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# Threat or Challenge? Intensified Job Demands and the Moderating Effect of Differentiated Transformational Leadership

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**THREAT OR CHALLENGE? INTENSIFIED JOB DEMANDS AND THE  
MODERATING EFFECT OF DIFFERENTIATED TRANSFORMATIONAL  
LEADERSHIP**

by

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## ABSTRACT

### THREAT OR CHALLENGE? INTENSIFIED JOB DEMANDS AND THE MODERATING EFFECT OF DIFFERENTIATED TRANSFORMATIONAL LEADERSHIP

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Old Dominion University, 2017  
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Over the past 30 years, industrialized democracies have experienced major economic change due to globalization, economic instability, and rapid technological innovation. To remain viable, organizations maximize flexibility through strategies like downsizing, just-in-time inventory, and temporary labor. Consequently, employees face heightened responsibility, variable workloads, and rising job insecurity. While these demands are stressful, at times, some may represent an exciting challenge. Recently, researchers started studying how the long-term intensification of work affects employees via intensified job demands. This dissertation builds on their efforts by exploring *short-term* job demand intensification. Specifically, the transactional model of stress and the job demands-resources model were utilized to examine how a) intensified job insecurity, b) intensified decision-making and planning (IDP), and c) work intensification influence employee burnout and work engagement. It was hypothesized that all intensified job demands would be positively associated with burnout while potential challenge demands, like IDP, would positively predict work engagement. Further, drawing upon the intrinsic linkage between transformational leadership (TL) and environmental uncertainty, it was theorized the effects of intensified job demands would be differentially moderated by the four, core TL dimensions such that supportive dimensions (e.g., individualized consideration) would act as buffers whereas others, like inspirational motivation, would act as motivational boosters. A total of 443 full-time workers recruited through MTurk responded to two surveys administered

30 days apart. Each intensified job demand was positively related to burnout and intensified job insecurity negatively predicted work engagement, whereas IDP did not. Interestingly, the bivariate work intensification—work engagement relationship was negative, but became positive after controlling for core self-evaluations. Contrary to expectations, inspirational motivation, idealized influence, and individualized consideration reverse-buffered the effects of intensified job insecurity and work intensification on burnout and work engagement such that these dimensions exacerbated both intensified job demands' negative effects. Further, exploratory analyses detected several three-way interactions. Overall, the aforementioned findings contribute to the nascent literature on intensified job demands as well the more studied, but still incomplete construct of TL. Moreover, this study sheds light on a number of practical implications regarding employees' experiences with intensified job demands and the modern nature of work.

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*“Whence this lifeless dejection, Arjuna, in this hour, the hour of trial? Strong men know not despair, Arjuna, for this wins neither heaven nor earth.*

*Fall not into degrading weakness, for this becomes not a man who is a man. Throw off this ignoble discouragement, and arise like a fire that burns all before it.”*

Bahgavad Gita, Chapter II, V 2-3, Juan Mascaro Translation

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## CHAPTER I

### INTRODUCTION

Today more than ever workers identify their jobs as one of the most stressful aspects of their daily lives (Anderson et al., 2012). Additionally, many employees feel that job-related stress has increased in recent years and is only getting worse (Franke, 2015). A large degree of work-related stress can be attributed to the fact that over the past few decades in Western societies the nature of work has begun to change at an increasingly rapid pace (Ladipo & Wilkinson, 2002). Continual globalization and financial market variability means organizations need be lean and nimble to compete with intense competition in both domestic and foreign markets (Hudson, 2002; Scheve & Slaughter, 2004). This has led more and more organizations to adopt practices like restructuring, downsizing, lean and flexible staffing, and process reengineering (Cascio, 2003; Houseman, 2001; Hudson, 2002). At the same time, this ever-more connected and unstable economic landscape is also characterized by an almost insatiable consumer appetite for innovative new products and technologies all delivered at a moment's notice (Powell, 2000). In order to stay afloat in this constantly shifting environment, organizations require their employees to adopt similar flexibility themselves to keep pace with constant increases in workload, time-pressure, and responsibility as well as concern over job security (Hudson, 2002; Smith, 1997).

There are numerous negative consequences to increased stress which include mental and physical exhaustion, anxiety, frustration, and depression as well as psychosomatic symptoms and various physical complaints (Nixon, Mazzola, Bauer, Krueger, & Spector, 2011; Quick, Wright, Adkins, Nelson, & Quick, 2013). Additionally, employees who experience more work stress also have lower motivation, are less engaged at work, and are less satisfied with their jobs

(Crawford, LePine, & Rich, 2010; Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). In turn, these negative outcomes result in worse employee job performance, more absenteeism, sick days, and healthcare costs, as well as increased turnover costing the global economy billions of dollars per year (Rosch, 2011). Accordingly, in order to reduce the deleterious effects of work stress, it is imperative that researchers continue to examine both the source of stress as well as ways to potentially buffer its impact on employees' health, well-being, and motivation (Sonnentag & Frese, 2013).

Generally, the negative effects of job demands for employees is most commonly studied via the Job Demands-Resources (JD-R) model which posits that the process of expending extra resources and energy in order to cope with demanding work conditions eventually leads to fatigue, exhaustion, and burnout (Demerouti, Nachreiner, Bakker, & Schaufeli, 2001). On the other hand, job resources, like supervisor support or job autonomy, help buffer the effects of job demands as well as directly increase employee motivation and work engagement (Schaufeli & Bakker, 2004). Although there is a long tradition of studying job demands (Van der Doef & Maes, 1999), much of the research fails to capture the often dynamic nature of modern jobs instead focusing on relatively stable features of the work environment (Kubicek, Korunka, Paskvan, & Ulferts, 2015). This is problematic as people tend to become inured to chronic stressors over time thereby reducing their impact on well-being and making it difficult for scientific research to adequately identify the most salient workplace stressors (Lazarus & Folkman, 1984). However, within the past few years, a growing number of researchers have begun to address this problem by examining employee perceptions of intensified job demands as opposed to more traditional demands and their relationship to JD-R outcomes like burnout and, to a lesser degree, work engagement (Kubicek et al., 2015; Kubicek, Korunka, & Ulferts, 2013;

Paskvan, Kubicek, Prem, & Korunka, 2015). Perceptions of intensified job demands are unique from more traditional job demands in that they are designed to specifically capture the frequent, upward trajectories of job demands arising from the nature of modern work (Franke, 2015).

Although there is no single accepted definition in the literature, the study of intensified job demands generally involves measuring perceptions regarding the extent to which the intensity of a job demand has *increased* over a period of time (e.g., Franke, 2015; Kubicek et al., 2015). Accordingly, perceptions of intensified job demands are unique from more traditional job demands in that they are designed to specifically capture the frequent, upward trajectories of job demands arising from the nature of modern work (Franke, 2015). For example, Franke (2015) differentiates between work intensity and work intensification by categorizing the former as a steady state of work and the latter as a temporal increase in intensity which taps the dynamic nature of work. Similarly, Kubicek et al. (2015) defined work intensification as “the amount of effort an employee needs to invest during the working day increases. It is a multifaceted construct that is characterized by the need to work at increasing speed, perform different tasks simultaneously, or reduce idle time” (p. 899). Other intensified job demands studied in the literature have been designed to capture perceptions of increasing economic uncertainty (Obshonka & Silbereisen, 2015) as well as an increasing need for skill development and career related planning (Kubicek et al., 2015). Like work intensification, other intensified job demands share two main traits: a) they arise from the ongoing evolution of work and b) they are dynamic in nature shifting based on market trends and the law of supply and demand (Kubicek et al., 2015).

Currently, research on intensified job demands is still at an embryonic stage and there is much room for further development and expansion of the literature. In particular, there is a need

to a) examine the sensitivity of intensified demand scales for shorter reference periods (the initial instruments ask respondents about the past five years, see Kubicek et al., 2015) given the fluctuating nature of modern workplace demands, b) expand the intensified demand typology to include other frequently encountered workplace demands like intensified job insecurity that have yet to be examined, and c) investigate the possibility that employees may perceive certain intensified demands to actually be motivating due to the fact employees may view them as challenges as opposed to threats or hindrances. Accordingly, this dissertation study attempts to address each of the aforementioned gaps for intensified job insecurity, intensified decision-making and planning (*henceforth IDP*), and c) work intensification.

These three intensified job demands were chosen as the foci for this study for several key reasons. First, although there is a robust literature on traditional job insecurity (De Witte, 2009), no studies have specifically examined employee perceptions of intensified job insecurity to-date. Second, research on the relationship between IDP and work intensification and motivational outcomes like work engagement is also lacking as well. Third, and perhaps most importantly, the three aforementioned intensified job demands differ from other previously studied intensified job demands in that employees may experience both long-term, *and short-term*, variability in said intensified job demands. In other words, an intensified job demand such as work intensification may a) occur gradually over time, and/or b) rapidly over the course of a month both due to fluctuations in business demand and other economic forces (Burchell, 2002). On the other hand, a demand like intensified career-related planning and decision-making demands is likely to increase slowly over longer periods of time and be less sensitive to more recent events (Kubicek et al., 2015).

While the identification, proper operationalization, and examination of increasingly

prevalent workplace demands is unquestionably a critical step in furthering occupational health research, simple stressor-strain associations are rarely sufficient these days (Scahufeli & Taris, 2014). Concerned organizational stake-holders, policy-makers, scientific practitioners, and academicians not only all clamor for information about how and why employee strain occurs, but also ways to prevent or reduce such strain (Bellarosa & Chen, 1997). Unfortunately, it is unlikely that job demands and resultant strains will ever be completely eliminated, but it is possible to identify certain protective factors which can help ameliorate the negative effects of demands on employee strains (LaRocco, House, & French, 1980). One particular protective factor directly under the purview of organizations is leadership (Kelloway & Barling, 2010).

It is difficult to overstate the importance of leadership in the organizational context as leadership behaviors not only impact employees' motivation and performance (Bass & Stogdill, 1990), but also affect employee well-being outcomes such as anxiety, burnout, and accidents/injuries as well (Kelloway & Barling, 2010). Interestingly, although there is a large and diverse literature linking the direct effect of leadership behavior to stressors and strains (Skakon, Nielsen, Borg, & Guzman, 2010; van Dierendonck, Haynes, Borrill, & Stride, 2004), far less research examines the role of leadership as a protective factor, or "a buffer" to job demands. Further, many studies that have examined leadership as a buffer, particularly studies examining the construct of supervisor support, provide inconsistent results in terms of identifying significant buffering effects (e.g., Etzion, 1984, Kaufmann & Beeher, 1986, La Rocco & Jones, 1978). One of the most compelling theoretical explanations for this is that past studies have failed to adequately match specific stressors to specific leadership constructs when testing buffering hypotheses (Cohen & Willis, 1985; Cutrona & Russell, 1990). This is a critical oversight as it inhibits organizational scholars from building and refining accurate leadership and

occupational health theory as well as promoting doubt as to the efficacy of leadership as a protective factor despite solid conceptual rationale to believe that it is, in fact, effective (Skakon et al., 2010). Consequently, in addition to extending research on intensified job demands, this study also attempts to theoretically match leadership behaviors to specific intensified demands to appropriately examine leadership as both a protective and potentially, motivating, moderator.

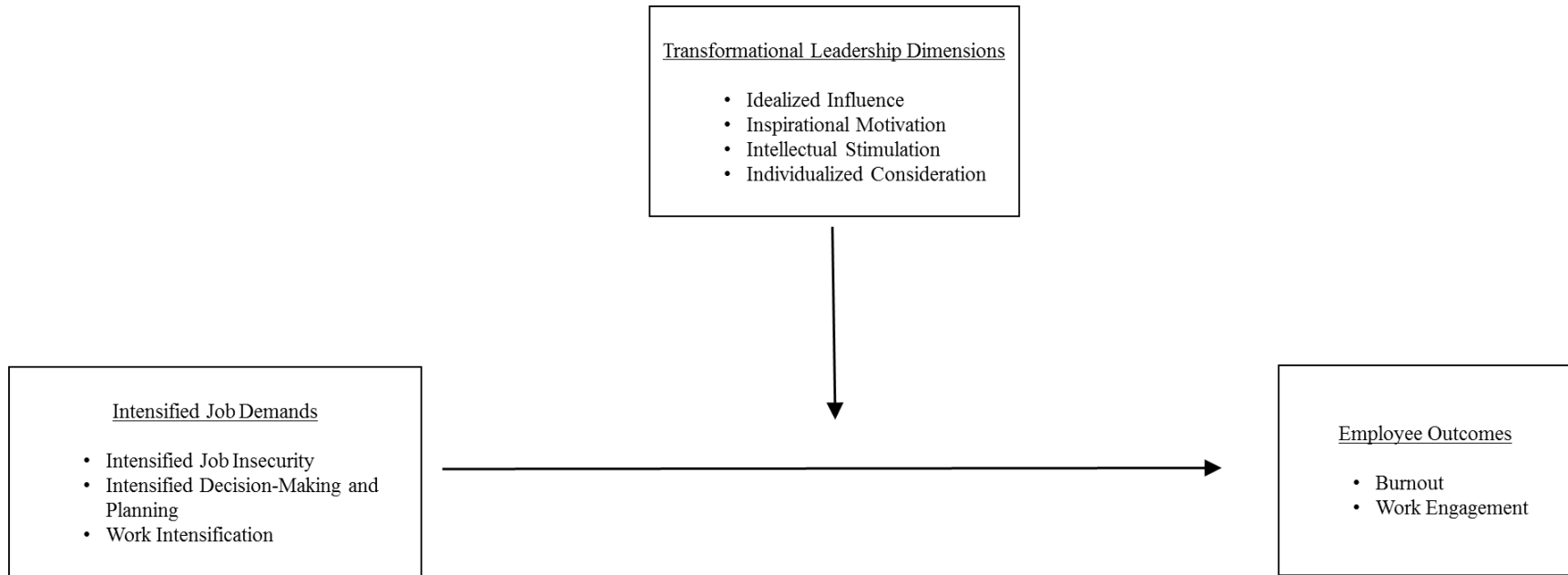
Given the importance of matching specific leadership theories to specific job demands, and this study's emphasis on intensified job demands, one leadership theory which is particularly well-suited to the proposed investigation is transformational leadership (Bass, 1985). There are several reasons for this. First, most, if not all, of early charismatic-transformational leadership theory suggests it is most critical during times of change, crisis and uncertainty (Bass, 1985; Bass & Riggio, 2006; House, 1977; Weber, 1947). This is particularly relevant given the tumultuous economy, the changing nature of work, and high prevalence of intensified job demands (Burchell, 2002). Second, the core transformational leadership dimensions and behaviors (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration) are also well-suited to both reduce the negative effects, and potentially enhance any positive effects, of intensified job demands on outcomes like burnout and work engagement as they include both motivational aspects (e.g., inspirational motivation) and supportive facets (e.g., individualized consideration). Although the latter rationale suggests transformational leadership should act as a moderating job resource in a wide variety of stressful situations (Bass & Riggio, 2006), there is little research to that end. And while what research does exist on transformational leadership as a job resource generally suggests it is effective (Arnold & Walsh, 2015; Bass et al., 2016; Syrek, Apostel, & Antoni, 2013), it is unclear exactly how or why it is effective in that role given the potentially different effects of its four core



dimensions (van Knippenberg & Sitkin, 2013). This is in line with general theoretical criticisms levelled against transformational leadership that suggest regardless of domain and hypothesized causal role, it is necessary for researchers to differentially examine transformational leadership behaviors (van Knippenberg & Sitkin, 2013; Yukl 1999). Fittingly, multiple researchers have begun to answer this call in recent years (e.g. Boies, Fisset, & Gill, 2015; Franke & Felfe, 2011; Hoffmeister et al., 2014; Parr, Hunter, & Ligon, 2013). Following their lead, this study will examine the differential buffering effects of core transformational leadership behaviors on the four previously mentioned intensified job demands. In doing so, it will rely on one of the most comprehensive stress theories, the transactional model of stress (Lazarus & Folkman, 1984). A conceptual model presenting an overview of the proposed theoretical processes is presented in Figure 1.

Thus, the primary contributions of the proposed study are twofold: 1) extend the recently developed notion of intensified job demands within the JD-R framework whereby the differential effects of intensified job insecurity, IDP, and work intensification on burnout and work engagement are examined and 2) attempt to better understand how the core transformational leadership dimensions differentially moderate the effects of intensified job demands on both burnout and work engagement. Not only will these contributions broaden the literature on both occupational health and leadership, but this study also has the potential to aid organizational stakeholders interested in enhancing both employee well-being and organizational effectiveness. In particular, the results from this dissertation can a) demonstrate the utility of measuring perceptions of intensified demands in organizational needs assessments and annual opinion surveys and b) isolate which leadership behaviors are most critical in preventing employee

burnout and maintaining work engagement thus providing the basis for future interventions (Kelloway & Barling, 2010).



*Figure 1.* Conceptual Model. Model depicts the potential moderating influence of transformational leadership dimensions on the relationship between intensified job demands and burnout and work engagement.

## CHAPTER II

### JOB DEMANDS-RESOURCES MODEL

As previously noted, the JD-R model (Demerouti et al., 2001) suggests there are certain demanding features of the work environment (i.e., job demands) that tax employees' mental effort and energy and consequently lead to exhaustion or burnout whereas other more positive features of the work environment (i.e., job resources) increase employee motivation leading to work engagement (Schaufeli et al., 2004). In addition, job resources can help protect, or buffer, employees from the job demands and the costs associated with these demands as well (Demerouti et al., 2001). The following sections discuss the theoretical framework and validity of the JD-R model devoting extra attention to the potentially motivating nature of certain demands and the buffering role of job resources.

#### **Burnout**

The concept of burnout first originated from research on human service employees and has traditionally consisted of three main dimensions: 1) emotional exhaustion, 2) cynicism, and 3) reduced personal accomplishment (Maslach, 1976; Maslach, Schaufeli, & Leiter, 2001). Emotional exhaustion is the product of extended periods of intense energy expenditure in terms of cognitive and emotional effort (e.g., dealing with job demands; Demerouti et al., 2001). Individuals who are emotionally exhausted feel they lack the resources and energy to cope with continued work demands and often dread coming to work each day (Maslach et al., 2001). As emotional exhaustion grows, employee often attempt to cope by adopting cynical attitudes and distancing themselves from their work (Maslach et al., 2001). This distancing is a part of a conscious or non-conscious coping strategy whereby individuals attempt to reduce the importance of what they perceive to be the source of exhaustion and frustration. Lastly, reduced

personal accomplishment stems from an overall lack of resources as well as feelings of inadequacy because of lowered performance due in part to the other two dimensions (Maslach, 2003). Generally speaking, emotional exhaustion and cynicism are considered to be the core dimensions of burnout while reduced personal accomplishment is less theoretically developed and utilized (Maslach, 2003).

Given the theoretical framework of the JD-R, most, if not all, job demands have at a minimum a small positive relationship with burnout (Demerouti et al., 2001). However, antecedent demands with the strongest empirical relationships include workload and role conflict (Alarcon, 2011; Lee & Ashforth, 1996). Additionally, it is important to note that prolonged periods of experienced burnout often result in other negative consequences for employees like physiological health problems, depression, reduced job performance, and turnover among others (Alarcon, 2011). Research also indicates that individuals with certain personal characteristics like neuroticism and negative affectivity are more inclined to experience higher levels of burnout (Alarcon, Eschleman, & Bowling, 2009), although demand-burnout relationships usually remain significant after controlling for these dispositional characteristics (e.g., Iverson, Olekalns, & Erwin, 1998).

### **Work Engagement**

Over the years, work engagement has been operationalized in many different ways (Saks, 2006), but within the JD-R context it is described as a work-related state of positive fulfillment comprised of three dimensions: 1) vigor, 2) dedication, and 3) absorption (Schaufeli & Bakker, 2004). Vigorous employees have an abundance of energy which they willingly invest in work-related tasks and display resilience and persistence in the face of obstacles. Individuals who display high degrees of dedication are enthusiastic, proud, and challenged by their work whereas

absorbed employees are immersed in their work-related tasks often losing track of time (Schaufeli & Bakker, 2004). The strongest antecedents of employee work engagement include opportunities for development, job variety, and work-role fit (Crawford et al., 2010). Outcomes include higher job satisfaction, organizational commitment, and task and contextual job performance (Halbesleben, 2010). Based on their general definitions, sub-dimensions, and relationships with other variables it is clear that burnout and work engagement share many conceptual similarities (Schaufeli & Bakker, 2004). In fact, some researchers have gone so far as to suggest they are, in fact, polar opposites and should be measured as a single unified construct (Gonzalez, Chaufeli, Bakker, & Lloret, 2006). However, most studies continue to examine them as separate, but related (typically a moderate negative relationship) constructs (Schaufeli, 2012). This is because it is highly conceivable that an employee can feel “burnt out” at work during a specific retrospective timeframe while also simultaneously feeling energized and absorbed during the same time span as well (Schaufeli & Bakker, 2004). Accordingly, this study operationalizes both constructs as distinct from one another.

### **Job Demands**

Demerouti et al. (2001) define job demands as “those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs” (p. 501). Examples include loud noise, social or emotional conflict, or role ambiguity. Demands like these are thought to result in tiredness, fatigue, and ultimately the phenomenon of burnout through an energetic process (Demerouti et al., 2001). The model assumes that when faced with job demands, employees attempt to “protect” their level of performance by spending additional cognitive and emotional effort in order to deal with the demand so that performance does not suffer (e.g., performance

protection strategy; Hockey, 1997). Alternatively, if an individual determines a demand cannot be dealt with satisfactorily, they may instead accept performance decrements in order to conserve energy. Although this has the effect of avoiding short-term fatigue, this strategy still has costs in terms of negative emotions due to unmet expectations (both self and other) as well as an accrued toll from failing to effectively deal with the demand thus ultimately still resulting in mental and emotional exhaustion. This energetic process, as Demerouti et al. (2001) note, is line with both Hockey's (1997) model of compensatory control and Eyesneck and colleagues' attentional control theory (Eyesneck Derakshan, Santos, & Calvo, 2007).

The compensatory control model suggests that performance protection strategies are associated with both activation of the sympathetic nervous system in terms of higher subjective effort and/or autonomic arousal and endocrine excretion (Hockey, 1997). Generally, experiments show that although there are rarely performance decrements for individuals working under demanding conditions, physiological costs like fatigue are higher than for individuals in less demanding conditions (Hockey, 1997; Hockey & Hamilton, 1983). Eyesneck et al. (2001) focus more on the cognitive-motivational aspect of demands proposing that individuals engaged in goal-directed activities (e.g., task performance), who experience demands that necessitate off-task attention, tend to become anxious and worried as they view the demand as a threat to goal attainment. Worry tends to interfere with short-term memory and reduces attention, which, in turn, leads to lower efficiency (e.g., ratio of effectiveness to mental resources). This means not only is more energy expended, but individuals working under high demands also experience more negative emotions which also takes a physiological and emotional toll (Eyesneck, 1983). Thus, taken together, these theories help explain why the negative effects of job demands accumulate over time and lead to strains like burnout and reduced work engagement.

### **Challenge-Hindrancel Job Demands**

While the initial definition and subsequent classification of job demands seems to imply they are uniformly negative in terms of their effects on employees, more recent research suggests this is not necessarily the case (Cavanaugh, Boswell, Roehling, & Boudreau, 2000; LePine, Podsakoff, & LePine, 2005). In particular, there is evidence that certain job demands, such as workload, time pressure, and responsibility, can actually positively impact employee motivation (Crawford et al., 2010). Although these findings are seemingly counterintuitive, they are less surprising considering the theoretical rationale behind this research is based on Lazarus and Folkman's (1984) transactional model of stress. This model emphasizes the cognitive aspect of the stressor-strain (e.g., job demand-burnout) relationship which consists of a continuous and inter-related three-part process: primary appraisal, secondary appraisal, and coping. A core tenet of the model is that in and of themselves, job stressors (demands) are inherently neutral. When encountering a potential job demand, an employee first determines whether the demand will lead to harm/loss, the threat of harm/loss, or whether the demand alternatively represents a challenge and an opportunity for growth and/or gain. The next step in the process is secondary appraisal where the individual decides how to best cope with the demand. Coping can either be problem-focused where one employs strategies like actively trying to eliminate the demand through self-directed action or seeking help from others or even trying to harness the demand to one's own benefit. Emotion-focused coping, on the other hand, solely revolves around trying to lessen the impact of the demand through emotional regulation and avoidance techniques. Depending on the effectiveness of these techniques, the demand is continually reappraised and the process begins anew. Empirical research suggests that the main determinant of both initial demand appraisal and the particular coping strategy employed are a) the perceived controllability of the demand,



and b) the individual's own subjective determination of his or her ability to effectively deal with the demand (Lazarus, 1966; Lazarus & Folkman, 1984).

Within the past decade, several organizational scholars have reasoned that on average, certain job demands would be more likely to be appraised as challenging while others, on average, would be more likely to be appraised as threatening or harmful (Crawford et al., 2010). The former, called challenge demands, potentially lead to personal gain and growth by facilitating work-related goals through extra motivation and effort which can ultimately lead to beneficial outcomes. For instance, a demand like time pressure, while stressful, also leads to higher levels of performance thus increasing the likelihood that production-related work goals will be met. Conversely, demands that are seen as hindrances to goal achievement and prevent growth, i.e., hindrance demands, will be appraised as harmful and consequently sap motivation and promote withdrawal from work. An example of a hindrance demand would be work interruptions by other people so that focusing on and completing specific tasks is made more difficult which should both increase frustration and reduce motivation (Cavanaugh et al., 2000). Thus, while both types of demands are positively related to burnout and other fatigue-related strains, challenge demands are positively related to motivational outcomes like work engagement and job satisfaction whereas hindrance demands have a negative relationship with these same outcomes (Crawford et al., 2010; LePine et al., 2005).

### **Job Resources**

In contrast to job demands, the JD-R states that job resources have three main potential functions: 1) help employees achieve work-related goals, 2) either directly reduce job demands or assuage their costs, and 3) promote personal growth and development (Demerouti et al., 2001). Specific examples of resources include job-related characteristics like task variety or

feedback (Hackman & Oldham, 1976) as well as more psychosocial aspects of the work environment like supervisor and co-worker support (Eisenberger, Huntington, Hutchinson, & Sowa, 1986). Job resources are believed to influence employee work engagement by stimulating employees' intrinsic motivation and satisfying core psychological needs like the need to belong or the need for competence (Schaufeli & Bakker, 2004). This is in line with both self-determination theory, which suggests certain types of tasks and aspects of work are inherently motivating due to intrinsic-need fulfillment (Deci & Ryan, 2000), as well as the job characteristics model (Hackman & Oldham, 1976) where certain core job facets have the potential to lead to positive psychological states (e.g., meaningfulness) and outcomes (e.g., job satisfaction).

Job resources also have the potential to impact extrinsic motivation given that they are also functional in helping employees achieve work goals (Demerouti et al., 2001; Schaufeli & Bakker, 2004). Consequently, a resource like supervisory coaching may not only be motivating due to its effect on an individual's need for competence or desire for mastery, but also because it leads to the development of skills which leads to greater organizational rewards and opportunities. Finally, job resources reduce the impact of job demands in several key ways. First, some job resources reduce employee exposure to demands themselves (e.g., supervisor removing potential safety hazards; Nahrgang, Morgeson, & Hofmann, 2011). Second, job resources have the potential to alter both how employees perceive demands as well as how they choose to cope with them thus mitigating the demand's negative effects (Schaufeli & Taris, 2014). For instance, having a resource like strong social support may lead employees to see demands as less likely to tax their abilities as well as influence the employee to choose effective problem solving strategies for dealing with the demand (Lazarus & Folkman, 1984).

### **JD-R Model Validity Evidence**

The JD-R model has accumulated a large amount of empirical support over the past 15 years since it was first conceptualized by Demerouti and colleagues (2001). Namely, multiple meta-analytic summaries provide strong evidence for the positive relationship of job demands with burnout and of job resources with work engagement (Alarcon, 2011; Crawford et al., 2010; Haseleselben, 2010; Lee & Ashforth, 1996; Nahrgang et al., 2011). First, pre-dating the development of the actual JD-R model, Lee & Ashforth (1996) conducted a meta-analysis on burnout antecedents and found demands like workload, role conflict, and stressful events had small to moderate positive relationships with burnout, while resources like support, autonomy, and participation had small to moderate negative relationships with burnout. Alarcon (2011) also meta-analytically examined burnout antecedents and reported similar results with moderate positive relationships for job demands like workload and role conflict and small negative relationships for resources like job control and autonomy. Nahrgang et al. (2011) studied the relationship of safety-related job demands such as risks/ hazards and physical demands as well as resources like safety climate with burnout and found a pattern of results consistent with the JD-R propositions. They also found that resources were positively correlated with work engagement as well as other safety outcomes like compliance. Halbesleben (2010) solely focused on the antecedents of work engagement and found that social support and control had small positive relationships. Finally, Crawford et al., (2010) provided meta-analytic evidence for the challenge-hindrance demand framework within the JD-R by showing that time pressure, workload, and responsibility (challenge demands) exhibited small positive relationships with engagement while demands like role conflict or administrative hassles had small negative relationships to

engagement. Additionally, all demands regardless of type were positively related to burnout (Crawford et al., 2010).

## CHAPTER III

### INTENSIFIED JOB DEMANDS

#### **Changes in the Nature of Work**

For several decades now, organizational scientists, sociologists, and economists have been acknowledging a massive shift in the nature of work referred to as the “flexible turn” (Cascio, 2003; Fullerton & Wallace, 2007; Hudson, 2002). Most researchers and historians agree this fundamental shift began in the 1970s and can be attributed in large part to economic events such as the oil crisis, inflation, stagnant economic growth, and increased global competition from emerging markets (Fullerton & Wallace, 2007). In order to stay competitive, many organizations in the U.S. and Western Europe began to move away from the mass production techniques that characterized Western post-WWII economies and move towards greater flexibility in terms of strategy and structure (Kalleberg, 2003; Smith, 1997). In the following years, the trend toward greater flexibility has not only continued, but accelerated due to a steady upward trend of economic global interconnectedness as witnessed by numerous free-trade agreements (e.g., NAFTA, AFTA, TPP, etc.) and politico-economic unions (e.g., EU; Green 2004b; Lapido & Wilkinson, 2002).

Although this period has also been characterized by marked economic growth and development, it has likewise been accompanied by frequent periods of intense market instability and recession due to globalized interdependence (Burch, 2002; Hollister, 2011). Throughout this same time span, and particularly in recent years, these changes have also been accompanied by an exponential growth in technological advancement (Cascio, 2010; Lapido & Wilkinson, 2002). Both organizational and economic research indicates that this technological growth further destabilizes financial markets due to the constant obsolescence of existing products and services

which necessitates even greater levels of organizational adaptability (Powell, 2000).

An organization's turn toward greater business flexibility generally implies increased decentralization, reduced differentiation, and flattening of hierarchies in terms of organizational design as well as overall expansion or contraction (Hudson, 2002). Additionally, flexible organizations tend to implement practices like just-in-time inventory procedures, job expansion and/or rotation, teams and self-managed work groups, and more empowerment and participation which serves to ensure employees innovate and collaborate more, have the ability to make rapid decisions, and can draw upon a broad repertoire of knowledge and skills when attempting to adjust to dynamic environmental conditions (Cascio, 2003). And indeed, these practices mean the organization as a whole can better adapt to unforeseen events and efficiently align its business strategy with prevailing market forces (Brown & Eisenhardt, 1997). This principle is at the core of structural contingency theory which suggests both organizational survival and effectiveness is contingent upon appropriate environmental fit (Pennings, 1992).

While flexibility has allowed many organizations and even entire business sectors to adequately compete and even thrive in the modern economy, the effect on employees' daily work experience is more complex (Godard, 2001; Wichert, 2002). Increased skill-discretion, learning opportunities, greater responsibility, and participation can all be considered job resources which increase employee work engagement (Schaufeli & Bakker, 2004). Again, theory suggests these job features help satisfy higher-order psychological needs like competence and should make jobs more intrinsically motivating which leads to greater vigor, dedication, and absorption (Schaufeli & Bakker, 2004).

The formal relationship between employer and employee also changed during this period as well (Fullerton & Wallace, 2007). The move away from economies based on mass-production

and manufacturing towards service and information has resulted in the decline of trade union influence as well as the privatization of public sectors (Lapido & Wilkerson, 2002). This, along with regular downsizing across industries in order to ensure profitability has led to an erosion of what had been characterized as a “social contract” between employer and employee where in exchange for loyal service the employee was to a large extent guaranteed a position and pension until retirement (Kalleberg, 2009; Keim, Landis, Pierce, & Earnest, 2014; Powell, 2000). On one hand, self-directed employees with valuable skill-sets have been able to leverage this trend by pursuing upward mobility through frequent changes in jobs, and even careers (Hall, 2004). In fact, this attitudinal and behavioral shift was first chronicled as far back as 1976 when Douglas Hall first used the term “protean career” to distinguish people more concerned with freedom, growth and subjective success compared to stability and salary considerations.

On the other hand, along with these benefits, the flexible economy also comes with major drawbacks for employees as well (Burchell, 2002). In particular, it is important to note that not all employees are able to take advantage of more “boundary-less” careers as jobs and skill-sets that are in-vogue one minute can become obsolete overnight due to technological change and the high cost of continuing education (Burchell, 2002; Obschonka et al. 2012). Accordingly, disappearing jobs, frequent layoffs, and the hiring of more temporary workers has resulted in a widespread sense of job insecurity among modern employees as well (Keim et al., 2014; Stiglbauer & Batinic, 2015). A longitudinal study by Fullerton and Wallace (2007) reported that subjective feelings of job insecurity have steadily risen over a 25-year period, after controlling for unemployment rate.

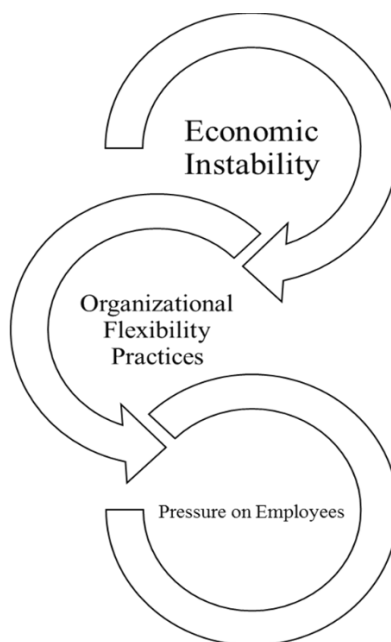
Not only have feelings of job insecurity increased over the years, but there is also considerable evidence that work itself has become more intense (Green, 2004; Ladipo &

Wilkinson, 2002). As noted previously, new technology and automation, just-in-time inventory, and instant access to information have frequently resulted in greater job enrichment and responsibility for employees (Goddard, 2001). With this increased responsibility, however, also comes more pressure (Ladipo & Wilkinson, 2002). This is because the pressures of organizational practices like lean production and just-in-time inventory are often necessarily transferred to employees in terms of more variable workload, greater impetus to meet deadlines, and demand for higher productivity (Burchell, 2002; Hudson, 2002). For instance, there is research that indicates vertical task loading (greater responsibility and decision-making authority) often goes hand-in-hand with greater horizontal task loading (responsibility for more tasks in general; Hudson, 2002). There is also trend data and economic research to support the general intensification of work as well. First, data indicate an upward climb in productivity without a corresponding increase in the number of workers entering the labor force for U.S. and European economies (Green, 2001; Productivity Growth by Major Sector, 2016). Although this may be partially due to new technologies, it can also be interpreted as a sign that fewer workers are doing more work (Green, 2001). This also meshes with an upward trend in workers' subjective perceptions of an overall increase in work effort (Burchell, 2002; Green, 2004; Green, 2001).

In sum, there is evidence for both a steady increase in job insecurity and the intensification of work (Burchell, 2002). Employees' not only feel that their jobs are highly demanding, but are also acutely aware their employment status is tenuous at best (Keim et al., 2014). Considering this, it is unsurprising that researchers have begun to examine the effects of employee perceptions of intensified job demands on their well-being (e.g., Kubicek et al., 2015; Paskvan et al., 2015, Korunka et al., 2015). Figure 2 illustrates the process of how macro-



economic conditions affect individual employees.



*Figure 2.* Effect of economic change on employees.

### **Intensified Job Demands resulting from the Changing Nature of Work**

Despite the fact that most workers are affected by the “flexible turn” (Fullerton & Wallace, 2007), the extant research on intensified job demands is relatively limited. Several studies from the industrial relations literature first incorporated perceptions of intensified job demands (Green, 2001; Krause, Scherzer, & Rugulies, 2005; Zeytinoglu et al., 2007). Green (2001) reexamined over a decade’s worth of governmental survey data collected from British laborers which included questions regarding perceived increases in work speed and required effort over the period of time from the survey’s last administration (three to five years). Krause et al. (2005) operationalized work intensification for a sample of Las Vegas hotel workers in

terms of perceived changes in tasks and/or problems over the last five years or since the respondent began working. In a sample of Ontario nurses who had previously undergone healthcare restructuring, Zeytinoglu et al. (2007) included a work intensification scale which asked nurses about perceived increases in general workload intensity and heavier workload as well as nursing specific questions like more unpaid work or shift assignments.

Taking inspiration from this earlier work, occupational health psychologists have also started to study a number of new intensified demands. First, Obschonka et al. (2012) studied perceptions of increases in job-related learning tasks (e.g., learning new technologies) and labor market uncertainties (e.g., difficulty planning one's career path) over a five year period in two samples of German and Polish employees. Kubicek et al. (2013) measured the acceleration-related demands of elder-care nurses which consisted of a) demands for technological acceleration, b) demands for social change, and c) demands for the acceleration of life. Respondents were asked whether these demands increased or decreased over the past few years.

Kubicek and colleagues (2015) further refined their prior work by developing the intensification of job demands (IDS) scale. In their study, the authors relied on economic data and sociological theory (e.g., Rosa, 2003) to identify five different demands arising from social, political and economic change: 1) work intensification, 2) intensified job-related planning and decision-making demands, 3) intensified career-related planning and decision-making demands, 4) intensified knowledge-related learning demands, and 5) intensified skill-related learning demands. Overall, Kubicek et al. (2015) tested the proposed factor structure across four European service worker samples (three Austrian and one German) and found good fit for the five factor model. They also reported that survey respondents could discriminate between intensified job demands and more traditional job demands and resources (e.g., work

intensification versus time pressure). Obschonka and Silbereisen (2015) also continued their earlier work by examining perceptions of increasing labor market uncertainties, increasing non-standard work hours (e.g., more overtime, night and weekend shifts), and increasing job autonomy in a nationally representative sample of German workers. Meanwhile, Korunka et al. (2015) asked a sample of Austrian elder-care workers whether work intensification and intensified learning demands had increased over the past few years. Additionally, Franke (2015) simply operationalized work intensification with a single item asking whether stress and work pressure had changed in a large ( $N = 20,036$ ) sample of German workers.

Similar to past research, the present study conceptualizes intensified job demands as employee perceptions of increasing job demands over time. However, unlike past research (a la Kubicek et al., 2015), this study shifts the focus from the long-term, more gradual intensification of work toward perceptions of more recent, and possibly, intense changes. Currently, intensified job demand measures like the IDS ask participants to indicate the extent to which demands have increased either over a five year period or within the last couple of years (Franke, 2015; Kubicek et al., 2015; Korunka et al., 2015). Although this makes sense given the fact that socioeconomic changes are often gradual (Ladipo & Wilkinson, 2002), there is also sufficient conceptual rationale to try and measure significantly more short-term perceptions of intensified job demands.

For one, economic research indicates that not only is work intensifying over time, but also that it is becoming increasingly more variable (Green, 2001; Piansa, 2015). In particular, the highly competitive globalized economy means flexible businesses must be able to accept and turn around work orders for demanding customers almost instantaneously (Shah et al., 2011). Companies often achieve this through just-in-time inventory practices or the use of big data to

forecast staffing needs (Shah et al., 2011). Unfortunately, these practices are not always accurate and organizations often opt to understaff as opposed to overstaff, which, again, shifts the burden directly onto employees who need to deal with sporadic increases in workload in the advent of new business as well as increased job insecurity during business lulls (Houseman, 2001). In support of this, studies that have looked at job demands on a more micro-level (e.g., day or week) have indeed found a high degree of variability across the entire course of their study (Tadic, Bakker, & Oerlemans, 2014; Totterdell, Wood, & Wall, 2006). Accordingly, long-term perceptions of intensification, while important, may fail to capture the full extent of intensification as the scope may be too broad to fully capture regularly occurring, more short-term intensification in job demands (Piansa, 2015).

Additionally, economic research shows that while overall stock market volatility is not necessarily increasing over time, the percentage of volatility due to firm-specific volatility (or risk) is, in fact, increasing (Campbell, Lettau, & Malkiel, 2001). Stock volatility is a particularly important indicator given that investors react to new information almost instantaneously which, of course, is reflected in share price movement. In many cases, this firm-level volatility occurs over very short time spans (e.g., days, weeks, months, etc.), which usually isn't reflected in overall market trends as it averages out across firms (Karolyi, 2001). Thus, many frequently used indicators (e.g., productivity, unemployment, etc.) do not reflect the frequent vicissitudes organizations, and consequently, their employees experience on a regular basis. It is also important to note that publicly traded firms usually have considerably larger cash flows (e.g., are larger) than the majority of private enterprises, but it is the latter who represent 99.7% of U.S. employer firms (Small Business Administration, 2012). These smaller businesses are much more susceptible to shocks (e.g., fluctuations) than larger businesses (Duffee, 1995), and

considering these shocks precipitate intensified job demands for employees, provides compelling evidence that short-term perceptions are also worth studying.

Second, there is also theoretical rationale to examine more short-term job demand intensification as well. Specifically, both the transactional model of stress (Lazarus & Folkman, 1984) and conservation of resources theory (COR; Hobfoll, 1989) emphasize that perceptions of intensified or increasing demands should be especially salient to employees. Lazarus and Folkman (1984) note that changes in the environment are more likely to trigger the cognitive appraisal process and should invoke stronger emotional reactions and greater attention than more chronic, stable demands which employees may become habituated to. A study by Rafferty and Griffin (2006) which found employees' perceptions of the frequency of organizational change were negatively related to job satisfaction and positively related to turnover intentions helps provide support for this notion. It is important to note that although the industry and organization they sampled from had recently undergone change (e.g., new leadership and layoffs), the authors measured perceptions of change in general, which is similar to the approach taken in the current study.

Finally, there is also reason to believe that measuring perceptions of more recent demand intensification may be more accurate psychometrically (Clarke, Fiebig, & Gerdtham, 2008). This is because the accuracy and validity of self-report measures regarding perceptions of past events or changes in large part depend upon the stability of the phenomenon they attempt to measure (Kjellsson, Clarke, Gerdtham, 2014). Cognitive research on survey recall bias suggests that participants have better and more accurate recollection over longer periods of time when events are discrete and unchanging (Stone, Schwarz, Broderick, & Shiffman, 2006; Stull, Leidy, Parasuraman, & Chassany, 2009). On the other hand, recall for continuous or oscillating change

is often less accurate and therefore less valid for the long-term. For instance, if a question asks respondents to recount absences from work over an extended period, their recollections tend to be fairly accurate whereas questions on workload fluctuations are more distorted as respondents are more apt to provide a general summary based on their current cognitive impressions (Stull et al., 2009).

This then leads to the inevitable question of what is the appropriate recall period in order to fully capture short-term intensified job demands. Here, in the absence of empirical guidance, the answer must depend on theory regarding the specific intensified job demand in question as well as each of the considerations enumerated above. In particular, there should be an adequate expectation that employees will, in fact, experience the demand in the short-term. Based on the conceptual background of generalized work intensification (Lapido & Wilkerson, 2002), this study contends employees should experience both work intensification and IDP both on a long-term basis and in the near-term. Additionally, employees should also experience frequent intensified job insecurity as well—an intensified job demand that has yet to be measured. Again, the rationale behind this is based on the prevalence of frequent market changes and the inexorable law of supply and demand in a globalized economy (Lapido & Wilkerson, 2002).

On the other hand, other previously studied intensified job demands such as intensified career-related planning and decision-making demands or intensified labor market uncertainties demands appear to measure broader, sweeping socioeconomic changes (Kubicek et al., 2015) and thus should be more suitable for longer recall periods. Accordingly, based on the aforementioned rationale, as opposed to the more typical five-year period, this study will instead utilize a shorter recall period of 30 days. Although this time period may appear arbitrary, it is expected to be an ideal timeframe for several key reasons. Specifically, it is expected that this

period is long enough for employees to be able to form perceptions regarding workplace trends, but also short enough to ensure accurate recall (Stull et al., 2009). Additionally, a 30 day period (one month) is the most commonly used short period in economic research (e.g., BLS monthly unemployment rate) as it is considered the minimum amount of time in order to be able to make future forecasts (Perevalov & Maier, 2010). Finally, there are also several methodological considerations that make a 30 day period ideal as well (Dormann & Griffin, 2015).

### **The Relationship of Intensified Job Demands with Burnout and Work Engagement**

Based on JD-R theory (e.g., Demerouti et al., 2001), it is expected that intensified job insecurity, IDP, and work intensification will each act as a job demand and positively relate to burnout. Similarly, all three intensified job demands should affect employee work engagement through the motivational pathway as well (Schaufeli & Bakker, 2004). However, these effects are expected to differ depending on the specific intensified job demand. Most notably, the challenge-hindrance job demand framework and empirical findings suggest that intensified job insecurity and IDP have negative and positive relationships with work engagement, respectively, suggesting that intensified job insecurity may act as a hindrance demand, whereas IDP may be perceived as a challenge demand (De Cuyper, Kakikangas, Kinnunen, Mauno, & De Witte, 2012; Tadic et al., 2014). Interestingly, the relationship between work intensification and work engagement is less straight forward as theory and evidence contradict one another (Crawford et al., 2010; Kubicek et al., 2013).

There is strong theoretical support for the link between intensified job demands and burnout. Perceptions of job demand intensification should trigger employees' cognitive appraisal process through which they a) determine the level of threat associated with the job demand and b) how to effectively cope with the demand (Lazarus & Folkman, 1984). This

coping process often requires a large degree of energy as attention is diverted away from work tasks and effort becomes more controlled (Eyesneck et al., 2007; Schonpflug, 1983). Even if performance doesn't suffer as a result of the extra expenditure of energy, fatigue is almost always a consequence (Hockey, 1997). Over time, fatigue leads to burnout symptoms like emotional exhaustion and cynicism (Demerouti et al., 2001). The transactional model of stress can also help explain the mechanisms through which intensified job demands affect work engagement as well (Cavanaugh et al., 2000; Lazarus & Folkman, 1984). Specifically, intensified job demands that promote work-related goals, increased competence, and personal growth will most likely be appraised as challenges which stimulate employee intrinsic and extrinsic motivation resulting in a positive work-related state of mind characterized by vigor, dedication, absorption (Crawford et al., 2010).

**Intensified job insecurity.** In this study, intensified job insecurity is defined as employees' perceptions of an increased likelihood they may lose their current job or expect other potentially unfavorable changes (e.g., reduction in hours). This operationalization is specifically designed to reflect short-term fluctuations in employee perceptions of their job security due to planned organizational restructuring initiatives and sudden business-related and market changes. Again, organizations are often forced to make wholesale modifications in order to increase productivity and cut cost as a response to economic conditions (Probst, 2005). This, coupled with the fact that poor economic forecasts and rumors of impending layoffs are often a regular occurrence both in the mainstream media and within organizations (Wichert, 2002), it stands to reason that employees are constantly on high-alert for any perceived threats to their security and feel the need to constantly self-monitor (Keim et al., 2014). Whereas the IDS (Kubicek et al., 2015) subscale "intensified career-related planning and decision-making demands" attempts to



capture extended career-related perceptions regarding employees' need to remain competitive in the job market, the current study chooses instead to focus on more temporally recent perceptions of intensified job insecurity which consequently may demonstrate stronger relationships with burnout and work engagement.

