.049	8.805	0.000	0.332	0.523
BfiOScore	-0.404	0.050	-8.125	0.000	-0.501	-0.306
BfiNScore	0.814	0.022	36.758	0.000	0.771	0.857
BfiCScore	-0.753	0.027	-27.559	0.000	-0.806	-0.699
BfiEScore	-0.385	0.050	-7.634	0.000	-0.484	-0.286
BfiAScore	-0.742	0.028	-26.356	0.000	-0.797	-0.687
SDscore	-0.678	0.033	-20.473	0.000	-0.743	-0.613
CSEscore	-0.795	0.024	-33.478	0.000	-0.842	-0.749
PAscore	-0.614	0.038	16.294	0.000	-0.688	-0.54
NAscore	0.72	0.030	24.106	0.000	0.662	0.779
WusiWscore	0.641	0.036	17.88	0.000	0.571	0.711
WusiUscore	0.677	0.033	20.39	0.000	0.612	0.742
WusiIscore	0.534	0.043	12.452	0.000	0.45	0.618

Variances:

	Estimate	Std.Err	z-value	P(> z )	ci.lower	ci.upper
.ASscore	126.915	10.318	12.301	0.000	0.736	0.899
.BfiOScore	23.024	1.867	12.333	0.000	0.759	0.916
.BfiNScore	14.658	1.417	10.346	0.000	0.267	0.408
.BfiCScore	13.989	1.262	11.087	0.000	0.353	0.514
.BfiEScore	25.481	2.062	12.356	0.000	0.775	0.928
.BfiAScore	12.649	1.132	11.177	0.000	0.367	0.531
.SDscore	20.222	1.744	11.598	0.000	0.452	0.628
.CSEscore	21.71	2.044	10.621	0.000	0.294	0.442
.PAscore	34.031	2.866	11.873	0.000	0.532	0.713
.NAscore	26.91	2.373	11.342	0.000	0.397	0.565
.WusiWscore	25.317	2.151	11.771	0.000	0.499	0.679
.WusiUscore	22.093	1.904	11.603	0.000	0.453	.630
.WusiIscore	28.498	2.354	12.106	0.000	0.626	0.805
BMF	28.381	7.419	3.826	0.000	1.000	1.000

reliability(fit.1BMF)

	<b>BMF</b>	<b>Total</b>
<b>alpha</b>	0.1622259104	0.1622259104
<b>omega</b>	0.0013822415	0.0013822415
<b>omega2</b>	0.0013822415	0.0013822415
<b>omega3</b>	0.0007191121	0.0007191121
<b>avevar</b>	0.3889678989	0.3889678989

lavInspect(fit.1BAMF,"cor.lv")

	<b>BMF</b>
<b>BMF</b>	28.381