In terms of its relationship with burnout and work engagement, intensified job insecurity is expected to act as a hindrance demand and be positively related to burnout and negatively related to work engagement. Upon hearing news or rumors regarding an upcoming event (e.g., restructuring) that may lead to job loss or when nearing the end of a contract period, an employee will naturally begin to ponder their own future (Jick, 1983). Employees, who are in such situations, may experience intensified feelings of job insecurity due to the general uncertainty and, in all likelihood, uncontrollability of the situations (Ashford, Lee, & Bobko, 1989). In turn, intensified job insecurity may prompt a host of uncomfortable or unpleasant images of potential hardships associated with job loss like being unable to pay the bills or geographic relocation. Assuming the initial appraisal was not groundless, the employee might try and reduce these negative thoughts and emotions by attempting to demonstrate his or her worth to the organization with higher levels of task performance through increased effort, which, over time, will result in mental and emotional exhaustion (De Cuyper et al., 2012). Additionally, these nagging worries over potential unfavorable outcomes should represent a distraction, or hindrance, toward accomplishing positive work outcomes as well and consequently sap motivation and work engagement (Bosman, Rothman, & Buitendach, 2005; Mauno, Kinnunen, & Ruokolainen, 2007). Although it is conceivable that an employee may perceive intensified job insecurity as a "challenge" to overcome, there is little evidence to support this and even fewer reasons to expect a positive work-related state of mind to result from this (Bosman et al., 2005a).

Empirical support for proposed positive relationship between intensified job insecurity and burnout and negative relationship with work engagement is twofold. First, in terms of intensified job demands, Kubicek et al. (2015) found their IDS scale dimension of intensified career-related planning and decision-making demands had small, positive relationships with emotional exhaustion across two samples and cynicism in the one sample where it was included. As noted, this scale bears some conceptual similarities to the construct of intensified job insecurity given the former contains items like “one is increasingly demanded to maintain one’s attractiveness on the job market”. Second, there are also several studies that link the traditional construct of job insecurity with both burnout and work engagement (Bosman et al., 2005a; Bosman, Buitendach, & Laba, 2005). In the first of two studies, Bosman and colleagues (2005a) reported a small positive relationships between job insecurity and emotional exhaustion along with a small negative relationship with work engagement in a sample of South African governmental employees. In the second study, they reported moderate positive relationships between job insecurity and all three dimensions of burnout in a sample of South African financial employees (Bosman et al., 2005b). Additionally, De Cuyper et al. (2012) examined the lagged effect of job insecurity on burnout over a year-long period in a sample of Finish university workers and found a small, but significant relationship controlling for burnout at time one. Consequently, it is hypothesized that:

*Hypothesis 1a:* Intensified job insecurity will be positively related to burnout.

*Hypothesis 1b:* Intensified job insecurity will be negatively related to work engagement.

**Intensified decision-making and planning.** When discussing IDP, Kubicek et al. (2015) suggest that organizations no longer frequently wield as much direct control over employees:

“Instead organizations reduce direct control and increase requirements for autonomous planning and decision-making. Consequently, employees’ job autonomy has increased (Wood, 2011). But as opposed to the traditionally positive view of autonomy (see, Karasek et al., 1998), employees do not just have the possibility of making decisions on their own; rather, they are forced to do so. They are increasingly expected to plan and structure their workday autonomously, to determine how to handle work tasks as well as to set and control work goals.” (p. 899)

The current study conceptualizes IDP in the same manner as Kubicek et al. (2015) given the fact that the same long-term, more gradual changes that add additional pressure and responsibility to employee jobs also should result in more immediate punctuations of intensified responsibility and decision-making (Powell, 2000). For instance, a massive or unexpected surge in business may prompt an “all hands on deck” mentality within an organization thereby making it necessary to immediately delegate more decisions and accountability to individual employees.

Alternatively, an employer may initiate a job enrichment program that also massively increases employee responsibility.

Experiencing greater IDP, especially within a short period of time, is likely to tax employee cognitive capacities due to the fact that more and more autonomy and responsibility is being thrust upon them (Tadic et al., 2014). In order to maintain their performance and live up to increasingly high expectations, employees should compensate by expending additional effort and mental resources (Demerouti et al., 2001). Take, for instance, an employee who is tasked with an assignment to develop a client proposal completely by him or herself without input from others. Upon learning of this task, the employee may experience feelings of excitement and pride due to the high level of responsibility associated with the assignment. On the other hand, the employee may also experience negative thoughts and emotions like anxiety and worry due to the ramifications of failure. Both the desire to succeed and avoid failure should prompt extra

effort in order to make sure the proposal is completed satisfactorily and again, despite being an indicator of an effective (problem-focused) coping strategy (Lazarus & Folkman, 1984), it is this same extra effort that leads to burnout (Demerouti et al., 2001; Hockey, 1997). Further, the trial of completing a client proposal independently, while stressful, may also be appraised as a challenge due to the fact it may stimulate intrinsic motivational needs and increase perceptions of meaningful work (Crawford et al., 2010). For example, a job well done may lead to opportunities to distinguish oneself in front of peers and supervisors, continued opportunities for greater responsibility in the future, increased self-worth and competence, or the opportunity for a bonus among other possibilities resulting in enhanced motivation and work engagement.

There is direct evidence demonstrating a positive relationship between IDP and burnout. In their IDS validation studies, Kubicek et al. (2015) found that IDP positively predicted emotional exhaustion across two separate samples and cynicism in the single sample where it was included. Although this is the only study that specifically examined perceptions of increased planning and responsibility in conjunction with burnout or other employee strain, there is also evidence from research on job redesign and enlargement that indicates increasing inherently motivational work characteristics (e.g., decision latitude) can be stressful for employees (Grant, Christianson, & Price, 2007). For example, Martin and Wall (1989) found in a field experiment that changes to machine-operators' jobs which increased responsibility also led to increased greater anxiety, experienced pressure, and worry. Similarly, cross-sectional results for a second sample of workers in the same study found responsibility to be positively related to anxiety and self-reported pressure as well.

While this author was unable to identify any studies that specifically examined IDP and work engagement, empirical research utilizing similar constructs like job responsibility show

IDP is likely to act as a challenge demand (Crawford et al., 2010; LePine et al., 2005). First, Crawford et al. (2010) reported a small positive relationship between job responsibility and work engagement in their meta-analysis on challenge demands within the JD-R framework. Although the primary studies included in the meta-analytic estimate did not measure perceptions of intensifying responsibility, there is reason to expect traditional measures of job responsibility to be positively related to the IDP due to the fact the subscale was theoretically conceptualized based on the notion that employees are increasingly being asked to make more decisions themselves and accept more responsibility and autonomy (Kubicek et al. 2015). And indeed, there is a high degree of overlap between traditional responsibility and autonomy items like “this job allows me to make a lot of decisions on my own” (Morgeson & Humphrey, 2006) and IDP items like “one has to increasingly determine by oneself how to do the work” (Kubicek et al., 2015). Furthermore, studies have demonstrated that increases in responsibility and autonomy over time are positively associated with work engagement (Tadic et al., 2014; Schaufeli et al., 2009). Finally, there is also research that shows increases in challenge demands (e.g., responsibility) due to job enlargement or enrichment are associated with increased motivational outcomes like work engagement (Tims & Bakker, 2014). In light of the above, the following hypotheses are proposed:

*Hypothesis 2a:* IDP will be positively related to burnout.

*Hypothesis 2b:* IDP will be positively related to work engagement.

**Work intensification.** Just about every study that utilizes work intensification defines it similarly to Kubicek et al. (2015) as the perception of increasing pressure to work faster and harder while completing multiple tasks at once with little time for breaks. Just like IDP, this study operates under the assumption that work is expected to intensify not only over the long

run, but also in periodic spurts due to the volatility of modern economic supply and demand (Lapido & Wilinon, 2002). Thus, employees should frequently experience short-term intensifications that later subside only to intensify again soon after (Pianso, 2015). It is also important to note here that work intensification is not necessarily associated with more total hours at work, but rather with increasingly intense work during the time employees are physically on the job (Green, 2001). Accordingly, it is the perceived *intensification* of work itself that is expected to be most pertinent to employee outcomes (Franke, 2015).

Employees who feel that their work has intensified and are trying to simultaneously juggle multiple tasks and finish them on time all without the possibility of a break are also likely to spend more energy and effort (Leiter & Maslach, 2004). In particular, an employee's perception that there is increasingly little time to accomplish everything should lead to concern over whether he or she will meet deadlines and perform satisfactorily. In order to allay these fears, a typical response will likely be to work even harder so that optimal performance across tasks is maintained (Hockey, 1997). Just as is the case with intensified job insecurity and IDP, this increased consumption of mental resources and energy will eventually leave employees drained and emotionally spent (Demerouti et al., 2001).

Although theory dictates that work intensification should positively relate to burnout, its relationship with work engagement is less straightforward as employees may react in several possible ways. On one hand, it is possible that work intensification acts as a hindrance demand due to the fact it causes employees to feel overwhelmed and incapable of successfully completing enough work-related tasks before deadlines (Paskvan et al., 2015). On the other hand, work intensification has the potential to act as a challenge demand as there are likely esteem, growth, and organizational rewards associated with successfully handling the demand

(Crawford et al., 2010). For instance, Shah et al. (2011) note that work intensification can be an opportunity for employees to grow and prosper as there are most always rewards associated with increased productivity.

Kubicek and colleagues (2013; 2015) were the first to specifically examine the relationship between work intensification and burnout. In their development of the IDS, they found that similar to IDP, work intensification positively predicted emotional exhaustion across two separate samples (as well as cynicism in the single sample where it was measured) above and beyond traditional time pressure. In their 2013 study, the construct they utilized was technically labeled “demands for the acceleration of the pace of life” (APL) as opposed to work intensification, but the items (ex. “the amount of time pressure (due to deadlines)”) and a five point Likert scale ranging from (1 = “*has decreased strongly*” to 5 = “*has increased strongly*”) were highly similar to the work intensification scale they later developed for the IDS (Kubicek et al., 2015). In this study, APL positively predicted emotional exhaustion, but not depersonalization.

Paskvan et al. (2015) conducted two studies that tested the effect of work intensification on burnout. Their first study utilized a 17 month time lag with work intensification measured at time one and emotional exhaustion measured at time one and two and reported that work intensification was positively correlated with emotional exhaustion at both time points. Additionally, they found that cognitive appraisal (whether study participants felt work intensification was more challenging or hindering) measured at time one mediated the relationship between work intensification and emotional exhaustion at time two. Notably, they did not control for emotional exhaustion in their analyses. In their second cross-sectional study, the same authors also reported a positive correlation, and direct effect, between work

intensification and emotional exhaustion, which was mediated by cognitive appraisal as well.

Korunka et al. (2015) took a slightly different approach and examined the effect of changes in perceptions of work intensification over two time points with a one-year lag. They found work intensification was positively correlated with emotional exhaustion at both time one and time two as well as that an increase in work intensification, operationalized as an residualized difference score, also predicted emotional exhaustion at time two controlling for time one. In other words, positive increases in work intensification predicted changes in emotional exhaustion (Korunka et al., 2015).

Unfortunately, as far as work engagement goes, empirical research offers few clues as to which of the aforementioned theoretical possibilities is most accurate. Kubicek et al. (2013) is the only study that examined the relationship between work intensification and work engagement and reported small negative associations between APL and the vigor and dedication dimensions of work engagement suggesting work intensification may act as a hindrance demand. As noted, Paskvan et al. (2015) measured cognitive appraisal of work intensification and found that mean values across their first ( $M = 3.72$ ) and second studies ( $M = 3.66$ ) indicated that, on average, their samples found it more of a hindrance than a challenge which likewise would suggest a negative relationship with work engagement. However, some research suggests unidimensional measures of cognitive appraisal are not appropriate as people can simultaneously appraise a job demand as both (Tuckey, Serle, Boyd, Winefield, & Winefield, 2015). Alternatively, meta-analytic research on traditional challenge demands like workload and time pressure has found small positive relationships with work engagement (Crawford et al., 2010). Again, each of these demands has both conceptual and operational similarities to work intensification as well.

These contradictory findings, despite of the overlap between constructs present yet



another possibility. Specifically, that perceptions of greater work intensification over long periods of time (e.g., five years) may hinder motivation whereas perceptions regarding the general level of job demands like time pressure enhance motivation. This then begs the question, how do perceptions of more recent work intensification relate to work engagement? Following this, the following hypothesis and research question are presented:

*Hypothesis 3:* Work intensification will be positively related to burnout.

*Research Question 1:* What is the relationship between work intensification and work engagement?

## CHAPTER IV

### TRANSFORMATIONAL LEADERSHIP

Whereas transactional leaders motivate followers and achieve organizational goals by offering specific rewards and/or consequences for specific follower behaviors, transformational leaders go even further by pushing their followers above and beyond typical transactional expectations (Bass, 1985). Typically, the transformational leader is thought to accomplish extraordinary performance by utilizing idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Riggio, 2006). Transformational leaders exert idealized influence by dedicating themselves to higher purposes or ideals and as acting as role models which leads to follower trust, identification, and commitment (Bass, 1985; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). They also inspire and motivate their followers by articulating a compelling vision of attractive future states which serve as lofty shared goals (Podsakoff et al., 1990). Further, transformational leaders intellectually stimulate their employees by encouraging them to rethink old ideas and adopt innovative solutions to problems (Bass, 1985; Bass & Riggio, 2006). Finally, transformational leaders treat their employees as individuals understanding their unique needs and desires by offering support and encouragement (Bass, 1985; Podsakoff et al., 1996).

It is important to note that the modern definition and conceptualization of transformational leadership developed in large part from the closely-related notion of charismatic leadership by Weber (1947) and later, House (1977) and Burns (1978). Much like transformational leaders, charismatic leaders provide inspiring visions of the future, foster an atmosphere of trust and cooperation, and stimulate new ideas, but Bass (1985) suggests transformational leaders differ in terms of the individualized consideration aspect of their

relationships with followers. Additionally, modern conceptualizations of transformational leadership differs from early work in that the latter predominately focused on leader traits and attributes whereas the former emphasizes follower perceptions of enacted leader behaviors (Bass, 1985; House, 1977).

There is large ever-growing empirical body of research on transformational leadership (Avolio, Sosik, & Berson, 2013; Dinh et al., 2014). In fact, a study that reviewed leadership theories published in top-tier journals from 2000-2012 found that transformational leadership constituted 20% of all included studies whereas no other theory accounted for more than 15% of the total (Dinh et al., 2014). Findings suggest that transformational leadership is highly effective in predicting important employee and organizational outcomes across settings and contexts (Judge & Piccolo, 2004; Wang, Oh, Courtright, & Colbert, 2011). Specifically, meta-analytic evidence shows that transformational leadership has positive relationships with follower task performance, contextual performance, motivation, job satisfaction, and satisfaction with leader as well as group and organizational performance and leader effectiveness (Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996).

### **Transformational Leadership as a Moderating Job Resource**

In recent years, researchers in occupational health psychology have begun to specifically model transformational leadership as a job resource within the JD-R framework (Syrek et al., 2014; Bass et al., 2016). Theory and research suggests that transformational leadership (*henceforth TL*) can act as a job resource in several possible ways. First, TL is believed to derive much of its effectiveness due to the fact it can help stimulate and fulfill employees' higher order needs (Bass, 1985; Burns, 1978), which directly corresponds to the definition of a job resource in that it provides an opportunity for growth and development (Scahufeli & Bakker, 2004).

Specifically, Bass (1985) emphasizes how transformational leaders push their followers to go beyond their own self-interest and instead focus shared causes for the common good and suggests this is the result of higher-order needs replacing lower-order needs on the hierarchy (Aldefer, 1969; Maslow, 1943). Transformational leaders also act as a job resource by helping employees achieve work-related goals through motivational behaviors like providing a compelling vision, intellectual stimulation, or offering support and encouragement (Podsakoff et al., 1990). These behaviors encourage employees to not only set lofty goals in line with their leader's vision, but also enhance their expectancies for achieving these goals through effort (Shamir, House, & Arthur, 1993). In this way, motivation, and subsequently, performance are enhanced, and employees reap group and individual rewards (Judge & Piccolo, 2004).

Finally, TL can be considered a job resource due to the fact that it reduces the negative effects of job demands on burnout and work engagement (Skakon et al., 2010). More specifically, TL can be described as a "buffering" moderator in that employees who are dealing with job demands, but also have a transformational leader, experience less strain than employees who lack TL (Syrek et al., 2013). There is a long history of research testing the "buffering hypothesis" where the conjunctive effects of different demands and protective factors on psychological and physiological strains are examined and identified (Cohen & Willis, 1985; Kahn & Byosere, 1992). Most notably, organizational scholars have demonstrated that job resources like control or supervisor support can effectively reduce the negative effects of job demands like workload or physical demands (Luchman & Gonzalez-Morales, 2013; Van der Doef & Maes, 1999).

Interestingly, TL may not only act as a job resource by buffering the undesirable effects of job demands, but may actually enhance employee work engagement when job demands are

high (Carasco-Saul, Kim & Kim, 2015). This is what is referred to as the “boosting hypothesis” whereby the conjunctive effect of high job demands along with high resources actually increase motivation (Hobfoll, 2002). Again, the basis for this is COR theory (Hobfoll & Shirom, 2001) which suggests resource gain is most salient in the face of resource loss. The affective-shift model of work engagement (Bledow, Schmitt, Frese, & Kuhnel, 2011) which contends that employees who experience a positive affective event (e.g., praise from a supervisor) immediately after a negative affective event (e.g., job demand), will experience greater motivation due to the shift from negative to positive mood also supports this notion. Specifically, it is the magnitude of the shift from negative to positive affect which directly impacts work engagement. Thus, an employee who feels overwhelmed by a job demand, who then is the recipient of encouragement from a transformational leader, may experience heightened levels of motivation due to the positive affect stemming from the leader’s attention (Bledow et al., 2011). Unfortunately, few, if any, studies have examined this (Carasco-Saul et al., 2015), but have instead solely focused on supervisor support (e.g., Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). Past research has shown that TL behaviors have been associated with motivation, trust, non-traditional thinking and reappraisal, enhanced self-efficacy, and positive emotions (Skakon et al., 2010). Considering each of these outcomes has the potential to both counteract resource-draining nature of job demands and potentially stimulate challenge appraisal (Hobfoll & Shirom, 2001), it is expected that TL will likewise act as both a buffering and boosting job resource. Thus, employees who face demanding job conditions, but also have a transformational leader, may in many cases experience less burnout and fatigue and maintain more motivation and work engagement than other employees under a different, less transformational leader.

Perhaps surprisingly, although there are a number of studies that have examined and

found that TL predicts burnout and work engagement, either directly (e.g., Hetland, Sandaal, & Johnsen, 2007; Vincent-Hoper, Muser, & Janneck, 2012), or through mediators (e.g., Fernet, Trepanier, Austin, Gagne, & Forest, 2015; Nielsen, Randall, Yarker, & Brenner, 2008), a very limited number of studies have examined TL as a moderator in the JD-R context (Bass et al., 2016; Syrek et al., 2013). In fact, this author was only able to locate three studies that examined the moderating effects of TL, all of which were published within the past three years (Arnold & Walsh, 2015; Bass et al., 2016; Syrek et al., 2013). Additionally, these studies solely focused on buffering, as opposed to boosting effects. In most instances, study results were supportive, but also included unexpected or questionable findings regarding hypothesized buffering relationships. Of the three identified studies, Syrek et al. (2013) was the only one to find full support for each buffering hypothesis. Specifically, they tested the buffering effects of TL on time pressure for German information-technology employees' emotional exhaustion and work-life balance. Results revealed the negative relationship between time pressure and both outcomes was reduced (buffered) when TL was high.

Arnold and Walsh (2015) examined whether TL buffered the effect of customer incivility on psychological well-being (e.g., worry, distractions, etc.) for customer service employees and found a significant TL by customer incivility interaction. Interestingly, customer incivility did not significantly predict well-being either before or after the interaction term was added to the regression equation so even though an interaction was present, it is not accurate to say TL was a buffer. This may in part be due to a high (.70) correlation between customer incivility and negative affectivity which the authors included as control variable indicating multicollinearity was likely a factor. Finally, Bass et al. (2016) studied the extent to which TL buffered the effect of student violence against school employees on both burnout and work engagement as well as

perceived school unsafety. TL reduced the negative effect of student violence against school employees on work engagement and the positive effect of perceived school unsafety on burnout, but not the direct path of student violence against school employees to burnout. In all, these results suggest TL can be an effective buffer for the effects of different demands on different outcomes, but clearly more research is needed to clarify several key issues.

First, despite its apparent utility as a buffer, it is unclear through which mechanisms TL effectively moderates job demands. For instance, when providing rationale for TL's role as a potential buffer, each of the three reviewed studies provide examples of how a leader may reduce the effects job demands through idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Arnold & Walsh, 2015; Bass et al., 2016; Syrek et al., 2013). However, based purely on a significant interaction between a job demand and construct level TL, it is impossible to identify which of these behaviors was most effective at reducing the associated costs of the demand. Although some may argue that it is the combined effects of the four dimensions that make a leader "transformational" and effectively buffer demands, this is of little use for theorists who wish to better understand the effectiveness of leadership behavior at a more granular level (van Knippenberg & Sitkin, 2013). Additionally, if the four dimensions are *not* equally effective at buffering job demands, practitioners who want to develop or implement a TL interventions may waste valuable time and resources training leaders on less-effective behaviors (Kelloway & Barling, 2010).

Another related issue is that construct-level only examinations of TL make it difficult to differentiate what makes it an effective buffer, or booster, as opposed to other leadership job resources like supervisor support. Given the strong conceptual overlap between individualized consideration and supervisor support (van Knippenberg & Sitkin, 2013), it is not surprising some

researchers have found high enough correlations ( $>.60$ ; Liaw, Chi, & Chuang, 2010) between the TL and supervisor support to question whether they are, in fact, distinguishable (van Knippenberg & Sitkin, 2013). Accordingly, it is critical to determine whether it is solely the individualized consideration dimension of TL that buffers job demands or whether idealized influence, inspirational motivation and intellectual stimulation play a role as well. For example, a shortcoming of Bass et al. (2016) mentioned in their study limitations is the specific transformational scale they utilized did not include a dimension measuring individualized consideration. This in part, may explain why they found TL buffered the effect of student violence against school employees on work engagement, but not burnout. More specifically, it may be the case that the supportive aspect of individualized consideration buffers the effect of demands on strains like exhaustion whereas the motivational qualities of the other dimensions better protect employees' work engagement. However, unless studies examine specific dimensional effects, it is only possible to speculate.

When determining the moderating effects of the TL dimensions, it is important to note that not only does the effectiveness of TL likely depend on the behaviors associated with each dimension, but also on specific job demands and outcomes. Again, by definition, buffering requires three variables: job demand, job resource (buffer), and strain (Cohen & Willis, 1985). Similarly, boosting requires a job demand, job resource, and motivational outcome (Tadic et al., 2014). Consequently, the relative effectiveness of construct-level TL, individual dimensions of TL, or any other job resource as a moderator depend upon the theoretical match between the three variables (Cutrona & Russell, 1990; Jackson, 1992). The act of correctly specifying job demand, moderating job resource, and outcome is commonly referred to as "pattern matching" and unfortunately has been all too frequently neglected in the extant research (Cutrona &



Russell, 1990). In fact, failure to sufficiently “pattern match” along with operationalizing stressors too broadly and in vague terms is attributed as the major reason for researchers’ past failure to identify more buffering effects (De Jonge & Dormann, 2006).

These theoretical issues all point to the necessity of examining more specific behavioral dimensions of TL as buffers to job demands and careful consideration of the precise mechanisms through which these behaviors exert their protective influence on specific outcomes. This is in line with conceptual critiques on the overall construct of TL as well as the “buffering hypothesis” where in both cases the authors urge concerned scholars toward greater specificity in their research (Cutrona & Russell, 1990; van Knippenberg & Sitkin, 2013). Additionally, in their recent review of the role of leadership on employee engagement, Carasco-Saul et al. (2015) urge researchers to examine how TL may moderate the effect of various job characteristics (e.g., job demands, resources, etc.) on work engagement. Accordingly, given the theoretical underpinnings of TL, the current study attempts to address these issues by modeling and examining the differential buffering effects of idealized influence, inspirational motivation, intellectual stimulation and individualized consideration on intensified job insecurity, IDP, and work intensification.

### **Transformational Leadership and Intensified Job Demands**

Since its inception, theorists agree that TL (and charismatic leadership) is most likely to emerge and be especially salient during times of turbulence or uncertainty (Bass, 1985; House, 1997; Pawar & Eastman, 1997; Shamir & Howell, 1999; Weber, 1947). For example, Bass (1985) discusses how, historically, the emergence of transformational leaders like Winston Churchill depended in large part on the social, political, and economic context of the time. Specifically, Churchill took power only after Nazi Germany had declared war on Great Britain

and it became readily apparent that Great Britain would need a strong leader to persevere against long odds. In fact, some scholars have even gone so far as to suggest a crisis may even be a necessary pre-condition for TL (e.g., Weber, 1947), but later theoretical and empirical work suggest its emergence is not quite so narrowly bound (Bass, 1985).

Bass (1985) further suggested that TL in organizations is also context dependent such that TL is more likely to appear in organizations operating in unstable markets especially during downturns of the economy or when budget cutting is frequent and anxiety is high. Similarly, both Pawar and Eastman (1997) and Shamir and Howell (1999) also note that TL should both emerge and be most effective during periods of frequent change. Each set of authors also proposed that transformational leaders are best suited to organizations designed to quickly adapt to external conditions with greater boundary spanning and responsibility for employees as well as organizations that developed more organically with less routine, mechanized work. The importance of these contextual influences on TL's effectiveness is attributed to several factors. First, during periods of uncertainty organizational employees tend to look toward authoritative figures who are able to communicate plans and contingencies for the future (Bass & Riggio, 2006). A vision can also serve as a shared goal to which organizational members can rally around and strive for together (Bommer, Rich, & Rubin, 2005). Additionally, at these times, having leaders who act in accordance with their own values and promote trust is also particularly important for subordinates who may be uncomfortable or cynical regarding an organization in constant flux (Bommer et al., 2005; Nemanich & Keller, 2007). Further, leaders can empower and increase the confidence of employees by encouraging them to generate their own unique solutions to problems (Bommer et al., 2005). Moreover, leaders who are able to reframe difficulties that arise from precarious organizational or personal situations as opportunities can

increase employee buy-in and motivation as well (Bommer et al., 2005; Oreg & Berson, 2011; Shamir et al., 1993). Finally, employees are especially receptive to consideration and support when under duress as this affirms their sense of value and allows them to express their concerns openly and freely (Arnold, Connelly, Walsh, & Ginis, 2015; Bass & Riggio; Bommer et al., 2005).

Research supports the match between TL and environmental unpredictability in multiple ways. For example, Bass (1985) found that as opposed to support units, combat units reported greater TL behaviors in their commanders most likely in response to the constant threat of attack. Nielsen and Cleal (2011) found that leaders reported more TL behaviors when environments were cognitively complex (e.g., greater information sharing, planning, etc.). Tyssen, Wald, and Hidenreich (2014) showed that TL was particularly important for project commitment in temporary organizations as their employees could all be considered “newcomers” who were unsure of their status. Other research indicates TL is also effective within the context of stressful organizational changes such as restructuring (Bommer et al., 2005; Oreg & Berson, 2011). For instance, Bommer et al. (2005) found that TL behavior reduced employee cynicism about organizational change over time while Oreg and Berson (2011) reported that TL reduced intentions to resist change as well.

Ultimately, both theoretical and empirical research point to a conceptual fit between TL and uncertain and unstable contexts (Bass, 1985; Bass & Riggio, 2006; Shamir & Howell, 1999). Following this, and evidence presented on the “flexible turn” and intensified job demands, TL should be more important than ever in the majority of modern organizations as both the economic environment and typical organizational structure continue to evolve toward greater fluidity and flexibility (Bass, 1999; Hudson, 2002). In particular, TL and its associated

behaviors should act as a job resource for employees who experience intensified job demands helping to maintain motivation and reduce psychological costs (Demerouti et al., 2001). Even more specifically, behaviors like articulating a vision, being a role model, promoting unique, non-traditional ideas, and treating employees as individuals should buffer the effects of intensified job insecurity, IDP, and work intensification on burnout and work engagement through mechanisms like reducing negative thoughts and emotions, increasing self-efficacy, cognitive reframing, and influencing coping strategies among others (Bass et al., 2016; Shamir et al., 1993). However, as previously noted, it is probably the case that not all TL dimensions operate in the same fashion nor are equally effective (Yukl, 1999). Thus, it is necessary to theoretically match and identify the specific mechanisms through which specific transformational leader behaviors exert their buffering effects.

### **Differential Moderating Effects of Transformational Leadership**

TL behaviors are expected to moderate the effects of intensified job demands on burnout and work engagement in several possible ways. First, the very presence of a transformational leader may affect initial demand appraisal as employees with transformational leaders know they have a resource and thus should feel more able to competently meet intensified demands. This is consistent with both the transactional model of stress (Lazarus & Folkman, 1984) and COR theory (Hobfoll & Shirom, 2001) in that employees who feel they have more protective resources are less likely to appraise new demands as threatening or harmful and consequently worry about loss of energy or other valued outcomes arising from prolonged demand exposure. Supporting this, there is research that shows that TL can affect how employees appraise characteristics of their workplace like demands or resources (Fernet et al., 2015). TL behaviors may also affect reappraisal of demands. For instance, a leader may utilize intellectually

stimulating behavior to encourage an employee to reevaluate the level of threat associated with an intensified demand, like work intensification, rendering it less threatening and potentially even motivating (Syrek et al., 2013). Additionally, TL behaviors may also affect secondary appraisal in terms of influencing the type of coping strategy employees decide to use (Arnold & Walsh, 2015). For example, a leader who offers individualized consideration and support may provide encouragement and advice how to best cope to an employee feeling overwhelmed with IDP causing the employee to successfully handle the demand and remain motivated. In line with this, Bakker et al., (2007) showed that teachers who experienced greater pupil misbehavior along with more supportive supervisors remained engaged as opposed to teachers who had less supervisor support. Consequently, the following sections outline the varying mechanisms and corresponding hypotheses in regards to how idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration potentially buffer (Figure 3), or boost (Figure 4), each of the three intensified job demands.

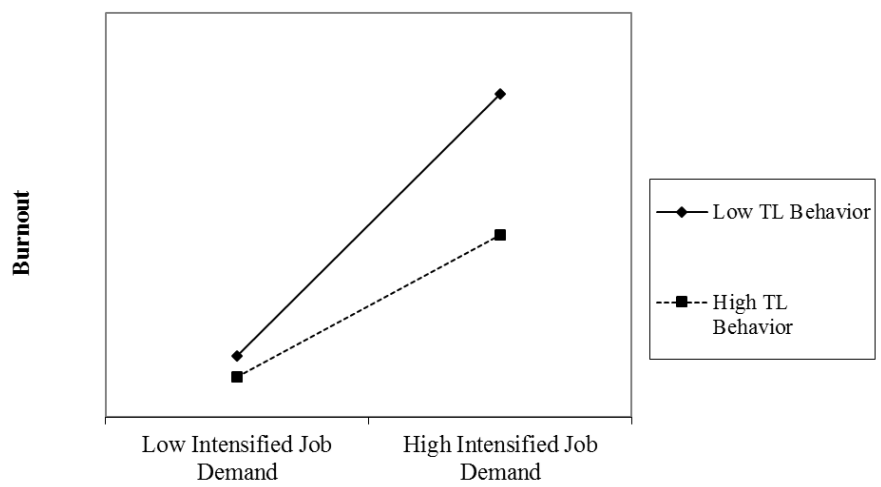


Figure 3. Mock-up interaction representing the buffering hypothesis. TL = Transformational Leadership.

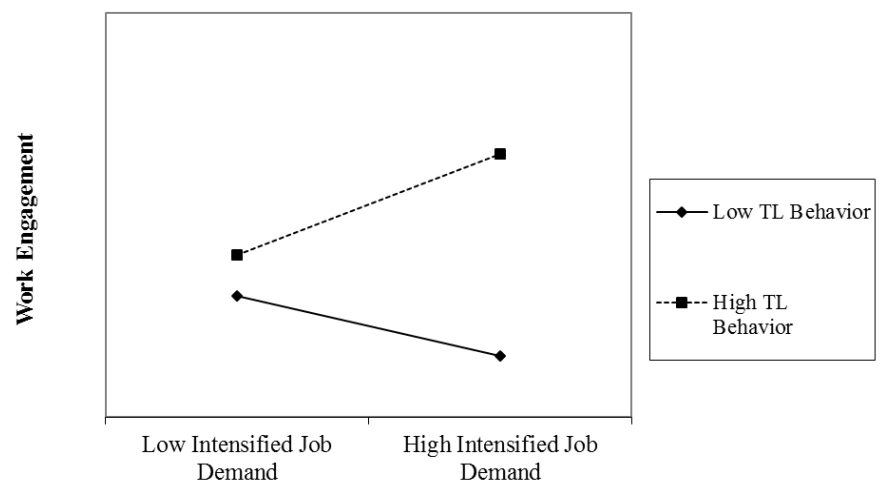


Figure 4. Mock-up interaction representing the boosting hypothesis.

**The moderating effect of idealized influence on intensified job demands.** Of the core TL dimensions, idealized influence is perhaps the most problematic for theory building due to the fact it is frequently operationalized in an abstract fashion that makes it difficult to isolate

specific behaviors (Hoffmeister et al., 2014). In fact, the most frequently used TL measure, the MLQ (Bass & Avolio, 2004), divides idealized influence into both attributes (leader qualities) and behaviors (actions) with items like “my leader goes beyond self-interest for the good of the group” representing the former and “my leader considers the moral and ethical consequences of decisions” as an example of the latter (Bass, 1985). Although there are a number of behaviors of varying degrees of specificity that could justifiably fall under the label idealized influence, for theoretical purposes, the present study is most concerned with the moral and ethical consequences of TL behavior and thus focuses on the extent to which leaders attempt to lead by example and provide an appropriate role model (Bommer et al., 2005; Podsakoff et al., 1990). This is because it is expected that having a leader who both “talks the talk and walks the walk” should lead employees to look to the leader as a role model with a sense of trust and confidence helping to offset costs associated with intensified demands (Bass & Riggio, 2006; Bommer et al., 2005).

More specifically, leader role modeling may act as a buffer through two potential mechanisms: a) promoting trust and security by acting ethically and in accordance with his or her espoused values, as discussed, and b) encouraging adaptive coping in employees by modeling how to best deal with leader-relevant job demands effectively. The rationale for the latter mechanism stems from Bandura’s (1986) social cognitive theory in that individuals frequently learn effective behaviors from others through social modeling. However, given that coping behaviors are often self-regulatory in nature and thus difficult to discern in others, watching leaders deal with an intensified workload may not be all that helpful for employees (Lazarus & Folkman, 1984). Additionally, the fact that social comparisons are usually downward-based towards those in worse situations and that employees may not understand what specific demands

their leader is dealing with also casts doubt on social learning's role in buffering (Cohen & Willis, 1985; Festinger, 1954; Gore, 1985). Instead, idealized influence (e.g., leader role-modeling) should mainly affect primary appraisal and reappraisal of demands in terms of both making the demand less threatening and reducing fear and worry associated with the demand (Lazarus & Folkman, 1984).

In particular, leader role-modeling behavior should be particularly resonant as a buffer for a high anxiety-provoking job demand like intensified job insecurity (Dirks & Ferrin, 2002). Almost universally, employees are expected to appraise intensified job insecurity as a hindrance due to the fact it represents a threats to one's individual well-being in terms of security and safety (Cavanaugh et al., 2000; Stiglbauer & Batinic, 2015). In turn, this assessment of threat will lead to negative emotions and off-task preoccupations that lead to burnout and hurt work engagement (Crawford et al., 2010). However, these effects may be less severe for employees who look up and trust their leader as employees will have greater reason to expect forthright, honest communication regarding whatever organizational change caused the feelings of insecurity in the first place (Bommer et al., 2005; Gilley, Dixon, & Gilley, 2008). This may take the form of the leader making assurances that no one will lose their job or if that is not possible, explaining that whatever decisions will be made will be done so fairly and in the best interest of the organization (Kelloway, Turner, Barling, & Loughlin, 2012). In the first case, assurances will help reduce worry and employees should be able to concentrate more on work-related tasks as opposed to dealing with the distraction of potential job loss. In the case of the latter, although worry may not be eliminated, employees will be reassured over justice-related concerns (Dirks & Ferrin, 2002). Regardless, in either case employees will have conviction that their leader means well or is a trustworthy source of information thereby reducing uncertainty (Gilley et al., 2008).



Although it is possible that other intensified demands, like IDP and work intensification, also prompt worry and concern, the resulting emotional and cognitive reactions will likely be less intense as these demands predominately threaten employee's energetic resources as opposed to overall security (Demerouti et al., 2001; Hobfoll, 1989). Additionally, trust is less relevant to IDP and work intensification as employees who are dealing with those demands likely look to their leaders as a resource in other ways, such as consideration (Bommer et al., 2005). Thus, theory indicates idealized influence will most effectively buffer intensified job insecurity on burnout and work engagement.

There is some indirect empirical evidence for idealized influence as a buffer to intensified job insecurity. First, a meta-analysis on the correlates of trust in leader found a large positive correlation ( $r = .79$ ) with TL (Dirks & Ferrin, 2002). Additionally, there are a number of studies that have examined construct-level TL and trust in leadership and found moderate to large positive correlations between the two constructs (Braun, Peus, Weisweiler, & Frey, 2013; Goodwin, Whittington, Murray & Nichols, 2011; Zhu & Akhtar, 2014). Unfortunately, the author was only able to locate a single study that reported TL dimensional relationships with trust, but results from the correlation matrix indicated idealized influence had a strong positive relationship ( $r = .78$ ) (Kelloway et al., 2012).

Second, there is also research that indicates the importance of leader ethical behavior and trust on job insecurity directly. Specifically, Wang, Lu, and Siu (2015) found that organizational justice—a positive outcome of TL (Cho & Dansereau, 2010)—buffered the effects of job insecurity on work engagement. Additionally, Piccoli & De Witte (2015) found that distributive justice mediated the relationship between job insecurity and emotional exhaustion indicating the importance of perceptions of fairness in the process. To reiterate, although there is no direct

evidence of TL or in particular, idealized influence, buffering the effects of either job insecurity or intensified job insecurity, theory and related empirical work supports the proposed buffering effect. Thus, the following hypotheses are presented:

*Hypothesis 4a:* Idealized influence will moderate the positive relationship between intensified job insecurity and burnout such that this relationship will be weaker when idealized influence is high.

*Hypothesis 4b:* Idealized influence will moderate the negative relationship between intensified job insecurity and work engagement such that this relationship will be weaker when idealized influence is high.

**The moderating effect of inspirational motivation on intensified job demands.** To a large extent, transformational leaders inspire and motivate their employees by articulating a compelling vision of the future (Podsakoff et al., 1990). In doing so, leaders arouse employee emotions and intrinsic needs which spurs concerted effort toward a common goal (Shamir et al., 1993). A classic example is Martin Luther King's "I have a dream" speech where he outlined his vision of a nation with freedom and equality for all (Luther, 1963). In terms of its effects on intensified job demands, it is expected that leader visioning behavior should mainly affect secondary appraisal by shifting focus away from demand-related concerns toward the attractive goals set by the leader. For instance, an exciting vision may replace negative thoughts and off-task worry with positive thoughts/emotions regarding "what could be." More specifically, and in accordance with VIE theory (Vroom, 1964), an especially appealing vision should serve to increase employee expectancies in terms of accomplishing outlined goals by targeting valence, or the overall desirability of the vision as well as instrumentality and expectancy in terms of employee beliefs that effort will lead to higher performance, which, in turn, will lead to goal

attainment. Accordingly, this should maintain, and perhaps even enhance employees' motivation. Further, these effects should be most salient under conditions of duress as it is precisely at these times that employees are most likely to look to a leader who has a definitive plan for the future (Bass, 1985).

This process is expected to be particularly applicable to potential intensified challenge demands like IDP or work intensification due to the fact that an effective vision not only outlines an idealized future outcome, but also makes reference to current challenges as well as emphasizes the need to surmount these difficulties in order to eventually triumph (Bass & Riggio, 2006). For example, a leader might acknowledge work intensification and IDP as mere obstacles or bumps in the road that employees must overcome if they want to realize a shared dream such as exceeding a production goal or winning a client proposal with corresponding financial and esteem-related rewards. Thus, the leader helps transform uncertainty associated with intensified demands into motivation and work engagement.

On the other hand, leader visioning is expected to be less effective for a hindrance demand like intensified job insecurity as this demand will be far more difficult for leaders to incorporate into their vision and for employees to accept as a mere bump in the road. Specifically, the individualized nature of the intensified job insecurity (e.g., employees are increasingly concerned about losing *their own* jobs) may likely counteract the valence of a leader's vision. In other words, an attractive future state is far less motivating if an employee has reason to believe they may never be part of it due to the fact they no longer work at the organization. Additionally, it is important to note that while leader visioning behavior may help maintain work engagement for IDP and work intensification, it should be also be less effective reducing the intensified demand-burnout relationship. In fact, it may actually accentuate the

relationship between both demands and burnout as the very same extra effort visionary leaders are expected to inspire from employees who face intensified work or IDP will deplete energy reserves and lead to exhaustion (Densten, 2002). Again, this is because high performance in the face of job demands has a high cost which taxes human capabilities (Hockey, 1997).

Despite its stated importance as core component of TL (Bass, 1985), and effective leadership in general (van Knippenberg & Stam, 2014), for that matter, the author was only able to locate a single study that specifically examined inspirational motivation or leader vision as a moderator within the JD-R context. Newton and Bish (2013) did examine the moderating effect of leader visioning behavior on role overload and outcomes like workplace distress, intentions to leave, and quality of work life which should theoretically be related to burnout via the nomological network (Cronbach & Meehl, 1955). However, they did not detect any significant interactions, which suggests that inspirational motivation may not reduce the emotional and physiological costs of job demands (Demerouti et al., 2001). On the other hand, there is evidence to suggest inspirational motivation is related to increased follower effort (Densten, 2002; Judge & Piccolo, 2004; Khatri, Ng, & Lee, 2001) indicating it may affect the extent to which employees facing job demands remain engaged. For example, Densten (2002) found that leaders who demonstrated inspirational motivation in terms of more image-based (concrete wording) and concept-based (abstract wording) visions resulted in followers giving extra effort. Image-based visions were particularly effective ( $\beta = .64$ ) as opposed to concept-based visions ( $\beta = .31$ ). Khatri et al. (2001) reported that leader vision was positively correlated with both self-reported motivation ( $r = .59$ ) and team performance/output ( $r = .33$ ) with motivation mediating the effect of vision on performance as well. Using an experimental framework, Kirkpatrick and Locke (1996) found that manipulated vision implementation (task cues) affected task

performance quality and quantity and that this effect was also mediated by self-set goals and self-efficacy. Together, these studies lend credence to the notion that inspirational motivation should buffer, and even potentially boost, the relationship between IDP and work intensification with work engagement. More specifically, it is expected that inspirational motivation will enhance the positive relationship between IDP whereas the nature of the interaction between inspirational motivation and work intensification will depend on the direction of the first-order effect. In other words, inspirational motivation should boost(buffer) the effect of work intensification on work engagement depending on if this relationship is positive(negative).

Accordingly, the following hypotheses and research questions are presented:

*Hypothesis 5:* Inspirational motivation will moderate the positive relationship between IDP and work engagement such that this relationship will be stronger when inspirational motivation is high.

*Research Question 2a:* What is the nature of the moderating relationship of inspirational motivation on IDP for burnout?

*Research Question 2b:* What is the nature of the moderating relationship of inspirational motivation on work intensification and burnout?

*Research Question 2c:* What is the nature of the moderating relationship of inspirational motivation on work intensification and work engagement?

**The moderating effect of intellectual stimulation on intensified job demands.**

Leaders intellectually stimulate followers by encouraging them to question conventional ideas or beliefs and to approach problems in new ways (Bass, 1985). Although most research focusing specifically on intellectual stimulation does so in terms of its effects on creativity and innovation of new products or business ideas (e.g., Boies et al., 2015; Zhou, Hirst, & Shipton, 2012), there is

also reason to expect that intellectually stimulating leader behavior may affect how employees respond to intensified job demands. In particular, intellectual stimulation should influence both how employees reappraise demands as well as how they choose to cope (Syrek et al., 2013). First, intellectually stimulating leaders are likely to push employees to rethink demands so that they are less threatening and more of a challenge by suggesting that employees have the capabilities to handle intensified demands (Harland, Harrison, Jones, & Reiter-Palmon, 2005). Second, a leader who employs intellectual stimulation should also encourage employees to adopt more proactive coping strategies that involve actively trying to overcome the demand through renewed focus and effort (Alarcon, Lyons, Schlessman & Barelka, 2012). In both cases, the transactional model of stress suggests that intellectual stimulation will be most effective when leaders successfully convince their followers that job demands are a) controllable and b) there are distinct benefits associated with handling the demand (Lazarus & Folkman, 1984). Thus, much like inspirational motivation, intellectual stimulation involves a shift in attention away from the demand concerns back toward work-related goals.

Accordingly, intellectual stimulation should be most effective maintaining motivation in the presence of challenge demands like work intensification and IDP as these should be more easily reframed as challenges that hold opportunities for mastery and attainment (Crawford et al., 2010). For instance, whereas an employee may initially feel threatened by IDP, an intellectually stimulating leader can potentially reframe the increased responsibility as not only within the employee's control and ability, but also as an opportunity for the employee to demonstrate the full extent of his or her competency to others. Assuming this reframing is effective, the employee will likely feel up to the challenge and consequently be more engaged (Crawford et al., 2010). In this example, the leader would have influenced reappraisal by supplying new,

previously unconsidered information about the employee's perceived situation as well as help shape the coping strategy by suggesting a novel approach for dealing with the demand.

Again, while the hypothesized mechanisms should similarly moderate the relationship between work engagement and both IDP and work intensification, the same is not expected to be true for intensified job insecurity. In this case, a leader would presumably have a difficult time convincing an employee threatened by intensified job insecurity to reframe potential job loss as a motivating challenge. Further, given the seriousness of the threat, attempts at influencing coping strategies may fail due to the fact that no amount of effort may be sufficient for some employees to ensure their future at their organization (Rowold & Schlotz, 2009). Intellectual stimulation also should be relatively ineffective at buffering the relationship between intensified job demands and burnout. Although it is possible reframing may lessen the threat appraisal and resulting negative emotional reactions, it is important to note that Lazarus and Folkman (1984) emphasize that both reappraisal and the deliberate adoption of coping strategies are mentally taxing, highly effortful processes. Additionally, leaders who use intellectual stimulation often do so forcefully as habitual ways of thinking are not easily altered (Bass, 1985). Thus, if anything, intellectual stimulation may lead to greater exhaustion among employees with intensified job demands.

There are several studies that suggest intellectual stimulation can influence how employees choose to approach and cope with job demands. First, Leung, Chen and Chen (2014) examined how intellectual stimulation moderated the positive relationship between learning goal orientation (LGO) and challenge-based intrinsic motivation reasoning that intellectual stimulation neutralized the relationship as both it and LGO served similar functions. Their results were supported which indicated that intellectual stimulation played a role in shaping

follower motivation. This is also in line with educational research suggesting that intellectual stimulation is an especially potent driver of students' experienced challenges and motivation (Bolkan & Goodboy, 2010). Given the large amount of sway that leaders, and particularly transformational leaders, have in general on employees' perceptions of job tasks and work characteristics (Fernet et al., 2015; Piccolo & Colquitt, 2006), it stands to reason that intellectually stimulating leaders may be in position to alter perceptions of intensified job demands. For example, Peng, Lin, Schaubroeck, McDonough III, Hu, and Zhang (2016) found that leader intellectual stimulation influenced employee perceptions of the meaningfulness of work and that these effects were most pronounced in uncertain environments. This suggests that employees likely respond to intellectual stimulation when facing intensified job demands associated with organizational flexibility. Although no studies have examined whether intellectual stimulation enhances the effect of job demands on burnout, two studies tentatively support the notion that the direct effect of intellectual stimulation can be exhausting (Seltzer, Numerof, & Bass, 1989; Stordeur, D'hoore, & Vandenberghe, 2001). Specifically, both Seltzer et al. (1989) and Stordeur et al. (2001) reported that intellectual stimulation positively predicted burnout when other TL behaviors were added to each study's respective regression equation. In other words, with each of the other dimensions held constant, more intellectually stimulating behavior resulted in higher levels of burnout. However, in the latter study, once job demands were also entered into the equation intellectual stimulation was no longer a significant predictor. Consequently, more research is necessary to determine the effects of intellectual stimulation as both a moderator and a potential job resource (demand). In lieu of this, the following hypotheses and research questions are presented:

*Hypothesis 6:* Intellectual stimulation will moderate the positive relationship between



IDP and work engagement such that this relationship will be stronger when intellectual stimulation is high.

*Research Question 3a:* What is the nature of the moderating relationship of intellectual stimulation on IDP and burnout?

*Research Question 3b:* What is the nature of the moderating relationship of intellectual stimulation moderate on work intensification and burnout?

*Research Question 3c:* What is the nature of the moderating relationship of intellectual stimulation on work intensification and work engagement?

### **The moderating effect of individualized consideration on intensified job demands.**

When leaders display individualized consideration, they go out of their way to attend to individual employee's needs and aspirations (Bass 1985; Bass & Riggio, 2006). As part of this process, leaders come to understand specific employee capabilities, motivations, and idiosyncrasies which determines the extent to which the leader offers encouragement, suggestions, and developmental opportunities (Shamir et al., 1993). Consequently, employees come to feel that their leader supports and values them (Podsakoff et al., 1990). Of all TL behaviors, individualized consideration is expected to display the most consistent moderating effects across all three intensified job demands due to its ability to influence the appraisal process in multiple ways. More specifically, individualized consideration has the potential to affect primary appraisal, reappraisal, and secondary appraisal.

First, the very presence of a leader who is considerate and takes time to get to know individual employees should serve as a resource which will make the initial appraisal of a job demand, like work intensification, seem less threatening and arouse fewer negative emotions (Arnold & Walsh, 2015). This is because employees will be cognizant that their leader has their

best interest and well-being at heart and will do everything he or she can to ensure employees do not become overwhelmed or over-taxed by the intensified demand (Bass et al., 2016). The feeling of assurance from this support should help reduce feelings of fear and concern as well as off-task distraction helping ensure employees avoid energy loss and maintain motivation (Eyesneck et al. 2007). Even in instances when the mere presence of an individually considerate leader doesn't prevent threat appraisal, the encouraging nature of these leaders can help alter reappraisal insomuch that the leader either directly assures employees that a demanding situation is under control or indirectly reminds employees of the leader's concern through other considerate actions like a personal question or a kind word. Again, this may make the intensified demand appear less threatening overall as employees will believe they can rely for help if they need it (Bass et al., 2016). This should likely hold true even for a highly threatening job demand like intensified job insecurity as leaders will take the time to reassure or inform employees regarding their status at the organization thereby reducing worry.

Individualized consideration should also affect secondary appraisal due to the fact that leaders will encourage employees to adopt optimal coping strategies for dealing with intensified job demands (Alarcon et al., 2012). For example, a leader might share tips on how to best organize and manage a heavy influx of work so that everything gets ahead of deadlines. Not only will individually considerate leaders offer helpful advice and guidance, but also will increase employees' needs for esteem and competence as well (Shamir et al., 1993). In particular, leaders who provide individualized attention and concern over employee development and well-being will make employees feel like they "personally" matter to their leader (Bass, 1985). Again, employees who feel they can adequately meet intensified demand-related challenges should be less distracted, experience fewer negative emotions, and expend less energy

leading to less burnout and greater work engagement (Crawford et al., 1990). For instance, an employee facing intensified job insecurity may spend less time worrying over the prospect of having to find a new position if the leader frequently reminds the employee of his or her importance and value as this will boost confidence that no matter what happens the employee will eventually land on his or her feet.

Further, even in instances where an intensified job demand is appraised as threatening and remains that way due to an employee's lack of control over the situation, individualized consideration can also provide relief from negative emotions as employees will be able to share anxieties with his or her leader regarding a job demand like intensified job insecurity. This means individualized consideration facilitates emotionally-focused coping as well as problem-focused coping (Alarcon et al., 2012). The act of emotional expression will be particularly helpful when negative emotions are most intense due to feelings of lack of control associated with very high levels of intensified demands (Lazarus & Folkman, 1984; Schpflug, 1983; Wichert, 2002). Attempts to control or repress emotions in these circumstances often results in unpleasant thoughts and feelings taking longer to dissipate and thus representing an even greater distraction than if they were adequately expressed (Lazarus & Folkman, 1984). This aspect of individualized consideration is expected to be unique from other TL behaviors as other dimensions like inspirational motivation or idealized influence lack the individualized component (Bass, 1985).

It is important to note that these theoretical moderating mechanisms are also consistent with COR (Hobfoll, 1989) and the notion of social support as a buffer as well (Cohen & Willis, 1985). In terms of the former, individually considerate leader behavior ought to act as a perceived resource gain that can offset potential resource loss stemming from intensified job

demands (Hobfoll, 1989). Specifically, leaders should be most apt to give, and employees most receptive to, individualized consideration during periods of high duress (e.g., intensified job insecurity) when coping abilities are most strained and perceived resources are most threatened (Bass & Riggio, 2006; Bommer et al., 2005). Additionally, individually considerate behavior also can alter employees' perceptions of their own personal energetic resources such that they view the possibility of resource loss as more remote (Hobfoll & Shirom, 2001). Likewise, although social support is a highly general construct, research indicates that emotional support (encouragement, feedback, etc.) is often an effective buffer for stressful events as it fosters a positive self-esteem and represents an emotional outlet (Cohen & Willis, 1985; Cutrona & Russell, 1990).

Consistent with most of the other TL dimensions, no studies have specifically examined the buffering effects of individualized consideration in relation to job demands and strains. However, there are several studies that have demonstrated the buffering effects of the highly-related construct of supervisor support (Liaw et al., 2010) on burnout, work engagement, and other related constructs (Bakker, van Veldhoven, & Xanthopoulou, 2010; Tadic et al., 2014; Schreurs, Van Emmerik, Gunter, & Germeys, 2012). As previously noted, Tadic et al. (2014) reported that daily increases in workload, time pressure and other job demands that are similar to IDP and work intensification were effectively moderated by job resources like supervisor support for both work engagement and positive affect. This lends support to both the boosting hypothesis and the affective-shift model of work engagement (Bedwell et al., 2011; Hobfoll, 2002). Schreurs et al. (2012) conducted a daily diary study and found that supervisor support buffered daily perceptions of job insecurity during an organizational restructuring on in-role performance. Although the authors did not measure work engagement, there is research

suggesting (Rich, LePine, & Crawford, 2010) it is an antecedent to job performance thus providing indirect evidence of a potential buffering effect. Bakker et al. (2010) found that supervisor support buffered the positive effects of workload and pace of work on burnout so that in the presence of a supportive supervisor, the relationship was no longer positive.

There is also evidence to suggest that individualized consideration affects employee coping responses and strategies. Kirmeyer & Dougherty (1988) revealed that police radio dispatchers with high workloads (volume of calls, radio transmissions, etc.) and supportive supervisors reported less anxiety at the end of their shift and more problem-focused coping actions which is in line with the theoretical buffering effects proposed by the current study. Additionally, Menges, Kilduff, Kern and Bruch (2015) used an experiment to show that participants in an individualized consideration condition engaged in greater emotional expressiveness after positive and negative mood inductions. Further, Alarcon et al. (2012) found that individualized consideration was positively related to more adaptive emotional coping (positive reinterpretation) and negatively related to maladaptive strategies like denial, behavioral disengagement, and mental disengagement. Given that emotional control and emotional labor are positively associated with burnout (Arnold et al., 2015), holding in emotions may not be an effective coping strategy. Accordingly, based on these study results and the theoretical considerations above, the following hypotheses (and research question) are presented:

*Hypothesis 7a:* Individualized consideration will moderate the positive relationship between intensified job insecurity and burnout such that this relationship will be weaker when individualized consideration is high.

*Hypothesis 7b:* Individualized consideration will moderate the positive relationship between IDP and burnout such that this relationship will be weaker when individualized

consideration is high.

*Hypothesis 7c:* Individualized consideration will moderate the positive relationship between work intensification and burnout such that this relationship will be weaker when individualized consideration is high.

*Hypothesis 7d:* Individualized consideration will moderate the negative relationship between intensified job insecurity and work engagement such that this relationship will be weaker when individualized consideration is high.

*Hypothesis 7e:* Individualized consideration will moderate the positive relationship between IDP and work engagement such that this relationship will be stronger when individualized consideration is high.

*Research Question 4:* What is the nature of the moderating relationship of individualized consideration on work intensification and work engagement?

Table 1

*Summary of Moderation Hypotheses and Research Questions for Burnout*

<b>Intensified Job Demands</b>	<b>Transformational Leadership Dimensions</b>			
	Idealized Influence	Inspirational Motivation	Intellectual Stimulation	Individualized Consideration
Job Insecurity	Hypothesis 4a (-)	N/A	N/A	Hypothesis 7a (-)
Intensified Job-Related Planning and Decision-Making Demands	N/A	Research Question 2a (?)	Research Question 3a (?)	Hypothesis 7b (-)
Work Intensification	N/A	Research Question 2b (?)	Research Question 3b (?)	Hypothesis 7c (-)

*Note.* (-) = Buffering Hypothesis. (?) = Research Question. (N/A) = No Hypothesis Presented.

Table 2

*Summary of Moderation Hypotheses and Research Questions for Work Engagement*

<b>Intensified Job Demands</b>	<b>Transformational Leadership Dimensions</b>			
	Idealized Influence	Inspirational Motivation	Intellectual Stimulation	Individualized Consideration
Intensified Job Insecurity	Hypothesis 4b (-)	N/A	N/A	Hypothesis 7d (-)
Intensified Job-Related Planning and Decision-Making Demands	N/A	Hypothesis 5 (+)	Hypothesis 6 (+)	Hypothesis 7e (-)
Work Intensification	N/A	Research Question 2c (?)	Research Question 3c (?)	Research Question 4 (?)

*Note.* (-) = Buffering Hypothesis. (+) = Boosting Hypothesis. (?) = Research Question. (N/A) = No Hypothesis Presented.



## CHAPTER V

### METHOD

#### Participants

**Study sample.** The final sample utilized in this study consisted of 443 full-time working adults matched across a 30-day time lag. The T1 sample consisted of 610 respondents which equates to an attrition rate of 27.3%. Participants in the final matched sample had an average age of 36 years ( $M = 36.06$ ,  $SD = 10.39$ ), evenly distributed in terms of gender (50.8% male), and predominately White/Caucasian (77.4%) followed by Asian (7.9%), African American (6.8%), and Hispanic (5.9%). Slightly more respondents were single (53.7%) as opposed to married (46.7%). Generally, the sample reported they were well-educated with 16.3% holding a Master's Degree or higher, 47% with a Bachelor's Degree, 28.4% with a two-year degree or at least some college, and only 8.3% with a high school diploma or less. On average, participants worked roughly 42 hours per week ( $M = 42.53$ ,  $SD = 5.01$ ) and had been at the same job ( $M = 6.23$ ,  $SD = 6.12$ ) and organization ( $M = 6.50$ ,  $SD = 6.33$ ) for similar periods of time. On the other hand, their supervisor tenure was shorter ( $M = 3.77$ ,  $SD = 3.68$ ). A roughly equal number of respondents had supervisors who were first-line management (41.6%) and middle management (39.8%), followed by top/executive management (18.6%). In terms of employment characteristics, most of the sample worked in the private sector (66.6%), followed by public sector (25.7%), and finally non-profit sector (7.7%). Employment contracts were almost entirely of a permanent nature (93.9%) with only independent contractor (2.5%) and temporary status (2.3%) eclipsing two percent. There was a wide range of reported incomes with the highest frequency reporting they earned \$30,000 – \$39,000 (19.2%) with the overall median being \$40,000 – \$49,000. Respondents also came from a diverse array of industries considering no single industry comprised more than 15% of the total. Other Services (11.1%), Educational

Services (13.3%), Health Care and Social Assistance (10.6%), and Professional, Scientific, and Technical Services (10.2%) each contributed 10% or more to the total. A frequency breakdown for categorical/ordinal participant demographic characteristics is presented in Table 3 and Table 4.

Table 3

*Frequency Table for Participant Demographics*

Variable	N	%
<b>Gender</b>		
Female	218	49.2%
Male	225	50.8%
<b>Race</b>		
White/Caucasian	343	77.4%
African American	30	6.8%
Hispanic	26	5.9%
Asian	35	7.9%
Native American	1	.2%
Other	8	1.8%
<b>Marital Status</b>		
Single	238	53.7%
Married	205	46.3%
<b>Education</b>		
Less than High School	1	.2%
High School / GED	36	8.1%
Some College	86	19.4%
2-year College Degree	40	9.0%
4-year College Degree	208	47.0%
Master's Degree	64	14.4%
Doctoral Degree	6	1.4%
Professional Degree (JD, MD)	2	.5%
<b>Income</b>		
under \$20,000	30	6.8%
20,000-29,999	74	16.7%
30,000-39,999	85	19.2%
40,000-49,999	67	15.1%
50,000-59,999	60	13.5%
60,000-69,999	36	8.1%
70,000-79,999	32	7.2%
80,000-89,999	16	3.6%
90,000-99,999	19	4.3%
Over \$100,000	24	5.4%
<b>Employment Sector</b>		
Private Sector	295	66.6%
Public Sector	114	25.7%
Non-profit Sector	34	7.7%
<b>Employment Contract</b>		
Independent Contractor	11	2.5%
On-Call	1	.2%
Permanent	416	93.9%
Temporary	10	2.3%
<b>Supervisor Position</b>		
First-line Management	184	41.6%
Middle Management	176	39.8%
Top/Executive Management	82	18.6%
<b>Supervisor Status</b>		
No	281	63.7%
Yes	160	36.3%

Note. N = 441.

Table 4

*Frequency Table for Participant Industry*

Variable	N	%
<b>Industry</b>		
Agriculture, Forestry, Fishing and Hunting	7	1.6%
Utilities	5	1.1%
Construction	8	1.8%
Manufacturing	36	8.1%
Wholesale Trade	5	1.1%
Retail Trade	36	8.1%
Transportation and Warehousing	16	3.6%
Information	36	8.1%
Finance and Insurance	32	7.2%
Real Estate and Rental and Leasing	4	.9%
Professional, Scientific, and Technical Services	45	10.2%
Management of Companies and Enterprises	5	1.1%
Administrative and Support and Waste Management and Remediation Services	8	1.8%
Educational Services	59	13.3%
Health Care and Social Assistance	47	10.6%
Arts, Entertainment, and Recreation	18	4.1%
Accommodation and Food Services	17	3.8%
Public Administration	8	1.8%
Other Services	49	11.1%
Self-Employed	2	.5%

Note. N = 441.

The overall heterogeneity of this study's sample is advantageous given that to date, research appears to indicate that no specific industry or occupation has been completely isolated from the effects of economic change and organizational flexibility (Burchell, 2002). Prior studies have examined the prevalence and effects of intensified job demands for workers employed in service, sales, manufacturing, information technology and the public sector among others (Franke, 2015; Korunka et al., 2015; Kubicek et al., 2015, Paskvan et al., 2015). Results reveal few differences between industries with the majority of workers reporting at least some experienced work intensification and/or job insecurity (Burchell, 2002; Fullerton & Wallace, 2007). Although these studies have so far only examined global, long-term intensified job demands, the fact that general work intensification is also associated with more short-term

variability and increases in job demands (Green, 2001; Piansa, 2015) suggests the same diverse population of employees experience the latter as well.

Based on this, the present study utilized Amazon Mechanical Turk (MTurk) in order to find and recruit its participants. Briefly, MTurk serves as an anonymous labor pool for the completion of specific tasks posted by requesters. Workers are able to view human intelligence tasks, or HITs, and select and complete those for which they are qualified in return for prompt payment. Within the past five years, a growing number of organizational and managerial academic researchers have utilized MTurk samples in their research and had their studies published in highly reputable journals like the *Academy of Management Journal* (e.g., Bendersky & Shah, 2013), or *Journal of Applied Psychology* (e.g., Lin, Ma, & Johnson, 2016). Part of the popularity of crowdsourced data is due to the ease of collection, affordable cost, and diverse nature of samples in terms of demographics (Casler, Bickel & Hackett, 2013; Crump, McDonnell, & Gureckis, 2013; Roulin, 2015). Additionally, studies on data quality also indicate platforms like MTurk provide results comparable to student and organizational samples in terms of error rates and omissions (Buhrmester, Kwang, & Gosling, 2011). Thus, the current study specifically targeted MTurk workers for its sample.

## Procedure

**Study design.** The current study used a two-wave design in order to strengthen causal inferences and avoid concerns with common-method bias which arise from cross-sectional studies (Brusso, Cigularov & Callan, 2014; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Specifically, two (nearly) identical surveys with all measures included (except for stable demographic variables which were only assessed at time one) were administered in succession, approximately 30 days apart. In addition to the theoretical considerations previously discussed,

this exact time lag was chosen for methodological reasons as well. In particular, a lag of 30 days presented a unique opportunity to examine the validity of employee perceptions of intensified job demands. Similar to Kubicek et al. (2015), the current study included traditional job demand (e.g., time pressure) measures that correspond to theoretically-related intensified job demands. For example, Kubicek et al. (2015) demonstrated that participants could discriminate between work intensification and time pressure as well as autonomy (typically a job resource) and IDP. By including both intensified job demand scales and more typical measures in the survey at both time points, it is possible to assess whether increases in typical job demands over time correlate with intensified job demands measured at time two (T2). In other words, there should be a positive correlation for participants who indicate higher time pressure at T2 as opposed to T1 (operationalized as a T2 – T1 difference score) and work intensification at T2. Moreover, a 30-day time lag is also consistent with other research that reported moderation effects for TL (e.g., Arnold & Walsh, 2015). Finally, it is also beneficial for testing potential lagged or reverse causation effects as a 30 day period is in line with recent methodological research that suggests common time lags (e.g., three months) utilized in organizational research are often too long and urges future researchers to conduct more “shortitudinal studies” (Dormann & Griffin, 2015).

**Power analysis.** An a-priori power analysis was conducted via a Monte-Carlo study prior to collecting data (see Appendix G). It was determined that roughly 500 participants would be needed across both time points in order to detect a standardized interaction coefficient of approximately  $\beta = .08$ . This is generally smaller than the effect sizes past research like Arnold and Walsh (2015) and Syrek et al. (2013) reported. Ultimately, the current study fell slightly short of this goal with a matched total of 443 (after data screening). A post-hoc power analysis indicated actual power was  $\beta = .78$ .

**Recruitment and survey administration.** Before the commencement of all data collection, IRB approval was sought and obtained. In order to participate in the study, participants were required to “qualify” on a short demographic survey. This survey took approximately one and a half minutes ( $M = 1.65$ ,  $SD = .73$ ) to take and paid \$0.10. Specifically, only those who a) were over 18 years old, b) were employed aside from completing MTurk assignments, c) worked at least 30 hours a week, d) had a full-time supervisor, and e) had their current position and supervisor for at least one month received the link to take the T1 survey. Additionally, MTurk participants were restricted to U.S. locations only. Of a total of 1287 who took the demographic survey, 759 qualified (59%), and roughly 674 (52.4%) went on to participate in T1. Thus, 89% of all those invited ended up at least beginning the T1 survey. The T1 survey paid \$1.20 and took an average of 11 ( $M = 11.43$ ,  $SD = 1781.60$ ) minutes to complete (note that response time is adjusted for an extreme outlier  $Z = 23.1$ ). Combined with the screener survey, this means the average participant spent 10-12 minutes of time for \$1.30 which equates to between \$7 and \$8 dollars per hour.

Three separate attention checks were embedded throughout the T1 survey. An example item is “Please select Strongly Disagree.” Any participant who failed two attention checks was automatically re-routed to an end-of-survey message informing them that they failed the maximum number of attention checks, but that they would still be compensated for the demographic survey and that their MTurk reputation would remain unharmed. Five participants failed the maximum two attention checks at T1 whereas approximately 35 did not finish (number is approximate due to the fact that several respondents began the survey a second time and then stopped halfway through). A total of 23 respondents (4%) failed one attention check. These cases were flagged for further examination to determine if their responses influenced results one

way or the other (see Results section). After completing the T1 survey, respondents were informed that a) they would be paid via MTurk bonus within three business days and b) to expect an email with the T2 survey link in approximately 30 days. Including demographic surveys, a total of \$1,043.52 was paid to MTurk participants at T1 (number includes 20% MTurk fee).

T1 survey data collection began on 11/15/2016 and was terminated on 11/18/2016. The decision to terminate was based on a) an examination of the T1 effect sizes, b) a desire to avoid a drawn out collection period thereby complicating T2 collection timing, c) the fact that the Thanksgiving holiday was the following week (e.g., less activity on MTurk), and finally d) consideration of the project budget. Timing considerations also influenced T2 survey launch given that Christmas and Hanukah holidays also fell that next week. Consequently, the T2 survey invitation was sent to participants on 12/14/2017 with data collection terminating on 12/17/2017. The average time lag was 28 days ( $M = 27.82$ ,  $SD = 1.22$ ). A total of three people failed two attention checks while approximately 11 did not complete the full survey. After removing outliers, results indicated that the T2 survey took an average of 15 minutes ( $M = 14.88$ ,  $SD = 1107.64$ ). It should be noted that while this survey did not contain demographic variables, several other measures un-related to the present study were also included. Those who participated in the T2 survey were compensated \$2.00 each with the total compensation paid out at T2 being \$1,101.60. Thus, the total cost for the full study was \$2,145.12.

The T1 and T2 surveys were matched on each participants' unique MTurk ID. In all, a total of 462 participants were successfully matched across time points. This number was further reduced due to additional screening procedures described below in the results section.

## Measures

Scales were selected based on a) conceptual and theoretical match with the phenomenon



of interest, and b) evidence of reliability and validity. In many cases, existing measures were adapted for the purpose of the current study. All study measures are presented in full in Appendix H (full study) and Appendix I (pilot study). Additionally, the rationale behind the choice of measures, study-specific item alterations, and the results of a pilot study are discussed in-depth in Appendix A. Where applicable, pilot study findings that affected measurement decisions in the full study are mentioned in the following section. Unless otherwise specified, all scales were employed at both time points and used a seven-point Likert-type scale with anchors ranging from (1 = Strongly Disagree to 7 = Strongly Agree). A seven-point scale was chosen as opposed to five in order to maximize variability among measures and thus increase statistical power (Mackinnon, 2013).

**Dependent variables.** Established scales for burnout (Maslach & Jackson, 1981) and work engagement (Schaufeli & Bakker, 2003) were used to measure study outcomes. Participants were instructed to think about their current, full-time job when answering item statements.

**Burnout.** Burnout was measured with six total items from the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981). Three items measured emotional exhaustion whereas the other three items measured the cynicism, or depersonalization, dimension of burnout. Originally, the study proposed to use three items from the cynicism scale employed in Schaufeli & Salanova (2007), but the pilot study revealed that this subscale had a very high correlation with work engagement ( $r = -.68, p < .001$ ), and in particular, the dedication subscale ( $r = -.66, p < .001$ ). Given that this study proposes differential effects for intensified job demands on burnout and work engagement, this was deemed problematic as a large overlap between outcomes may lead to results that are identical except for the direction of the sign.

Consequently, depersonalization items from the MBI with non-human-services specific wording (e.g., “I worry that this job is hardening me emotionally”) were utilized for the present study. For emotional exhaustion, a sample item was “I feel emotionally drained from my work.” Across both time points, the internal consistency reliability was high for emotional exhaustion (T1  $\alpha$  =.93; T2  $\alpha$  =.94), cynicism/depersonalization (T1  $\alpha$  =.83; T2  $\alpha$  =.84), as well as the full scale (T1  $\alpha$  =.92; T2  $\alpha$  =.91).

**Work engagement.** The complete nine-item Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003) was used to measure the three work engagement sub-dimensions: vigor, dedication, and absorption. Three sample items for vigor, dedication, and absorption were “At my work, I feel bursting with energy”, “When I get up in the morning, I feel like going to work”, and “I am immersed in my work,” respectively. Vigor (T1  $\alpha$  =.89; T2  $\alpha$  =.90), dedication (T1  $\alpha$  =.90; T2  $\alpha$  =.90), absorption (T1  $\alpha$  =.83; T2  $\alpha$  =.84), and the full scale (T1  $\alpha$  =.95; T2  $\alpha$  =.95) all had high internal consistency estimates across both time points.

**Intensified job demands.** Intensified job demands were measured in a similar fashion to Kubicek et al. (2015) where respondents were instructed to consider a specific, retrospective period before answering items. However, unlike Kubicek and coauthors (2015), the current study asked participants to consider the prior 30 days as opposed to the previous five years. Both IDP and work intensification were measured using scales from Kubicek et al. (2015) whereas intensified job insecurity items were adapted from existing job insecurity scales. Again, all items were first tested in a pilot study (Appendix A) before use in the current study. Further, Appendix C presents item-level statistics for all intensified job demand items in the full study.

**Intensified job insecurity.** Intensified job insecurity was measured with eight items adapted from Ashford et al. (1989) and O’Neill & Savastos (2013). Four of these items were

designed to capture intensified job-loss insecurity while the other four items aimed to capture intensified job-feature insecurity. The measurement properties of the adapted scale were tested in a pilot study and results indicated high internal consistency for the overall scale ( $\alpha = .94$ ) as well as the job-loss ( $\alpha = .93$ ) and job-feature ( $\alpha = .87$ ) sub-dimensions. Additionally, CFA and hierarchical regression results from the pilot study suggested intensified job insecurity and traditional job insecurity were distinct constructs (one vs two-factor;  $\Delta\chi^2(1) = 79.76, p < .001$ ) and that the former contributed incremental validity above and beyond the latter for burnout ( $\Delta R^2 = .03, p = .013$ ). Correlational results also indicated that intensified job demands mostly had higher correlations with organizational change events than traditional job demands.

Moreover, with one exception, the scale demonstrated high factor loadings ( $> .70$ ) in the pilot study (see Appendix A). The single low loading item for intensified job-feature insecurity (“Felt the number of hours my company could offer me was uncertain”;  $\beta = .67$ ) as well as the lowest loading item for intensified job-loss insecurity (“Felt my future with this organization was uncertain”;  $\beta = .80$ ) both begin with the word “felt” as opposed to “thought” unlike the rest of the other items. Consequently, in order to make the scale consistent, these items were re-worded in the full study to “thought.” Unfortunately, this remedy did not significantly impact the item-level properties in the full study for the altered intensified job-feature insecurity item (IJIF1) as is evident in Table 5, which displays factor loadings for intensified job insecurity for the full study. This finding, consistent across both time points, suggests that the item content itself is a more probable culprit than idiosyncratic wording. And indeed, the item means and standard deviations at T1 ( $M = 2.50, SD = 1.85$ ) and T2 ( $M = 2.61, SD = 1.91$ ) were noticeably lower than other items (see Appendix C).

Nonetheless, a decision was made to retain the item due to a) a desire to maintain full

construct breadth, b) item-level statistics indicated only a moderate increase in internal consistency reliability if the item was removed, c) four items for each sub-dimension are necessary to create parcels indicators for CFA purposes, and d) results from the main hypotheses analyses did not change when the item was removed. Overall, internal consistency was high at both T1 ( $\alpha = .91$ ) and T2 ( $\alpha = .92$ ) for the full scale as well as for the intensified job-loss insecurity (T1  $\alpha = .90$ ; T2  $\alpha = .92$ ) and intensified job-feature insecurity (T1  $\alpha = .87$ ; T2  $\alpha = .87$ ) subscales. A sample item for intensified job-loss insecurity was “I have increasingly... ..thought about the likelihood of losing my job” whereas a sample item for intensified job-feature insecurity is “I have increasingly... .. thought about the likelihood of unfavorable changes to my job.”

Additionally, similar to the pilot study, a decision was made to combine items into two subscales based on the highest two factor loadings for each respective dimension. Thus, future CFAs were run with four total items loading on a single intensified job insecurity factor (two items for job-loss and two for job-features) for both the sake of parsimony and to better gauge model fit (Little, Rhemtulla, Gibson, & Schoemann, 2013).

Table 5

*Factor Loadings for Intensified Job Insecurity*

Factor	$\beta$ (T1)	$\beta$ (T2)
<b>Intensified Job Insecurity</b>		
<i>Intensified Job-Loss Insecurity</i>		
IJJ1	.90	.93
IJJ2	.79	.84
IJJ3	.89	.94
IJJ4	.81	.73
<i>Intensified Job-Feature Insecurity</i>		
IJIF1	.65	.60
IJIF2	.82	.83
IJIF3	.87	.89
IJIF4	.83	.86

Note. N = 443. All loadings significant at  $p < .05$ .

**Intensified decision-making and planning.** IDP was measured with the full five-item intensified job-related planning and decision-making demands scale from Kubicek et al. (2015). In the current study, the scale title was renamed for reasons of length and readability. The altered scale was also included in the pilot (Appendix A) where it demonstrated adequate reliability in terms of factor loadings ( $\beta = .67$  to  $.79$ ) and solid internal consistency reliability ( $\alpha = .87$ ). Participants were also able to distinguish it from job responsibility when a one-factor versus two-factor model was compared ( $\Delta\chi^2(1) = 98.1, p < .001$ ). Given that the items are from an established scale, no alterations were made for the current, full study. Factor loadings across both time points were  $> .79$  and internal consistency reliability was  $.93$  at T1 and  $.94$  at T2. A sample item was “I have had to increasingly determine the sequence of activities by myself.”

**Work intensification.** Work intensification was measured with the full five-item scale from Kubicek et al. (2015). Minor alterations were made to make items refer to employees’ personal experiences as opposed to the workplace in general. In the pilot study, all factor loadings were above  $.70$  with the exception of item #3 which read “the time between the more

intense work phases has decreased” which had a loading of only .51. However, in Kubicek et al. (2015), this item had a loading of .85, so in order to avoid shortening the scale length, this item was retained for the full study. Additionally, work intensification had acceptable internal consistency reliability in the pilot ( $\alpha = .83$ ), was related to burnout ( $r = .24, p = .001$ ), and predicted burnout above and beyond time pressure ( $\Delta R^2 = .04$ ). Moreover, a two-factor model with work intensification and time pressure as their own unique factors fit better ( $\Delta\chi^2 (1) = 53, p < .001$ ) than a one-factor model.

In terms of factor loadings for the full study, factor loadings were generally high except for the single problematic item (WI3) which also had lower factor loadings at T1 ( $\beta = .59$ ) and T2 ( $\beta = .69$ ). Still, they were noticeably higher than the pilot. Further examination revealed the item mean was not noticeably lower than that of other items at T1 ( $M = 3.49$ ) or T2 ( $M = 3.60$ ), but that standard deviation and consequent corrected item-total correlations were slightly smaller (T1  $r_c = .55$ ; T2  $r_c = .55$ ). Nonetheless, item-level statistics indicated no improvement for internal consistency reliability without the item and hypotheses analyses remain the same with it included. Thus, it was retained in work intensification scale. Internal consistency reliability for the scale was .88 at T1 and .89 at T2. A sample item was “It has been increasingly rare for me to have enough time for work tasks.”

**Transformational leadership.** The current study used items from several existing measures (Pearce & Sims, 2002; Podsakoff et al., 1990; Rich, 1997) to assess transformational leadership. Primarily, items were taken from four distinct subscales of the Podsakoff et al. (1990) transformational leadership measure: a) providing an appropriate model, b) articulating a vision, c) intellectual stimulation, and d) individualized support as these dimensions mirror the original four transformational leadership dimensions (idealized influence, inspirational

motivation, intellectual stimulation, and individualized consideration; Bass, 1985). Additionally, given that the individualized consideration and intellectual stimulation scales from Podsakoff et al. (1990) were only three items long, a single item was added to both scales to increase reliability from other existing measures (Pearce & Sims, 2002; Rich, 1997). In the pilot study, the whole transformational leadership scale had an internal consistency reliability of .97 whereas in the full study it was .97 at both T1 and T2. For all items, participants were directed to think about their immediate, direct supervisor when answering. Each of the four dimensions is described in detail in the sub-sections below.

***Idealized influence.*** Idealized influence was measured with three items from the Podsakoff et al. (1990) providing an appropriate role-model subscale and a single item from Rich's (1997) leader role modeling scale. The single item was selected based on its conceptual similarity to the three Podsakoff et al. (1990) items (note that Podsakoff et al., 1990 actually used items from Rich, 1997). Originally, two items from Pearce and Sims' (2002) idealism subscale were tested in the pilot study, but due to the fact they had slightly lower factor loadings ( $\beta = .73$  to  $.79$ ) and their content conceptually differed from the Podsakoff et al. (1990) role modeling items, they were replaced in the current study. The internal consistency reliability for the five item measure utilized in the pilot study was .91 whereas for the four item measure used in the full study it was .96 at T1 and .96 at T2. Additionally, factor loadings ranged from .88 to .96 at T1 and .90 to .96 at T2. A sample item from Podsakoff et al. (1990) was "My current, direct supervisor leads by example" while the item from Rich (1997) was "My current, direct supervisor exhibits the kind of work ethic and behavior others try to imitate."

***Inspirational motivation.*** Inspirational motivation was measured with the five-item articulating a vision subscale from Podsakoff et al. (1990). A sample item was "My current,

direct-report supervisor paints an interesting picture for the future of our group.” Factor loadings ranged from .78 to .94 at T1 and .78 to .93 at T2 while internal consistency reliability was .92 for the pilot, .93 at T1, and .94 at T2, respectively.

***Intellectual stimulation.*** Intellectual stimulation was measured with the full three-item Podsakoff et al. (1990) subscale and a single item from Pearce and Sims (2002). In this instance, the additional item was added to help insure scale reliability. In the pilot, factor loadings ranged from .83 to .90 whereas in the full study they ranged from .88 to .94 at T1 and .88 to .93 at T2. Internal consistency in the pilot was .92. A sample item from Podsakoff et al. (1990) was “My current, direct supervisor stimulates me to think about old problems in new ways” while the single item from Pearce and Sims (2002) was “My current, direct supervisor encourages me to rethink ideas which had never been questioned before.” Internal consistency reliability was .95 at both T1 and T2.

***Individualized consideration.*** Four items measuring individualized support from Podsakoff et al. (1990) were used for to measure individualized consideration. Factor loadings in the pilot study ranged from .91 to .95 and the internal consistency reliability was .95. In the full study, factor loadings ranged from .91 to .96 at T1 and .92 to .96 at T2. Internal consistency reliability was also high at both T1 ( $\alpha = .97$ ) and T2 ( $\alpha = .97$ ). A sample item was “My current, direct supervisor shows respect by considering my personal feelings.”

***Traditional job demands.*** In order to provide evidence of both convergent and discriminant validity, measures for “traditional” job demands that are conceptually similar to each intensified job demand were included in both the full study and the pilot. This is similar to the approach Kubicek et al. (2015) took during their measure validation of the IDS. For each measure, participants were instructed to consider their current, full-time job at present. These



instructions were designed to induce respondents to think about their job contemporaneously as opposed to the preceding 30 days.

**Quantitative job insecurity.** Quantitative job insecurity was measured with three items from Hellgren, Sverke, and Isaksson (1999). This construct is intended to be counterpart to intensified job insecurity and results from the pilot indicated the two constructs had a high, positive correlation ( $r = .87, p < .001$ ) and yet were still distinct (see Appendix A). Internal consistency reliability was .84 in the pilot and .88 at both T1 and T2 of the full study. A sample item was “I feel uneasy about losing my job in the near future.”

**Job responsibility.** Three items from Gadinger, Schilling, Litaker, and Fischer’s (2012) Work Health Check (WHC) instrument were used to measure job responsibility. Although there is no exact correspondence between a traditional job demand and IDP, job responsibility was deemed to be the closest match. In the pilot, job responsibility had a moderate correlation ( $r = .46, p < .001$ ) with IDP. Here, it is important to note that Kubicek et al. (2015) compared the latter to three different types of autonomy (scheduling, decision-making, and methods) and only reported correlations ranging from .19 to .27. In the pilot, internal consistency reliability was .76 whereas it was .79 at T1 and .76 at T2 in the full study. A sample item was “At work I must often make decisions that will lead to far-ranging consequences.”

**Time pressure.** Time pressure was measured with three items from Teng, Shyu, Chiou, Fan, and Lam’s (2010) five-item time pressure scale. Time pressure can be considered the counterpart to work intensification. Accordingly, the two had a moderate positive relationship ( $r = .56, p < .001$ ). Internal consistency reliability was .76 in the pilot, as well as .74 at T1 and .78 at T2 in the full study. A sample item was “I feel very busy at work.”

**Organizational characteristics, demographic variables, and controls.** In order to account for potential third variable effects, explore employee characteristics in relation to intensified job demands, and ensure data quality the following variables were included in the study. A detailed explanation along with correlational results for these variables is included in Appendix G.

**Organizational change checklist.** Similar to other studies utilizing intensified job demands (e.g., Franke, 2015), a list of organizational change events was included as a potential model covariate. This same variable was also included in the pilot study in order to provide additional validity evidence for intensified job demands. In both studies, participants were presented a list of 19 major organizational events and asked to indicate if any of them had occurred in the prior 12 months. These events were derived both from prior scales (Mishra, Bhaskar, & Khuruna, 2007; Widerszal-Bazyl & Mockallo, 2015) as well as the literature on organizational change (Probst, 2005). The total number of events was summed to create a composite for each individual. In the pilot study, the composite was positively related to intensified job insecurity ( $r = .16, p = .031$ ) and also had positive, non-significant relationships with IDP ( $r = .08, p = .269$ ) and work intensification ( $r = .11, p = .159$ ). Despite low statistical power, various specific changes also had relationships with all three intensified demands (see Appendix A). For the full study, organizational change was measured at T1.

**Core self-evaluations.** The full 12 item core self-evaluation (CSE) scale from Judge, Bono, and Thoresen (2003) was included at T1. CSE was identified as a potential covariate due to the fact employees with higher self-esteem, self-efficacy, locus of control, and emotional stability may potentially perceive intensified job demands as less threatening (Best, Stapleton, & Downey, 2005). Additionally, research has also examined CSE as a substitute for TL (Nubold,

Muck, & Maier, 2013). For survey length purposes, only a short five item measure of CSE (Bowling, Wang, Tang, & Kennedy, 2010) was included in the pilot ( $\alpha = .84$ ). CSE was negatively related to burnout ( $r = -.31, p < .001$ ), positively related to work engagement ( $r = .28, p < .001$ ), both intensified job insecurity ( $r = -.40, p < .001$ ) and work intensification ( $r = -.28, p < .001$ ), and all four transformation leadership dimensions ( $r = .30$  to  $.37$ ). IDP had a small, non-significant relationship ( $r = -.13, p = .09$ ). The 12-item measure used in the full study had an internal consistency of .91 at T1 and a sample item was “Overall, I feel satisfied with myself.”

**Trait negative affectivity.** Ten items from the Watson, Clark, & Tellegen’s (1988) negative affectivity (NA) scale were included at T2. Although using NA as a control variable is not without controversy (Spector, Zapf, Chen & Frese, 2000), it is perhaps the most common control variable in occupational health psychology (Spector & O’Connell, 1994). NA was deemed relevant in the present study as there is the potential for employees who experience higher negative affect to perceive more intensified job demands as well as to be more susceptible to burnout (Iverson, Olekalns, & Erwin, 1998). Internal consistency reliability was .92 at T2 and a sample item was “In general, I feel nervous.”

**Occupational demographics.** Participants were asked to indicate: a) the number of full-time jobs they have (aside from MTurk), b) their job position title, c) the number of hours they work per week, d) job tenure, e) number of supervisors they directly report to, f) tenure with direct-report supervisor, g) direct-report supervisor job position, h) whether they supervise employees themselves (T2), i) type of employer they work for (e.g., private sector), j) job tenure, k) organizational tenure, l) nature of their employment contract, and m) occupational industry.

**Personal demographics.** Participants also indicated their: a) age, b) gender, c) race, d) marital status, e) level of education, f) household income, g) state of residence, and h) county of

residence.

**Data quality.** A number of items were included in the survey at both time points in order to ensure overall data quality. First, three separate attentions checks which directed participants to select a specific scale option (e.g., “Please select Strongly Disagree”) were randomly dispersed throughout the survey. Additionally, the total time each participant took to complete each survey was also recorded. Finally, at T2, participants were asked if they either a) changed jobs or b) changed supervisors within the past 30 days.

## CHAPTER VI

### RESULTS

#### Preliminary Analyses

Unless otherwise specified, all preliminary analyses and measurement models were run at both time points.

**Data screening.** First, the full dataset was examined for incorrect values and outliers using frequency distributions and Z-scores. Then scale scores were computed by taking the average of the items listed in the measure section for each construct. Variables were then transformed into Z-scores and any value greater than 3.29 was flagged as an outlier (Tabachnick & Fidell, 2013). Perhaps surprisingly, no values met this threshold, although this may be due to the large sample size. Moreover, because the Qualtrics surveys notified (but not forced) participants to complete items they skipped, and the fact that respondents were compensated for study, missing data was less than 1%. In fact, the only variables with missing values were those where participants entered incorrect information for the screener survey thereby making it impossible to link them to T1. Consequently, missing data was handled with list-wise deletion for all analyses (where applicable).

After these steps were taken, several data quality indicators were examined in relation to the study variables to determine if they had an impact. Specifically, correlations were run between a dummy variable splitting T1 respondents into those who took the T2 follow-up and those who did not and all T1 measures. Results indicated that this variable had a small positive relationship with IDP ( $r = -.11, p = .007$ ), and small negative relationships with organizational tenure ( $r = -.11, p = .008$ ), job tenure ( $r = -.11, p = .007$ ), and age ( $r = -.14, p = .001$ ). The same analyses were also run using dummy variables for participants who failed an attention check at

T1 or T2 (recall that participants were allowed to fail one check per survey). Here, there were a number of small relationships across time points. The T1 attention check dummy variable correlated with: a) burnout T1 ( $r = .09, p = .020$ ), b) intensified job insecurity T1 ( $r = .09, p = .023$ ), work intensification T1 ( $r = .09, p = .031$ ), CSE T1 ( $r = -.10, p = .010$ ), and negative affectivity T2 ( $r = .16, p = .001$ ). The T2 attention dummy variable correlated with: a) burnout T1 ( $r = .11, p = .03$ ), intensified job insecurity T1 ( $r = .10, p = .035$ ), work hours T1 ( $r = .12, p = .011$ ), burnout T2 ( $r = .12, p = .009$ ), intensified job insecurity T2 ( $r = .09, p = .049$ ), and work intensification T2 ( $r = .12, p = .009$ ). Finally, after removing outliers ( $Z < \pm 3.29$ ), the total time it took each participant to complete the survey was also correlated with each study variable. The only significant relationship was between the total time spent on the survey at T1 and intellectual stimulation at T2 ( $r = -.11, p = .018$ ).

**Assumption checks.** Skewness and kurtosis values were examined for all variables with values  $\pm 1.5$  indicating potential abnormality (Tabachnik & Fidell, 2013). Consistent with the outlier results, all values were within these ranges. Next, potential regression assumption violations were identified visually via charts and graphs (Cohen, Cohen, West, & Aiken, 2003). Linearity and homoscedasticity (i.e., constant error variances) were checked through careful examination of residual scatter plots. Residual plots that do not appear to be randomly scattered are often indicative of problems such as non-linearity, non-normality, or severe outliers (Cohen et al., 2003). Again, no major violations were detected.

**Confirmatory factor analyses (CFA).** A series of CFAs were run in Mplus Version 7.4 (Muthen & Muthen, 2015) in order to test the proposed factor structure and discriminant validity. In particular, the procedure outlined in Kubicek et al. (2015) and also utilized in the pilot study was likewise followed for all full study measures at both time points. Model fit was assessed

through the comparison of multiple fit statistics consistent with best practices (Bentler, 1990). In particular, chi-square, root mean square error of approximation (RMSEA), comparative fit index (CFI), and standardized root-mean-square residual (SRMR) were all examined. The chi-square statistic is designed to test whether there is a significant difference between the model-implied covariance matrix and the sample covariance matrix (Kline, 2011). Accordingly, a statistically significant chi-square value means the likelihood the model discrepancy is due to chance is low.

However, the chi-square is a highly sensitive test, especially with larger sample sizes (Cheung & Rensvold, 2002). The chi-square value is most useful not as an indicator of overall model fit, but rather as a tool to assess change in fit between models via a chi-square difference test (Kline, 2011). Thus, a significant chi-square difference indicates that a particular factor structure has a better(worse) fit than an alternative model. RMSEA is a “badness-of-fit” index that adjusts for differences between the implied and observed covariance matrices based on model parsimony (degrees of freedom) and sample size. Lower values are considered better with “zero” indicating a perfect fit. RMSEA values less than .05 are considered “good” model fit whereas a value of .08 or less is considered “acceptable fit” (Schumacker & Lomax, 2004).

The CFI, on the other hand, measures the improvement of a researcher’s model over a null model where there is no covariance between variables. Higher CFI values are considered better fit with a value of “1” indicating perfect fit (Kline, 2011). Past research has suggested that a CFI value of .95 or higher indicates good fit while .90 or higher is acceptable (Hu & Bentler, 1999). SRMR is a measure of the mean absolute difference between implied and predicted correlations. A value of “zero” indicates perfect fit with a value of .08 or less is considered “good” (Hu & Bentler, 1999). Finally, in addition to the fit indices, the standardized residual matrix was also analyzed with a residual with an absolute value greater than .10 may be

indicative of model misfit (Kline, 2011).

### **Discriminant Validity**

In order to establish discriminant validity among study variables, a number of hierarchical CFAs were conducted. These comparisons were based on conceptual similarity of the measures and as well as each variable's role in hypotheses (e.g., comparison of TL dimensions). Where applicable, subscales or parcels were used (results were similar with all items). Chi-square difference tests were assessed to compare model fit (Kline, 2011).

**Burnout and work engagement.** First, a two-factor model with burnout and work engagement sub-dimensions loading on separate factors was compared to a model with all subscales loading on a single factor (Table 6). Although the latent correlation (Appendix D) between burnout and work engagement was still high at T1 ( $r_c = -.68$ ) and T2 ( $r_c = -.71$ ), in both cases it was substantially lower than the pilot ( $r_c = -.91$ ; Appendix A). This phenomenon is likely due to the fact that the observed correlations between dedication and cynicism/depersonalization at T1 ( $r = -.61, p < .001$ ) and T2 ( $r = -.67, p < .001$ ) were still high similar to the pilot study ( $-.71, p < .001$ ; Appendix A). However, tests for discriminant validity indicated that the two-factor model had a significantly better fit at both T1 ( $\Delta\chi^2(1) = 1131.9, p < .001$ ) and T2 ( $\Delta\chi^2(1) = 1086.56, p < .001$ ; Table 6). Additionally, difference tests using dimensional subscales (two subscales for burnout and three for work engagement) also had better fit for a two-factor model as compared to a one-factor at both T1 ( $\Delta\chi^2(1) = 211.65, p < .001$ ) and T2 ( $\Delta\chi^2(1) = 169, p < .001$ ).



Table 6

*Discriminant Validity for Burnout and Work Engagement*

	<b>Burnout &amp; Work Engagement</b>							
	<i>Time</i>	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta df$
Expected 2-Factor Model	1	689.90	89	.90	.12	.09	1131.9	1
1-Factor Model	1	1821.20	90	.71	.21	.13		
Expected 2-Factor Model	2	754.37	89	.89	.13	.09	1086.56	1
1-Factor Model	2	1840.93	90	.71	.21	.12		

Note. N = 443.

**Transformational leadership.** Next, a four-factor model with each TL dimension loading on its own factor, a three-factor model with inspirational motivation and idealized influence loading on a single factor, and a one-factor model with all items loading on just one factor were compared. Of these three models, the four-factor model had significantly better fit than each of the other two models across both time points (Table 7). Overall, the latent correlations (see Appendix D) between dimensions at T1 ( $r_c = .58$  to  $.77$ ) and T2 ( $r_c = .58$  to  $.79$ ) were slightly lower than the pilot ( $r_c = .66$  to  $.92$ ; Appendix A), but the correlation between inspirational motivation and idealized influence (T1  $r_c = .77$ ; T2  $r_c = .79$ ) still remained high even after randomizing the presentation order and spacing of each dimension in the survey. The magnitude of the positive relationship between these dimensions (and individualized consideration as well) means any moderation effects that are detected may differ in magnitude, but will likely be in the same direction (as was ultimately the case). Supplementary analyses attempt to address this issue in several ways following a presentation of hypothesis-testing results.

Table 7

*Discriminant Validity for Transformational Leadership*

	Transformational Leadership							
	Time	$\chi^2$	df	CFI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta df$
Expected 4-Factor Model	1	348.28	113	.98	.07	.03	861.76	3
3-Factor Model	1	1210.04	116	.88	.15	.07	2111.39	3
1-Factor Model	1	3321.43	119	.66	.25	.10		
Expected 4-Factor Model	2	265.13	113	.98	.06	.03	848.34	3
3-Factor Model	2	1113.47	116	.90	.14	.06	2303.29	3
1-Factor Model	2	3416.76	119	.66	.25	.10		

Note. N = 443 at T2.

**Intensified job demands.** Similar to other constructs in the study, a three-factor model with each of the three intensified job demand measures loading on its own factors was compared to a one-factor model with all three intensified job demand items (and parcels for intensified job-insecurity) loading onto it. The three-factor model fit significantly better than the one-factor model at T1 ( $\Delta\chi^2(3) = 1757.95, p < .001$ ; Table 8) and T2 ( $\Delta\chi^2(3) = 1920.11, p < .001$ ; Table 8). Following this, additional evidence of the discriminant validity of intensified job demands from more traditional job demands was also examined via CFA (Table 8). At both time points, the two-factor model with the intensified job demand and traditional job demand loading on their own respective factor fit significantly better than the one-factor model. The difference was most pronounced for IDP and responsibility as there was no corresponding equivalent to the former in the traditional job demand literature. Kubicek et al. (2015) found similar results when they compared IDP to autonomy. While both work intensification and time pressure (T1  $r_c = .82$ ; T2  $r_c = .85$ ) as well as intensified job insecurity and quantitative job insecurity (T1  $r_c = .85$ ; T2  $r_c = .85$ ) had high latent correlations in the present study (Appendix D), fit indices indicated that they were, in fact, distinct constructs.

Next, a three-factor model with all intensified job demands and their traditional counterparts loading on their respective factors was compared with a six-factor model with each demand loading on its own unique factor. Once again, the six-factor model fit significantly better the data at both time points. Lastly, a five-factor model that included a) each intensified job demand its counterpart loading on their own respective factor (e.g., work intensification and time pressure on its own factor, IDP and responsibility on its own factor, etc.), b) all TL dimensions loading on a single factor (e.g., transformational leadership composite), and c) burnout and work engagement loading on a single factor was compared to a 12-factor model with each construct loading on its own unique factor. The 12-factor model fit significantly better at both times.

Table 8

*Discriminant Validity for Intensified Job Demands*

<b>Intensified Job Demands</b>								
	<i>Time</i>	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta df$
Expected 3-Factor Model	1	318.67	74	.94	.09	.06	1757.95	3
1-Factor Model	1	2076.62	77	.54	.24	.18		
Expected 3-Factor Model	2	364.72	74	.94	.09	.05	1920.11	3
1-Factor Model	2	2284.83	77	.52	.25	.19		
<b>Intensified Job Insecurity vs Quantitative Job Insecurity</b>								
	<i>Time</i>	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta df$
Expected 2-Factor Model	1	202.48	13	.92	.18	.05	144.23	1
1-Factor Model	1	346.71	14	.86	.23	.06		
Expected 2-Factor Model	2	205.1	13	.92	.18	.05	121.1	1
1-Factor Model	2	326.2	14	.87	.23	.05		
<b>IDP vs Responsibility</b>								
Expected 2-Factor Model	1	40.70	19	.99	.05	.03	326.29	1
1-Factor Model	1	366.99	20	.84	.20	.12		
Expected 2-Factor Model	2	75.8	19	.98	.08	.04	284.7	1
1-Factor Model	2	360.5	20	.85	.20	.12		
<b>Work Intensification vs Time Pressure</b>								
Expected 2-Factor Model	1	56.74	19	.98	.07	.03	86.28	1
1-Factor Model	1	143.02	20	.94	.12	.05		
Expected 2-Factor Model	2	73.4	19	.97	.08	.03	83.8	1
1-Factor Model	2	157.2	20	.94	.12	.04		
<b>All Intensified Job Demands vs Traditional Job Demands</b>								
Expected 6-Factor Model	1	634.45	215	.94	.07	.06	612.65	12
3-Factor Model	1	1247.10	227	.85	.10	.09		
Expected 6-Factor Model	2	771.33	215	.92	.08	.06	560.03	12
3-Factor Model	2	1331.36	227	.85	.11	.09		
<b>All Study Variables</b>								
Expected 12-Factor Model	1	1916.45	879	.95	.05	.05	4144.62	56
5-Factor Model	1	6061.07	935	.73	.11	.10		
Expected 12-Factor Model	2	2043.4	879	.94	.06	.06	4194.07	56
5-Factor Model	2	6237.47	935	.73	.11	.10		

Note. N = 443.

**Measurement model.** The full measurement model is depicted in Figure 5. It consists of burnout and work engagement at T2 and all intensified job demands and TL dimensions measured at T1. Overall, the model had a good fit ( $\chi^2(558) = 1351.32, p < .001, RMSEA = .05, CI_{90} = (.05, .05), CFI = .96, SRMR = .04$ ) with most factor loadings above the desired .70

(Nunally, 1970). Factor loadings at models run at both T1 and T2 for all variables are presented in Table 9 (note that loadings remained unchanged for T1 predictors and T2 outcomes model).

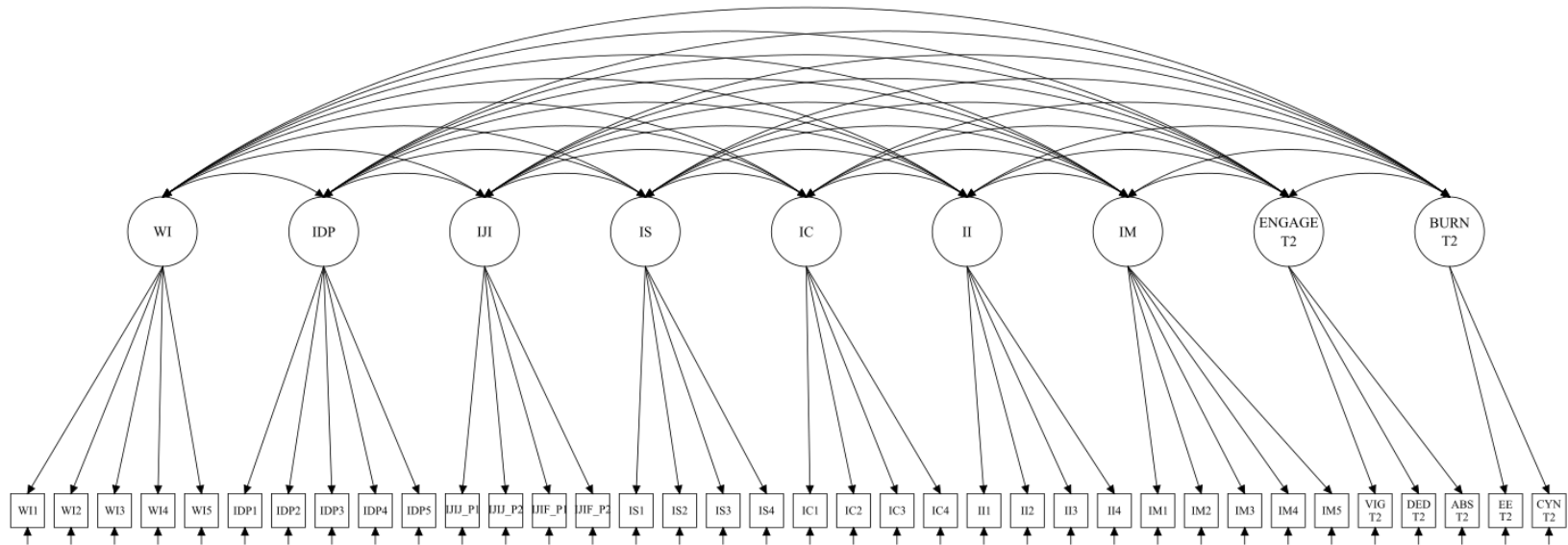


Figure 5. Full Measurement Model. BURN = Burnout. ENGAGE= Work Engagement. IJI = Intensified Job Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. II = Idealized Influence. IM = Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration.

Table 9

*Full Measurement Model Factor Loadings*

Factor	$\beta$ (T1)	$\beta$ (T2)
<b>Intensified Job Demands</b>		
<i>Intensified Job Insecurity</i>		
IJIJ_P1	.87	.87
IJIJ_P2	.92	.89
IJIF_P1	.67	.77
IJIF_P2	.72	.78
<i>Intensified Decision-Making and Planning</i>		
IDP1	.87	.87
IDP2	.88	.86
IDP3	.90	.89
IDP4	.81	.82
IDP5	.79	.86
<i>Work Intensification</i>		
WI1	.88	.87
WI2	.85	.86
WI3	.59	.69
WI4	.72	.76
WI5	.84	.79
<b>Transformational Leadership</b>		
<i>Idealized Influence</i>		
II1	.88	.90
II2	.94	.96
II3	.96	.96
II4	.91	.92
<i>Inspirational Motivation</i>		
IM1	.78	.81
IM2	.87	.89
IM3	.78	.78
IM4	.94	.93
IM5	.91	.93
<i>Intellectual Stimulation</i>		
IS1	.93	.93
IS2	.90	.92
IS3	.94	.91
IS4	.88	.88
<i>Individualized Consideration</i>		
IC1	.91	.92
IC2	.95	.96
IC3	.94	.94
IC4	.96	.96
<b>Burnout</b>		
EE	.86	.89
CYN	.87	.84
<b>Work Engagement</b>		
VIG	.93	.93
DED	.94	.92
ABS	.82	.84

Note. N = 443. IJIJ\_P = Intensified Job-Loss Insecurity Parcel. IJIF\_P = Intensified Job-Feature Insecurity Parcel.

## **Descriptive Statistics and Correlations**

Descriptive statistics, scale correlations, and internal consistency reliability estimates for all ordinal and/or ratio level variables are presented in Table 10 (T1) and Table 11 (T2). Correlations for all study variables used in hypotheses and exploratory analyses for T1, T2, and across time points are presented in Table 12, Table 13, and Table 14, respectively. Correlations between study variables and demographic variables are presented in Appendix G. Further, correlations between sub-dimensions (e.g., emotional exhaustion) and study variables are presented in Appendix E as well.



Table 10

*Descriptive Statistics for Study Variables at T1*

Variable	N	No. of Items	M	SD	Min	Max	Skew	Kurtosis	$\alpha$
Age (T1)	430	1	36.06	10.40	19	65	.83	-.05	—
Job Ten. (T1)	430	1	6.23	6.12	.08	30.1	1.75	3.09	—
Sup. Ten. (T1)	430	1	3.77	3.68	.08	29.7	2.36	8.62	—
Org. Ten. (T1)	433	1	6.50	6.33	.08	30.8	1.72	2.91	—
Wrk Hours (T1)	429	1	42.53	5.01	31	65	1.14	2.91	—
Burnout (T1)	443	6	3.18	1.58	1	7	.42	-.89	.92
EE (T1)	443	3	3.60	1.84	1	7	.24	-1.19	.93
Cyn. (T1)	443	3	2.76	1.54	1	7	.69	-.52	.83
Engage (T1)	443	9	4.72	1.37	1	7	-.57	-.37	.95
Vig. (T1)	443	3	4.36	1.56	1	7	-.39	-.80	.89
Ded. (T1)	443	3	4.89	1.53	1	7	-.67	-.36	.90
Abs. (T1)	443	3	4.90	1.33	1	7	-.78	.36	.83
IJI (T1)	443	8	2.87	1.55	1	7	.56	-.78	.91
IJIJ (T1)	443	4	2.68	1.72	1	7	.85	-.53	.90
IJIF (T1)	443	4	3.06	1.70	1	7	.51	-.91	.87
IDP (T1)	443	5	4.09	1.50	1	7	-.32	-.83	.93
WI (T1)	443	5	3.56	1.47	1	7	.13	-.80	.88
Insecure (T1)	443	3	2.88	1.62	1	7	.58	-.70	.88
Res. (T1)	443	3	4.39	1.37	1	7	-.57	-.29	.79
Time (T1)	443	3	4.10	1.36	1	7	.00	-.61	.74
II (T1)	443	4	5.00	1.64	1	7	-.91	-.09	.96
IM (T1)	443	5	4.67	1.45	1	7	-.59	-.32	.93
IS (T1)	443	4	4.29	1.58	1	7	-.43	-.72	.95
IC (T1)	443	4	5.30	1.51	1	7	-1.19	.90	.97
TL (T1)	443	17	4.82	1.34	1	7	-.76	.04	.97
CSE (T1)	443	12	5.19	1.09	1.58	7	-.51	-.32	.91
O. Change (T1)	443	22	4.10	2.88	0	17	1.09	1.04	—

*Note.* EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. II = Idealized Influence. IM = Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration. TL = Transformational Leadership. CSE = Core Self-Evaluations. O. Change = Organizational Change Event List.

Table 11

*Descriptive Statistics for Study Variables at T2*

Variable	N	No. of Items	M	SD	Min	Max	Skew	Kurtosis	$\alpha$
Wrk Hours (T2)	444	1	42.68	9.22	5	81	.19	7.88	—
Burnout (T2)	444	6	3.33	1.57	1	7	.30	-.90	.91
EE (T2)	444	3	3.71	1.85	1	7	.16	-1.19	.94
Cyn (T2)	444	3	2.95	1.58	1	7	.56	-.66	.84
Engage (T2)	444	9	4.58	1.39	1	7	-.50	-.53	.95
Vig (T2)	444	3	4.16	1.59	1	7	-.30	-.94	.90
Ded (T2)	444	3	4.78	1.54	1	7	-.67	-.41	.90
Abs (T2)	444	3	4.81	1.33	1	7	-.79	.34	.84
IJI (T2)	444	8	2.99	1.62	1	7	.59	-.69	.92
IJIJ (T2)	444	4	3.25	2.46	1	7	.84	-.52	.92
IJIF (T2)	444	4	3.73	2.38	1	7	.42	-.65	.87
IDP (T2)	444	5	4.07	1.52	1	7	-.33	-.84	.94
WI (T2)	444	5	3.65	1.48	1	7	.13	-.84	.88
Insecure (T2)	444	3	2.97	1.63	1	7	.53	-.74	.88
Res (T2)	444	3	4.44	1.31	1	7	-.46	-.51	.76
Time (T2)	444	3	4.17	1.40	1	7	.05	-.62	.78
II (T2)	444	4	4.88	1.62	1	7	-.89	-.19	.96
IM (T2)	444	5	4.62	1.43	1	7	-.58	-.33	.94
IS (T2)	444	4	4.25	1.57	1	7	-.42	-.77	.95
IC (T2)	444	4	5.12	1.53	1	7	-1.10	.55	.97
TL (T2)	444	17	4.72	1.33	1	7	-.76	.03	.97
NA (T2)	444	10	1.53	.65	1	4.1	1.64	2.24	.92

*Note.* EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. II = Idealized Influence. IM = Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration. TL = Transformational Leadership. NA = Negative Affectivity.

Table 12

*Correlations between Study Variables at T1*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Burn (T1)															
2. Engage (T1)	<b>-.59</b>														
3. IJI (T1)	<b>.53</b>	<b>-.33</b>													
4. IDP (T1)	<b>.26</b>	-.03	<b>.24</b>												
5. WI (T1)	<b>.55</b>	<b>-.12</b>	<b>.41</b>	<b>.48</b>											
6. Insecure (T1)	<b>.48</b>	<b>-.31</b>	<b>.75</b>	<b>.25</b>	<b>.36</b>										
7. Res. (T1)	<b>.17</b>	<b>.13</b>	<b>.17</b>	<b>.38</b>	<b>.40</b>	<b>.16</b>									
8. Time (T1)	<b>.41</b>	.01	<b>.32</b>	<b>.31</b>	<b>.68</b>	<b>.26</b>	<b>.45</b>								
9. II (T1)	<b>-.49</b>	<b>.47</b>	<b>-.39</b>	<b>-.13</b>	<b>-.28</b>	<b>-.32</b>	-.01	<b>-.14</b>							
10. IM (T1)	<b>-.49</b>	<b>.58</b>	<b>-.40</b>	-.08	<b>-.23</b>	<b>-.34</b>	.07	-.05	<b>.74</b>						
11. IS (T1)	<b>-.34</b>	<b>.53</b>	<b>-.23</b>	.01	-.06	<b>-.20</b>	<b>.16</b>	.07	<b>.60</b>	<b>.70</b>					
12. IC (T1)	<b>-.50</b>	<b>.41</b>	<b>-.43</b>	<b>-.15</b>	<b>-.37</b>	<b>-.37</b>	-.04	<b>-.21</b>	<b>.74</b>	<b>.68</b>	<b>.55</b>				
13. TL (T1)	<b>-.52</b>	<b>.57</b>	<b>-.42</b>	<b>-.10</b>	<b>-.27</b>	<b>-.35</b>	.05	<b>-.10</b>	<b>.89</b>	<b>.90</b>	<b>.82</b>	<b>.86</b>			
14. CSE (T1)	<b>-.64</b>	<b>.51</b>	<b>-.53</b>	<b>-.14</b>	<b>-.35</b>	<b>-.48</b>	-.09	<b>-.28</b>	<b>.42</b>	<b>.40</b>	<b>.28</b>	<b>.45</b>	<b>.45</b>		
15. O. Change (T1)	<b>.36</b>	<b>-.12</b>	<b>.38</b>	<b>.24</b>	<b>.42</b>	<b>.30</b>	<b>.23</b>	<b>.33</b>	<b>-.23</b>	<b>-.23</b>	<b>-.12</b>	<b>-.28</b>	<b>-.25</b>	<b>-.21</b>	

*Note.* Correlations in bold are significant at  $p < .05$ . N = 443. Burn = Burnout. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. II = Idealized Influence. IM = Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration. TL = Transformational Leadership. CSE = Core Self-Evaluations. O. Change = Organizational Change Event List.

Table 13

*Correlations between Study Variables at T2*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Burn (T2)														
2. Engage (T2)	<b>-.67</b>													
3. IJI (T2)	<b>.56</b>	<b>-.35</b>												
4. IDP (T2)	<b>.29</b>	<b>-.05</b>	<b>.29</b>											
5. WI (T2)	<b>.47</b>	<b>-.10</b>	<b>.45</b>	<b>.46</b>										
6. Insecure (T2)	<b>.49</b>	<b>-.35</b>	<b>.79</b>	<b>.24</b>	<b>.38</b>									
7. Res. (T2)	<b>.13</b>	<b>.16</b>	<b>.17</b>	<b>.30</b>	<b>.40</b>	<b>.14</b>								
8. Time (T2)	<b>.37</b>	<b>.02</b>	<b>.34</b>	<b>.32</b>	<b>.72</b>	<b>.26</b>	<b>.47</b>							
9. IM (T2)	<b>-.54</b>	<b>.59</b>	<b>-.32</b>	<b>-.15</b>	<b>-.13</b>	<b>-.34</b>	<b>.06</b>	<b>-.05</b>						
10. II (T2)	<b>-.54</b>	<b>.49</b>	<b>-.40</b>	<b>-.20</b>	<b>-.23</b>	<b>-.38</b>	<b>.00</b>	<b>-.14</b>	<b>.76</b>					
11. IC (T2)	<b>-.53</b>	<b>.45</b>	<b>-.40</b>	<b>-.20</b>	<b>-.28</b>	<b>-.38</b>	<b>-.04</b>	<b>-.21</b>	<b>.69</b>	<b>.76</b>				
12. IS (T2)	<b>-.37</b>	<b>.52</b>	<b>-.19</b>	<b>-.02</b>	<b>-.02</b>	<b>-.19</b>	<b>.17</b>	<b>.00</b>	<b>.67</b>	<b>.58</b>	<b>.56</b>			
13. TL (T2)	<b>-.57</b>	<b>.59</b>	<b>-.38</b>	<b>-.16</b>	<b>-.19</b>	<b>-.37</b>	<b>.06</b>	<b>-.12</b>	<b>.90</b>	<b>.90</b>	<b>.87</b>	<b>.81</b>		
14. NA (T2)	<b>.53</b>	<b>-.30</b>	<b>.45</b>	<b>.22</b>	<b>.36</b>	<b>.42</b>	<b>.08</b>	<b>.29</b>	<b>-.36</b>	<b>-.42</b>	<b>-.42</b>	<b>-.20</b>	<b>-.40</b>	

*Note.* Correlations in bold are significant at  $p < .05$ . N = 443. Burn = Burnout. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. II = Idealized Influence. IM = Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration. TL = Transformational Leadership. NA = Negative Affectivity.

Table 14

*Correlations between T1 and T2 Study Variables*

Variable	1. Burn (T2)	2. Engage (T2)	3. IJI (T2)	4. IDP (T2)	5. WI (T2)	6. Insecure (T2)	7. Res (T2)
1. Burn (T1)	<b>.81</b>	<b>-.56</b>	<b>.44</b>	<b>.28</b>	<b>.45</b>	<b>.42</b>	<b>.16</b>
2. Engage (T1)	<b>-.59</b>	<b>.85</b>	<b>-.21</b>	-.05	<b>-.12</b>	<b>-.27</b>	<b>.13</b>
3. IJI (T1)	<b>.49</b>	<b>-.35</b>	<b>.65</b>	<b>.25</b>	<b>.31</b>	<b>.61</b>	<b>.13</b>
4. IDP (T1)	<b>.19</b>	-.04	<b>.19</b>	<b>.52</b>	<b>.36</b>	<b>.18</b>	<b>.31</b>
5. WI (T1)	<b>.43</b>	<b>-.11</b>	<b>.31</b>	<b>.39</b>	<b>.60</b>	<b>.27</b>	<b>.32</b>
6. Insec. (T1)	<b>.46</b>	<b>-.34</b>	<b>.60</b>	<b>.24</b>	<b>.30</b>	<b>.68</b>	<b>.13</b>
7. Res. (T1)	<b>.11</b>	<b>.11</b>	<b>.09</b>	<b>.30</b>	<b>.29</b>	.06	<b>.63</b>
8. Time (T1)	<b>.32</b>	.02	<b>.25</b>	<b>.28</b>	<b>.60</b>	<b>.18</b>	<b>.39</b>
9. II (T1)	<b>-.54</b>	<b>.44</b>	<b>-.33</b>	<b>-.20</b>	<b>-.25</b>	<b>-.33</b>	-.05
10. IM (T1)	<b>-.53</b>	<b>.55</b>	<b>-.29</b>	<b>-.15</b>	<b>-.15</b>	<b>-.33</b>	.04
11. IS (T1)	<b>-.39</b>	<b>.50</b>	<b>-.18</b>	-.03	-.02	<b>-.22</b>	<b>.11</b>
12. IC (T1)	<b>-.53</b>	<b>.43</b>	<b>-.34</b>	<b>-.19</b>	<b>-.27</b>	<b>-.37</b>	-.08
13. TL (T1)	<b>-.57</b>	<b>.55</b>	<b>-.33</b>	<b>-.16</b>	<b>-.20</b>	<b>-.36</b>	.00
14. CSE (T1)	<b>-.60</b>	<b>.50</b>	<b>-.42</b>	<b>-.17</b>	<b>-.29</b>	<b>-.40</b>	.00
15. O. Change (T1)	<b>.32</b>	<b>-.12</b>	<b>.27</b>	<b>.20</b>	<b>.28</b>	<b>.25</b>	<b>.27</b>

*Note.* Correlations in bold are significant at  $p < .05$ . N = 443. Burn = Burnout. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. II = Idealized Influence. IM = Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration. TL = Transformational Leadership. CSE = Core Self-Evaluations. O. Change = Organizational Change Event List. NA = Negative Affectivity.

Table 14 Cont.

Variable	8. Time (T2)	9. II (T2)	10. IM (T2)	11. IS (T2)	12. IC (T2)	13. TL (T2)	14. NA (T2)
1. Burn (T1)	<b>.39</b>	<b>-.45</b>	<b>-.46</b>	<b>-.26</b>	<b>-.44</b>	<b>-.46</b>	<b>.44</b>
2. Engage (T1)	.00	<b>.40</b>	<b>.52</b>	<b>.44</b>	<b>.35</b>	<b>.49</b>	<b>-.22</b>
3. IJI (T1)	<b>.27</b>	<b>-.35</b>	<b>-.39</b>	<b>-.24</b>	<b>-.35</b>	<b>-.38</b>	<b>.44</b>
4. IDP (T1)	<b>.27</b>	<b>-.13</b>	<b>-.11</b>	.00	<b>-.14</b>	<b>-.11</b>	<b>.19</b>
5. WI (T1)	<b>.55</b>	<b>-.22</b>	<b>-.19</b>	-.08	<b>-.31</b>	<b>-.23</b>	<b>.32</b>
6. Insec. (T1)	<b>.23</b>	<b>-.35</b>	<b>-.34</b>	<b>-.21</b>	<b>-.36</b>	<b>-.36</b>	<b>.43</b>
7. Res. (T1)	<b>.33</b>	.03	.07	<b>.14</b>	-.02	.06	<b>.10</b>
8. Time (T1)	<b>.70</b>	-.08	-.05	.04	<b>-.20</b>	-.09	<b>.29</b>
9. II (T1)	<b>-.19</b>	<b>.77</b>	<b>.65</b>	<b>.54</b>	<b>.67</b>	<b>.76</b>	<b>-.33</b>
10. IM (T1)	-.07	<b>.65</b>	<b>.76</b>	<b>.64</b>	<b>.59</b>	<b>.76</b>	<b>-.31</b>
11. IS (T1)	-.01	<b>.56</b>	<b>.64</b>	<b>.69</b>	<b>.49</b>	<b>.69</b>	<b>-.17</b>
12. IC (T1)	<b>-.25</b>	<b>.67</b>	<b>.62</b>	<b>.52</b>	<b>.78</b>	<b>.75</b>	<b>-.36</b>
13. TL (T1)	<b>-.15</b>	<b>.77</b>	<b>.77</b>	<b>.69</b>	<b>.73</b>	<b>.85</b>	<b>-.34</b>
14. CSE (T1)	<b>-.25</b>	<b>.39</b>	<b>.38</b>	<b>.33</b>	<b>.40</b>	<b>.43</b>	<b>-.55</b>
15. O. Change (T1)	<b>.31</b>	<b>-.19</b>	<b>-.18</b>	-.06	<b>-.23</b>	<b>-.19</b>	<b>.23</b>

Note. Correlations in bold are significant at  $p < .05$ .  $N = 443$ . Burn = Burnout. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation. TL = Transformational Leadership. CSE = Core Self-Evaluations. O. Change = Organizational Change Event List. NA = Negative Affectivity.

## Hypotheses Analyses

**Correlational results.** Hypotheses 1a, 1b, 2a, 2b, and 3 as well as Research Question 1 were tested via bivariate correlations. First, intensified job insecurity had a moderate positive relationship with burnout within T1 ( $r = .53, p < .001$ ), T2 ( $r = .56, p < .001$ ), and across time points (e.g., T1 intensified job insecurity with T2 burnout;  $r = .48, p < .001$ ). It also had a moderate negative relationship with work engagement within T1 ( $r = -.33, p < .001$ ), T2 ( $r = -.34, p < .001$ ), and across time points ( $r = -.34, p < .001$ ). This provides support for Hypotheses 1a and 1b and intensified job insecurity's role as a hindrance stressor. IDP was positively related to burnout at T1 ( $r = .26, p < .001$ ), at T2 ( $r = .58, p < .001$ ), and across time ( $r = .19, p < .001$ ), although the magnitude of the effect was smaller. This provides support for Hypothesis 2a. However, IDP was not significantly related to work engagement at either T1 ( $r = -.03, p = .562$ ) or at T2 ( $r = -.05, p = .252$ ), or across time points ( $r = -.04, p = .386$ ). This finding does not support Hypothesis 2b and casts doubt on short-term IDP's role as a challenge stressor. Work intensification was related to burnout within T1 ( $r = .55, p < .001$ ), T2 ( $r = .47, p < .001$ ), and across time ( $r = .43, p < .001$ ) providing support for Hypothesis 3. It was also negatively related to work engagement for T1 ( $r = -.12, p = .009$ ), within T2 ( $r = -.12, p = .010$ ), and across time ( $r = -.11, p = .022$ ). This provides preliminary support for work intensification as a hindrance demand.

**Control variables.** Prior to testing study hypotheses with path analysis, control variables that might potentially represent third variable effects were identified on the basis of correlations with both burnout and work engagement as well as each of TL dimensions and intensified job demands. Core self-evaluation, negative affectivity, and the organizational change composite variable all were related both to outcomes, leadership, and intensified job demands. This is

consistent with both theory (e.g., Moyle, 1995) and past empirical results (e.g., Iverson et al., 2011) as personal dispositional factors, like CSE or NA, can alter both the effectiveness of leadership as well as how employees perceive their workplaces (Best, Stapleton, & Downey, 2005). Further, employees who have experienced major changes at work (e.g., organizational restructuring) may experience more intensified job demands due to these changes which could also alter study relationships (Franke, 2015). In addition to these variables, a number of other demographic characteristics were also differentially related to burnout and work engagement as well, although these relationships were small in nature.

Consequently, all models were run a) without controls, b) with CSE, NA, and the organizational change composite, and c) with all controls that had significant relationships with at least burnout or work engagement. Interestingly, there were notable differences between the model without any control variables and both models with controls, but little to no difference between models with all controls and the CSE, NA, and organizational change. Results indicated that the organizational change composite and NA influenced the relationship between intensified job demands and burnout whereas CSE influenced the effect of work intensification on work engagement. Due to the strong influence of the CSE, NA, and organizational change, as well as the theoretical justification, the decision was made to present results with these variables included. More detail on the control-variable decision-process is available in Appendix F.

**Moderated path analyses.** Study hypotheses and research questions were tested with path analysis in Mplus Version 7.4 (Muthen & Muthen, 2015) following the procedure utilized in Bakker, Demerouti, and Euwema (2005) whereby all potential moderating effects were examined separately. More specifically, burnout (T2) and work engagement (T2) were simultaneously regressed on the first-order intensified job demand (T1) and transformational



leadership dimension (T1) in the first step while the interaction term (T1) was added to the equation in the second step to complete the two-part hierarchical test. Interactions terms were created following the standard moderated regression procedure outlined by Aiken and West (1991). First, the first order regression terms for intensified job demands and TL dimensions were mean-centered and then multiplied together to create interaction terms. Following this, path analysis models were run in a hierarchical fashion by first examining a model with a) control variables and the first-order terms and then b) the same variables along with the interaction term. Whenever a significant interaction was found, simple slopes were tested across a range of different values. Specifically, the magnitude and direction of each intensified job demand was tested at the following levels of moderating TL dimensions a) the mean (e.g., zero) and one standard deviation above and below the mean (Aiken & West, 1991). In sum, these analyses seek to answer the question: what is the relationship between an intensified job demand and burnout and/or work engagement at different levels of each leadership dimension?

Hypotheses 4a and 4b stated that idealized influence would buffer the effect of intensified job insecurity on burnout and work engagement respectively. Although the interaction term was significant in each instance, it was positive for burnout ( $\beta = .07, p = .029$ ; Table 15) and negative for work engagement ( $\beta = -.13, p = .001$ ; Table 17) and thus in the opposite direction as expected. In conjunction with the sign and direction of the first-order effects of idealized influence on burnout ( $\beta = -.30, p < .001$ ) and work engagement ( $\beta = .26, p < .001$ ) and intensified job insecurity on burnout ( $\beta = .10, p = .022$ ) and work engagement ( $\beta = -.07, p = .163$ ), the interaction can be interpreted as at higher levels of idealized influence, intensified job insecurity has a stronger relationship with burnout(work engagement). Simple slope tests also confirmed the nature of this relationship indicating that at higher values of idealized influence, the

intensified job insecurity slope was steepest for burnout ( $\beta = .14, p < .001$ ; Table 16) and work engagement ( $\beta = -.18, p < .001$ ; Table 18). On the other hand, at lower values, the slope approached zero for both burnout ( $\beta = .05, p = .228$ ) and work engagement ( $\beta = .06, p = .299$ ). Consequently, Hypothesis 4a and 4b were not supported. The form of the interactions are presented in Figure 6 and Figure 7.

Table 15

*Hierarchical Moderation Results for Burnout on Intensified Job Insecurity by Idealized Influence*

	<b>Burnout on IJI X II</b>			
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.37		3.41	
Organizational Change	.06	.11*	.06	.11*
CSE	-.41	-.29**	-.40	-.27**
Negative Affectivity	.52	.22**	.55	.23**
Intensified Job Insecurity	.10	.11*	.10	.10
Idealized Influence	-.27	-.29**	-.29	-.30**
Interaction			.05	.08*
	$R^2$ (Step 1) = .521		$R^2$ (Step 2) = .526, $\Delta R^2 = .005$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. II = Idealized Influence.

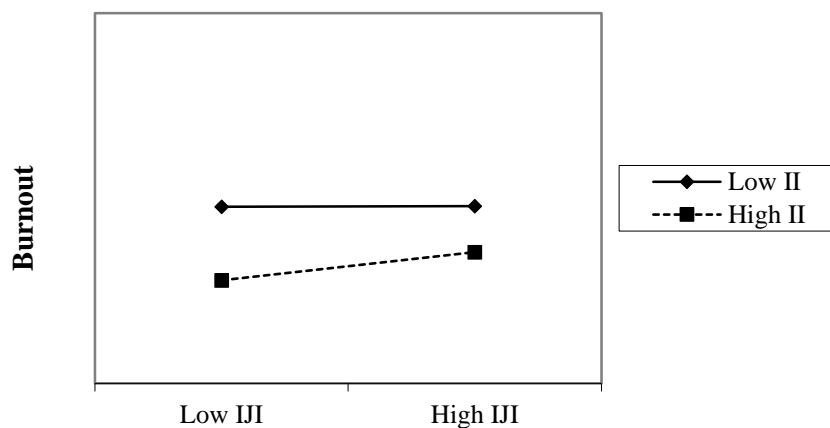


Figure 6. Simple slope figure depicting the effect of intensified job insecurity on burnout at high and low levels of idealized influence. IJI = Intensified Job Insecurity. II = Idealized Influence.

Table 16

*Simple Slopes for Burnout Regressed on Intensified Job Insecurity at Different Values of Idealized Influence*

<b>Simple Slopes for IJI at High and Low Levels of II</b>				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.05	.05	.04	(-.3, .13)
At Mean	.10	.09*	.03	(.04, .14)
+1 SD Above Mean	.15	.14**	.04	(.7, .22)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. II = Idealized Influence.

Table 17

*Hierarchical Moderation Results for Work Engagement on Intensified Job Insecurity by Idealized Influence*

<b>Work Engagement on IJI X II</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.55		4.48	
Organizational Change	.02	.05	.02	.02
CSE	.46	.36**	.44	.34**
Negative Affectivity	.01	.00	-.04	-.02
Intensified Job Insecurity	-.06	-.07	-.06	-.07
Idealized Influence	.23	.27**	.26	.26**
Interaction			-.07	-.13*
	$R^2_{(Step 1)} = .317$		$R^2_{(Step 2)} = .333, \Delta R^2 = .016$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. II = Idealized Influence. CSE = Core Self-Evaluations.

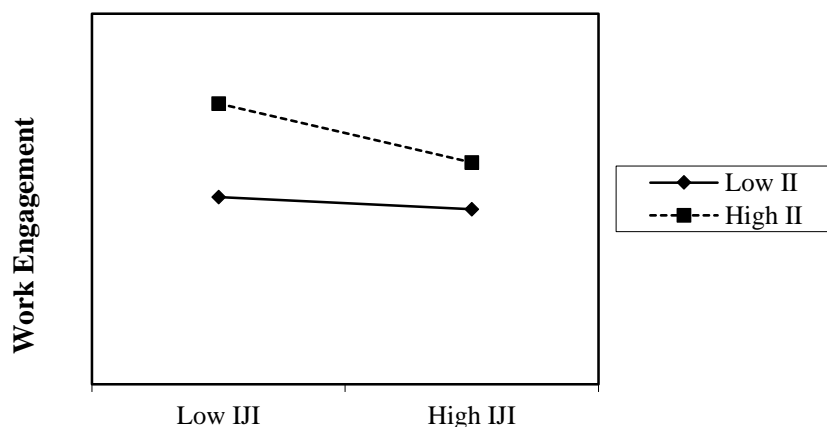


Figure 7. Simple slope figure depicting the effect of intensified job insecurity on work engagement at high and low levels of idealized influence. IJI = Intensified Job Insecurity. II = Idealized Influence.

Table 18

*Simple Slopes for Work Engagement Regressed on Intensified Job Insecurity at Different Values of Idealized Influence*

Simple Slopes for IJI at High and Low Levels of II				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.06	.06	.05	(-.05, .16)
At Mean	-.06	-.06	.04	(-.14, .02)
+1 SD Above Mean	-.18	-.18**	.04	(-.26, -.10)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. II = Idealized Influence.

Hypothesis 5 stated that inspirational motivation would boost the positive effect of IDP on work engagement. Neither the first-order effect of IDP ( $\beta = .04, p = .353$ ) nor the interaction term with inspirational motivation ( $\beta = -.06, p = .085$ ) was significant (Table 19). Thus, Hypothesis 5 was not supported. Similarly, Hypothesis 6 stated that intellectual stimulation would boost the positive effect of IDP on work engagement as well. Again, neither the first order effect ( $\beta = .01, p = .754$ ) for IDP nor the interaction term ( $\beta = .00, p = .851$ ) were significant (Table 20). Consequently, Hypothesis 6 was not supported.

Table 19

*Hierarchical Moderation Results for Work Engagement on Intensified Decision-Making and Planning by Inspirational Motivation*

Work Engagement on IDP X IM				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.58		4.57	
Organizational Change	.02	.02	.02	.05
CSE	.44	.44**	.43	.34**
Negative Affectivity	.00	.00	-.01	.00
IDP	.03	.41**	.03	.04
Inspirational Motivation	.41	.03	.41	.43**
Interaction			-.04	-.06
		$R^2_{(Step 1)} = .398$	$R^2_{(Step 2)} = .402, \Delta R^2 = .004$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IDP = Intensified Decision-Making and Planning. IM = Inspirational Motivation. CSE = Core Self-Evaluations.

Table 20

*Hierarchical Moderation Results for Work Engagement on Intensified Decision-Making and Planning by Intellectual Stimulation*

Work Engagement on IDP X IS				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.59		4.59	
Organizational Change	.01	.02	.01	.02
CSE	.47	.37**	.47	.37**
Negative Affectivity	-.09	-.04	-.09	-.04
IDP	.01	.01	.01	.01
Intellectual Stimulation	.35	.39**	.35	.39**
Interaction			.00	.00
		$R^2_{(Step 1)} = .391$	$R^2_{(Step 2)} = .391, \Delta R^2 = .00$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IDP = Intensified Decision-Making and Planning. IS = Intellectual Stimulation. CSE = Core Self-Evaluations.

Hypotheses 7a, 7b, and 7c stated that individualized consideration would buffer the negative effects of intensified job insecurity, IDP, and work intensification on burnout, respectively. For each of the three models, only the first-order term for intensified job insecurity ( $\beta = .09$   $p = .033$ ; Table 21) and work intensification ( $\beta = .12$   $p = .002$ ; Table 24) had a positive

significant relationship with burnout. On the other hand, the effect for IDP was not significant ( $\beta = .03$ ,  $p = .182$ ; Table 23). Additionally, although there were significant interactions for individualized consideration with both intensified job insecurity ( $\beta = .18$ ,  $p < .001$ ; Table 21) and work intensification ( $\beta = .17$ ,  $p < .001$ ; Table 24), they were again in the opposite direction as predicted meaning Hypotheses 7a-7c were not supported. In particular, simple slope tests showed that the positive relationships between burnout and intensified job insecurity (Table 22) and work intensification (Table 25) were strongest at high levels of individualized consideration. The form of these relationships are presented in Figure 8 and Figure 9 for intensified job insecurity and work intensification respectively.

Table 21

*Hierarchical Moderation Results for Burnout on Intensified Job Insecurity by Individualized Consideration*

	Burnout on IJI X IC			
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.37		3.48	
Organizational Change	.05	.10*	.06	.11*
CSE	-.42	-.29**	-.41	-.29**
Negative Affectivity	.53	.22**	.58	.24**
Intensified Job Insecurity	.10*	.10*	.09	.09*
Intellectual Stimulation		-.26**	-.33	-.32**
Interaction			.12	.18**
	$R^2_{(Step 1)} = .505$		$R^2_{(Step 2)} = .533$ , $\Delta R^2 = .028$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IC = Individualized Consideration. CSE = Core Self-Evaluations.

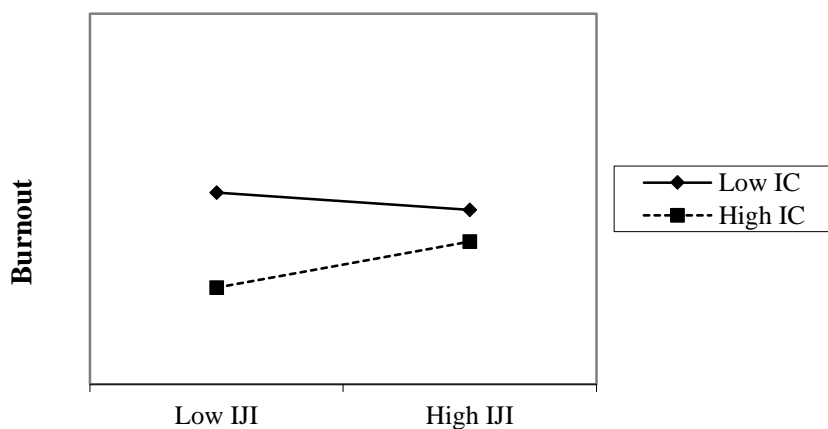


Figure 8. Simple slope figure depicting the effect of intensified job insecurity on burnout at high and low levels of individualized consideration. IJI = Intensified Job Insecurity. IC = Individualized Consideration.

Table 22

*Simple Slopes for Burnout Regressed on Intensified Job Insecurity at Different Values of Individualized Consideration*

Simple Slopes for IJI at High and Low Levels of IC				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	-.09	-.09*	.04	(-.17, -.01)
At Mean	.09	.09*	.03	(.03, .15)
+1 SD Above Mean	.27	.26**	.04	(.19, .35)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IC = Individualized Consideration.

Table 23

*Hierarchical Moderation Results for Burnout on Intensified Decision-Making and Planning by Individualized Consideration*

<b>Burnout on IDP X IC</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.34		3.36	
Organizational Change	.06	.11**	.06	.11**
CSE	-.47	-.32**	-.46	-.32**
Negative Affectivity	.55	.23**	.56	.23**
IDP	.04	.04	.03	.03
Individualized Consideration	-.28	-.27**	-.28	-.27**
Interaction			.03	.05
		$R^2_{(\text{Step 1})} = .500$	$R^2_{(\text{Step 2})} = .502, \Delta R^2 = .02$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IDP = Intensified Decision-Making and Planning. IC = Individualized Consideration. CSE = Core Self-Evaluations.

Table 24

*Hierarchical Moderation Results for Burnout on Work Intensification by Individualized Consideration*

<b>Burnout on WI X IC</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.35		3.43	
Organizational Change	.04	.08	.05	.09*
CSE	-.44	-.31**	-.43	-.30**
Negative Affectivity	.53	.22**	.57	.23**
Work Intensification	.13	.12**	.13	.12**
Individualized Consideration	-.26	-.25**	-.31	-.30**
Interaction			.10	.17**
		$R^2_{(\text{Step 1})} = .510$	$R^2_{(\text{Step 2})} = .534, \Delta R^2 = .024$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IC = Individualized Consideration. CSE = Core Self-Evaluations.



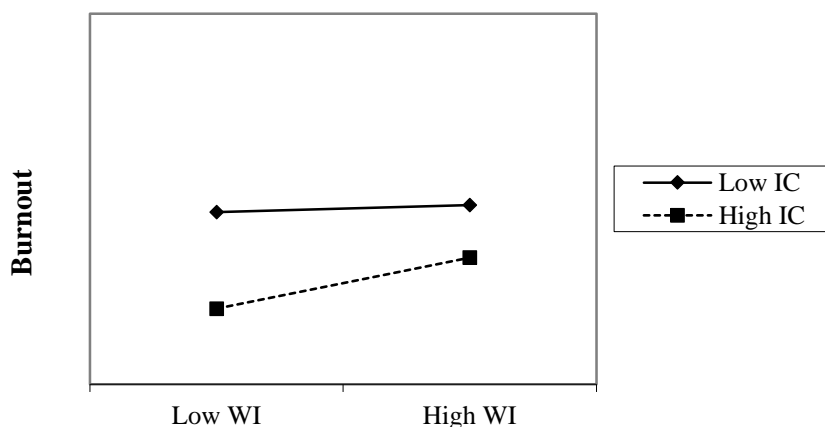


Figure 9. Simple slope figure depicting the effect of work intensification on burnout at high and low levels of individualized consideration. WI = Work Intensification. IC = Individualized Consideration.

Table 25

*Simple Slopes for Burnout Regressed on Work Intensification at Different Values of Individualized Consideration*

Simple Slopes for WI at High and Low Levels of IC				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.04	.04	.05	(-.06, .14)
At Mean	.16	.15**	.04	(.08, .24)
+1 SD Above Mean	.28	.27**	.05	(.18, .38)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IC = Individualized Consideration.

Finally, Hypothesis 7d and 7e stated that individualized consideration would also buffer the negative effects of intensified job insecurity and IDP on work engagement. In both cases, neither first-order term for intensified job insecurity (Table 26) nor IDP (Table 28) significantly predicted work engagement and only the interaction between individualized consideration and intensified job insecurity was significant ( $\beta = -.17, p < .001$ ; Table 26). This interaction was similar in nature to the other interaction effects for work engagement (Table 27). Thus, in the presence of more individualized consideration, intensified job insecurity has a stronger negative

relationship with work engagement (Figure 10). Hypotheses 7d and 7e were not supported.

Table 26

*Hierarchical Moderation Results for Work Engagement on Intensified Job Insecurity by Individualized Consideration*

Work Engagement on IJI X IC				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.55		4.46	
Organizational Change	.03	.06	.02	.05
CSE	.46	.36**	.45	.35**
Negative Affectivity	.01	.00	-.04	-.02
Intensified Job Insecurity	-.06	-.07	-.05	-.06
Individualized Consideration	.23	.25**	.29	.31**
Interaction			-.10	-.17**
		$R^2_{(Step\ 1)} = .306$	$R^2_{(Step\ 2)} = .331, \Delta R^2 = .025$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IC = Individualized Consideration. CSE = Core Self-Evaluations.

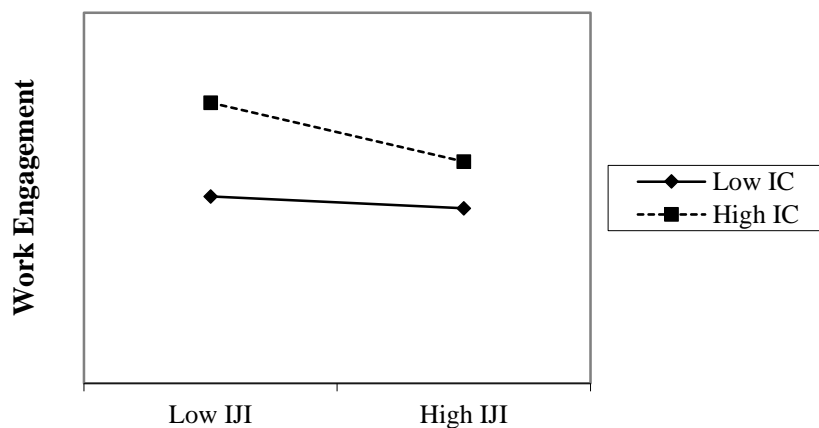


Figure 10. Simple slope figure depicting the effect of intensified job insecurity on work engagement at high and low levels of individualized consideration. IJI = Intensified Job Insecurity. IC = Individualized Consideration.

Table 27

*Simple Slopes for Work Engagement Regressed on Intensified Job Insecurity at Different Values of Individualized Consideration*

Simple Slopes for IJI at High and Low Levels of IC				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	-.05	-.05	.05	(-.15, .05)
At Mean	-.14	-.15*	.04	(-.22, -.06)
+1 SD Above Mean	-.22	-.23**	.04	(-.30, -.14)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IC = Individualized Consideration.

Table 28

*Hierarchical Moderation Results for Work Engagement on Intensified Decision-Making and Planning by Individualized Consideration*

	Work Engagement on IDP X IC			
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.58		4.57	
Organizational Change	.02	.03	.02	.03
CSE	.49	.39**	.49	.38**
Negative Affectivity	-.03	-.01	-.04	-.02
IDP	.05	.05	.05	.06
Individualized Consideration	.25	.27**	.26	.28**
Interaction			-.04	-.08
	$R^2_{(Step 1)} = .305$		$R^2_{(Step 2)} = .310, \Delta R^2 = .005$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IDP = Intensified Decision-Making and Planning. IC = Individualized Consideration. CSE = Core Self-Evaluations.

Research Questions 2a-2c sought to explore the nature of moderating effects of inspirational motivation for IDP (2a) and work intensification (2b) on burnout as well as work engagement for the latter demand (2c). Inspirational motivation did not moderate the effect of IDP (Table 29), but did moderate work intensification on both burnout ( $\beta = .08, p = .020$ ; Table 30) and work engagement ( $\beta = -.12, p = .040$ ; Table 32) with both simple slope tests (see Table 31 and Table 33) and the form of each interaction (see Figure 11 and Figure 12) indicating results similar to the moderation effects described above.

Table 29

*Hierarchical Moderation Results for Burnout on Intensified Decision-Making and Planning by Inspirational Motivation*

<b>Burnout on IDP X IM</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.34		3.34	
Organizational Change	.06	.06	.06	.12*
CSE	-.46	-.46**	-.46	-.32**
Negative Affectivity	.55	.55**	.56	.23**
IDP	.06	.06	.06	.05
Inspirational Motivation	-.32	-.32	-.32	-.30**
Interaction			.01	.02
		$R^2_{(\text{Step 1})} = .517$	$R^2_{(\text{Step 2})} = .518, \Delta R^2 = .001$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IDP = Intensified Decision-Making and Planning. IM = Inspirational Motivation. CSE = Core Self-Evaluations.

Table 30

*Hierarchical Moderation Results for Burnout on Work Intensification by Inspirational Motivation*

<b>Burnout on WI X IM</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.35		3.38	
Organizational Change	.04	.08*	.05	.09*
CSE	-.42	-.29**	-.42	-.29**
Negative Affectivity	.53	.22**	.54	.22**
Work Intensification	.17	.16**	.17	.16**
Inspirational Motivation	-.31	-.29**	-.31	-.29**
Interaction			.05	.08*
		$R^2_{(\text{Step 1})} = .533$	$R^2_{(\text{Step 2})} = .539, \Delta R^2 = .006$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IM = Inspirational Motivation. CSE = Core Self-Evaluations.

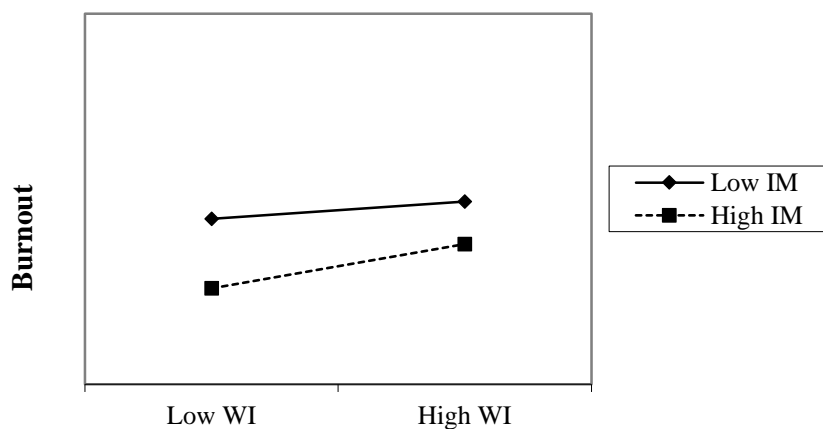


Figure 11. Simple slope figure depicting the effect of work intensification on burnout at high and low levels of inspirational motivation. WI = Work Intensification. IM = Inspirational Motivation.

Table 31

*Simple Slopes for Burnout Regressed on Intensified Job Insecurity at Different Values of Inspirational Motivation*

Simple Slopes for WI at High and Low Levels of IC				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.09	.08	.06	(-.03, .21)
At Mean	.17	.16**	.04	(.09, .25)
+1 SD Above Mean	.25	.23**	.05	(.15, .35)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IM = Inspirational Motivation.

Table 32

*Hierarchical Moderation Results for Work Engagement on Work Intensification and Planning by Inspirational Motivation*

Work Engagement on WI X IM				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.58		4.56	
Organizational Change	.01	.03	.00	.05
CSE	.46	.42**	.47	.32**
Negative Affectivity	-.02	.02	-.04	-.01
Work Intensification	.11	-.03	.11	.11**
Inspirational Motivation	.41	.40**	.41	.44**
Interaction			-.05	-.12*
	$R^2_{(Step\ 1)} = .407$		$R^2_{(Step\ 2)} = .413, \Delta R^2 = .006$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IM = Inspirational Motivation. CSE = Core Self-Evaluations.

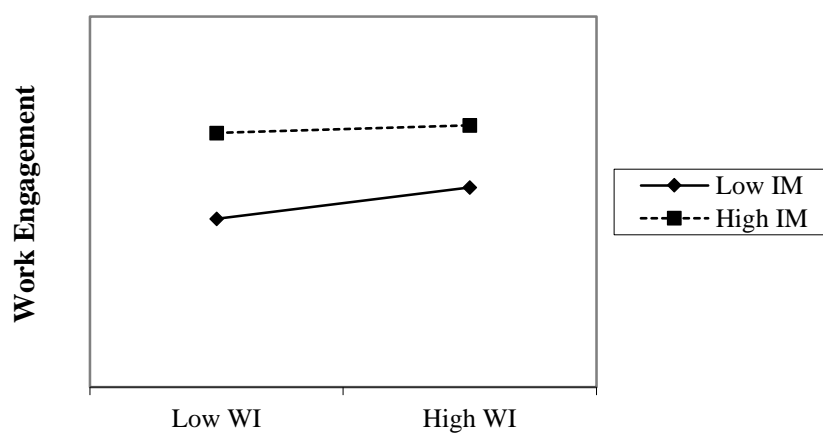


Figure 12. Simple slope figure depicting the effect of work intensification on work engagement at high and low levels of inspirational motivation. WI = Work Intensification. IM = Inspirational Motivation.

Table 33

*Simple Slopes for Work Engagement Regressed on Intensified Job Insecurity at Different Values of Inspirational Motivation*

<b>Simple Slopes for WI at High and Low Levels of IM</b>				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.18	.18**	.05	(.08, .28)
At Mean	.11	.11*	.04	(.03, .19)
+1 SD Above Mean	.04	.04	.05	(-.06, .14)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IM = Inspirational Motivation.

Research Questions 3a-3c examined the moderating effect of intellectual stimulation on IDP (Research Question 3a) and work intensification for burnout (Research Question 3b) and work engagement (Research Question 3b). Intellectual stimulation did not moderate any of these relationships (see Tables 34 to 36).

Table 34

*Hierarchical Moderation Results for Burnout on Intensified Decision-Making and Planning by Intellectual Stimulation*

<b>Burnout on IDP X IS</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.34		3.34	
Organizational Change	.08	.14*	.08	.14**
CSE	-.50	-.35**	-.50	-.35**
Negative Affectivity	.62	.26**	.62	.26**
IDP	.07	.06	.07	.06
Intellectual Stimulation	-.24	-.24**	-.24	-.24**
Interaction			.00	-.01
	$R^2_{(Step 1)} = .479$		$R^2_{(Step 2)} = .497, \Delta R^2 = .00$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IDP = Intensified Decision-Making and Planning. IS = Intellectual Stimulation. CSE = Core Self-Evaluations.

Table 35

*Hierarchical Moderation Results for Burnout on Work Intensification by Intellectual Stimulation*

<b>Burnout on WI X IS</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.34		3.35	
Organizational Change	.05	.09*	.05	.09*
CSE	-.45	-.31**	-.45	-.31**
Negative Affectivity	.59	.24**	.59	.24**
Work Intensification	.20	.19**	.20	.19**
Intellectual Stimulation	-.24	-.24**	-.24	-.24**
Interaction			.03	.04
	$R^2_{(Step 1)} = .519$		$R^2_{(Step 2)} = .521, \Delta R^2 = .002$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IS = Intellectual Stimulation. CSE = Core Self-Evaluations.

Table 36

*Hierarchical Moderation Results for Work Engagement on Work Intensification by Intellectual Stimulation*

<b>Work Engagement on WI X IS</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.59		4.59	
Organizational Change	.00	-.01	-.01	-.01
CSE	.49	.39**	.49	.39**
Negative Affectivity	-.10	-.05	-.11	-.05
Work Intensification	.07	.07	.06	.07
Intellectual Stimulation	.34	.39**	.34	.39**
Interaction			-.02	-.03
	$R^2_{(Step 1)} = .394$		$R^2_{(Step 2)} = .396, \Delta R^2 = .002$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IS = Intellectual Stimulation. CSE = Core Self-Evaluations.

Lastly, Research Question 4 attempted to shed light on the nature of the potential interaction between individualized consideration and work intensification on work engagement. Consistent with the rest of the reported results, there was a significant interaction with a negative sign ( $\beta = -.11, p = .008$ ; Table 37), indicating that in the presence of higher levels of



individualized consideration, the negative relationship between work intensification and work engagement was stronger. Simple slope tests are presented in Table 38 while the form of the interaction is presented in Figure 13.

Table 37

*Hierarchical Moderation Results for Work Engagement on Work Intensification by Individualized Consideration*

Work Engagement on WI X IC				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.58		4.53	
Organizational Change	.00	.00	-.01	-.01
CSE	.52	.41**	.52	.40**
Negative Affectivity	-.05	-.02	-.07	-.03
Work Intensification	.14	.15**	.14	.15**
Individualized Consideration	.27	.29**	.30	.32**
Interaction			-.06	-.11**
	$R^2_{(Step 1)} = .319$		$R^2_{(Step 2)} = .330, \Delta R^2 = .011$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IC = Individualized Consideration. CSE = Core Self-Evaluations.

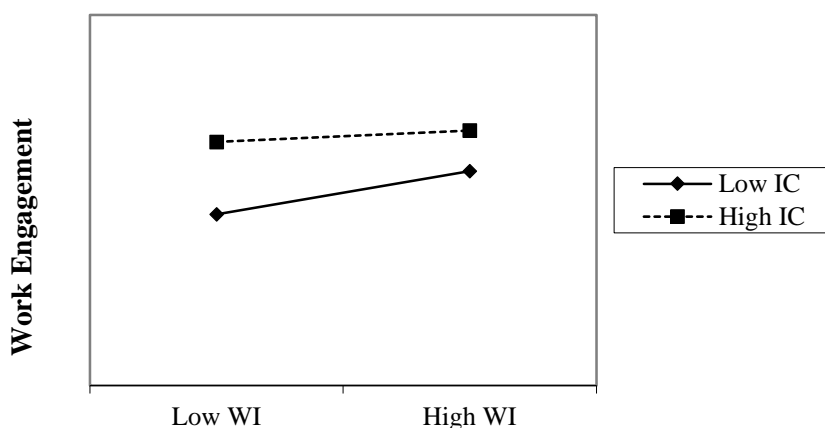


Figure 13. Simple slope figure depicting the effect of work intensification on work engagement at high and low levels of individualized consideration. WI = Work Intensification. IC = Individualized Consideration.

Table 38

*Simple Slopes for Work Engagement Regressed on Work Intensification at Different Values of Individualized Consideration*

Simple Slopes for WI at High and Low Levels of IC				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.24	.25**	.06	(.12, .36)
At Mean	.15	.16*	.04	(.07, .23)
+1 SD Above Mean	.06	.06	.05	(-.04, .16)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. IC = Individualized Consideration.

Finally, it is worth noting that although no hypotheses or research questions were advanced regarding these combinations, results also indicated moderation effects for burnout and work engagement regressed on idealized influence and work intensification as well as inspirational motivation and intensified job insecurity. Once again, results were similar to all other moderation effects (see Appendix B).

Combined, the results of all analyses, summarized in Table 39 and Table 40, paint a consistent picture. In no instance is any interaction in line with study hypotheses. Instead, where applicable, inspirational motivation, idealized influence and individualized consideration enhance the positive effect of intensified job insecurity and work intensification on burnout. Similarly, inspirational motivation, idealized influence and individualized consideration also enhance the negative effect of intensified job insecurity on work engagement. Moreover, these same dimensions actually buffer *the positive* effect of work intensification on work engagement such that at lower levels (-1 SD below the mean) of these leadership behaviors, work intensification is positively related to work engagement, but not at higher levels (+1 SD above the mean).

Table 39

*Summary of Study Hypotheses, Support, and Findings*

<b>Hypotheses</b>	<b>Was Hypothesis Supported?</b>
<i>Hypothesis 1a:</i> Intensified job insecurity will be positively related to burnout.	<i>Yes.</i> (Moderate positive bivariate correlations with burnout within and across each time point [relationships significantly reduced when NA is controlled for, however])
<i>Hypothesis 1b:</i> Intensified job insecurity will be negatively related to work engagement.	<i>Yes.</i> (Small, negative bivariate correlation within and across each time point (relationships significantly reduced when CSE is controlled for, however))
<i>Hypothesis 2a:</i> IDP will be positively related to burnout.	<i>Yes.</i> (Small, positive bivariate correlation within and across each time point)
<i>Hypothesis 2b:</i> IDP will be positively related to work engagement.	<i>Not Supported.</i> (Close to zero relationships within and across all time points)
<i>Hypothesis 3:</i> Work intensification will be positively related to burnout.	<i>Yes.</i> (Moderate positive bivariate correlations with burnout within and across each time point [minor reduction in size for NA and CSE])
<i>Hypothesis 4a:</i> Idealized influence will moderate the positive relationship between intensified job insecurity and burnout such that this relationship will be weaker when idealized influence is high.	<i>Not Supported.</i> (Intensified job insecurity was not a significant first-order predictor of burnout. Reverse-buffering effect was found such that at high levels of idealized influence, intensified job insecurity has a stronger, positive relationship with burnout)
<i>Hypothesis 4b:</i> Idealized influence will moderate the negative relationship between intensified job insecurity and work engagement such that this relationship will be weaker when idealized influence is high.	<i>Not Supported.</i> (Intensified job insecurity was not a significant first-order predictor of work engagement. Reverse-buffering effect was found such that at high levels of idealized influence, intensified job insecurity has a stronger, negative relationship with work engagement)
<i>Hypothesis 5:</i> Inspirational motivation will moderate the positive relationship between IDP and work engagement such that this relationship will be stronger when inspirational motivation is high.	<i>Not Supported.</i> (No first-order effect for IDP and no moderation effect detected)
<i>Hypothesis 6:</i> Intellectual stimulation will moderate the positive relationship between IDP and work engagement such that this relationship will be stronger when intellectual stimulation is high.	<i>Not Supported.</i> (No first-order effect for IDP and no moderation effect detected)

Table 39 Cont.

Hypotheses	Findings
<i>Hypothesis 7a:</i> Individualized consideration will moderate the positive relationship between intensified job insecurity and burnout such that this relationship will be weaker when individualized consideration is high.	<i>Not Supported.</i> (The first-order effect of intensified job insecurity positively predicted burnout, but reverse-buffering effect was found such that at high levels of individualized consideration, intensified job insecurity has a stronger, positive relationship with burnout)
<i>Hypothesis 7b:</i> Individualized consideration will moderate the positive relationship between IDP and burnout such that this relationship will be weaker when individualized consideration is high.	<i>Not Supported.</i> (No first-order effect for IDP and no moderation effect detected)
<i>Hypothesis 7c:</i> Individualized consideration will moderate the positive relationship between work intensification and burnout such that this relationship will be weaker when individualized consideration is high.	<i>Not Supported.</i> (The first-order effect of work intensification positively predicted burnout. Reverse-buffering effect was found such that at high levels of individualized consideration, work intensification has a stronger, positive relationship with burnout)
<i>Hypothesis 7d:</i> Individualized consideration will moderate the negative relationship between intensified job insecurity and work engagement such that this relationship will be weaker when individualized consideration is high.	<i>Not Supported.</i> (Intensified job insecurity was not a significant first-order predictor of work engagement. Reverse-buffering effect was found such that at high levels of individualized consideration, intensified job insecurity has a stronger, negative relationship with work engagement)
<i>Hypothesis 7e:</i> Individualized consideration will moderate the positive relationship between IDP and work engagement such that this relationship will be stronger when individualized consideration is high.	<i>Not Supported.</i> (No first-order effect for IDP and no moderation effect detected)

Table 40

*Summary of Study Research Questions and Findings*

Research Question	Findings
<i>Research Question 1:</i> What is the relationship between work intensification and work engagement?	Small, negative bivariate correlation that becomes positive once CSE is accounted for.
<i>Research Question 2a:</i> What is the nature of the moderating relationship of inspirational motivation on IDP for burnout?	No first-order effect for IDP and no moderation effect detected.
<i>Research Question 2b:</i> What is the nature of the moderating relationship of inspirational motivation on work intensification and burnout?	The first-order effect of work intensification positively predicted burnout. Reverse-buffering effect was found such that at high levels of inspirational motivation, intensified job insecurity has a stronger, positive relationship with burnout.
<i>Research Question 2c:</i> What is the nature of the moderating relationship of inspirational motivation on work intensification and work engagement?	The first-order effect of work intensification positively predicted work engagement. Reverse-buffering effect was found such that at high levels of inspirational motivation, the relationship between work intensification and work engagement becomes negative.
<i>Research Question 3a:</i> What is the nature of the moderating relationship of intellectual stimulation on IDP and burnout?	No first-order effect for IDP and no moderation effect detected.
<i>Research Question 3b:</i> What is the nature of the moderating relationship of intellectual stimulation moderate on work intensification and burnout?	The first-order effect of work intensification positively predicted burnout. No moderation effect was detected.
<i>Research Question 3c:</i> What is the nature of the moderating relationship of intellectual stimulation on work intensification and work engagement?	The first-order effect of work intensification positively predicted work engagement. No moderation effect was detected.
<i>Research Question 4:</i> What is the nature of the moderating relationship of individualized consideration on work intensification and work engagement?	The first-order effect of work intensification positively predicted work engagement. Reverse-buffering effect was found such that at high levels of individualized consideration, the relationship between work intensification and work engagement becomes negative.

## Supplementary Analyses

**Transformational leadership.** Given the high inter-correlations between each TL dimension and the fact that every interaction was in a similar direction, models were also run to examine the moderating effect of TL as a whole for each intensified job demand. The results (see Table 41 and Table 42) are consistent with those of the individual dimensions with the exception of intellectual stimulation. Consequently, this, combined with the high inter-dimensional correlations, suggests that it is appropriate to measure TL as a composite variable.

Table 41

*Hierarchical Moderation Results for Burnout on Intensified Job Insecurity, Intensified Decision-Making and Planning, and Work Intensification by Transformational Leadership*

<b>Burnout on IJI X TL</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Constant	3.36		3.44	
O. Change	.05	.10*	.06	.11*
CSE	-.39	-.27**	-.37	-.25**
NA	.53	.22**	.58	.24**
IJI	.09*	.08*	.08	.08*
TL	-.38	-.32**	-.40	-.34**
Interaction			.09	.12**
	$R^2 = .534$		$R^2 = .548, \Delta R^2 = .014$	
<b>Burnout on IDP X TL</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Constant	3.34		3.35	
O. Change	.06	.11*	.06	.11*
CSE	-.42	-.29**	.42	-.29**
NA	.55	.23**	.55	.23**
IDP	.05	.05	.02	.05
TL	-.39	-.33**	-.39	-.34**
Interaction			.02	.03
	$R^2 = .532$		$R^2 = .533, \Delta R^2 = .001$	
<b>Burnout on WI X TL</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Constant	3.34		3.39	
O. Change	.06	.10*	.05	.08*
CSE	-.40	-.28**	-.38	-.27**
NA	.53	.22**	.55	.23**
WI	.05	.07	.16	.15*
TL	-.38	-.32**	-.39	-.34**
Interaction			.08	.11
	$R^2 = .533$		$R^2 = .558, \Delta R^2 = .025$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. TL = Transformational Leadership. O. Change = Organizational Change Event List. CSE = Core Self-Evaluations. NA = Negative Affectivity.

Table 42

*Hierarchical Moderation Results for Work Engagement on Intensified Job Insecurity, Intensified Decision-Making and Planning, and Work Intensification by Transformational Leadership*

<b>Work Engagement on IJI X TL</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Constant	4.56		4.48	
O. Change	.03	.06	.02	.05
CSE	.40	.31**	.38	.30**
NA	.02	.01	-.04	-.02
IJI	-.03	-.04	-.03	-.04
TL	.43	.42**	.46	.44**
Interaction			-.09	-.14**
	$R^2 = .388$		$R^2 = .405, \Delta R^2 = .017$	
<b>Work Engagement on IDP X TL</b>				
	B	$\beta$	B	$\beta$
Constant	4.58		4.57	
O. Change	.02	.05	.02	.05
CSE	.41	.33**	.41	.32**
NA	-.01	.00	-.02	-.01
IDP	.03	.04	.04	.04
TL	.44	.42**	.44	.42**
Interaction			-.04	-.06
	$R^2 = .388$		$R^2 = .392, \Delta R^2 = .004$	
<b>Work Engagement on WI X TL</b>				
	B	$\beta$	B	$\beta$
Constant	4.58		4.55	
O. Change	.03	.07	.00	.00
CSE	.40	.31**	.44	.35**
NA	.02	.01	-.05	-.02
WI	.12	.13*	.12	.13*
TL	.43	.42**	.46	.44**
Interaction			-.06	-.10*
	$R^2 = .388$		$R^2 = .406, \Delta R^2 = .018$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. TL = Transformational Leadership. O. Change = Organizational Change Event List. CSE = Core Self-Evaluations. NA = Negative Affectivity.



**Further probing of interaction effects.** In lieu of the unexpected findings regarding the form and direction of the detected moderation effects, a more thorough investigation was undertaken. In particular, given the strong influence of CSE as a covariate, and the work intensification-work engagement relationship, models were run that tested three-way interactions between composite TL, each intensified job demand, and CSE. This required creating all two-way interactions between these variables along with the single three-way interaction (Aiken & West, 1991). Thus, each model had a total of three two-way interactions and one three-way interaction. Due to the fact that two-way interactions are difficult enough to detect as is (Aguinis, 1995), these models were run with and without NA and the organizational change variable. Interestingly, when NA was included, no three-way interactions and few, if any, two-way interactions, reached statistical significance, but without NA in the model, a significant three-way interaction (IDP X TL X CSE) was detected for both IDP ( $\beta = -.09, p = .033$ ; Table 43) and work intensification ( $\beta = -.11, p = .009$ ; Table 45) predicting burnout.

Simple slope analyses confirmed that when TL was high (+1 SD above the mean) and CSE was low (-1 SD below the mean), the relationship between IDP and burnout was strongest ( $\beta = .37, p = .003$ ; Table 44). In particular, at centered mean values for each predictor, the low-CSE high-TL slope was significantly different (steeper) than the high-CSE high-TL slope ( $t = -2.34, p = .020$ ) as well as the low-CSE low-TL slope ( $t = 1.99, p = .048$ ). Notably, at high-CSE high-TL, the slope was only  $\beta = .09$  ( $p = .111$ ) whereas at low-CSE and low-TL it was only  $\beta = .10$  ( $p = .289$ ). Interestingly, and perhaps surprisingly, this signifies that CSE actually buffered the IDP-TL two-way interaction, but not IDP as there was little change in the slope with TL held constant at either  $\pm 0$  SD or +1 SD above. In other words, the stronger positive relationship

between IDP and burnout in the presence of high TL became less severe as employees' levels of CSE increased. The form of the interaction is presented in Figure 14.

Similarly, probing of the three-way interaction for work intensification, TL and CSE (Table 46) showed that work intensification had the strongest positive relationship (slope) with burnout at low-CSE high-TL ( $\beta = .67, p < .001$ ) as opposed to a) high-CSE high-TL ( $\beta = .19, p = .021$ ), b) high-CSE low-TL ( $\beta = .19, p = .077$ ), and even c) low-CSE low-TL ( $\beta = .25, p = .002$ ). More specifically, slope difference tests indicated that the low-CSE high-TL slope was significantly different from each of the aforementioned three slopes (high-CSE high-TL  $t = -3.56, p < .001$ ; high-CSE low-TL  $t = 3.01, p = .003$ ; low-CSE low-TL  $t = 3.64, p < .001$ ), but that none of the latter were different from each other. Again, this means that neither TL nor CSE acted individually as buffers to work intensification, but rather that it was CSE that acted as a buffer to the TL-WI interaction by reducing its effect on burnout (Figure 15).

It is also important to note that dimension-specific three-way moderation tests revealed several notable differences (not displayed due to space constraints). Interestingly, only intellectual stimulation, which had no significant two-way interactions, interacted with IDP and CSE ( $\beta = -.08, p = .044$ ) when predicting burnout. However, much like the overall TL three-way interaction, the effect was weak. On the other hand, only inspirational motivation ( $\beta = -.09, p = .028$ ) and idealized influence ( $\beta = -.10, p = .022$ ) interacted with work intensification and CSE when predicting burnout. The ramifications of these findings are considered in detail in the discussion section.

Table 43

*Hierarchical Moderation Results for Burnout on Intensified Decision-Making and Planning by Core Self-Evaluations by Transformational Leadership*

<b>Burnout on IDP X TL X CSE</b>						
	Step 1		Step 2		Step 3	
	B	$\beta$	B	$\beta$	B	$\beta$
Intercept	3.34		3.37		3.37	
CSE	-.60	-.42**	-.60	-.41**	-.62	-.43**
IDP	.10	.10*	.11	.11*	.14	.14**
TL	-.44	-.38**	-.46	-.39**	-.47	-.40**
TL X IDP			.02	.02	.03	.04
IDP X CSE			-.04	-.04	-.04	-.04
TL X CSE			-.06	-.06	-.04	-.04
TL X IDP X CSE					-.05*	-.09*
	$R^2$ (Step 1) = .484		$R^2$ (Step 2) = .488, $\Delta R^2 = .004$		$R^2$ (Step 3) = .493, $\Delta R^2 = .005$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. CSE = Core Self-Evaluations. IDP = Intensified Decision-making and Planning. TL = Transformational Leadership. TL X IDP = Transformational Leadership by Intensified Decision-Making and Planning. IDP X CSE = Intensified Decision-Making and Planning by Core Self-Evaluations. TL X CSE = Transformational Leadership by Core Self-Evaluations. TL X IDP X CSE = Transformational Leadership by Intensified Decision-Making and Planning by Core Self-Evaluations.

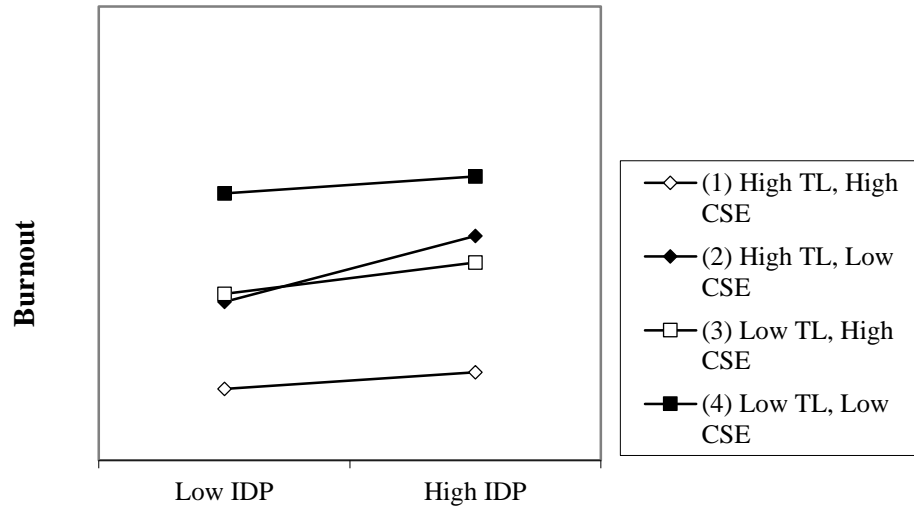


Figure 14. Simple slope figure depicting the effect of intensified decision-making and planning on burnout low and high values of transformational leadership and core self-evaluations. IDP = Intensified Decision-Making and Planning. TL = Transformational Leadership. CSE = Core Self-Evaluations.

Table 44

*Simple Slopes for Burnout Regressed on Intensified Decision-Making and Planning at Different Values of Transformational Leadership and Core Self-Evaluations*

Simple slopes for at high and low levels of TL and CSE				
	B	$\beta$	SE	95% CI for B
TL -1 SD / CSE -1 SD	.08	.10	.07	(-.06, .22)
TL $\pm$ 0 SD / CSE -1 SD	.18	.23*	.06	(.06, .30)
TL +1 SD / CSE -1 SD	.29	.37**	.10	(.09, .49)
TL -1 SD / CSE $\pm$ 0 SD	.11	.14*	.05	(.01, .21)
TL $\pm$ 0 SD / CSE $\pm$ 0 SD	.14	.18*	.04	(.06, .22)
TL +1 SD / CSE $\pm$ 0 SD	.18	.23*	.06	(.06, .30)
TL -1 SD / CSE +1 SD	.14	.18	.08	(-.02, .30)
TL $\pm$ 0 SD / CSE +1 SD	.11	.14*	.05	(.01, .21)
TL +1 SD / CSE +1 SD	.07	.09	.05	(-.03, .17)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. CSE = Core Self-Evaluations. IDP = Intensified Decision-making and Planning. TL = Transformational Leadership.

Table 45

*Hierarchical Moderation Results for Burnout on Work Intensification by Core Self-Evaluations by Transformational Leadership*

Burnout on WI X TL X CSE							
	Step 1		Step 2		Step 3		
	B	$\beta$	B	$\beta$	B	$\beta$	
Intercept	3.34		3.37		.37		
CSE	-.53	-.37**	-.54	-.37**	-.58	-.40**	
WI	.21	.20**	.22	.21**	.25	.23**	
TL	-.42	-.35**	-.43	-.37**	-.46	-.39**	
TL X WI			.07	.10	.06	.09*	
WI X CSE			-.09*	-.10	-.10	-.10*	
TL X CSE			-.07	-.08	-.05	-.05	
TL X WI X CSE					-.06	-.11*	
	$R^2$ (Step 1) = .509		$R^2$ (Step 2) = .524, $\Delta R^2 = .015$		$R^2$ (Step 3) = .531, $\Delta R^2 = .007$		

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. CSE = Core Self-Evaluations. WI = Work Intensification. TL = Transformational Leadership. TL X WI = Transformational Leadership by Work Intensification. WI X CSE = Work Intensification by Core Self-Evaluations. TL X CSE = Transformational Leadership by Core Self-Evaluations. TL X WI X CSE = Transformational Leadership by Work Intensification and Planning by Core Self-Evaluations.

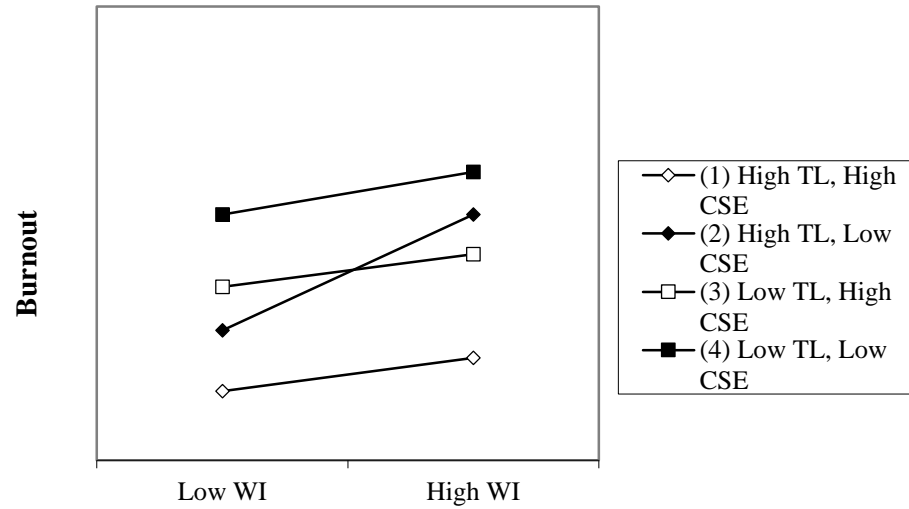


Figure 15. Simple slope figure depicting the effect of work intensification on burnout at low and high values of transformational leadership and core self-evaluations. WI = Work Intensification. TL = Transformational Leadership. CSE = Core Self-Evaluations.

Table 46

*Simple Slopes for Burnout Regressed on Work Intensification at Different Values of Transformational Leadership and Core Self-Evaluations*

<b>Simple slopes for WI at high and low levels of TL and CSE</b>				
	B	$\beta$	SE	95% CI for B
TL -1 SD / CSE -1 SD	.19	.25*	.06	(.07, .31)
TL $\pm$ 0 SD / CSE -1 SD	.36	.46**	.06	(.24, .48)
TL +1 SD / CSE -1 SD	.52	.67**	.08	(.36, .68)
TL -1 SD / CSE $\pm$ 0 SD	.17	.22*	.05	(.07, .27)
TL $\pm$ 0 SD / CSE $\pm$ 0 SD	.25	.32**	.04	(.17, .33)
TL +1 SD / CSE $\pm$ 0 SD	.34	.44**	.05	(.24, .44)
TL -1 SD / CSE +1 SD	.15	.19	.08	(-.01, .31)
TL $\pm$ 0 SD / CSE +1 SD	.15	.19*	.06	(.03, .27)
TL +1 SD / CSE +1 SD	.15	.19*	.07	(.01, .29)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. CSE = Core Self-Evaluations. WI = Work Intensification. TL = Transformational Leadership.



**Full model with all interactions.** A model was also run with all TL dimensions, all three intensified job demands, and all 12 interactions. Given the potential for high levels of multicollinearity which can obscure the sign and magnitude of the path coefficients, relative weights analysis was run to determine which predictors contributed the most unique variance predicting burnout and work engagement. Briefly, relative weights analysis a) transforms all variables in a regression (path analysis) model to make them orthogonal to one another, b) regresses outcome variables on these orthogonal transformed variables to derive standardized regression weights, and c) then transforms the standardized weights back to the original metric (Tonidandel & LeBreton, 2011). Both relative weights analysis and traditional path analysis results are summarized in Table 47 and Table 48 for burnout and work engagement respectively. Although results are generally similar, there are a few notable differences. For the model with all first-order predictors explaining variance in burnout, path analysis results indicated that among intensified job demands, only work intensification ( $\beta = .15, p < .001$ ) was positively related to burnout. Additionally, both inspirational motivation ( $\beta = -.12, p = .029$ ) and idealized influence ( $\beta = -.13, p = .019$ ) negatively predicted burnout, while individualized consideration ( $\beta = -.03, p = .585$ ) and intellectual stimulation ( $\beta = -.08, p = .086$ ) did not. On the other hand, intensified job insecurity explained a similar amount of variance in burnout (8%) compared to work intensification (8.5%) for relative weights analysis. Likewise, individualized consideration (9.1%) also explained a similar amount of variance as inspirational motivation (10.6%) and idealized influence (11.2%) once each predictor was orthogonalized. The same pattern was also present when all 12 interactions were included in the model except that none of the interactions explained a significant amount of variance in the relative weights framework whereas the

interactions between individualized consideration and intensified job insecurity ( $\beta = .08, p = .003$ ) and work intensification ( $\beta = .11, p = .007$ ) were significant in path analysis results.

For work engagement, the results for models with and without interactions were mostly the same across types of analysis. The one major difference was that while the adjusted first-order effect of work intensification positively predicted work engagement ( $\beta = .09, p = .037$ ) in path analysis and intensified job insecurity did not ( $\beta = -.03, p = .257$ ), these results were reversed for relative weights analysis. More specifically, work intensification only predicted roughly 1% of the total variance and its raw weight 95% confidence interval included zero (-.02, .01), whereas intensified job insecurity explained close to 7% of the variance and confidence interval did not include zero (.02, .08).

Finally, a number of other models were run that only included interactions for a single job demand with all TL dimensions or the interactions of a single TL dimension with all three intensified job demands and so on. The results are not presented both due to space and more importantly, due to the fact they do not substantially differ from what has already been mentioned and thus do not merit further discussion.

Table 47

*Hierarchical Moderation Results for Burnout on all 12 Possible Interactions*

<b>Burnout on all 12 Possible Interactions</b>						
	Step 1			Step 2		
	$\beta$	RW	%	$\beta$	RW	%
O. Change	.06	.02	4.3	.08*	.03	4.5
CSE	-.26**	.12*	21.3	-.25**	.12*	19.8
NA	.21	.10*	17.6	.23**	.10*	17.1
IJI	.04	.05*	8.4	.04	.05*	8
IDP	-.01	.01	1.4	.01	.01	1.4
WI	.15**	.05*	9.2	.13	.05*	8.5
II	-.13**	.06*	11.2	-.06	.06*	9.9
IM	-.12**	.06*	10.6	-.17**	.06*	10.6
IS	-.08	.04	6.9	-.05	.04	6.3
IC	-.03	.05*	9.1	-.14*	.06*	10
II X IJI				-.11	.00	.61
II X IDP				.03	.00	.11
II X WI				-.04	.00	.35
IM X IJI				.06	.00	.37
IM X IDP				.01	.00	.03
IM X WI				-.05	.00	.20
IS X IJI				-.01	.00	.14
IS X IDP				.02	.00	.03
IS X WI				-.02	.00	.09
IC X IJI				.17	.01	.95
IC X IDP				-.08	.00	.15
IC X WI				.19**	.01	.86
$R^2$ (Step 1) = .549			$R^2$ (Step 2) = .584, $\Delta R^2$ = .035			

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. O. Change = Organizational Change Event List. CSE = Core Self-Evaluations. NA = Negative Affectivity. IJI = Intensified Job Insecurity. WI = Work Intensification. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation. II X IJI = Idealized Influence by Intensified Job Insecurity. II X IDP = Idealized Influence by Intensified Decision-Making and Planning. II X WI = Idealized Influence by Work Intensification. IM X IJI = Inspirational Motivation by Intensified Job Insecurity. IM X IDP = Inspirational Motivation by Intensified Decision-Making and Planning. IM X WI = Inspirational Motivation by Work Intensification. IS X IJI = Intellectual Stimulation by Intensified Job Insecurity. IS X IDP = Intellectual Stimulation by Intensified Decision-Making and Planning. IS X WI = Intellectual Stimulation by Work Intensification. IC X IJI = Individualized Consideration by Intensified Job Insecurity. IC X IDP = Individualized Consideration by Intensified Decision-Making and Planning. IC X WI = Individualized Consideration by Work Intensification.

Table 48

*Hierarchical Moderation Results for Work Engagement on all 12 Possible Interactions*

<b>Work Engagement on all 12 Possible Interactions</b>						
	Step 1			Step 2		
	$\beta$	RW	%	$\beta$	RW	%
O. Change	.03	.00	.51	.02	.00	.52
CSE	.34**	.11*	25.2	.33**	.11*	23.5
NA	-.02	.02	5.4	-.03	.02	5.5
IJI	-.06	.03	6.8	-.05	.03	6.5
IDP	-.02	.00	.14	-.01	.00	.13
WI	.11*	.00	1.1	.10	.00	1
IM	.30**	.10*	22.2	.32**	.10*	21.4
II	-.06	.04	9	-.10*	.04	8.5
IC	.01	.04	8.5	.08	.04*	9.1
IS	.22**	.09*	21.2	.21**	.09*	19.7
IM X IJI				-.14**	.00	.81
IM X IDP				-.05	.00	.20
IM X WI				.04	.00	.19
II X IJI				.02	.00	.39
II X IDP				.01	.00	.11
II X WI				.00	.00	.20
IC X IJI				-.10	.00	.87
IC X IDP				-.03	.00	.17
IC X WI				-.01	.00	.41
IS X IJI				.09	.00	.32
IS X IDP				.06	.00	.13
IS X WI				-.04	.00	.19
$R^2$ (Step 1) = .432			$R^2$ (Step 2) = .456, $\Delta R^2$ = .024			

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. O. Change = Organizational Change Event List. CSE = Core Self-Evaluations. NA = Negative Affectivity. IJI = Intensified Job Insecurity. WI = Work Intensification. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation. II X IJI = Idealized Influence by Intensified Job Insecurity. II X IDP = Idealized Influence by Intensified Decision-Making and Planning. II X WI = Idealized Influence by Work Intensification. IM X IJI = Inspirational Motivation by Intensified Job Insecurity. IM X IDP = Inspirational Motivation by Intensified Decision-Making and Planning. IM X WI = Inspirational Motivation by Work Intensification. IS X IJI = Intellectual Stimulation by Intensified Job Insecurity. IS X IDP = Intellectual Stimulation by Intensified Decision-Making and Planning. IS X WI = Intellectual Stimulation by Work Intensification. IC X IJI = Individualized Consideration by Intensified Job Insecurity. IC X IDP = Individualized Consideration by Intensified Decision-Making and Planning. IC X WI = Individualized Consideration by Work Intensification.

**Stability, cross-lagged, and reverse causation effects.** Panel analyses were run for all intensified job demand TL dimensions. Testing models that both control for T1 effects and also examine the potential for reverse causation is useful in that it can provide stronger evidence for proposed causal relationships (Brusso et al., 2014). One potential downside, however, is that it can be difficult to detect change when outcome variables like burnout and work engagement remain fairly stable over time—as was the case in the current study.

Models that include a significant ( $p < .05$ ) interaction are presented in Table 49 and Table 50. Despite the short time lag employed, there are several interesting results. First, work intensification positively predicted work engagement ( $\beta = .09, p = .005$ ) at T2 after controlling for work engagement at T1. This indicates that greater levels of work intensification explain changes in work engagement over a 30 day period, consistent with the results for Research Question 1. Additionally, the lagged (controlling for T1) effect of individualized consideration negatively predicted change in burnout ( $\beta = -.13$  to  $-.15, p < .001$ ; these effects were generally consistent for TL dimensions for panel analyses without interactions). Moreover, individualized consideration moderated both intensified job insecurity ( $\beta = .11, p < .001$ ) and work intensification for burnout T2 ( $\beta = .09, p = .001$ ). The nature of these interactions were consistent with those in the hypotheses analyses as well. Finally, in terms of evidence for reverse causation, burnout at T1 positively predicted intensified job insecurity ( $\beta = .13, p = .018$ ) and work intensification ( $\beta = .20, p = .002$ ) at T2. In terms of the former, this suggests that individuals who experienced more burnout were, in turn, more likely to perceive higher levels of these intensified job demands at T2. Surprisingly, work engagement at T1 also positively predicted intensified job insecurity at T2 ( $\beta = .12, p = .012$ ) after controlling for intensified job

insecurity at T1, indicating that more engaged employees tended to perceive more intensified job insecurity across time.

Table 49

*Cross-Lagged Hierarchical Moderation Results, Stabilities, and Reverse-Causation Effects for Intensified Job Insecurity by Individualized Consideration*

	Step 1	Step 2
<i>Stabilities</i>		
	$\beta$	$\beta$
Burnout (T1) → Burnout (T2)	.56**	.56**
Engage (T1) → Engage (T2)	.78**	.77**
IJI (T1) → IJI (T2)	.49**	.49**
IC (T1) → IC (T2)	.73**	.77**
<i>Cross-Lagged Effects</i>		
Burnout (T1) → Engage (T2)	-.04	-.04
Engage (T1) → Burnout (T2)	-.18**	-.16**
IJI (T1) → Burnout (T2)	-.01	-.02
IJI (T1) → Engage (T2)	-.01	-.02
IC(T1) → Burnout (T2)	-.10*	-.15**
IC (T1) → Engage (T2)	.06	.07*
IJI X IC (T1) → Burnout (T2)		.11**
IJI X IC (T1) → Engage (T2)		-.03
<i>Reverse-Causation Effects</i>		
Burnout (T1) → IJI (T2)	.13*	.13*
Burnout (T1) → IC (T2)	-.02	-.01
Engage (T1) → IJI (T2)	.10*	.12*
Engage (T1) → IC (T2)	.02	.00
IJI (T1) → IC (T2)	.05	.04
IC (T1) → IJI (T2)	-.04	-.08
IJI X IC (T1) → IJI (T2)		.11*
IJI X IC (T1) → IC (T2)		-.10*
<i>Variance Explained (R<sup>2</sup>)</i>		
Burnout (T2)	R <sup>2</sup> (Step 1) = .723	R <sup>2</sup> (Step 2) = .733, $\Delta R^2 = .010$
Engage (T2)	R <sup>2</sup> (Step 1) = .735	R <sup>2</sup> (Step 2) = .736, $\Delta R^2 = .001$
IJI (T2)	R <sup>2</sup> (Step 1) = .447	R <sup>2</sup> (Step 2) = .456, $\Delta R^2 = .009$
IC (T2)	R <sup>2</sup> (Step 1) = .637	R <sup>2</sup> (Step 2) = .644, $\Delta R^2 = .007$

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. Control variables not shown due to space limitations. IJI = Intensified Job Insecurity. IC = Individualized Consideration. IC X IJI = Individualized Consideration by Intensified Job Insecurity.

Table 50

*Cross-Lagged Hierarchical Moderation Results, Stabilities, and Reverse-Causation Effects for Work Intensification by Individualized Consideration*

	Step 1	Step 2
<i>Stabilities</i>		
	$\beta$	$\beta$
Burnout (T1) → Burnout (T2)	.57**	.56**
Engage (T1) → Engage (T2)	.75**	.75**
WI (T1) → WI (T2)	.46**	.46**
IC (T1) → IC (T2)	.72**	.74**
<i>Cross-Lagged Effects</i>		
Burnout (T1) → Engage (T2)	-.09*	-.09*
Engage (T1) → Burnout (T2)	-.17**	-.16*
WI (T1) → Burnout (T2)	-.03	-.03
WI (T1) → Engage (T2)	.09*	.09*
IC(T1) → Burnout (T2)	-.10*	-.13*
IC (T1) → Engage (T2)	.07*	.07*
WI X IC (T1) → Burnout (T2)		.09*
WI X IC (T1) → Engage (T2)		.01
<i>Reverse-Causation Effects</i>		
Burnout (T1) → WI (T2)	.20*	.20*
Burnout (T1) → IC (T2)	-.01	.06
Engage (T1) → WI (T2)	.05	.06
Engage (T1) → IC (T2)	.01	.01
WI (T1) → IC (T2)	.02	.02
IC (T1) → WI (T2)	.01	.00
WI X IC (T1) → WI (T2)		.03
WI X IC (T1) → IC (T2)		-.05
<i>Variance Explained (R<sup>2</sup>)</i>		
Burnout (T2)	$R^2_{(Step 1)} = .723$	$R^2_{(Step 2)} = .730, \Delta R^2 = .007$
Engage (T2)	$R^2_{(Step 1)} = .739$	$R^2_{(Step 2)} = .739, \Delta R^2 = .000$
WI (T2)	$R^2_{(Step 1)} = .399$	$R^2_{(Step 2)} = .400, \Delta R^2 = .001$
IC (T2)	$R^2_{(Step 1)} = .636$	$R^2_{(Step 2)} = .638, \Delta R^2 = .002$

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. Control variables not shown due to space limitations. WI = Work Intensification. IC = Individualized Consideration. IC X WI = Individualized Consideration by Work Intensification.

**Further validity of intensified job demands.** Due to the fact that the current study is the first to examine short-term intensified job demands, several additional analyses were run in an attempt to demonstrate the validity, and consequently, applicability of the change in retrospective time-frame. First, similar to the pilot study, hierarchical regressions were run with traditional job demands entered in step one, and intensified job demands in step two (e.g., time pressure followed by work intensification). Table 51 and Table 52 present the results of these

analyses for T2 burnout and T2 work engagement regressed on T1 demands (note that results are similar within time points as well). With the exception of the effect of IDP on work engagement, in each instance the intensified job demand explained additional variance above and beyond traditional job demands. This holds true even when dispositional factors, like negative affectivity, were also included as controls.

Table 51

*Hierarchical Results for Intensified Job Demands Predicting Burnout Over and Above Traditional Job Demands*

<b>Incremental Validity Predicting Burnout</b>		
	Step 1	Step 2
	$\beta$	$\beta$
Job Insecurity (T1)	.44*	.19*
Intensified Job Insecurity (T1)		.35**
	$R^2 = .207$	$R^2 = .255, \Delta R^2 = .052$
Responsibility (T1)	.11*	.04
IDP (T1)		.18*
	$R^2 = .011$	$R^2 = .039, \Delta R^2 = .027$
Time Pressure (T1)	.32**	.07
Work Intensification (T1)		.38**
	$R^2 = .324$	$R^2 = .428, \Delta R^2 = .078$

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IDP = Intensified Decision-Making and Planning.



Table 52

*Hierarchical Results for Intensified Job Demands Predicting Work Engagement Over and Above Traditional Job Demands*

Incremental Validity Predicting Work Engagement		
	Step 1	Step 2
	$\beta$	$\beta$
Job Insecurity (T1)	-.29**	-.15*
Intensified Job Insecurity (T1)		-.19**
	$R^2 = .336$	$R^2 = .365, \Delta R^2 = .02$
Responsibility (T1)	.11*	.15*
IDP (T1)		-.10
	$R^2 = .013$	$R^2 = .021, \Delta R^2 = .008$
Time Pressure (T1)	.02	.18*
Work Intensification (T1)		-.23**
	$R^2 = .001$	$R^2 = .029, \Delta R^2 = .029$

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IDP = Intensified Decision-Making and Planning.

Second, similar to the pilot study, simple bivariate correlations were also run between all three intensified job demands and each specific type of organizational change event (Appendix F). In particular, intensified job insecurity (T1) had the strongest correlations with events like downsizing/layoffs ( $r = .37, p < .001$ ), internal organizational restructuring ( $r = .23, p < .001$ ), and unsatisfactory organizational performance ( $r = .15, p < .001$ ). IDP (T1) was most strongly related to major changes to work processes ( $r = .21, p < .001$ ), internal organizational restructuring ( $r = .17, p < .001$ ), and job description change/redesign ( $r = .21, p < .001$ ). Work intensification (T1) was also most strongly related to major changes to work processes ( $r = .34, p < .001$ ), internal organizational restructuring ( $r = .25, p < .001$ ), and job description change/redesign ( $r = .28, p < .001$ ). Although relationships were similar among intensified job demands for these variables (e.g., the events listed tended to correlate with all intensified job demands when there was a significant relationship for one), there were also differences for certain events as well. For example, launch of new products correlated with both IDP ( $r = .10, p$

= .046) and work intensification ( $r = .17, p = .003$ ), but not IJI ( $r = .07, p = .171$ ). In addition, the correlations between the organizational change composite as a whole and intensified job insecurity ( $r = .38, p < .001$ ), IDP ( $r = .24, p < .001$ ), and work intensification ( $r = .42, p < .001$ ) were higher than those for traditional job insecurity ( $r = .30, p < .001$ ), job responsibility ( $r = .23, p < .001$ ), and time pressure ( $r = .33, p < .001$ ) at T1 (note that IDP was not significantly different than responsibility). However, this was no longer true at T2. The fact that these differential relationships disappear after a relatively short 30-day period suggests perceptions of intensified job demands may be higher the more recent certain events are, but as time passes, they no longer are as closely linked to organizational changes as general, traditional perceptions of job demands.

Third and finally, the association of residualized difference scores for T2 traditional job demands regressed on the corresponding T1 job demand (e.g., time pressure T2 on time pressure T1) with intensified job demands at T2 were also examined. These residuals represent whatever variation cannot be explained by the T1 demand, or in other words, the extent of change between time points (Cronbach & Furby, 1970). If employees' perceptions of intensified job demands at T2 are indeed accurate, one would expect there to be a positive relationship between the change in perceptions of traditional job demands and perception of intensifying job demands. Table 53 shows the relationship between the change scores and intensified job demands at T2. Although there is a moderate positive relationship in each instance, it is worth noting that the relationship between changes in intensified job demands (e.g., intensified job demand difference scores) and traditional job demands at T2 was similar to traditional job demand change scores and intensified job demand at T2. Thus, taken alone, these tests are less than conclusive. Several possible reasons for this are discussed in the discussion section.

Table 53

*Correlations between Residualized Difference Scores for both Traditional Job Demands and Intensified Job Demands with both Intensified Job Demands and Traditional Job Demands at T2*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. IJI (T2)												
2. $\Delta$ Insecure	<b>.51</b>											
3. IDP (T2)	<b>.29</b>	<b>.10</b>										
4. $\Delta$ Res	<b>.14</b>	<b>.16</b>	<b>.14</b>									
5. WI (T2)	<b>.45</b>	<b>.25</b>	<b>.46</b>	<b>.29</b>								
6. $\Delta$ Time	<b>.22</b>	<b>.20</b>	<b>.17</b>	<b>.35</b>	<b>.43</b>							
7. Insecure (T2)	<b>.79</b>	<b>.74</b>	<b>.24</b>	<b>.14</b>	<b>.38</b>	<b>.19</b>						
8. $\Delta$ IJI	<b>.76</b>	<b>.56</b>	<b>.17</b>	<b>.16</b>	<b>.32</b>	<b>.23</b>	<b>.52</b>					
9. Res (T2)	<b>.16</b>	.08	<b>.30</b>	<b>.77</b>	<b>.40</b>	<b>.28</b>	<b>.14</b>	<b>.10</b>				
10. $\Delta$ IDP	<b>.22</b>	<b>.11</b>	<b>.85</b>	<b>.11</b>	<b>.32</b>	<b>.15</b>	<b>.17</b>	<b>.17</b>	<b>.16</b>			
11. Time (T2)	<b>.34</b>	<b>.15</b>	<b>.31</b>	<b>.34</b>	<b>.72</b>	<b>.71</b>	<b>.26</b>	<b>.21</b>	<b>.47</b>	<b>.21</b>		
12. $\Delta$ WI	<b>.32</b>	<b>.29</b>	<b>.28</b>	<b>.30</b>	<b>.80</b>	<b>.45</b>	<b>.28</b>	<b>.35</b>	<b>.27</b>	<b>.27</b>	<b>.49</b>	

*Note.* Correlations in bold are significant at  $p < .05$ . IJI = Intensified Job Insecurity.  $\Delta$ Insecure = Residualized Difference Score for Traditional Job Insecurity. IDP = Intensified Decision-Making and Planning.  $\Delta$ Res = Residualized Difference Score for Job Responsibility. WI = Work Intensification.  $\Delta$ Time = Residualized Difference Score for Time Pressure.  $\Delta$ IJI = Residualized Difference Score for Intensified Job Insecurity.  $\Delta$ IDP = Residualized Difference Score for Intensified Decision-Making and Planning.  $\Delta$ WI = Residualized Difference Score for Work Intensification.

**A note on additional analyses.** The follow-up analyses that are presented above are those that best complement and inform the main study hypotheses. Countless other models were also run with different combinations of intensified job demands and TL dimensions both across time points and within time points. Results for models within time points were consistent with hypotheses analyses. Additionally, other models, whether run in path analysis or using relative weights either did not differ substantially from what was reported, or did not have any significant results. Finally, results were also fairly consistent across the sub-dimensions of burnout and work engagement and all interactions were of the same nature as those previously reported. In the interest of parsimony, maintaining a logical flow of presentation, and perhaps most importantly, minimizing strain for the reader, these results are not presented either in the body or appendix of this dissertation. However, they will be gladly provided by the author upon request.

## CHAPTER VII

### DISCUSSION

The purpose of the present study was twofold: a) examine the effects of short-term perceptions of intensified job insecurity, IDP, and work intensification on burnout and work engagement and b) explore the potential differential moderating effects of TL dimensions all within the JD-R framework. This was accomplished via a 30-day, two-wave study design with approximately 440 matched participants recruited from MTurk. This sample consisted of full-time employees from a variety of different industries and backgrounds making it highly suitable for testing propositions related to both intensified job demands and TL (Burchell, 2002; Pawar & Eastman, 1997). Ultimately, although study hypotheses received at best mixed support, this study makes a number of valuable contributions to the JD-R and leadership literatures in terms of theoretical and practical implications. Following a brief review of study hypotheses, the aforementioned implications as well as study limitations will be discussed.

Hypotheses 1a and 1b stated that intensified job insecurity would act as a hindrance demand and be positively related to burnout and negatively related to work engagement, respectively. This was generally supported as correlational results were significant and in the proposed direction. However, these relationships were reduced when partial correlations were examined controlling for NA, CSE, and organizational change events. Still, even with control variables in the equation, intensified job insecurity at T1 had a small positive relationship with burnout at T2. Intensified job insecurity's role as a hindrance demand in the current study is consistent with past findings in the literature where traditional job insecurity positively predicted burnout and work engagement (Bosman et al, 2005a; Bosman et al., 2005b; De Cuyper et al., 2012). Moreover, intensified job insecurity explained incremental variance in burnout and work

engagement above and beyond traditional job insecurity in the full study (and for burnout in the pilot study). These results also held true when NA was controlled for indicating that intensified job insecurity was capturing something unique from more general, traditional job insecurity and stable affective dispositions.

Hypothesis 2a and 2b stated that IDP would act as a challenge demand and be positively related to both burnout and work engagement, respectively. Hypothesis 2a was supported as there was a small, positive bivariate correlation with burnout. On the other hand, it was unrelated to work engagement meaning that Hypothesis 2b was not supported. Additionally, IDP predicted variance in burnout, but not work engagement, above and beyond job responsibility. This finding is strikingly similar to Kubicek et al. (2015) who found perceptions of long-term IDP predicted incremental variance in burnout above and beyond autonomy, but that the same was not true for job satisfaction. Taken together, these results suggest that IDP does act as a job demand, albeit a weak one, but that it cannot easily be classified as either a hindrance or challenge demand (LePine et al., 2005). Instead, it appears to be unrelated to the motivational pathway and the cognitive appraisal process (Cavanaugh et al., 2000).

Hypothesis 3 stated that work intensification would be positively related to burnout whereas Research Question 1 explored the relationship between work intensification and work engagement. Bivariate correlational results indicated that work intensification had a moderate positive relationship with burnout supporting its role as a job demand and Hypothesis 3. Results for the relationship between work intensification and work engagement showed a small, negative zero-order correlation between the two constructs. However, once CSE was held constant, this relationship changed to a small, positive one at T2 ( $r_{\text{partial}} = .10, p = .039$ ). Evidently, CSE acts as a suppressor variable such that it obscures work intensification's role as a challenge demand

(Mackinnon, 2002). It is important to also note that follow-up analyses did not find any (two-way) moderation effects between CSE and work intensification so one cannot say that the effect of the latter depends on the former (Cohen et al., 2003). Rather, once CSE is accounted for by adding it to the equation (e.g., *ceteris paribus*), work intensification acts as a challenge demand positively predicting work engagement (Crawford et al., 2010).

Also of interest was the finding that work intensification predicted burnout and work engagement incrementally beyond time pressure, lending support for the relevance of short-term appraisals within the JD-R. However, in the case of work engagement, adding work intensification caused the near zero coefficient of time pressure to become a moderate, positive one. Moreover, after CSE was added as a covariate in a hierarchical regression, work intensification no longer explained additional variance beyond time pressure. As this was the first study to examine work intensification and work engagement, these findings provide multiple opportunities for future research explorations which are discussed further on in this section.

As for the 10 hypotheses (4a-4b, 5, 6, 7a-7e) that predicted differential buffering and/or boosting effects for the various TL dimensions, none received support. However, significant interactions were found for a) inspirational motivation, b) idealized influence, and c) individualized consideration by both intensified job insecurity and work intensification for burnout and work engagement. First, it is necessary to reiterate that every interaction essentially had the same form: at low levels of the aforementioned TL dimensions the change in either the intensified job insecurity or work intensification slopes was minimal as these demands increased, whereas at higher levels of TL demands, the slopes were steeper for burnout and work engagement. In fact, the only difference between the TL dimension interactions (except

intellectual stimulation) were small variations in the size of the effects.

Although, as noted repeatedly throughout this manuscript, there have been few studies that previously examined the buffering and/or boosting role of TL, and in particular, TL dimensions within the JD-R context, these results are surprising for a number of reasons. First, Arnold and Walsh (2015), Bass et al. (2016), and Syrek et al. (2013) all reported buffering effects when they examined TL as a moderator. Especially peculiar is the fact that Syrek et al. (2013) examined the moderating effect of TL on time pressure—a construct with high conceptual similarity to work intensification—and found that at high levels of TL, the effect of time pressure on burnout was reduced—a finding at odds with the current study. One major difference, aside from the fact that the current study utilized work intensification, is Syrek et al. (2013) used a sample comprised exclusively of German IT workers. However, when analyses testing interactions between traditional time pressure and TL were examined in the present study, results were similar to those reported for work intensification (e.g., reverse buffering effect). Possible ramifications of resulting from the use of an MTurk sample are discussed in detail further on.

Perhaps even more surprising, is the fact that of all TL dimensions, individualized consideration not only did not buffer (or boost) the effects of intensified job insecurity and work intensification, but rather appeared to make their negative effects worse. Still, while unusual, there are examples from the social-support-as-a-buffer literature where authors reported interactions inconsistent with theoretical expectations (Beehr, 1995). Specifically, Kaufman and Beehr (1986) examined the moderating effect of social support (emotional and tangible) on workload and future ambiguity (operationalized as the first PCA component) for strain reactions and found that the stressor-strain relationships were strongest under situations of high support,



not unlike the current study. Similarly, Kickul and Posig (2001) found that as perceptions of role conflict increased in conjunction with supervisor support, so did levels of emotional exhaustion. They suggested that this might have been due to an incongruence effect whereby the act of offering support when the supervisor was also responsible for the role-related demands increased employees' resource expenditure as they were forced to deal with this contradiction.

The unexpected results reported in the present study have also been found for other TL dimensions, like inspirational motivation as well. For example, Newton and Bish (2013) found that under conditions of higher leader vision, role conflict had a stronger relationship with workplace distress and turnover intentions as opposed to lower perceived levels of leader vision. Consequently, these past studies, in conjunction with this study, tentatively suggest that TL behaviors may, in fact, not always effectively buffer stressors. Finally, although Franke and Felfe (2011) did not examine TL dimensions in conjunction with stressors, they did find that both idealized influence and individualized consideration interacted with organizational commitment to positively predict strain, much to their surprise. This suggests there are, in fact, times when TL may not be universally beneficial.

Supplementary follow-up analyses also provided several illuminating findings. First, as is evident from the consistency of the reported moderation effects and high inter-dimension correlations, it is probably most appropriate to discuss TL as a whole rather than its individual dimensions. Although a concerted effort was made based on the pilot study results to reduce dimension correlations by separating the TL subscales, correlations were still high (although noticeably reduced) which resulted in consistent moderation effects. This suggests endorsement of TL across dimensions is less a methodological artifact, but rather the construct of TL itself—a much discussed finding in the literature (e.g., van Knippenberg & Sitkin, 2013; Yukl, 1999).

Nonetheless, there were several differences among first-order TL dimensions predicting burnout and work engagement when all dimensions were examined together in the full model. First, inspirational motivation, idealized influence, and individualized consideration all predicted burnout similarly while intellectual stimulation explained a lesser amount of variance. This finding is not unlike other studies (e.g., Franke & Felfe, 2011; Seltzer et al., 1989) that have found inconsistent, and even positive, effects of intellectual stimulation (with other dimensions held constant) for various strains. Clearly, the boundary conditions that influence the direct role of intellectual stimulation have yet to be fully elucidated. On the other hand, both intellectual stimulation and inspirational motivation explained the most variance in work engagement, compared to idealized influence and individualized consideration. This highlights the motivational aspect of the former two facets and suggests, similar to past research, that they are effective ways to enhance both job-related effort and motivation (Bruch & Walter, 2007; Densten, 2002).

There were also differential effects for intensified job demands. Specifically, both intensified job insecurity and work intensification explained similar amounts of variance in burnout according to relative weights analysis whereas work intensification was the only intensified job demand to explain burnout in a path analytic framework. This highlights a) the potentially obscuring role of multicollinearity, and more importantly, b) both constructs' roles as job demands within the JD-R model (Demerouti et al., 2001). Moreover, whereas path analysis showed that work intensification positively predicted work engagement and intensified job insecurity did not, relative weights analysis suggested the opposite with the former only explaining 1% of the total variance while intensified job insecurity explained 6%. Again, this is in line with research that has found traditional job insecurity to be a hindrance demand

(Cavanaugh et al., 2000) and suggests that intensified job insecurity works in a similar fashion. However, this also adds to the uncertainty regarding the role of work intensification as a challenge demand.

Also of interest is the fact that interactions between both inspirational motivation and intensified job insecurity as well as individualized consideration and both intensified job insecurity and work intensification significantly predicted burnout at T2 even after controlling for burnout at T1. This suggests that these interactions in particular also predicted changes in employee burnout over the course of a 30 day period. This is especially notable given the high stability of burnout, which makes it especially difficult to detect change (Dormann & Griffin, 2015). Interestingly, work intensification positively predicted change in work engagement across time, but not burnout. This is contrary to Korunka et al. (2015) who found that work intensification was negatively related to changes in job satisfaction over a one-year period. However, it should be noted that they measured work intensification with only a single item. In terms of reverse causation effects, burnout at T1 positively predicted change in both intensified job insecurity and work intensification. This is consistent with COR theory in that employees who begin with fewer resources find themselves even more depleted over time (Hobfoll, 2002). Most surprising was the fact that work engagement positively predicted intensified job insecurity at T2. Few, if any, explanations can account for this, as to the author's knowledge, a similar phenomenon with job insecurity has not been reported in the literature. It is important that this finding be replicated before conclusions can be drawn.

Of even greater interest is the fact that tests for three-way interactions between TL, CSE, and both IDP and work intensification found that CSE actually buffers the interaction between TL and both intensified job demands. In other words, these intensified job demands predicted

burnout most strongly when TL was high and CSE was low, but surprisingly, not when both TL and CSE were low, as would be expected. In some ways, this finding is similar to Stetz, Stetz, and Bliese (2006) who examined three-way interactions between organizational constraints, supervisor social support, and self-efficacy for job satisfaction and psychological well-being. Notably, they found for individuals low in self-efficacy and with high levels of supervisor support organizational constraints had a stronger negative relationship with job satisfaction compared to those with low levels of supervisor support. However, they also found that individuals with high self-efficacy and low supervisor support had a stronger negative relationship with job satisfaction than those with high self-efficacy and high supervisor support. In contrast, for IDP and work intensification, there was little change, if any, in burnout as these demands increased under conditions of high-CSE and low-TL. Thus, based on these results, it does not appear that self-efficacy or CSE is the missing piece of the puzzle, as Stetz et al. (2006) claim, but rather that it simply buffers the problematic two-way interaction between TL and the two aforementioned intensified job demands.

Further, in terms of the validity of intensified job demands, CFA results, hierarchical regression, and relationships with organizational events helped demonstrate that the intensified job demands measured in the current study were unique from traditional job demands, similar to Kubicek et al. (2015). Although the intensified job insecurity-quantitative job insecurity ( $r_c = .85$ ) and work intensification-time pressure ( $r_c = .82$ ) latent correlations were high, it has been suggested that only once correlations reach .90 can the two constructs be considered isomorphic (John & Benet-Martinez, 2000). However, other authors urge researchers to rely more on fit indices like chi-square difference test and change in CFI (Shaffer, DeGeest, & Li, 2016) which in the current study showed significant differences. Further, a number of different CFA models

were run where the latent correlation between intensified job-loss insecurity and traditional job insecurity (closest conceptual match) where the correlation was constrained to various values (e.g., unity, .90, etc.) and all demonstrated evidence of discriminant validity. Still, it is unfortunate that Kubicek et al. (2015) did not report latent correlations between intensified job demands and traditional job demands so it is not possible to know the strength of the relationships in their study after correcting for random measurement error.

Moreover, the fact that intensified job demands predicted outcomes above and beyond their respective traditional job demands (like Kubicek et al., 2015) along with higher correlations for intensified job demands and organizational events at T1 also help to demonstrate discriminant validity. Along similar lines, Franke (2015) found that a single item for work intensification ( $r = .15$ ) had a stronger correlation with a composite list of organizational changes a la the present study compared to a traditional measure of job insecurity ( $r = .04$ ). Admittedly, this is not a direct comparison, but at a minimum it is what one would expect to find if intensified job demands are distinct constructs.

Lastly, exploratory analyses indicated that the intensified job demands measured at T2 positively correlated with the residualized difference scores of their corresponding traditional job demands. This approach was novel in that no attempt has been made thus far to demonstrate the validity of perceptions of intensified job demands in this fashion. The correlations, ranging from small to moderate, provide evidence of the construct validity of intensified job demands measures. In particular, each intensified job demand measure had higher correlations with its own traditional job demand counterpart (e.g., work intensification and time pressure) as opposed to the difference scores of other traditional job demands. Somewhat complicating matters is the fact that the reverse was also true, the difference scores for intensified job demands were also

correlated with traditional job demands at T2. A nuanced discussion of the use of difference scores and/or an attempt to provide an in-depth theoretical explanation for this finding is beyond the scope of this dissertation, but it is worth noting that these results do not necessarily detract from the construct validity of intensified job demands measures. For example, it makes conceptual sense that an employee who experienced greater intensified job insecurity over the past 30 days at T2 as compared to the 30 days preceding T1 would also be generally insecure about his/her job as captured by quantitative job insecurity. Thus, more research is necessary on the difference between intensified job demands and more traditional job demand measurement strategies.

### **Theoretical Implications**

**Intensified job demands.** A number of important theoretical implications stem from this study in regard to intensified job demands. First, both hypothesis testing results and validation efforts lend credence to the notion that there is value in measuring employees perceptions of intensified job demands as these capture unique variability that cannot simply be explained by stable affective dispositional variables, reported organizational changes, or traditional job demand measures. In particular, this study helps demonstrate that employees do experience short-term intensified job demands and that they have an effect on employee burnout and work motivation. Both Lazarus and Folkman (1984) and other scholars (e.g., Cavanaugh et al., 2000) have theorized that immediate, intense changes in the environment are most likely to be appraised and evaluated via the cognitive appraisal process. This study is yet another piece of empirical support for the transactional model of stress.

With the exception of intensified job insecurity, which clearly can be considered a hindrance demand (LePine et al., 2005), categorizing IDP and work intensification within the

challenge-hindrane framework is less straight forward. First, given its small positive effect on burnout and lack of a relationship with work engagement, researchers may want to focus attention on other, more salient intensified job demands instead of IDP. This may be especially true since Kubicek et al. (2015) reported similar, nominal relationships with burnout and job satisfaction. This is not to suggest that researchers should completely abandon IDP as a construct, but rather first focus on more impactful intensified job demands so that research can a) continue to understand precisely what these novel constructs are capturing as opposed to traditional job demands and b) practical solutions for dealing with the most serious intensified job demands that can be identified above all else.

Although the positive relationship between work intensification and burnout indicates that it is a job demand, there is a question regarding whether it is a challenge, hindrance, or perhaps even both. Interestingly, a study by Webster, Beehr, and Love (2011) directly examined employee perceptions of job demands like role conflict and workload and found that employees can actually perceive them as both a hindrance and challenge simultaneously. This is also consistent with Tuckey et al. (2015) who have criticized the challenge-hindrane framework as overly narrow and called to expand it to include threat appraisals as distinct from either challenge or hindrance demands.

Equally fascinating is the role of CSE in the relationship between work intensification and work engagement. Surprisingly, relatively few studies have examined either the role of CSE or other personal resources on the job demand-work engagement relationship (Schaufeli & Taris, 2014). For example, Xanathapolou et al. (2007) examined a model where personal resources similar to CSE (self-efficacy, self-esteem, etc.) mediated job resources, but not job demands on work engagement. Instead, they hypothesized that these personal resources would moderate the

effect of job demands on burnout, but did not find support for this. In lieu of the results of the current study, a more useful track may be to examine how personal resources like CSE affect the challenge-demand work-engagement relationship via third variable effects. Note, this is statistically (but not conceptually) equivalent to testing if CSE mediates the effect of challenge demands (Mackinnon, 2002).

**Transformational leadership.** There are also several key implications for both the measurement of TL and its role as a moderator within the JD-R model. First, results from the pilot study and across time points in the full study point to a discouraging conclusion. Namely, that the high inter-relatedness (and inconsistent measurement properties) of TL dimensions make it difficult, if not impossible, to accurately explore differential moderating effects. Although the potential for similar interactions across dimensions may appear obvious in retrospect, this study attempted to use a scale that demonstrated lower dimensional correlations as well as alter survey design in order to avoid too much overlap. These attempts were met with some success and while participants did discriminate between the various dimensions, this did not lead to the hypothesized differential effects.

Still, the fact that individualized consideration had the strongest moderation effects while intellectual stimulation did not interact with any intensified job demand is a useful finding. This suggests the effect of intensified job demands depended most on the dimension corresponding most closely to emotional support (at least using the Podsakoff et al. 1990 scale), for better or for ill, as discussed shortly. Additionally, it appears the effect of intensified job insecurity, IDP, and work intensification are independent of intellectual stimulation. These differences, minor though they be, may offer hope that research on differential effects may still pay dividends, perhaps if only conducted in a different fashion.



Relatedly, and most importantly, are the theoretical implications that stem from the direction of the detected interaction effects. In particular, there are a number of potential explanations that will be addressed in turn. First, the straightforward explanation is that TL (discussed as a whole here due to the similarity in interaction effects) does not act as a buffering job resource for the negative effects of intensified job demands on burnout and work engagement. Similarly, neither does it boost the motivational effect of work intensification, which appears to act as a challenge demand, all things being equal. Instead, the negative effects of intensified job demands become more intense under high levels of TL. Moreover, even when a three-way interaction with CSE was present, TL still did not buffer intensified job demands. Instead, in contrast to theoretical work that has suggested CSE may be a substitute for leadership (Podsakoff et al., 1996), here CSE acted as a personal job resource to buffer the TL-intensified job demand interaction, but not intensified job demands themselves.

As noted, the reverse-buffering effects of TL are not an entirely unique empirical finding (e.g., Newton & Bish, 2013) and theorists have also suggested that TL at higher levels may not in fact always be beneficial (Pierce & Aguinis, 2013; Skakon et al., 2012). Specifically, Pierce and Aguinis (2013) suggest the presence of a “too much of a good thing” effect for many management-related theories, including TL, where at a certain level monotonic positive relationships may hit an inflection point and become negative. This is certainly a reasonable proposition considering the fact that transformational leaders exert a powerful sway over their followers and the intensity of their leadership style may become particularly overbearing if employees also perceive their leaders to be responsible for job demands (Kickul & Posig, 2001). It is possible in the current study, that both intensified job demands may be a product, either directly or indirectly, of employees’ supervisors and contradiction of both transformational

3and/or supportive actions from one's supervisor as well as pressure from one's supervisor to simultaneously meet deadlines or face consequences like job loss that can be highly demanding. Still, it is important to note that TL had negative correlations with both intensified job insecurity and work intensification and that the addition of polynomial terms for TL (and intensified job demands) to the tested models did not change the direction or overall significance of any interaction.

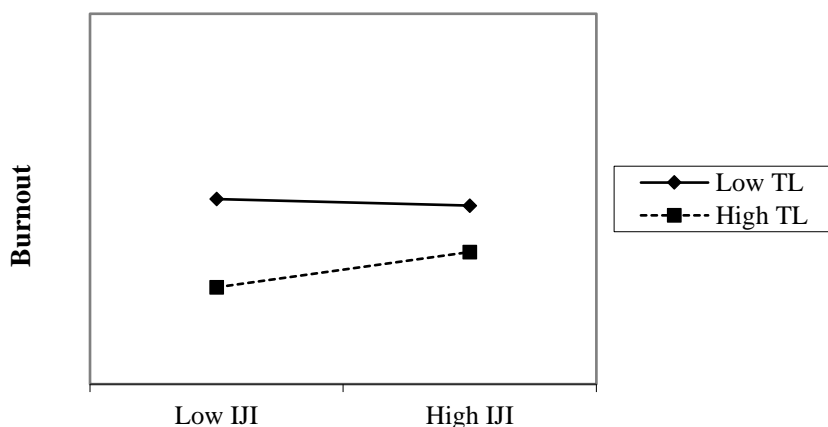
Another possibility is that the specific nature of the interaction is due to the construct of intensified job demands. Given that perceptions of increasing job demands are theoretically (and empirically) more salient to employees (Lazarus & Folkman, 1984; Korunka et al., 2015), high levels of TL might interact with high levels of intensified job demand so that the combination of these two powerful influences taxes employee energetic resources thereby leaving them less engaged and more exhausted (Hockey, 1997). Although this is certainly a reasonable explanation, it should be noted that exploratory analyses (again, not presented due to space considerations) also detected moderating effects of similar direction and magnitude for traditional job demands (e.g., time pressure and job insecurity) as well.

An alternative view may be that TL is not, in fact, the problem, but that leaders only tend to exhibit more TL behavior when it is clear employees are under high levels of duress (e.g., intensified job demands). Once again, however, if this were the case, results from exploratory cross-lagged panel analyses would exhibit a positive relationship between intensified job demands at T1 and TL dimensions at T2 indicating that leaders increased behaviors consistent with these dimensions in response to intensified job demands, which was not the case.

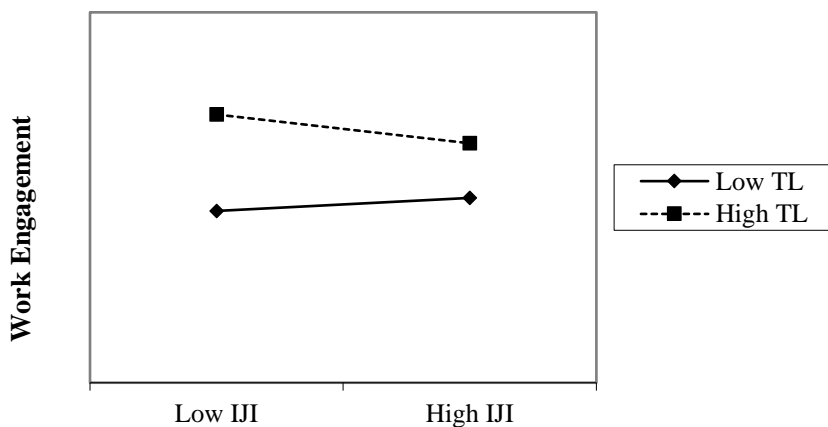
A more cynical explanation would be that the current study's findings are due to either a) methodological artifacts/data quality issues, b) specific to the use of an MTurk sample, or c) a

combination of both. Despite the fact that no scientific venture can truly discount these possibilities, there are number of reasons to believe these options do not explain the unexpected moderation effects. First, this study took all due precautions in order to thoroughly screen participants and examine data quality. Second, analyses did not indicate that any quality variable (e.g., time, attention checks, etc.) affected the nature of the results. Likewise, CMV was not a possible culprit either as Siemsen, Roth and Oliveira (2010) have demonstrated that CMV can reduce moderation effect sizes, but not enhance them. Third, and finally, other studies that have examined how TL and TL dimensions moderated job demand effects that used organizational samples also reported similar findings (e.g., Newton & Bish, 2013) and perhaps equally importantly, although statistical power was low, results from the pilot study were also in the same direction.

Nonetheless, there is one more possibility that takes both theoretical and measurement considerations into account. As opposed to “too much of a good thing”, this study’s findings could instead be described as “nowhere to go but down” (or “up” in the case of a challenge demand on engagement). Seldom discussed in the literature, if ever, this explanation may, in part, help explain the nature of the interactions detected in the current study. Here, yet again, it is useful examine the simple slope plots taking particular note of the intercept difference for burnout and work engagement at low levels of TL (see Figure 16 and Figure 17 for illustrative purposes).



*Figure 16.* Simple slope figure depicting the effect of intensified job insecurity on burnout at high and low levels of transformational leadership. IJI = Intensified Job Insecurity. TL = Transformational Leadership.



*Figure 17.* Simple slope figure depicting the effect of intensified job insecurity on work engagement at high and low levels of transformational leadership. IJI = Intensified Job Insecurity. TL = Transformational Leadership.

Notably, at low levels of intensified job insecurity (presented here as an exemplar), there is a marked difference in the mean adjusted level of burnout and work engagement for employees who report low versus high levels of TL. For those who experience high levels of

TL, the slope gradually increases(decreases) as intensified job insecurity increases. However, the slope remains close to constant for those who report low levels of TL regardless of the level of intensified job insecurity. This pattern holds true for the three-way interactions with CSE as well. In other words, burnout is high and remains high whereas work engagement is low and remains low. This phenomenon is also apparent in the relative size of the TL coefficients compared to those of both the first-order intensified job demand and the interaction, as TL by far and away is the strongest predictor save for NA for burnout and CSE for work engagement.

On one hand, this is evidence for the overall importance of TL in the workplace and is in line with past research on the direct effects of TL that have shown it to be a powerful job resource (Skakon et al., 2010). If this is indeed the case, it implies that in comparison to TL, job demands are relatively inconsequential and organizations should direct their resources toward selecting and developing transformational leaders as their direct influence appears to outweigh even the most demanding aspects of work. Support for this comes from the fact that even though the relationship between intensified job demands and both outcomes is stronger at high levels of TL, in most cases the steepness of the slope is still relatively minor as well as the fact that the simple slope lines do not cross (e.g., the interaction is ordinal) within the range of data. Thus, burnout(engagement) is still lower(higher) for those at high levels of TL and intensified job demands than those at low levels of TL and high levels of intensified job demands.

On the other hand, this may also speak to one of the most troubling criticisms of TL in that as measured, it is confounded with its effects (Yukl, 1999). In the current study, this means that those who report low levels of TL tend to be burned out and less engaged regardless of other factors whereas those who report high levels are less burned out, more engaged, *and* seem to be sensitive to other influences like intensified job demands. Although a theoretical explanation

may be that respondents with little variability in burnout and work engagement may have already been in an extreme state of exhaustion to the point where intensified job demands can do no further damage, it is worth noting that their mean levels of burnout and work engagement are still slightly lower (higher) than the midpoint (4) of the seven-point scale. Thus, there is reason to believe that the strong effects of TL on both outcomes may be due to the nature of the TL construct which tends to include motivational and affective outcomes in its items as opposed to just behaviors. While the Podsakoff et al. (1990) scale is technically referred to as the Transformational Leadership Behavior Inventory (TLI), it has also been criticized like other TL scales for confounding the effects of TL as well (van Knippenberg & Sitkin, 2013). For instance, the item “inspires others with his/her dreams for the future” refers more to motivational effects of leader behavior as opposed to behaviors themselves. Ultimately, these results point to the uncomfortable indication that the construct, and measurement of TL, may need further refinement.

### **Practical Implications**

While both the initial purpose and takeaways from this study are primarily theoretical, there is still the potential for practical application based on the findings. In particular, the evidence suggests that employees’ perceptions of short-term intensified job demands matter insomuch as they can explain additional variance beyond dispositional variables and traditional job demands. This knowledge may be especially useful for organizations with limited resources who want to focus their employee surveys on the most salient aspects of the workplace. Although in no way can retrospective accounts of job demands replace true longitudinal studies, the latter are often not feasible for a variety of reasons beyond financial resources including time and lack of employee compliance (Kubicek et al., 2015). Thus, as opposed to, or in addition to,

including more traditional measures of job insecurity or time pressure, it may make sense for HR departments to also measure perceptions of intensified job demands as these seem to be particularly salient to employees.

Along these lines, whenever possible, organizations should take steps to alleviate employees' perceptions of job insecurity given that they influence both burnout and work engagement. While it is impractical to guarantee both the status and valued features of employees' jobs, research suggests that clear, straight-forward and honest communication, especially from top management, can help allay concerns (Kinnunen, Mauno, & Natti, 2000). Additionally, having more job-related self-efficacy and greater job control have all been shown to reduce the negative effects of job insecurity as well (Schreurs et al., 2010). This is likely due to the fact that perceptions of control facilitate active coping, which, in turn, tends to lead to better outcomes overall (Lazarus & Folkman, 1984). Thus, if employees feel like they can allay negative outcomes like layoffs through higher performance, it may be possible to reduce some of the negative aspects of intensified job insecurity. The present study also demonstrated that both NA and in particular, CSE, do play a role in the extent to which employees experience intensified job insecurity. Following this, it may make sense to be especially mindful of employees lower in these characteristics during times of uncertainty and change by providing attention and/or reassurance. Another approach might be to try and select employees who are generally more stable and have higher self-esteem, internal-locus of control, etc., especially given the moderating effect of CSE on TL-intensified job demand relationships found in the current study.

It is also important for organizations to take note of the fact that although work intensification can lead to burnout, it can also be motivating and lead to higher levels of work

engagement. Undoubtedly, finding ways to properly manage both the positive and negative effects of challenge demands can be tough, but research by Paskvan et al. (2015) has demonstrated that a stronger participative climate helps reduce the negative effects of work intensification on burnout and job satisfaction. Additionally, research on time pressure as a challenge demand has shown that time pressure has a stronger positive relationship with work engagement for employees that report greater job control (Kuhnel et al., 2012). Again, by providing employees the ability to control work outcomes, employers may also be able to increase the chance employees see work intensification as a challenge demand (Crawford et al., 2010). Given the small effect sizes for IDP, it appears as though this job demand is not, in fact, all that demanding, at least in the current study. Thus, as previously noted, while the overall burden of employees' to make decisions independently should still be monitored, it may not be the best use of resources to specifically focus on it for purposes of a targeted intervention.

In terms of TL, and its various dimensions, the implications are manifold. Specifically, despite the direction of the moderating effects, it is safe to say that organizations should promote and develop TL due to a) its powerful direct effects on burnout and work engagement and b) its negative relationship to intensified job demands. Although there are measurement concerns with TL, past research has shown that TL training programs can be highly effective both across industries and for various outcomes (Hardy et al., 2010; Kelloway & Barling, 2010). This is likely due to the fact that although confounding between causes and effects is likely present when TL is measured in an observational fashion, training programs and interventions may either directly or indirectly target the key behaviors and attitudes that underlie the effectiveness of the construct. Additionally, results from the relative weights analysis with all dimensions included suggest that inspirational motivation, idealized influence, and individualized consideration are all



more or less equally effective in reducing burnout, but that intellectual stimulation is less so. Thus, if the sole aim of an intervention is to reduce employee emotional exhaustion and cynicism, more effort should be placed on developing the three former dimensions as opposed to the latter. On the other hand, if the goal is to enhance motivation then interventions should instead specifically target the inspirational motivation and intellectual stimulation dimensions/behaviors as these explained the most variance in work engagement.

Finally, it would be remiss to not acknowledge that leaders should at least try and observe how their behaviors, and particularly behaviors consistent with TL, appear to affect employees who are experiencing high levels of intensified job demands. Although it would be premature to suggest that leaders temper their transformational qualities during particularly stressful times, it may indeed be the case that TL effects may become overbearing and thus have unintended consequences. This may be especially true if there is the potential for employees to view the leader as contributing to intensified job demands given their hierarchical role in the organization (Kickul & Posig, 2001). Again, it may make more sense to focus on providing instrumental support (i.e., task-based tangible support) if this is the case as opposed to employing motivational techniques or emotional support as the former has the potential to help both the employee and the organization and may not represent a contradiction (Kickul & Posig, 2001; Stetson et al., 2006). Both contingency theory (Fielder, 1964) and path-goal leadership theory (House, 1975) suggest that certain behaviors are likely to be most effective only under certain conditions. In the (unfortunate continued) absence of hard and fast rules regarding this, leaders should rely on their personal experience to see what methods work and which do not with their various followers.

## Limitations and Directions for Future Research

Given its exploratory nature, and as is the case with all psychological research, there are a number of limitations to the present study. First, a unique contribution of this dissertation is that it adapted existing measures of intensified job demands in order to examine employees' short-term (30 days) impressions as opposed to a longer period (several years) like Kubicek et al. (2015) and other authors (Franke, 2015; Korunka et al., 2015). Although the theoretical rationale behind this decision was deemed sufficient, a shortcoming of both the pilot study and the full study is that no other retrospective time periods were also examined. In other words, it is not possible to identify how short-term perceptions may empirically differ from more long-term impressions based on the data collected. Future research should attempt to identify how the effects of intensified job demands may differentially predict outcomes like burnout and work engagement depending on the time period utilized. Research suggests that as the time period increases, people draw more on semantic memory as opposed to experiential memory with the latter being more salient (Robinson & Clore, 2002). The fact that work intensification-burnout effect sizes were larger in the current study as compared to either Kubicek et al. (2015) or Korunka et al. (2015) lend some weight to this. Thus, a prospective study could employ intensified job demand scales that use periods of 30 days, six months, and one year or longer, randomize their order, and then use an experimental framework to examine differences.

Another related shortcoming is that although this study demonstrated evidence of discriminant validity of intensified job demand measures from their traditional counterparts, it is possible that including measures for both in the same survey may have introduced potential method effects due either to an enhanced cognitive load for participants, carryover effects, or both (Tourangeau & Rasinki, 1988). Specifically, actively differentiating between the past 30

days and general impressions may have sowed confusion or the act of responding to either intensified job demands or traditional job demands first may have activated consistency/carry-over bias for whichever scale was answered second. However, the order of all types of job demands were randomized so to some extent these effects should have cancelled each other out (Podsakoff et al., 2012). Still, one way future research could address this is through cognitive interviewing techniques where small groups of survey respondents are interviewed as to their thought processes when answering survey items (Schwarz & Oyserman, 2001). It is also important to acknowledge that evidence for the discriminant validity of intensified job demands and traditional job demands may be due in part to the fact the traditional job demand measures were only three items each. By definition, the more items a scale has, the more variability it has and thus will tend to correlate more strongly with other measures (Nunally, 1978). Nonetheless, chi-square difference tests between the four-item intensified job insecurity sub-dimensions and the three-item traditional job insecurity measure also demonstrated that the constructs were distinct.

Additionally, while the sample size for this study can be considered adequate, if not large, by typical organizational research standards (Aguinis, 1995), it was likely too small to accurately explore the linkage between objective economic indicators and perceptions of intensified job demands. This is due to the large amount of noise (other unmeasured factors like seasonal trends, geographic location, etc.) that is invariably present economic data (Fullerton & Wallace, 2007). Further, despite the fact that responses to the organizational changes scale, a more objective measure, did correlate with intensified job demands, both measures were still from the same source. This issue applies to all of the data for this study as the same participants provided the information for all of the constructs that were measured thereby increasing the

likelihood of mono-method bias in terms of demand effects (Podsakoff et al., 2003). If possible, research could attempt to employ a larger sample that may have sufficient power to detect relationships between employee perceptions and other sources of information, like BLS indicators. One possibility is that if given the opportunity, a researcher may include an intensified job demand measure on an existing, large-scale economic or industrial-relations survey.

A strength of this study was that it utilized two time points as opposed to one, which helps reduce the effect of occasion factors and strengthens causal inferences (Brusso et al., 2012). Still, as has been repeatedly noted in the literature (e.g., Smith & Beaton, 2008), inferences from data collected at just two time points have a number of limitations. Specifically, with three-plus time points the current study could have employed a multilevel framework with both within and between subject effects measured as random intercepts and slopes (Bryk & Raudenbush, 1987). This is beneficial as it can provide more information on true inter and intra-individual change (Rogosa, Brandt, & Zimowski, 1982). Additionally, a true causal model whereby either intensified job demands mediating the effects of TL, or vice versa, on burnout and work engagement could also be tested. Moreover, with a true longitudinal design and a large enough sample size, change in traditional job demands could be assessed longitudinally and then compared to perceptions of intensified job demands at the final time point. In turn, both intensified job demands and traditional job demands could be assessed across all time points for another group which would help isolate the effects of including both in the same measurement occasion.

Although not a new phenomenon, the same high dimensional inter-correlations for TL so frequently reported in other studies (e.g., Podsakoff et al., 1990) again reared their head in both

the pilot and full study, even though they were reduced in the latter. This appears to be less a product of study design and more due to the construct of TL itself. As opposed to completely scrapping research on TL, as some authors have advocated (van Knippenberg & Sitkin, 2013), a more reasonable approach would be to adopt an experimental paradigm where different TL dimensions are manipulated and compared, potentially in the presence of job demands as well. This approach is, and has been, utilized, in journals like *The Leadership Quarterly*, but the majority of these studies use undergraduate samples. A more informative approach would be to conduct quasi-experimental research in organizations that examine the efficacy of training interventions focused on those specific TL dimensions which theory and empirical results suggest are most applicable. For example, in an organization experiencing, or about to experience, a high level of intensified job demands (or something equivalent), an intervention could emphasize inspirational motivation for some leaders and say idealized influence or individualized consideration for others. After these groups were equated on the appropriate covariates, it would be possible to see which intervention, and consequently which dimension, was most effective (Hardy et al., 2010).

Finally, there are both advantages and disadvantages regarding the choice of MTurk as a sample. Throughout this dissertation, repeated attempts have been made to generalize experiences of intensified job demands to the greater population of American workers. Given the wide range of industries and personal demographic differences such as gender, race, and income, it appears that MTurk was an appropriate choice. Furthermore, the low zero-order correlations between these characteristics and intensified job demands suggest employees' experience of the latter are not constrained to a particular group of workers. However, MTurk samples do not make it possible to investigate multilevel phenomenon such as the extent to

which groups of employees rate their leaders as transformational in aggregate or how TL may moderate intensified job demands at the group level (Landers & Behrend, 2015). Studies that examine specific organizational samples can remedy this and attempt to replicate the current study's findings.

Additionally, there is also the possibility that it may not be possible to generalize beyond workers who also use MTurk in their spare time. Studies with similar results to the current one notwithstanding, there is the potential that MTurk workers differ from the population of interest on one or several unmeasured variables. For instance, they may as a whole be more motivated by money or financial need, enjoy taking surveys, or for some unknowable reason be more likely to have certain types of leaders (Landers & Behrend, 2015). There is widespread agreement that more research needs to be conducted on MTurk workers themselves, going beyond the overall "quality" of the data (Harms & DeSimone, 2015). In particular, it is necessary to identify their specific motivations (aside from financial) for participation as well as any trait differences they exhibit in comparison to the typical American worker. For example, a study by Kaufman, Shulze, and Vet (2011) found that while extrinsic factors were highly important to MTurk workers when completing HITs, intrinsic aspects like autonomy and skill variety were rated as important as well. However, this study is from 2011 when MTurk was still in its infancy (MTurk began operations in 2005), thus, it is imperative to update these findings accordingly.

## CHAPTER VIII

### CONCLUSIONS

This dissertation sought to contribute to both the occupational health and leadership literatures by a) examining the impact of intensified job insecurity, IDP, and work intensification on burnout and work engagement and b) examining the differential moderating effects of TL dimensions. In doing so, it found evidence that intensified job insecurity acts as a hindrance demand, work intensification acts as a challenge demand, and IDP is relatively benign. Moreover, it found that each of these intensified job demands were distinct from traditional job demands a la Kubicek et al. (2015). Consequently, future research should continue to examine the unique way through which intensified job demands influence important employee outcomes.

Results for the moderating effects of TL were counter to expectations, but consistent with a small number of other studies that have found that job demands most strongly predict outcomes in a deleterious fashion when TL dimensions are high (e.g., Newton & Bish, 2003). However, CSE tempered the effects of IDP and work intensification on burnout. Additionally, all findings must be taken in context of the powerful direct effects of TL dimensions which appear to outweigh the conditional interactions. This, combined with the similarity of interactions across dimensions might lead one to the gloomy conclusion that this study only reinforces the well-known criticisms of TL and thus does not contribute much value on that front. However, it is the emphatic belief of this author that this is not the case here. Rather, given that this study attempted to theoretically test the core assumptions of TL, as well as the JD-R and transactional model of stress (Bass, 1985; Demerouti et al., 2001; Lazarus & Folkman, 1984), the lack of support and unexpected findings for all moderating hypotheses indicates that researchers must

continue to question, probe and develop even the most established theories in organizational literature. It is my sincere hope that this dissertation may help others in that endeavor.



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## APPENDIX A

### PILOT STUDY

In order to examine the reliability and validity of the study measures in the target sample as well as to test the efficacy of the procedure, a small ( $N = 177$ ) pilot study was conducted using MTurk. Specifically, the pilot study was designed to explore item-level statistics (e.g., internal consistency reliability, inter-item correlations, etc.) and conduct confirmatory factor analyses to test the discriminate validity of intensified job demands and traditional job demands, the subscales of transformational leadership, and burnout and work engagement. Additionally, the incremental validity of intensified job demands over and above traditional job demand measures was also assessed. Finally, the construct validity of intensified job demands was also examined in relation to distinct organizational change events. For the most part, the pilot study attempted to follow the validation techniques employed by Kubicek et al. (2015) for the IDS.

#### Participants and Procedure

The final sample size for the pilot study was 177. Overall, the participants had a mean age of 33.5 years ( $SD = 9.3$ ), were mostly male (62.7%,  $N=111$ ), Caucasian (74.6%,  $N = 132$ ), and single (61.6%,  $N = 109$ ). Additionally, respondents reported being fairly well educated with 59.3% ( $N = 105$ ) having at least a four-year college degree or higher. Most worked in the private sector (62.7%,  $N = 119$ ) followed by the public sector (27.7%,  $N = 49$ ). In terms of the nature of the sample's employment contract, the vast majority were permanent employees (88.7%,  $N = 157$ ). Participants also worked in a wide variety of industries with the top three being a) health care and social services (13%,  $N = 23$ ), b) professional, scientific, and technical services (11.9%,  $N = 21$ ), and c) finance and insurance (10.7%,  $N = 19$ ). Nearly every state in the United States was represented with a higher number of participants from more populous states like California (12%,  $N = 23$ ) and New York (7%,  $N = 13$ ). Moreover, the sample worked an average of 41 hours ( $SD = 4.7$ ) per week and had been tenured at their job for an average of 5.6 years ( $SD = 5.21$ ), in their organization for 5.7 years ( $SD = 5.4$ ), and with their supervisor for 3.6 years ( $SD = 3.8$ ). Most participants had supervisors in middle management (40.7%,  $N = 72$ ) and first-line management (38.5%,  $N = 67$ ). Table 54 presents a full break-down of demographics and Table 55 presents industry information.

Table 54

*Frequency Table for Pilot Study Participant Demographics*

Variable	N	%
<b>Gender</b>		
Female	66	37.3%
Male	111	62.7%
<b>Race</b>		
White/Caucasian	132	74.6%
African American	8	4.5%
Hispanic	9	5.1%
Asian	23	13%
Native American	3	1.7%
Other	2	1.1%
<b>Marital Status</b>		
Single	109	61.6%
Married	68	38.4%
<b>Education</b>		
Less than High School	1	.6%
High School / GED	14	7.9%
Some College	37	20.9%
2-year College Degree	20	11.3%
4-year College Degree	75	42.4%
Masters Degree	24	13.6%
Doctoral Degree	3	1.7%
Professional Degree (JD, MD)	3	1.7%
<b>Income</b>		
under \$20,000	11	6.2%
20,000-29,999	20	11.3%
30,000-39,999	48	27.1%
40,000-49,999	25	14.1%
50,000-59,999	20	11.3%
60,000-69,999	16	9%
70,000-79,999	16	9%
80,000-89,999	7	4%
90,000-99,999	3	1.7%
Over \$100,000	11	6.2%
<b>Employment Sector</b>		
Private Sector	119	67.2%
Public Sector	49	27.7%
Non-profit Sector	9	5.1%
<b>Employment Contract</b>		
Independent Contractor	10	5.6%
On-Call	1	.6%
Permanent	157	88.7%
Temporary	9	5.1%
<b>Supervisor Position</b>		
First-line Management	68	38.5%
Middle Management	72	40.7%
Top/Executive Management	37	20.9%

Note. N = 177.

Table 55

*Frequency Table for Participant Industry*

Variable	N	%
<b>Industry</b>		
Accommodation and Food Services	6	3.4%
Administrative and Support and Waste Management and Remediation Services	2	1.1%
Agriculture, Forestry, Fishing and Hunting	1	.6%
Arts, Entertainment, and Recreation	9	5.1%
Construction	4	2.3%
Educational Services	11	6.2%
Finance and Insurance	19	10.7%
Health Care and Social Assistance	23	13.0%
Information	16	9.0%
Management of Companies and Enterprises	3	1.7%
Manufacturing	14	7.9%
Other Services	17	9.6%
Professional, Scientific, and Technical Services	21	11.9%
Public Administration	2	1.1%
Real Estate and Rental and Leasing	3	1.7%
Retail Trade	13	7.3%
Self-Employed	2	1.1%
Transportation and Warehousing	5	2.8%
Utilities	2	1.1%
Wholesale Trade	4	2.3%

Note. N = 177.

Participants for the pilot study were recruited off of MTurk via a two-stage process. First, in order to avoid any potential problems with participant deceit, a demographic screening survey was posted on MTurk (see Appendix K). This survey paid \$0.10 and asked a number of questions regarding MTurk workers full-time job aside from MTurk (assuming they had one). Those who indicated they a) were over 18 years old, b) were employed aside from completing MTurk assignments, c) worked at least 30 hours a week, d) had a full-time supervisor, and e) had their current position and supervisor for at least one month were directed to customized end-of-survey message with the link to the pilot study. Qualified participants were informed that the (pilot) study should take roughly 10 minutes to complete and that they would be paid within three business days via MTurk bonus.

A total of 433 people took the demographic survey whereas a total of 187 went on to take the pilot for a qualifying response rate of 43%. Two attention checks were embedded throughout the survey and any participant that failed both was dropped from further analyses. Overall, two people failed both attention checks, whereas 32 (18%) failed at least one attention check. Data collection began on 8/31/2016 and was terminated on 9/1/2016 after it was determined that there was sufficient variability and statistical power by examining a subset of the data while it was still being collected.

## Measures

**Dependent variables.** Participants were instructed to think about their current, full-time job when answering item statements for burnout and work engagement.

**Burnout.** Burnout was measured with three emotional exhaustion items from Maslach and Jackson's (1981) MBI and three cynicism items from Schaufeli and Salanova (2007) for a total of six items. With over 35 years of use, the emotional exhaustion dimension of burnout has proven to be both highly reliable and valid (Maslach, 2005). For example, a meta-analysis of burnout subscales found that across 98 studies emotional exhaustion had a mean internal consistency reliability of  $\alpha = .87$ . The decision to use the Schaufeli and Salanova (2007) cynicism scale was in large part based on the fact that the authors included the items in the published study whereas the MBI-GS cynicism scale has a fee associated with its use. Moreover, the published version of the MBI (Maslach & Jackson, 1981) only included items specific to human services for depersonalization/cynicism which likely are not applicable to a broad range of employees. Across four separate samples, Schaufeli and Salanova (2007) found their cynicism scale had an internal consistency reliability exceeding .80 (.80 to .88).

**Work engagement.** Work engagement was measured with the full nine-item Utrecht Work Engagement Scale (UWES, Schaufeli & Bakker, 2003). Vigor ("At work I am bursting with energy"), dedication ("My job inspires me"), and absorption ("I am immersed in my work") were all measured with three items each. The UWES test manual (Schaufeli & Bakker, 2003) reported that across 25 studies ( $N = 9,679$ ) this nine-item scale had a mean internal consistency reliability of  $\alpha = .93$  with a range of  $\alpha = .89$  to .97.

**Intensified job demands.** The intensified job demand scale (IDS; Kubicek et al. 2015) represents the most comprehensive validation effort of any existing measure of intensified job demands. Accordingly, IDS measures of intensified decision making and planning and work intensification were adapted for the current study. In particular, two specific changes were made. First, whereas the original IDS asked participants to think about the past five years, the current study direct them to focus instead on the previous 30 days in order to capture more recent job and person-level demand intensification. Along these lines, items were also altered so that they applied to employees individually, consistent with the framework of the proposed study. Thus, an item that read "...one increasingly has to determine by oneself how to do the work" was changed to "I have had to increasingly determine by myself how to do the work." Although the intensified job insecurity scale employed in the current study was not adapted from the IDS (Kubicek et al., 2015), it was designed to be consistent with the IDS's item wording and instructions.

**Intensified job insecurity.** Due to the fact there are no existing measures of intensified job insecurity, a scale was created by adapting items from different existing job insecurity measures (Ashford et al., 1989; O'Neill & Savastos, 2013). Specifically, three items were taken from Ashford et al. (1989) whereas five items were selected from O'Neill and Sevastos (2013). Items were chosen based on their conceptual fit with job loss insecurity and job changes insecurity (O'Neill & Savastos, 2013) due to the fact that these dimensions were expected to be most salient and apply to greatest number of employees (Burchell, 2002).

Each of the items taken from O'Neill and Sevastos (2013) had factor loadings greater than .70 across two samples and while Ashford et al. (1989) did not report item-level statistics in their study, the entire scale demonstrated high internal consistency reliability ( $\alpha = .92$ ). Alterations to individual items were minor and mainly involved rewording statements so that they applied to the past as opposed to the future (e.g., "I am expecting unfavorable changes to

my job” became “thought about the likelihood of unfavorable changes to my job”).

**Intensified planning and decision-making.** Minor alterations were made to the five items from Kubicek and coauthors’ (2015) intensified job-related planning and decision making subscale of the IDS. In particular, whereas Kubicek et al. (2015) attempted to measure global, societal-level changes over an extended period of time, the current study planned to limit employee perceptions to the aforementioned 30 day period. For their version of the scale, Kubicek et al. (2015) reported each of the five items had factor loadings greater than .70 in sample one and high internal consistency estimates across sample one ( $\alpha = .90$ ) and sample two ( $\alpha = .87$ ). A sample item is “In the past 4 weeks (~30 days), I have had to increasingly determine by myself how to do the work.”

**Work intensification.** Like intensified job-related planning and decision-making demands, five items measuring work intensification were adapted from the IDS (Kubicek et al., 2015). Other than changing impersonal pronouns to personal pronouns (e.g., “I” instead of “one”) all items were left unaltered except for a single item with a low reported factor loading (.67) in Kubicek et al., (2015). The item which originally read “...ever more work has to be completed by fewer and fewer employees” was altered to “...I have had to increasingly complete more work with fewer resources.” This change was made after consultation with a subject matter expert in measurement and survey design (e.g., the committee chair) and was designed to make the item more clear and ensure it exhibits sufficient inter-item correlations with the rest of the scale. With the exception of the lone item, Kubicek et al. (2015) reported that all other work intensification items had factor loadings higher than .70 while the scale itself demonstrated high internal consistency reliability across two samples ( $\alpha = .91$  and  $\alpha = .87$ , respectively).

**Job demands.** In order to provide evidence of both convergent and discriminant validity, several short measures of traditional job demands and resources were also included. For each of the measures, participants were instructed to consider their current, full-time job at present. These instructions were designed to induce respondents to think about their job contemporaneously as opposed to the preceding 30 days.

**Quantitative job insecurity.** Three items from Hellgren, Sverke, and Isaksson (1999) were used to assess this construct. The authors defined quantitative job insecurity as employees’ perceptions of threats to their job continuity. Moreover, they reported an internal consistency reliability of  $\alpha = .79$  with factor loadings ranging from .75-.89. A sample item from their scale is “I feel uneasy about losing my job in the near future.”

**Job responsibility.** The full three-item cognitive demand subscale from Gadinger, Schilling, Litaker, and Fischer’s (2012) work health check instrument was used to measure job responsibility. This specific scale was chosen as the corresponding traditional job demand measure to intensified job-related planning and decision-making due to the fact that the items were designed to capture complex thinking and responsibility for decisions (Gadinger et al., 2012). The authors reported good internal consistency reliability ( $\alpha = .82$ ) and significant correlations with other job demands like workload and time pressure ( $r = .51$ ). A sample item is “At work I must often make decisions that will lead to far-ranging consequences.”

**Time pressure.** Three items were taken from Teng, Shyu, Chiou, Fan, and Lam’s (2010) five-item scale to measure time pressure. The three chosen items had the highest factor loadings (.96 to .99) for the entire scale. As a whole, the Teng et al. (2010) scale had very high internal consistency reliability ( $\alpha = .96$ ). A sample item is “I feel very busy at work.”

**Transformational leadership.** Although the MLQ is currently the most frequently used measure of transformational leadership (van Knippenberg & Sitkin, 2013), there is a reason to

consider it less than ideal for testing moderation effects at the dimensional level. Namely, psychometric reviews and studies on the MLQ indicate it often exhibits an unstable factor structure (Tejada et al., 2001; Yukl, 1999). For example, Tejada et al. (2001) found that the hypothesized factor structure did not fit the data well in three out of four samples. This in part was likely due to very high inter-correlations among dimensions ( $> r = .70$ ). While authors utilizing alternative measures to the MLQ still often find considerable multicollinearity between dimensions (e.g., Syrek et al., 2013), several studies utilizing the Podsakoff et al. (1990) scale have reported more modest relationships between dimensions (Hardy et al., 2010; Podsakoff, MacKenzie, & Bommer, 1996; Sarros, Cooper, & Santora, 2008). For instance, Podsakoff et al. (1996) found that no correlation between any subscale was greater than  $r = .70$  while Hardy et al. (2010) and Sarros et al., (2008) also reported similar findings. In fact, the latter study reported some inter-correlations under  $r = .50$ . These results by no means guarantee low dimension inter-correlations in the present study, but the evidence suggests the Podsakoff et al. (1990) measure may be preferable.

**Inspirational motivation.** Inspirational motivation was measured with the five-item articulating a vision subscale from Podsakoff et al. (1990). Podsakoff et al. (1996) reported an internal consistency of  $\alpha = .87$  for this scale as well as factor loadings above .70

**Idealized influence.** Idealized influence was measured with three items from the Podsakoff et al.'s (1990) providing an appropriate model subscale and two items from Pearce and Sims' (2002) idealism subscale. Items from both scales were selected based on their similarity to each other and the extent to which they conceptually represented the construct of idealized influence (Bass, 1985). Factor loadings for the three-item providing an appropriate role model scale were generally found to be acceptable (.66 to .78) by Podsakoff et al. (1996). However, both Podsakoff et al. (1996) and Hardy et al. (2010) reported acceptable internal consistencies for the three-item subscale ( $\alpha = .84$  and  $\alpha = .70$ , respectively) suggesting that it is sufficiently reliable by conventional standards (Nunnally, 1978).

**Intellectual stimulation.** Intellectual stimulation was measured with the full three-item Podsakoff et al. (1990) subscale and a single item from Pearce and Sims (2002). In this instance, the additional item was added to help insure scale reliability. The internal consistency reliability for the three item measure was  $\alpha = .91$  in Podsakoff et al. (1990) and  $\alpha = .82$  in Podsakoff et al. (1996). The latter study reported standardized factor loadings which were all above .70.

**Individualized consideration.** Four items measuring individualized support from Podsakoff et al. (1990) were used for assessing the fourth transformational leadership dimension. The scale showed high internal consistency reliability ( $\alpha = .90$ ) in both studies by Podsakoff and coauthors (1990; 1996). Factor loadings were also high in the latter study (.78 to .88; Podsakoff et al. 1996).

**Core self-evaluations.** Five items from Bowling et al. (2010) were used to measure core-self evaluations as a potential covariate. A shorter version of the full 12-item CSE scale by Judge et al. (2003) was used in order to minimize the length of the pilot study survey. Bowling et al. (2010) reported the scale had an internal consistency reliability of .77 and .88 across two separate samples.

**Organizational change.** A checklist of major organizational events was developed specifically for use as a potential covariate and as a way to assess the construct validity of intensified job demands. Events were derived from other organizational change checklists (Mishra et al., 2007; Widerszal-Bazyl & Mockallo, 2015) and reviews on organizational change (Probst, 2005; Weick & Quinn, 1999). Although the list was not intended to be exhaustive, the

21 listed items were designed to capture a wide range of events. Examples included “downsizing/layoffs”, “new technology implementation”, “increased threat of competition from other business”, and “safety accident” to name a few. Widerszal-Bazyl and Mockallo (2015) used a similar checklist and found that it was negatively related to well-being, whereas Franke (2015) asked participants if they recently experienced any major changes and that item positively related to psychosomatic and musculoskeletal complaints.

**Occupational demographics.** Participants indicated: a) the number of full-time jobs they have (aside from MTurk), b) their job position title, c) the number of hours they work per week, d) job tenure, e) tenure with direct-report supervisor, f) organizational tenure, g) direct-report supervisor job position, h) type of employer they work for (e.g., private sector), i) job tenure, j) nature of their employment contract, and k) occupational industry.

**Personal demographics.** Demographic questions asked participants to indicate their: a) age, b) gender, c) marital status, d) level of education, e) household income, f) state of residence, and g) county of residence.

**Data quality.** Two items were embedded within survey measures in order to assess participant attention. Specifically, an item that read “In general, I pay attention when taking online surveys and will select strongly agree” was included amongst the job satisfaction items which also began with “In general...” and an item reading “I have been paying close enough attention to this survey to select strongly disagree” was embedded amongst the intensified job demand items. Additionally, the total time each participant spent on the survey overall was also recorded.

## Results

**Testing of procedure.** Upon ending data collection and examination of the pilot data, several procedural limitations became apparent. First, the range for the random number generator in Qualtrics was only set to 1-9999 for all screener survey participants. This meant there were a number (~15) of duplicate codes which made it much more difficult to link the screener with the pilot survey. For these cases, the surveys were matched based on completion date and other identifying information. Additionally, the fact that everyone who took the screener received the same code meant it was difficult to identify what proportion of people who qualified actually went on to take the pilot. Finally, although the posting on MTurk specifically warned workers that the HIT would be re-posted multiple times and that no re-takes were allowed (a picture was also embedded to help them remember), there were several workers who completed the screener multiple times. Strategies designed to remedy these issues are detailed in the pilot study discussion section.

**Preliminary analyses and descriptive statistics.** In terms of the pilot data itself, multiple steps were taken to examine the measurement properties of the included items. First, the data were visually inspected and frequency distributions were run for all items in order to identify any incorrect values or other problems with the data itself, but there were no issues of note. There were also only several missing values as participants were notified by Qualtrics when they did not complete an item. Descriptive statistics were also run for all study variables (see Table 56) and the levels of skew and kurtosis were also examined. Likewise, histograms for all study variables and scatterplots of burnout and work engagement against first-order predictors were inspected. The results of these analyses indicated that just about all study variables appeared to approximate the normal distribution and that first-order variables appeared to have bivariate linear relationships with both outcomes. Finally, several data quality checks were run

by examining both a) the correlation between a dummy variable for all participants who failed at least one attention check and all study variables and b) the total time it took to complete the survey and all study variables. There were no significant (or more importantly, notable effect sizes) relationships and subsequent analyses with these variables included as controls were not altered in any meaningful way.

Table 56

*Descriptive Statistics for Pilot Study Variables*

Variable	N	No. of Items	M	SD	Min	Max	Skew	Kurtosis	$\alpha$
Age	176	1	33.50	9.26	19	61	.99	.55	—
Job Ten.	175	1	40.70	4.66	30	60	.64	2.35	—
Sup. Ten.	177	1	5.61	5.21	0.08	24.5	1.20	.87	—
Org. Ten.	177	1	3.56	3.83	0.08	20	1.84	3.50	—
Hours	175	1	5.72	5.39	0.08	29	1.30	1.66	—
Burn	177	6	3.53	1.32	1	6.83	.11	-.50	.84
EE	177	3	4.01	1.65	1	7	-.05	-.98	.87
Cyn	177	3	3.05	1.45	1	6.67	.37	-.75	.80
Engage	177	9	4.40	1.26	1.11	7	-.20	-.59	.92
Vig.	177	3	4.09	1.41	1	7	-.02	-.79	.85
Ded.	177	3	4.84	1.42	1	7	-.55	-.31	.88
Abs.	177	3	4.49	1.31	1	7	-.39	-.38	.74
IJI	177	8	2.92	1.61	1	7	.63	-.58	.94
IJIJ	177	4	3.03	1.61	1	7	.43	-.83	.93
IJIF	177	4	2.82	1.75	1	7	.78	-.51	.87
IDP	177	5	4.34	1.38	1	7	-.47	-.42	.87
WI	177	5	3.82	1.38	1	7	-.01	-.53	.83
Insecure	177	3	3.20	1.66	1	7	.51	-.73	.84
Res.	177	3	4.38	1.43	1	7	-.25	-.73	.76
Time	177	3	4.41	1.45	1	7	-.32	-.48	.76
TL	177	18	4.39	1.38	1	7	-.12	-.76	.97
IM	177	5	4.70	1.30	1.19	7	-.59	-.08	.92
II	177	5	4.67	1.36	1	7	-.62	-.07	.91
IC	177	4	4.76	1.44	1	7	-.75	-.06	.95
IS	177	4	4.98	1.50	1	7	-.76	-.11	.92
CSE	177	5	4.64	1.28	1.60	7	-.03	-.85	.84
O. Change	177	22	4.25	3.01	0	14	.96	.86	—

*Note.* Burn = Burnout. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. Work Intensification. Insecure = Quantitative Job Insecurity. Res = Job Responsibility. Time = Time Pressure. TL = Transformational Leadership. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation. O. Change = Change Event List.



**Reliability.** Next, internal consistency estimates, item statistics, corrected item-total correlations (CITC), scale internal consistency without item, and inter-item correlations were run for each proposed scale. Table 56 above presents scale and sub-scale level descriptive statistics and internal consistency reliability whereas Table 58 presents item specific information for each of the intensified job demand scales altered for use in the current study. Across all scales, reliability was generally high ( $\alpha = .74$  to  $.97$ ). Furthermore, the majority of intensified job demand items also performed well. Although work intensification item #3 (WI3) had a low CITC ( $r_c = .48$ ), results showed that overall scale reliability would not improve if the item was removed.

Reliability was also assessed by examining the factor loadings of each item in the full measurement model. These results are presented in Table 57. However, given the large number of items for both burnout and work engagement, sub-dimension subscales were utilized as opposed to each individual item. Similarly, two item parcels for each sub-dimension of intensified job insecurity were created by using the two highest factor loadings per dimension to create the first parcel and the second two to create the second parcel. Accordingly, intensified job insecurity was measured with four total indicators with two for intensified job loss insecurity and two for intensified job feature insecurity. Overall, results mirrored item-level analysis as the majority of loadings were at or above the conventional .70 threshold (Nunally, 1978). Again, WI3 had the lowest loading overall ( $\beta = .52$ ), but the emotional exhaustion dimension of burnout was also relatively low ( $\beta = .58$ ).

Table 57

*Factor Loadings for Pilot Measurement Model*

Factor	$\beta$
<b>Intensified Job Demands</b>	
<i>Intensified Job Insecurity</i>	
IJII_P1	0.80
IJII_P2	0.88
IJIF_P1	0.78
IJIF_P2	0.88
<i>Intensified Decision-Making and Planning</i>	
IDP1	0.79
IDP2	0.74
IDP3	0.79
IDP4	0.67
IDP5	0.69
<i>Work Intensification</i>	
WI1	0.76
WI2	0.70
WI3	0.52
WI4	0.71
WI5	0.80
<b>Transformational Leadership</b>	
<i>Inspirational Motivation</i>	
IM1	0.82
IM2	0.84
IM3	0.82
IM4	0.87
IM5	0.86
<i>Idealized Influence</i>	
II1	0.82
II2	0.90
II3	0.87
II4	0.79
II5	0.73
<i>Individualized Consideration</i>	
IC1	0.90
IC2	0.91
IC3	0.95
IC4	0.91
<i>Intellectual Stimulation</i>	
IS1	0.86
IS2	0.85
IS3	0.90
IS4	0.83
<b>Burnout</b>	
EE	0.58
CYN	0.79
<b>Work Engagement</b>	
VIG	0.89
DED	0.90
ABS	0.80

Note. N = 177. All factor loadings are significant at  $p < .05$ .

Table 58

*Item-Level Statistics for Intensified Job Demands for Pilot Study*

Pilot Study	Full Scale			Sub-Scale		
	M	SD	CITC	$\alpha$ if item deleted	CITC	$\alpha$ if item deleted
<i>Intensified Job Insecurity (<math>\alpha = .94</math>)</i>						
<i>Job-Loss (<math>\alpha = .93</math>)</i>						
Thought about the likelihood of being laid-off permanently (IJJ1)	2.62	1.92	.86	.91	.82	.93
Thought about the likelihood of being laid-off for a short while (IJJ2)	2.60	1.80	.86	.91	.82	.93
Thought about the likelihood of losing my job (IJJ3)	2.92	1.95	.90	.89	.86	.93
Felt my future with this organization was uncertain (IJJ4)	3.14	2.02	.75	.94	.83	.93
<i>Job-Feature (<math>\alpha = .87</math>)</i>						
Felt the number of hours my company could offer me was uncertain (IJIF1)	2.50	1.74	.57	.90	.67	.94
Thought about the likelihood of unfavorable changes to my job (IJIF2)	3.39	2.01	.72	.84	.70	.94
Thought about the possibility that the rewards of my job would diminish (IJIF3)	3.24	1.90	.82	.80	.80	.93
Thought about the possibility that I might lose many of the features of my job that I valued the most (IJIF4)	2.98	1.89	.83	.80	.83	.93
<i>Intensified Decision-Making and Planning (<math>\alpha = .87</math>)</i>						
It has become increasingly necessary to plan the workflow (activities, appointments, breaks, etc.) by myself (IDP1)	4.33	1.74	.73	.83		
I have had to increasingly determine by myself how to do the work (IDP2)	4.29	1.78	.76	.82		
I have had to increasingly determine the sequence of activities by myself (IDP3)	4.48	1.64	.71	.84		
I have had to more often make decisions without consultation with supervisors (IDP4)	4.51	1.68	.61	.86		
I have had to more often check by myself whether work goals have been met (IDP5)	4.09	1.69	.64	.85		
<i>Work Intensification (<math>\alpha = .83</math>)</i>						
It has been increasingly rare for me to have enough time for work tasks (WI1)	3.34	1.74	.69	.78		
It has been increasingly harder for me to take time for breaks (WI2)	3.62	1.90	.66	.78		
The time between the more intense work phases has decreased (WI3)	3.79	1.63	.46	.83		
I have had to do two or three things at once more often (such as eating lunch, writing emails, and talking on the phone) (WI4)	4.50	1.90	.63	.79		
I have had to increasingly complete more work with fewer resources (WI5)	3.86	1.80	.69	.77		

Note. CTIC = Corrected Item-Total Correlation.

**Discriminant validity.** A series of confirmatory factor analyses were run to examine both the measurement fit and discriminant validity of all proposed study variables. The comparisons undertaken were similar to those conducted by Kubicek et al. (2015) for the IDS, except in the current study, models were also run for burnout and work engagement and all transformational leadership dimensions. To summarize, the models included a) a one vs. two factor model with burnout and work engagement, b) a one vs three-factor model for all intensified job demands, c) a one vs two-factor model with each intensified job demand and its corresponding “traditional” job demand (e.g., work intensification vs time pressure), d) a three vs six-factor model with all intensified job demands and traditional demands, e) a one vs three (charisma factor) vs four-factor model for transformational leadership dimensions, and finally e) a five vs 12-factor model with all intensified job demands, traditional job demands, four transformational leadership dimensions, and burnout and work engagement. These comparisons are described in detail below.

**Burnout and work engagement.** A model with all emotional exhaustion and cynicism items loading on a single burnout factor and all vigor, dedication, and absorption items loading on a single engagement factor was compared to a single-factor model with all items loading on it, which had significantly worse fit ( $\Delta\chi^2(1) = 75.58, p < .001$ ; Table 59). However, when this same process was repeated with dimension subscales, there was no longer any difference in fit ( $\Delta\chi^2(1) = 3.65, p = .055$ ) for the one vs two-factor models and the latent correlation jumped from  $-.79$  for the two-factor item-based model to  $-.90$  for the subscale two-factor model. This was likely due in large part to the high ( $r = -.71, p < .001$ ) correlation between the dedication dimension of work engagement and cynicism dimension of burnout.

Table 59

*Discriminant Validity for Burnout and Work Engagement in Pilot Study*

	Burnout & Work Engagement						
	$\chi^2$	df	CFI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta df$
Expected 2-Factor Model	375.38	89	.83	.14	.08	1	75.58
1-Factor Model	450.96	90	.79	.15	.09		

Note. N = 177.

**Intensified job demands.** The following section describes CFA results for each individual intensified job demand in relation to traditional job demands as well as larger models that examine all types of demands together.

**Intensified job insecurity.** Intensified job insecurity was first examined in isolation to better assess the measurement properties of this adapted scale. A one-factor model was compared with a two-factor model consisting of separate dimensions for intensified job-loss insecurity and intensified job-feature insecurity respectively. Results indicated that the two-factor model fit the data better than the one-factor model ( $\Delta\chi^2(1) = 79.76, p < .001$ ). As discussed previously, given the large number of items and the conceptual breadth of the intended

construct, two separate subscales for each sub-dimension were created which all loaded on a single intensified job insecurity factor for all subsequent analyses.

Following these base analyses and parcel creation, discriminant validity was assessed by comparing a one-factor model containing all four intensified job insecurity parcels as well as the three traditional job insecurity items to a two-factor model with both constructs loading on separate factors. The two-factor model fit significantly better than the one-factor model ( $\Delta\chi^2 (1) = 31.41, p < .001$ ; Table 60). On the other hand, the latent correlation ( $r_c = .87$ ) between both intensified job insecurity and traditional job insecurity was high. This finding is discussed in the pilot study Discussion section.

*Intensified decision-making and planning.* A two-factor model with all five IDP items and three job responsibility items loading on separate factors was compared to a one-factor model. Results indicated that the two-factor model fit significantly better than the model with just a single factor ( $\Delta\chi^2 (1) = 98.1, p < .001$ ; Table 60). Additionally, the latent correlation ( $r_c = .56$ ) between the two factors also demonstrated that both constructs were conceptually distinct.

*Work intensification.* Likewise, a two-factor model with all five work intensification items and three time pressure items loading on separate factors was compared to a one-factor model. The two-factor model fit significantly better ( $\Delta\chi^2 (1) = 53, p < .001$ ; Table 60) than the one-factor model and the latent correlation ( $r_c = .67$ ), though high, also provided additional evidence of discriminant validity.

*All intensified job demands.* Additionally, a model was run to compare the fit of a three-factor model containing all intensified job demands items loading on their respective factors with the fit of a single factor model. As previously noted, subscales were used where applicable for these analyses. Results indicated that the three-factor model fit significantly better than the one-factor model ( $\Delta\chi^2 (1) = 223.09, p < .001$ ; Table 60).

Table 60

*Discriminant Validity for Intensified Job Demands in Pilot Study*

<b>Intensified Job Insecurity vs Quantitative Job Insecurity</b>							
	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta df$
Expected 2-Factor Model	77.4	13	.94	.47	.04	31.41	1
1-Factor Model	108.8	14	.91	.20	.05		
<b>IDP vs Responsibility</b>							
Expected 2-Factor Model	17.4	19	1	0	.03	98.1	1
1-Factor Model	115.5	20	.84	.16	.09		
<b>Work Intensification vs Time Pressure</b>							
Expected 2-Factor Model	64.20	19	.92	.12	.06	53	1
1-Factor Model	117.19	20	.83	.17	.08		
<b>All Intensified Job Demands vs Traditional Job Demands</b>							
Expected 6-Factor Model	401.42	215	.92	.07	.07	223.09	12
3-Factor Model	624.51	227	.84	.10	.08		

Note. N = 177.

**Transformational leadership.** Three different models were run and compared in order to assess the discriminant validity of transformational leadership scales: a) a four-factor model with each scale loading on as separate factor, b) a three-factor model with inspirational motivation and idealized influence loading on a single factor, and c) a single-factor model. Model comparison results revealed that the four-factor model had a significantly better fit than the three-factor model ( $\Delta\chi^2(3) = 41.47, p < .001$ ; Table 61), which, in turn, had a better fit than the one-factor model ( $\Delta\chi^2(1) = 428.77, p < .001$ ). However, latent correlations between transformational leadership dimensions were high ( $r_c = .66$  to  $.92$ ; Table 63).

Table 61

*Discriminant Validity for Transformational Leadership in Pilot Study*

	Transformational Leadership						
	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta df$
Expected 4-Factor Model	351.14	129	.93	.10	.05	41.47	3
3-Factor Model	392.61	132	.92	.11	.05	41.47	3
1-Factor Model	821.38	153	.79	.17	.07	428.77	21

Note. N = 177.

**Full model discriminant validity.** Finally, a 12-factor model with items of the three intensified job demands, three traditional job demands, burnout, work engagement, and each transformational leadership dimension loading on their respective factors was compared to both a) a five-factor model with corresponding intensified job demands and traditional demands measures loading on their own factors (three total job demand factors), all transformational leadership scales loading on a single factor, and burnout and work engagement measures loading on a single factor. Consistent with other results, the 12-factor model fit the data better than the five-factor model ( $\Delta\chi^2(56) = 764.51, p < .001$ ; Table 62). Additionally, latent correlations for the 12-factor model are presented in Table 63.

Table 62

*Discriminant Validity for All Study Variables in Pilot Study*

	All Study Variables						
	$\chi^2$	<i>df</i>	CFI	RMSEA	SRMR	$\Delta\chi^2$	$\Delta df$
Expected 12-Factor Model	1525.59	923	.91	.06	.07	764.51	56
5-Factor Model	2290.10	979	.79	.09	.08		

Note. N = 177.

Table 63

*Latent Correlations between Pilot Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Burn												
2. Engage	<b>-.91</b>											
3. IJI	<b>.44</b>	<b>-.17</b>										
4. Insecure	<b>.35</b>	<b>-.21</b>	<b>.87</b>									
5. IDP	.04	.10	<b>.34</b>	<b>.26</b>								
6. Res	.07	.12	<b>.27</b>	<b>.33</b>	<b>.56</b>							
7. WI	<b>.27</b>	-.07	<b>.53</b>	<b>.43</b>	<b>.76</b>	<b>.51</b>						
8. Time	<b>.14</b>	-.05	<b>.23</b>	<b>.24</b>	<b>.33</b>	<b>.44</b>	<b>.67</b>					
9. IM	<b>-.45</b>	<b>.46</b>	<b>-.37</b>	<b>-.24</b>	.01	.12	<b>-.24</b>	<b>-.23</b>				
10. II	<b>-.44</b>	<b>.42</b>	<b>-.37</b>	<b>-.22</b>	-.04	.03	<b>-.27</b>	<b>-.22</b>	<b>.92</b>			
11. IC	<b>-.37</b>	<b>.36</b>	<b>-.39</b>	<b>-.29</b>	-.06	.01	<b>-.29</b>	<b>-.23</b>	<b>.76</b>	<b>.87</b>		
12. IS	<b>-.37</b>	<b>.40</b>	<b>-.24</b>	-.08	.04	<b>.25</b>	-.13	<b>-.16</b>	<b>.88</b>	<b>.83</b>	<b>.66</b>	

Note. Correlations in bold are significant at  $p < .05$ . N=177. Burn = Burnout. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation.

**Full measurement model.** Following the aforementioned series of model comparisons, a model was run with all items for intensified job demands, transformational leadership dimensions, and both burnout and work engagement to examine overall model fit and the reliability of factor loadings. Results showed that the model had acceptable fit ( $\chi^2 (593) = 930.99, p < .001, RMSEA = .06, CI_{90} = (.05, .06), CFI = .94, SRMR = .05$ ) and that the majority of construct indicators performed well. The exceptions were those items/subscales previously mentioned in the reliability section.

**Correlational results.** Correlations between all ratio/ordinal variables included in the pilot are presented in Table 64. It is important to note that with such a small sample size, the pilot study is highly underpowered to detect small effect sizes. Consequently, the magnitude and direction of the correlations are discussed (where applicable) regardless of whether the correlations met the  $p < .05$  threshold. Intensified job insecurity had a moderate, positive relationship with burnout ( $r = .33, p < .001$ ) and a small negative correlation with work engagement ( $r = -.14, p = .061$ ). IDP had a nominal, close-to-zero positive relationship with burnout ( $r = .06, p = .459$ ), but also a small positive relationship with work engagement ( $r = .11, p = .152$ ). Finally, work intensification had a positive relationship with burnout ( $r = .24, p = .001$ ) and a nominal negative relationship with work engagement ( $r = -.04, p = .563$ ). In terms of transformational leadership, in line with research on its role as a job resource (Bass et al., 2016), each dimension was negatively related to burnout ( $r = -.29$  to  $-.37$ ) and positively related to work engagement ( $r = .41$  to  $.34$ ). Furthermore, each dimension of transformational leadership was also negatively related to intensified job insecurity ( $r = -.18$  to  $-.33$ ) and work intensification ( $r = -.11$  to  $-.25$ ), but effects were close to nil for IDP ( $r = -.01$  to  $.04$ ).



Table 64

*Correlations between all Pilot Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Burn													
2. EE	<b>.87</b>												
3. Cyn	<b>.83</b>	<b>.46</b>											
4. Engage	<b>-.66</b>	<b>-.46</b>	<b>-.68</b>										
5. Vig	<b>-.67</b>	<b>-.53</b>	<b>-.62</b>	<b>.93</b>									
6. Ded	<b>-.66</b>	<b>-.43</b>	<b>-.71</b>	<b>.92</b>	<b>.80</b>								
7. Abs	<b>-.48</b>	<b>-.30</b>	<b>-.54</b>	<b>.89</b>	<b>.74</b>	<b>.72</b>							
8. IJI	<b>.33</b>	<b>.25</b>	<b>.32</b>	-.14	-.15	-.15	-.08						
9. IJIJ	<b>.28</b>	<b>.21</b>	<b>.27</b>	-.12	-.12	-.14	-.06	<b>.96</b>					
10. IJIF	<b>.35</b>	<b>.26</b>	<b>.34</b>	-.15	<b>-.16</b>	-.15	-.10	<b>.95</b>	<b>.83</b>				
11. IDP	.06	.10	-.01	.11	.04	.08	<b>.19</b>	<b>.26</b>	<b>.22</b>	<b>.29</b>			
12. WI	<b>.24</b>	<b>.27</b>	.14	-.04	-.08	-.03	-.01	<b>.45</b>	<b>.38</b>	<b>.48</b>	<b>.67</b>		
13. Insecure	<b>.28</b>	<b>.21</b>	<b>.27</b>	<b>-.20</b>	<b>-.18</b>	<b>-.18</b>	<b>-.17</b>	<b>.80</b>	<b>.82</b>	<b>.70</b>	<b>.24</b>	<b>.38</b>	
14. Res	.07	<b>.15</b>	-.05	.15	.07	<b>.18</b>	<b>.16</b>	<b>.19</b>	.15	<b>.22</b>	<b>.46</b>	<b>.42</b>	<b>.27</b>
15. Time	.14	<b>.18</b>	.04	-.02	-.04	-.03	.03	<b>.23</b>	<b>.18</b>	<b>.26</b>	<b>.30</b>	<b>.56</b>	<b>.24</b>
16. TL	<b>-.37</b>	<b>-.32</b>	<b>-.31</b>	<b>.42</b>	<b>.41</b>	<b>.38</b>	<b>.36</b>	<b>-.32</b>	<b>-.26</b>	<b>-.34</b>	.01	<b>-.21</b>	<b>-.23</b>
17. IM	<b>-.35</b>	<b>-.29</b>	<b>-.30</b>	<b>.38</b>	<b>.36</b>	<b>.35</b>	<b>.32</b>	<b>-.29</b>	<b>-.25</b>	<b>-.30</b>	-.04	<b>-.22</b>	<b>-.20</b>
18. II	<b>-.32</b>	<b>-.30</b>	<b>-.24</b>	<b>.34</b>	<b>.33</b>	<b>.29</b>	<b>.31</b>	<b>-.33</b>	<b>-.31</b>	<b>-.32</b>	-.05	<b>-.25</b>	<b>-.28</b>
19. IC	<b>-.29</b>	<b>-.23</b>	<b>-.27</b>	<b>.36</b>	<b>.32</b>	<b>.37</b>	<b>.29</b>	<b>-.18</b>	-.14	<b>-.20</b>	.04	-.11	-.09
20. IS	<b>-.37</b>	<b>-.31</b>	<b>-.31</b>	<b>.41</b>	<b>.39</b>	<b>.38</b>	<b>.36</b>	<b>-.31</b>	<b>-.26</b>	<b>-.32</b>	-.01	<b>-.22</b>	<b>-.22</b>
21. CSE	<b>-.31</b>	<b>-.26</b>	<b>-.26</b>	<b>.28</b>	<b>.30</b>	<b>.20</b>	<b>.26</b>	<b>-.40</b>	<b>-.37</b>	<b>-.40</b>	-.13	<b>-.28</b>	<b>-.37</b>
22. O. Change	<b>.24</b>	<b>.29</b>	.11	-.07	-.11	-.05	-.04	<b>.16</b>	.14	<b>.17</b>	.08	.11	.15
23. Work Hrs.	.06	.09	.00	-.03	-.01	-.02	-.06	-.08	-.11	-.04	.13	<b>.16</b>	-.05
24. Job Ten.	-.05	-.06	-.02	.02	.04	-.02	.03	-.04	-.03	-.04	-.06	.02	-.02
25. Sup. Ten.	-.03	-.03	-.03	-.01	.04	-.06	-.01	-.15	-.14	<b>-.16</b>	-.01	-.02	-.15
26. Org. Ten.	-.10	-.05	-.12	.10	.13	.02	.12	.04	.05	.03	-.03	.00	.03
27. Age	-.10	-.07	-.10	.09	.11	.08	.07	.05	.04	.04	-.05	.04	.04
28. Gender	<b>.16</b>	<b>.25</b>	.01	-.07	-.14	-.06	.01	.02	.01	.02	.00	.01	-.04
29. Race	-.04	-.06	.00	.07	.12	.04	.05	.04	.04	.02	-.08	-.07	.03
30. Marital	-.11	-.06	-.13	.12	.11	.12	.10	-.12	-.10	-.12	.07	.03	-.12
31. Education	-.08	-.09	-.04	.13	.10	.14	.12	.10	.11	.09	<b>.29</b>	<b>.24</b>	.12
32. Sup. Pos.	-.10	-.09	-.08	.10	.03	.12	.14	-.02	.04	-.07	.15	.05	-.01
33. Sector	.09	.09	.06	-.07	-.06	-.03	-.11	-.04	-.04	-.04	-.06	-.06	-.03
34. Contract	-.07	<b>-.16</b>	.05	.04	.09	.04	-.02	.09	.07	.09	-.09	-.03	.09
35. Income	.03	.02	.02	<b>.16</b>	<b>.17</b>	.08	<b>.19</b>	.12	.14	.09	.14	.15	.14

Note. Bolded correlations are significant at  $p < .05$ .  $N = 177$ . EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. Work Intensification. Insecure = Quantitative Job Insecurity. Res = Job Responsibility. Time = Time Pressure. TL = Transformational Leadership. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation. O. Change = Change Event List. Gender 1 = Male, 2 = Female. Race 1 = White 2 = Other. Sup Pos = Supervisor Position (1 = Front-Line Management; 2 = Middle Management; 3 = Upper Management). Sector 1 = Private 2 = Public. Contract 1 = Permanent 2 = Other.

Table 64 Cont.

Variable	14	15	16	17	18	19	20	21	22	23	24	25	26
1. Burn													
2. EE													
3. Cyn													
4. Engage													
5. Vig													
6. Ded													
7. Abs													
8. IJI													
9. IJIJ													
10. IJIF													
11. IDP													
12. WI													
13. Insecure													
14. Res													
15. Time													
16. IM	<b>.38</b>												
17. II	.15	<b>-.17</b>											
18. IC	.06	-.14	<b>.84</b>										
19. IS	.04	<b>-.16</b>	<b>.72</b>	<b>.82</b>									
20. TL	<b>.27</b>	-.09	<b>.81</b>	<b>.75</b>	<b>.62</b>								
21. CSE	.14	<b>-.16</b>	<b>.93</b>	<b>.94</b>	<b>.88</b>	<b>.88</b>							
22. O. Change	.03	<b>-.22</b>	<b>.39</b>	<b>.36</b>	<b>.38</b>	<b>.30</b>	<b>.39</b>						
23. Work Hrs.	.10	.00	-.08	-.06	-.06	.02	-.05	-.11					
24. Job Ten.	<b>.40</b>	<b>.19</b>	-.01	-.06	-.11	.03	-.04	.08	.03				
25. Sup. Ten.	.08	.08	.02	.08	.03	-.03	.03	.15	-.02	.06			
26. Org. Ten.	.04	.07	.09	.12	.06	.01	.08	.15	-.13	.06	<b>.68</b>		
27. Age	.02	.00	-.06	-.02	-.04	-.08	-.05	.05	.05	.02	<b>.45</b>	<b>.21</b>	
28. Gender	.10	.10	-.03	-.06	-.09	-.09	-.07	.08	-.03	-.05	<b>.61</b>	<b>.33</b>	<b>.35</b>
29. Race	.00	-.01	-.08	-.05	-.08	-.07	-.08	.00	.13	-.05	.05	-.04	.07
30. Marital	-.15	-.06	.05	.10	.07	.08	.08	.04	-.06	-.06	-.10	-.02	-.12
31. Education	.08	.01	-.02	-.09	-.08	-.06	-.07	.06	.05	.14	<b>.25</b>	<b>.18</b>	<b>.31</b>
32. Sup. Pos.	<b>.21</b>	.04	.08	.06	.06	.03	.06	.07	.04	.00	.02	.00	.06
33. Sector	.04	-.05	-.03	-.07	-.02	-.03	-.04	-.06	-.01	.09	-.06	.05	.09
34. Contract	.00	-.09	.00	.05	.00	.11	.04	-.02	.19	.04	-.06	-.13	.03
35. Income	.01	-.03	.04	.07	.07	.02	.06	-.10	-.17	-.12	-.13	-.02	-.10

Note. Bolded correlations are significant at  $p < .05$ .  $N = 177$ . EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. Work Intensification. Insecure = Quantitative Job Insecurity. Res = Job Responsibility. Time = Time Pressure. TL = Transformational Leadership. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation. O. Change = Change Event List. Gender 1 = Male, 2 = Female. Race 1 = White 2 = Other. Sup Pos = Supervisor Position (1 = Front-Line Management; 2 = Middle Management; 3 = Upper Management). Sector 1 = Private 2 = Public. Contract 1 = Permanent 2 = Other.

Table 64 Cont.

Variable	27	28	29	30	31	32	33	34	35
1. Burnout									
2. EE									
3. Cyn									
4. Engage									
5. Vig									
6. Ded									
7. Abs									
8. IJI									
9. IJIJ									
10. IJIF									
11. IDP									
12. WI									
13. Insecure									
14. Res									
15. Time									
16. IM									
17. II									
18. IC									
19. IS									
20. TL									
21. CSE									
22. O. Change									
23. Work Hrs.									
24. Job Ten.									
25. Sup. Ten.									
26. Org. Ten.									
27. Age									
28. Gender	.03								
29. Race	<b>-.18</b>	-.10							
30. Marital	<b>.27</b>	.02	<b>-.16</b>						
31. Education	.00	.00	<b>.16</b>	.01					
32. Sup. Pos.	-.08	-.03	<b>-.18</b>	.10	<b>.19</b>				
33. Sector	-.01	.21	.03	.02	.03	-.08			
34. Contract	-.08	-.13	.17	<b>-.20</b>	.10	.06	<b>.19</b>		
35. Income	<b>.17</b>	-.15	.13	<b>.24</b>	<b>.33</b>	.11	.09	.01	

Note. Bolded correlations are significant at  $p < .05$ .  $N = 177$ . EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. Work Intensification. Insecure = Quantitative Job Insecurity. Res = Job Responsibility. Time = Time Pressure. TL = Transformational Leadership. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation. O. Change = Change Event List. Gender 1 = Male, 2 = Female. Race 1 = White 2 = Other. Sup Pos = Supervisor Position (1 = Front-Line Management; 2 = Middle Management; 3 = Upper Management). Sector 1 = Private 2 = Public. Contract 1 = Permanent 2 = Other.

**Incremental validity.** Incremental validity was assessed by running a series of hierarchical regressions to determine to what extent intensified job demands predicted burnout and work engagement over and above each respective traditional job demand. Hierarchical regressions were run by first a) regressing burnout and work engagement on the traditional job demand that putatively corresponds to each intensified job demand and then b) regressing both outcomes on both the traditional job demand and intensified job demand. The direction, magnitude, and significance of the regression coefficients as well as the change in the coefficient of determination were assessed. Table 65 and Table 66 summarize these results for burnout and work engagement respectively. Briefly, intensified job insecurity predicted burnout over and above traditional job insecurity ( $\Delta R^2 = .03$ ), IDP did not predict either outcome above and beyond responsibility (note, however, that responsibility also did not significantly predict either outcome), and work intensification explained additional variance in burnout ( $\Delta R^2 = .04$ ), but not in work engagement above and beyond time pressure.

Table 65

*Hierarchical Results for Intensified Job Demands Predicting Burnout Over and Above Traditional Job Demands in Pilot Study*

	Burnout	
	Step 1	Step 2
	$\beta$	$\beta$
Job Insecurity (T1)	.28**	.04
Intensified Job Insecurity (T1)		.30**
	$R^2 = .078$	$R^2 = .110, \Delta R^2 = .032$
Responsibility (T1)	.07	.05
IDP (T1)		.03
	$R^2 = .004$	$R^2 = .005, \Delta R^2 = .001$
Time Pressure (T1)	.14	.00
Work Intensification (T1)		.24*
	$R^2 = .02$	$R^2 = .06, \Delta R^2 = .04$

Note. \* =  $p < .05$ . N = 177. IDP = Intensified Decision-Making and Planning.

Table 66

*Hierarchical Results for Intensified Job Demands Predicting Work Engagement Over and Above Traditional Job Demands in Pilot Study*

Work Engagement		
	Step 1	Step 2
	$\beta$	$\beta$
Job Insecurity (T1)	-.20*	-.23*
Intensified Job Insecurity (T1)		.04
	$R^2 = .038$	$R^2 = .039, \Delta R^2 = .001$
Responsibility (T1)	.15*	.13
IDP (T1)		.05
	$R^2 = .023$	$R^2 = .024, \Delta R^2 = .001$
Time Pressure (T1)	-.02	.00
Work Intensification (T1)		-.05
	$R^2 = .000$	$R^2 = .002, \Delta R^2 = .002$

Note. \* =  $p < .05$ . N = 177. IDP = Intensified Decision-Making and Planning.

**Construct validity.** Finally, correlations were run for both intensified job demands and traditional job demands with each specific type of organizational change (see Table 67). Although most of the effect sizes were not significant due to the small sample size, examining differences in correlations between intensified job demands and traditional job demands painted a promising picture. In particular, intensified job demands tended to be more strongly related to organizational changes over the past 12 months than traditional job demands. Most notable was the relationship between “hostile takeover from another business” and intensified job insecurity ( $r = .17, p = .026$ ) compared to traditional job insecurity ( $r = .10, p = .193$ ) and “job description change/job redesign” and work intensification ( $r = .14, p = .058$ ) compared to time pressure ( $r = -.05, p = .473$ ). On the other hand “unsatisfactory organizational performance” was more closely related to traditional job insecurity ( $r = .28, p < .001$ ) than intensified job insecurity ( $r = .22, p = .003$ ). Nonetheless, taken together, these results suggest employees who reported specific major workplace changes tended to report higher levels of intensified job demands compared to more traditional job demands.

Table 67

*Correlations between Organizational Changes with Intensified Job Demands and Traditional Job Demands in Pilot Study*

Variable	IJI	Insecure	IDP	Res.	WI	Time
Downsizing/layoffs	<b>.21</b>	<b>.17</b>	.05	-.05	.08	-.01
Hiring of new employees	.00	-.07	.06	.02	.07	.01
Internal organizational restructuring	.12	.09	.11	.15	.07	-.02
Friendly merger/acquisition with another business	.14	.08	.01	-.06	.06	-.07
Hostile takeover from another business	<b>.17</b>	.10	-.09	-.07	.01	-.10
New technology implementation	-.06	-.06	.00	.06	-.06	.06
Launch of new product or service	-.08	-.05	.07	.06	-.03	-.03
Job description change/job redesign	<b>.19</b>	.13	.14	.09	.14	-.05
Major changes to work processes	.07	.11	.13	.09	.05	-.03
New ownership/top management	.04	.04	.01	<b>.16</b>	.04	-.01
New supervisor	.03	.02	-.08	.02	-.01	.00
New work policies and procedures	.08	.05	.07	-.01	.02	-.01
New training initiative	.06	.13	.01	.04	.05	-.03
Unsatisfactory organizational performance	<b>.22</b>	<b>.27</b>	.04	.08	.14	.15
Increased threat of competition from other businesses	<b>.23</b>	.15	.00	-.03	.09	.06
Loss of important contract or customers	<b>.23</b>	<b>.17</b>	.08	<b>.21</b>	<b>.22</b>	.13
Unwanted publicity	-.13	-.04	-.08	-.04	-.05	-.12
Lawsuit or regulatory action	-.07	-.08	-.05	-.04	-.15	-.14
Safety accident	-.04	-.03	-.06	-.03	.03	.06
Workplace abuse/aggression	.01	.05	.03	.03	.11	.11
Workplace discrimination	-.09	.10	-.01	.14	.05	.07
Other	-.08	-.09	.03	-.04	-.10	-.06

*Note.* Correlations in bold are significant at  $p < .05$ .  $N = 177$ . IJI = Intensified Job Insecurity. Insecure = Traditional Job Insecurity. IDP = Intensified Decision-Making and Planning. Res = Job Responsibility. WI = Work Intensification. Time = Time Pressure.

## Discussion

Overall, the pilot study provided a number of informative results. First, and perhaps most importantly, it appears the adapted measures of intensified job insecurity, IDP, and work intensification are for the most part reliable and valid. In terms of the latter, intensified job insecurity was positively related to burnout and negatively related to work engagement which provides preliminary evidence of its role of a hindrance demand (Crawford et al., 2010). Work intensification was also positively related to burnout, but unrelated to work engagement at the bivariate level. This suggests it acts as a job demand, but cannot clearly be categorized as either a hindrance or challenge yet. Moreover, both intensified job insecurity and work intensification incrementally predicted burnout above and beyond quantitative job insecurity and time pressure respectively. IDP did not significantly correlate with either outcome, but the form of its relationship with work engagement was positive ( $r = .11$ ,  $p = .152$ ) providing some evidence of its role as a potential challenge demand. The sign and direction of relationships between intensified job demands and reported organizational changes also mirrored theoretical expectations (e.g., IDP and job redesign) providing additional, tentative evidence of convergent validity.

Further, in every instance, CFA results suggested participants could discriminate between intensified job demands and their traditional counterparts. This is notable given the small sample size as for chi-square difference tests this actually makes it *more difficult* to reject the null hypothesis of no difference (Kline, 2011). Both internal consistency reliability for the intensified job demand scales and item loadings were also high. The exception was a single intensified job-feature insecurity item (IJIF1), a single work intensification item (WI3), and two IDP items (IDP4, IDP5) that were only marginally below acceptable reliability ( $\beta = .67$  to  $.69$ ). Consequently, it was determined that these findings did not warrant any major changes to the intensified job demand measures.

In fact, only two minor changes were made to the intensified job insecurity scale based on the assumption that the lower factor loadings for the intensified job insecurity items that began with “felt” as opposed to “thought” were due to this difference in wording. Thus, these items were altered for the full study to start with “thought” so that “felt the number of hours my company could offer me was uncertain” became “thought the number of hours my company could offer me was uncertain.” No alterations were made to the work intensification scale as it has been used in past research and due to the preliminary nature of the pilot study results.

In terms of the measurement properties of transformational leadership, the high dimensional inter-correlations were concerning, but unfortunately there are few remedies available as other transformational leadership scales (e.g., Avolio & Bass, 2004; Rafferty & Griffiin, 2004; Pearce & Sims, 2002) also have reported high, if not higher, inter-correlations. Still, it is important to acknowledge that the pilot survey was structured so that like constructs were all presented within a single Qualtrics page with only the order of the items randomized (e.g., all transformational leadership items on a page, all intensified job demands on a page, etc.). Podsakoff et al. (2012) note that correlations between contiguously presented scales are often substantially higher than those with greater distance.

Consequently, for the main study, constructs were separated into homogenous groupings of items which were then displayed randomly to survey respondents. In particular, each dimension of transformational leadership was considered its own scale and presented randomly throughout the survey. This ensured carryover effects would be minimized while also maintaining internal consistency (Podsakoff et al., 2012). Additionally, although the two

idealized influence items taken from Pearce and Sims (2002) were acceptable by conventional standards, their loadings were lower than items from the Podsakoff et al. (1990) scale and item-level statistics indicated internal consistency would not suffer if they were dropped.

Accordingly, these two items were replaced by a single item from Rich (1997), “my leader exhibits the kind of work ethic and behavior that others try to imitate”, which is more similar in content to the other three Podsakoff et al. (1990) items.

The most concerning result of the pilot study was the high observed ( $r = -.66$ ), and very high latent ( $r_c = -.91$ ), correlation between burnout and work engagement. This may mean that as measured in the pilot study, these constructs are polar opposites with only the wording reversed (Gonzalez-Roma et al., 2006). Another reason for this may be the fact that the emotional exhaustion subscale had a poor loading on the overall burnout factor and that the cynicism subscale had particularly high correlations with work engagement ( $r = -.68$ ) and in particular dedication ( $r = -.71$ ). This is consistent with past research that has examined the independency of the two constructs and found that cynicism, frequently measured as disengagement (Demerouti, Mostert, & Bakker, 2010), could not be meaningfully distinguished from the dedication dimension of work engagement (Demerouti et al., 2006; Gonzalez-Roma et al., 2006). Because many of the full study’s hypotheses predict differential relationships between intensified job demands and burnout and work engagement, the fact that the two constructs may be the same would mean predicted relationships would only differ in regards to the direction of the sign. Thus, for the full study, the cynicism items were replaced with more traditional, depersonalization items from the original MBI which referred to “people” as opposed to the human-service specific term “patients.”

Lastly, the procedure was changed so that a) the screener survey provided a different, larger (1-99999) range of numbers for those who qualified as opposed to those who did not, b) respondents were also asked to enter their MTurk ID along with the randomized completion code for the T1 survey, and c) an additional data quality check was added. In terms of the latter, data quality checks were also revised to be more straight forward and clear so as to clearly indicate those participants who were not paying attention. The rationale behind this was in part due to the relatively large number of participants who failed at least one attention check (18%). Although other studies have reported similar findings when using MTurk data (Fleischer, Mead, & Huang, 2015), it is not inconceivable that the deliberate attempt to disguise these items and the specific wording may have also played a role potentially serving to confuse participants who were, in fact, actively paying attention.



## APPENDIX B

## ADDITIONAL DIMENSIONAL INTERACTIONS

Table 68

*Hierarchical Moderation Results for Burnout on Intensified Job Insecurity by Inspirational Motivation*

Burnout on IJI X IM				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.37		3.43	
Organizational Change	.06	.11*	.07	.12*
CSE	-.42	-.29**	-.40	-.28**
Negative Affectivity	.54	.22**	.58	.24**
Intensified Job Insecurity	.09	.09	.09	.09
Inspirational Motivation	-.30	-.28**	-.32	-.29**
Interaction			.08	.11*
	$R^2$ (Step 1) = .520		$R^2$ (Step 2) = .531, $\Delta R^2 = .011$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IM = Inspirational Motivation. CSE = Core Self-Evaluations

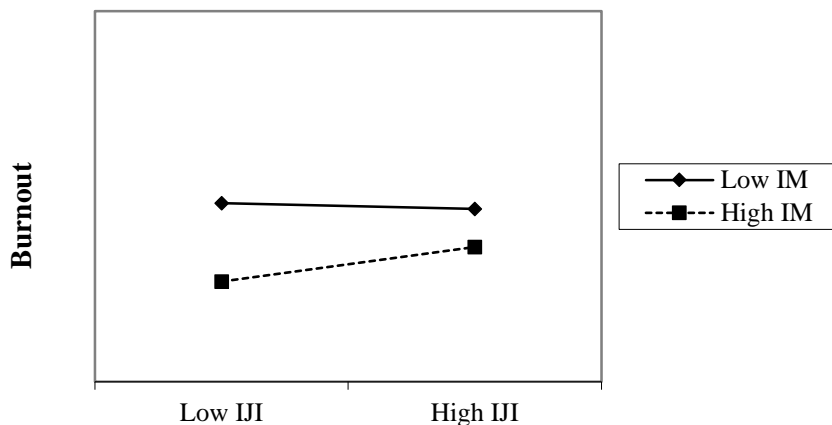


Figure 18. Simple slope figure depicting the effect of intensified job insecurity on burnout at high and low levels of inspirational motivation. IJI = Intensified Job Insecurity. IM = Inspirational Motivation.

Table 69

*Simple Slopes for Burnout Regressed on Intensified Job Insecurity at Different Values of Inspirational Motivation*

<b>IJI at High and Low Levels of IM</b>				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	-.03	-.03	.06	(-.15, .09)
At Mean	.06	.06	.04	(-.02, .14)
+1 SD Above Mean	.14	.13*	.05	(.04, .24)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IM = Inspirational Motivation.

Table 70

*Hierarchical Moderation Results for Burnout on Intensified Job Insecurity by Inspirational Motivation*

<b>Work Engagement on IJI X IM</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.56		4.49	
Organizational Change	.03	.06	.02	.04
CSE	.42	.33**	.40	.32*
Negative Affectivity	.02	.01	-.03	-.02
Intensified Job Insecurity	-.03	-.03	-.03	-.03
Inspirational Motivation	.40	.42**	.42	.43**
Interaction			-.08	-.13*
	$R^2_{(\text{Step 1})} = .398$		$R^2_{(\text{Step 2})} = .413, \Delta R^2 = .015$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IM = Inspirational Motivation. CSE = Core Self-Evaluations

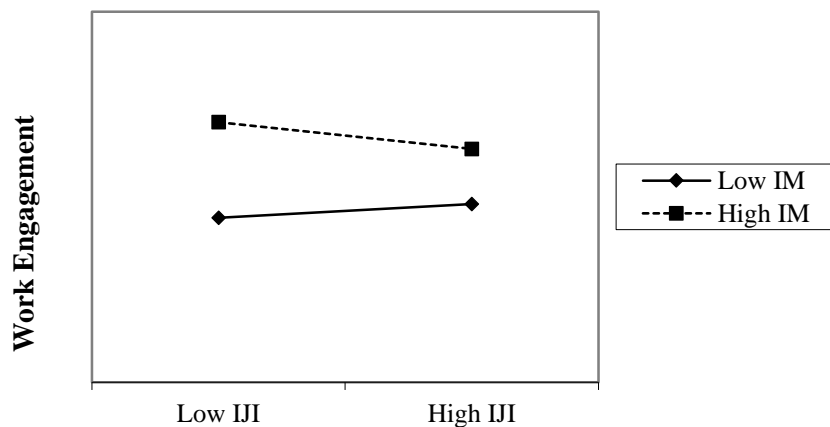


Figure 19. Simple slope figure depicting the effect of intensified job insecurity on work engagement at high and low levels of inspirational motivation. IJI = Intensified Job Insecurity. IM = Inspirational Motivation.

Table 71

*Simple Slopes for Work Engagement Regressed on Intensified Job Insecurity at Different Values of Inspirational Motivation*

IJI at High and Low Levels of IM				
	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.06	.06	.06	(-.06, .18)
At Mean	-.03	-.03	.04	(-.11, .05)
+1 SD Above Mean	-.11	-.10*	.05	(-.21, -.01)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. IM = Inspirational Motivation.

Table 72

*Hierarchical Moderation Results for Burnout on Work Intensification by Idealized Influence*

<b>Burnout on WI X II</b>				
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	3.34		3.37	
Organizational Change	.05	.08*	.05	.09*
CSE	-.42	-.29**	-.42	-.29**
Negative Affectivity	.52	.21**	.54	.23**
Work Intensification	.15	.14**	.15	.14**
Idealized Influence	-.27	-.29**	-.29	-.30**
Interaction			.05	.09*
		$R^2_{(Step\ 1)} = .529$	$R^2_{(Step\ 2)} = .537, \Delta R^2 = .008$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. II = Idealized Influence. CSE = Core Self-Evaluations

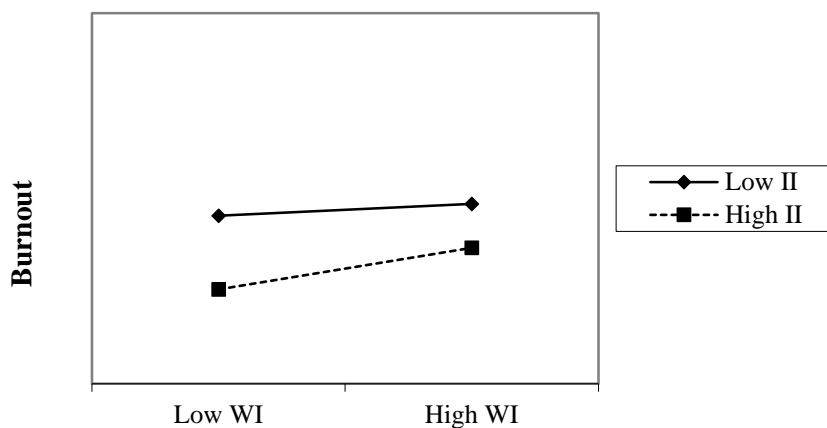


Figure 20. Simple slope figure depicting the effect of work intensification on burnout at high and low levels of idealized influence. WI = Work Intensification. II = Idealized Influence.

Table 73

*Simple Slopes for Burnout Regressed on Work Intensification at Different Values of Idealized Influence*

	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.07	.07	.05	(-.03, .17)
At Mean	.14	.15*	.04	(.06, .22)
+1 SD Above Mean	.23	.24*	.05	(.13, .33)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. II = Idealized Influence.

Table 74

*Hierarchical Moderation Results for Work Engagement on Work Intensification by Idealized Influence*

	<b>Work Engagement on WI X II</b>			
	Step 1		Step 2	
	B	$\beta$	B	$\beta$
Intercept	4.58		4.55	
Organizational Change	-.01	-.01	-.01	-.02
CSE	.52	.41**	.52	.41**
Negative Affectivity	-.04	-.02	-.06	-.03
Work Intensification	.12	.13**	.12	.13**
Idealized Influence	.25	.30**	.26	.31**
Interaction			-.04	-.08*
	$R^2_{(Step 1)} = .326$		$R^2_{(Step 2)} = .332, \Delta R^2 = .006$	

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. II = Idealized Influence. CSE = Core Self-Evaluations

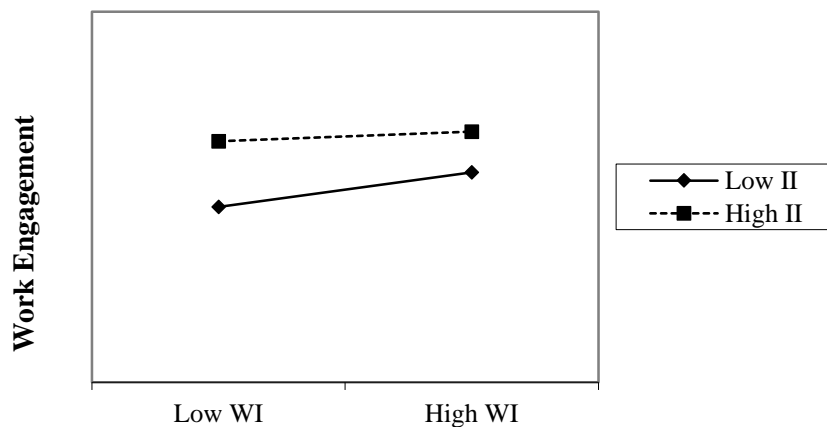


Figure 21. Simple slope figure depicting the effect of work intensification on work engagement at high and low levels of idealized influence. WI = Work Intensification. II = Idealized Influence.

Table 75

*Simple Slopes for Work Engagement Regressed on Work Intensification at Different Values of Idealized Influence*

	B	$\beta$	SE	95% CI for B
-1 SD Below Mean	.19	.22**	.06	(.07, .31)
At Mean	.12	.14*	.04	(.04, .20)
+1 SD Above Mean	.05	.06	.06	(-.07, .17)

Note. \*\* =  $p < .001$ . \* =  $p < .05$ . N = 443. WI = Work Intensification. II = Idealized Influence.

## APPENDIX C

## ITEM-LEVEL PROPERTIES OF INTENSIFIED JOB DEMANDS

Table 76

*Item-Level Statistics for Intensified Job Demands at T1*

	Time 1		Full Scale		Sub-Scale	
	M	SD	CITC	$\alpha$ if item deleted	CITC	$\alpha$ if item deleted
<i>Intensified Job Insecurity (<math>\alpha = .91</math>)</i>						
<i>Job-Loss (<math>\alpha = .90</math>)</i>						
Thought about the likelihood of being laid-off permanently (IJI1)	2.48	1.94	.74	.90	.85	.85
Thought about the likelihood of being laid-off for a short while (IJI2)	2.33	1.71	.70	.90	.73	.90
Thought about the likelihood of losing my job (IJI3)	2.75	1.98	.76	.89	.83	.86
Thought my future with this organization was uncertain (IJI4)	3.17	2.16	.73	.90	.75	.89
<i>Job-Feature (<math>\alpha = .87</math>)</i>						
Thought the number of hours my company could offer me was uncertain (IJI1)	2.50	1.85	.58	.91	.60	.88
Thought about the likelihood of unfavorable changes to my job (IJI2)	3.54	2.14	.71	.90	.72	.83
Thought about the possibility that the rewards of my job would diminish (IJI3)	3.23	2.08	.74	.90	.79	.80
Thought about the possibility that I might lose many of the features of my job that I valued the most (IJI4)	2.98	1.96	.71	.90	.77	.81
<i>Intensified Decision-Making and Planning (<math>\alpha = .93</math>)</i>						
It has become increasingly necessary to plan the workflow (activities, appointments, breaks, etc.) by myself (IDP1)	4.04	1.71	.83	.91		
I have had to increasingly determine by myself how to do the work (IDP2)	4.13	1.77	.83	.91		
I have had to increasingly determine the sequence of activities by myself (IDP3)	4.12	1.64	.86	.90		
I have had to more often make decisions without consultation with supervisors (IDP4)	4.12	1.66	.78	.92		
I have had to more often check by myself whether work goals have been met (IDP5)	4.05	1.72	.76	.92		
<i>Work Intensification (<math>\alpha = .88</math>)</i>						
It has been increasingly rare for me to have enough time for work tasks (WI1)	3.24	1.73	.80	.84		
It has been increasingly harder for me to take time for breaks (WI2)	3.47	1.86	.78	.84		
The time between the more intense work phases has decreased (WI3)	3.49	1.63	.55	.89		
I have had to do two or three things at once more often (such as eating lunch, writing emails, and talking on the phone) (WI4)	4.21	1.88	.68	.87		
I have had to increasingly complete more work with fewer resources (WI5)	3.38	1.82	.78	.84		

Note. CTIC = Corrected Item-Total Correlation. N = 443.

Table 77

*Item-Level Statistics for Intensified Job Demands at T2*

	Time 2		Full Scale		Sub-Scale	
	M	SD	CITC	$\alpha$ if item deleted	CITC	$\alpha$ if item deleted
<i>Intensified Job Insecurity T2 (<math>\alpha = .92</math>)</i>						
<i>Job-Loss T2 (<math>\alpha = .92</math>)</i>						
Thought about the likelihood of being laid-off permanently (IJIJ1)	2.59	1.96	.79	.90	.87	.87
Thought about the likelihood of being laid-off for a short while (IJIJ2)	2.47	1.84	.74	.91	.79	.90
Thought about the likelihood of losing my job (IJIJ3)	2.88	2.08	.82	.90	.89	.86
Thought my future with this organization was uncertain (IJIJ4)	3.27	2.15	.72	.91	.70	.93
<i>Job-Feature T2 (<math>\alpha = .87</math>)</i>						
Thought the number of hours my company could offer me was uncertain (IJIJF1)	2.61	1.91	.61	.92	.54	.89
Thought about the likelihood of unfavorable changes to my job (IJIJF2)	3.64	2.17	.74	.91	.75	.81
Thought about the possibility that the rewards of my job would diminish (IJIJF3)	3.37	2.11	.74	.91	.80	.79
Thought about the possibility that I might lose many of the features of my job that I valued the most (IJIJF4)	3.09	1.97	.71	.91	.78	.80
<i>Intensified Decision-Making and Planning T2 (<math>\alpha = .94</math>)</i>						
It has become increasingly necessary to plan the workflow (activities, appointments, breaks, etc.) by myself (IDP1)	4.07	1.73	.83	.92		
I have had to increasingly determine by myself how to do the work (IDP2)	4.06	1.72	.82	.92		
I have had to increasingly determine the sequence of activities by myself (IDP3)	4.11	1.64	.86	.91		
I have had to more often make decisions without consultation with supervisors (IDP4)	4.15	1.69	.79	.93		
I have had to more often check by myself whether work goals have been met (IDP5)	3.96	1.76	.84	.92		
<i>Work Intensification T2 (<math>\alpha = .88</math>)</i>						
It has been increasingly rare for me to have enough time for work tasks (WI1)	3.35	1.75	.80	.85		
It has been increasingly harder for me to take time for breaks (WI2)	3.59	1.84	.80	.85		
The time between the more intense work phases has decreased (WI3)	3.60	1.64	.65	.89		
I have had to do two or three things at once more often (such as eating lunch, writing emails, and talking on the phone) (WI4)	4.25	1.86	.71	.88		
I have had to increasingly complete more work with fewer resources (WI5)	3.46	1.75	.73	.87		

Note. CITC = Corrected Item-Total Correlation. N = 443.



## APPENDIX D

### LATENT CORRELATIONS

Table 78

*Latent Correlations between T1 Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Burnout (T1)												
2. Engage (T1)	<b>-.68</b>											
3. IJI (T1)	<b>.58</b>	<b>-.38</b>										
4. Insecure (T1)	<b>.52</b>	<b>-.32</b>	<b>.85</b>									
5. IDP (T1)	<b>.28</b>	-.03	<b>.25</b>	<b>.28</b>								
6. Res (T1)	<b>.19</b>	<b>.16</b>	<b>.15</b>	<b>.43</b>	<b>.43</b>							
7. WI (T1)	<b>.63</b>	<b>-.17</b>	<b>.43</b>	<b>.43</b>	<b>.52</b>	<b>.46</b>						
8. Time (T1)	<b>.55</b>	<b>-.10</b>	<b>.35</b>	<b>.35</b>	<b>.35</b>	<b>.50</b>	<b>.82</b>					
9. II (T1)	<b>-.54</b>	<b>.50</b>	<b>-.42</b>	<b>-.33</b>	<b>-.14</b>	-.02	<b>-.30</b>	<b>-.21</b>				
10. IM (T1)	<b>-.53</b>	<b>.63</b>	<b>-.41</b>	<b>-.32</b>	-.08	.09	<b>-.24</b>	<b>-.12</b>	<b>.77</b>			
11. IS (T1)	<b>-.38</b>	<b>.57</b>	<b>-.27</b>	<b>-.20</b>	.00	<b>.19</b>	-.07	.02	<b>.63</b>	<b>.75</b>		
12. IC (T1)	<b>-.55</b>	<b>.44</b>	<b>-.44</b>	<b>-.39</b>	<b>-.17</b>	-.05	<b>-.39</b>	<b>-.28</b>	<b>.77</b>	<b>.70</b>	<b>.58</b>	

*Note.* Correlations in bold are significant at  $p < .05$ . N=443. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. IM = II = Idealized Influence. Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration.

Table 79

*Latent Correlations between T2 Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Burnout (T2)												
2. Engage (T2)	<b>-.71</b>											
3. IJI (T2)	<b>.60</b>	<b>-.38</b>										
4. Insecure (T2)	<b>.51</b>	<b>-.36</b>	<b>.87</b>									
5. IDP (T2)	<b>.33</b>	-.07	<b>.29</b>	<b>.26</b>								
6. Res (T2)	<b>.21</b>	<b>.16</b>	<b>.20</b>	<b>.19</b>	<b>.35</b>							
7. WI (T2)	<b>.57</b>	<b>-.13</b>	<b>.47</b>	<b>.42</b>	<b>.50</b>	<b>.47</b>						
8. Time (T2)	<b>.54</b>	-.09	<b>.43</b>	<b>.36</b>	<b>.37</b>	<b>.54</b>	<b>.85</b>					
9. IM (T2)	<b>-.55</b>	<b>.64</b>	<b>-.31</b>	<b>-.34</b>	<b>-.14</b>	.07	<b>-.13</b>	<b>-.11</b>				
10. II (T2)	<b>-.57</b>	<b>.53</b>	<b>-.41</b>	<b>-.39</b>	<b>-.20</b>	-.02	<b>-.25</b>	<b>-.20</b>	<b>.79</b>			
11. IC (T2)	<b>-.56</b>	<b>.48</b>	<b>-.41</b>	<b>-.39</b>	<b>-.20</b>	-.06	<b>-.32</b>	<b>-.28</b>	<b>.78</b>	<b>.78</b>		
12. IS (T2)	<b>-.37</b>	<b>.55</b>	<b>-.18</b>	<b>-.19</b>	-.02	<b>.17</b>	-.02	-.04	<b>.71</b>	<b>.61</b>	<b>.58</b>	

*Note.* Correlations in bold are significant at  $p < .05$ . N=443. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJIJ = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation.

## APPENDIX E

## BURNOUT AND WORK ENGAGEMENT SUB-DIMENSION CORRELATIONS

Table 80

*Burnout and Work Engagement Sub-Dimension Correlations*

Variable	EE (T1)	CYN (T1)	VIG (T1)	DED (T1)	ABS (T1)	EE (T2)	CYN (T2)	VIG (T2)	DED (T2)	ABS (T2)
1. EE (T1)										
2. Cyn (T1)	<b>.75</b>									
3. Vig (T1)	<b>-.55</b>	<b>-.59</b>								
4. Ded (T1)	<b>-.53</b>	<b>-.61</b>	<b>.86</b>							
5. Abs (T1)	<b>-.33</b>	<b>-.45</b>	<b>.76</b>	<b>.78</b>						
6. IJI (T1)	<b>.47</b>	<b>.53</b>	<b>-.34</b>	<b>-.34</b>	<b>-.23</b>	<b>.43</b>	<b>.45</b>	<b>-.36</b>	<b>-.34</b>	<b>-.26</b>
7. IJII (T1)	<b>.40</b>	<b>.45</b>	<b>-.33</b>	<b>-.33</b>	<b>-.21</b>	<b>.38</b>	<b>.40</b>	<b>-.36</b>	<b>-.35</b>	<b>-.27</b>
8. IJIF (T1)	<b>.46</b>	<b>.51</b>	<b>-.28</b>	<b>-.29</b>	<b>-.21</b>	<b>.41</b>	<b>.42</b>	<b>-.29</b>	<b>-.27</b>	<b>-.21</b>
9. IDP (T1)	<b>.26</b>	<b>.23</b>	<b>-.05</b>	<b>-.03</b>	<b>.00</b>	<b>.21</b>	<b>.16</b>	<b>-.08</b>	<b>-.02</b>	<b>-.01</b>
10. WI (T1)	<b>.56</b>	<b>.47</b>	<b>-.17</b>	<b>-.15</b>	<b>-.01</b>	<b>.47</b>	<b>.35</b>	<b>-.18</b>	<b>-.12</b>	<b>.00</b>
11. Insecure (T1)	<b>.43</b>	<b>.46</b>	<b>-.32</b>	<b>-.31</b>	<b>-.23</b>	<b>.41</b>	<b>.41</b>	<b>-.36</b>	<b>-.32</b>	<b>-.25</b>
12. Res (T1)	<b>.17</b>	<b>.13</b>	<b>.08</b>	<b>.15</b>	<b>.13</b>	<b>.14</b>	<b>.08</b>	<b>.07</b>	<b>.13</b>	<b>.13</b>
13. Time (T1)	<b>.46</b>	<b>.30</b>	<b>-.03</b>	<b>-.03</b>	<b>.09</b>	<b>.40</b>	<b>.24</b>	<b>-.04</b>	<b>.00</b>	<b>.11</b>
14. II (T1)	<b>-.46</b>	<b>-.44</b>	<b>.49</b>	<b>.44</b>	<b>.37</b>	<b>-.51</b>	<b>-.46</b>	<b>.45</b>	<b>.42</b>	<b>.32</b>
15. IM (T1)	<b>-.45</b>	<b>-.46</b>	<b>.57</b>	<b>.56</b>	<b>.49</b>	<b>-.49</b>	<b>-.49</b>	<b>.45</b>	<b>.43</b>	<b>.35</b>
16. IS (T1)	<b>-.32</b>	<b>-.31</b>	<b>.53</b>	<b>.51</b>	<b>.43</b>	<b>-.52</b>	<b>-.51</b>	<b>.56</b>	<b>.54</b>	<b>.44</b>
17. IC (T1)	<b>-.49</b>	<b>-.45</b>	<b>.42</b>	<b>.40</b>	<b>.32</b>	<b>-.33</b>	<b>-.35</b>	<b>.49</b>	<b>.48</b>	<b>.42</b>
18. TL (T1)	<b>-.50</b>	<b>-.48</b>	<b>.58</b>	<b>.55</b>	<b>.46</b>	<b>-.47</b>	<b>-.47</b>	<b>.55</b>	<b>.54</b>	<b>.43</b>
19. CSE (T1)	<b>-.60</b>	<b>-.59</b>	<b>.54</b>	<b>.49</b>	<b>.38</b>	<b>-.56</b>	<b>-.51</b>	<b>.53</b>	<b>.48</b>	<b>.37</b>
20. O. Change (T1)	<b>.36</b>	<b>.31</b>	<b>-.17</b>	<b>-.16</b>	<b>.00</b>	<b>.33</b>	<b>.26</b>	<b>-.16</b>	<b>-.11</b>	<b>-.04</b>
21. IJI (T2)	<b>.42</b>	<b>.44</b>	<b>-.24</b>	<b>-.23</b>	<b>-.14</b>	<b>.53</b>	<b>.49</b>	<b>-.38</b>	<b>-.33</b>	<b>-.26</b>
22. IJII (T2)	<b>.34</b>	<b>.38</b>	<b>-.20</b>	<b>-.20</b>	<b>-.12</b>	<b>.45</b>	<b>.43</b>	<b>-.34</b>	<b>-.31</b>	<b>-.23</b>
23. IJIF (T2)	<b>.43</b>	<b>.43</b>	<b>-.23</b>	<b>-.22</b>	<b>-.13</b>	<b>.53</b>	<b>.47</b>	<b>-.36</b>	<b>-.31</b>	<b>-.24</b>
24. IDP (T2)	<b>.29</b>	<b>.23</b>	<b>-.07</b>	<b>-.05</b>	<b>-.01</b>	<b>.30</b>	<b>.25</b>	<b>-.11</b>	<b>-.05</b>	<b>.02</b>
25. WI (T2)	<b>.47</b>	<b>.38</b>	<b>-.16</b>	<b>-.13</b>	<b>-.05</b>	<b>.52</b>	<b>.37</b>	<b>-.17</b>	<b>-.10</b>	<b>.00</b>
26. Insecure (T2)	<b>.37</b>	<b>.41</b>	<b>-.28</b>	<b>-.25</b>	<b>-.21</b>	<b>.44</b>	<b>.43</b>	<b>-.38</b>	<b>-.30</b>	<b>-.28</b>
27. Res (T2)	<b>.18</b>	<b>.11</b>	<b>.09</b>	<b>.12</b>	<b>.16</b>	<b>.19</b>	<b>.09</b>	<b>.09</b>	<b>.17</b>	<b>.20</b>
28. Time (T2)	<b>.44</b>	<b>.27</b>	<b>-.06</b>	<b>-.04</b>	<b>.10</b>	<b>.46</b>	<b>.25</b>	<b>-.07</b>	<b>.00</b>	<b>.15</b>
29. IM (T2)	<b>-.41</b>	<b>-.46</b>	<b>.51</b>	<b>.50</b>	<b>.43</b>	<b>-.46</b>	<b>-.50</b>	<b>.58</b>	<b>.57</b>	<b>.49</b>
30. II (T2)	<b>-.43</b>	<b>-.40</b>	<b>.41</b>	<b>.40</b>	<b>.30</b>	<b>-.49</b>	<b>-.48</b>	<b>.49</b>	<b>.49</b>	<b>.39</b>
31. IC (T2)	<b>-.44</b>	<b>-.38</b>	<b>.34</b>	<b>.36</b>	<b>.28</b>	<b>-.50</b>	<b>-.46</b>	<b>.46</b>	<b>.46</b>	<b>.34</b>
32. IS (T2)	<b>-.23</b>	<b>-.27</b>	<b>.42</b>	<b>.40</b>	<b>.41</b>	<b>-.30</b>	<b>-.34</b>	<b>.48</b>	<b>.51</b>	<b>.46</b>
33. TL (T2)	<b>-.44</b>	<b>-.43</b>	<b>.48</b>	<b>.48</b>	<b>.41</b>	<b>-.50</b>	<b>-.51</b>	<b>.58</b>	<b>.58</b>	<b>.48</b>
34. NA (T2)	<b>.43</b>	<b>.39</b>	<b>-.26</b>	<b>-.23</b>	<b>-.12</b>	<b>.50</b>	<b>.50</b>	<b>-.36</b>	<b>-.30</b>	<b>-.17</b>
35. EE (T2)	<b>.81</b>	<b>.62</b>	<b>-.54</b>	<b>-.46</b>	<b>-.32</b>					
36. Cyn (T2)	<b>.66</b>	<b>.74</b>	<b>-.57</b>	<b>-.58</b>	<b>-.45</b>	<b>.74</b>				
37. Vig (T2)	<b>-.53</b>	<b>-.54</b>	<b>.81</b>	<b>.76</b>	<b>.69</b>	<b>-.62</b>	<b>-.61</b>			
38. Ded (T2)	<b>-.50</b>	<b>-.54</b>	<b>.73</b>	<b>.84</b>	<b>.68</b>	<b>-.53</b>	<b>-.62</b>	<b>.84</b>		
39. Abs (T2)	<b>-.33</b>	<b>-.43</b>	<b>.64</b>	<b>.69</b>	<b>.75</b>	<b>-.38</b>	<b>-.48</b>	<b>.78</b>	<b>.78</b>	

Note. Bold correlations significant at  $p < .05$ . N = 443. EE = Emotional Exhaustion. Cyn = Cynicism. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJII = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Job Insecurity. Res = Responsibility. Time = Time Pressure. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation. TL = Transformational Leadership. CSE = Core Self-Evaluations. O. Change = Organizational Change. NA = Negative Affectivity.

## APPENDIX F

INTENSIFIED JOB DEMANDS AND ORGANIZATIONAL CHANGE  
CORRELATIONS

Table 81

*Correlations between Organizational Changes with Intensified Job Demands and Traditional Job Demands*

Variable	IJI (T1)	Insecure (T1)	IDP (T1)	Res (T1)	WI (T1)	Time (T1)
Downsizing/layoffs	<b>.37</b>	<b>.37</b>	<b>.12</b>	.09	<b>.26</b>	<b>.20</b>
Hiring of new employees	.01	-.04	.02	.03	.04	<b>.10</b>
Internal organizational restructuring	<b>.23</b>	<b>.17</b>	<b>.17</b>	<b>.14</b>	<b>.25</b>	<b>.21</b>
Friendly merger/acquisition with another business	<b>.15</b>	.06	<b>.15</b>	<b>.14</b>	<b>.19</b>	<b>.12</b>
Hostile takeover from another business	.03	-.04	.04	.06	.07	.04
New technology implementation	.00	-.01	.07	.12	<b>.11</b>	.10
Launch of new product or service	.07	.04	<b>.10</b>	.08	<b>.14</b>	.10
Job description change/job redesign	<b>.22</b>	<b>.18</b>	<b>.21</b>	<b>.17</b>	<b>.28</b>	.24
Major changes to work processes	<b>.26</b>	<b>.24</b>	<b>.21</b>	<b>.22</b>	<b>.34</b>	.28
New ownership/top management	<b>.23</b>	<b>.15</b>	.09	.06	<b>.18</b>	.08
New supervisor	.05	.06	.02	-.03	.06	.00
New work policies and procedures	<b>.14</b>	<b>.12</b>	.07	.09	<b>.21</b>	<b>.20</b>
New training initiative	<b>.11</b>	.06	<b>.10</b>	<b>.15</b>	<b>.15</b>	<b>.16</b>
Unsatisfactory organizational performance	<b>.25</b>	<b>.22</b>	<b>.10</b>	.08	<b>.19</b>	<b>.11</b>
Increased threat of competition from other businesses	<b>.20</b>	<b>.21</b>	.06	.07	<b>.16</b>	.08
Loss of important contract or customers	<b>.20</b>	<b>.17</b>	.08	.05	<b>.11</b>	.05
Unwanted publicity	<b>.16</b>	<b>.11</b>	.06	<b>.11</b>	<b>.14</b>	<b>.12</b>
Lawsuit or regulatory action	<b>.25</b>	<b>.21</b>	<b>.12</b>	<b>.11</b>	<b>.19</b>	<b>.11</b>
Safety accident	.09	.09	.07	.06	<b>.10</b>	<b>.13</b>
Workplace abuse/aggression	<b>.20</b>	<b>.21</b>	.06	.07	<b>.22</b>	<b>.13</b>
Workplace discrimination	<b>.17</b>	<b>.15</b>	.02	.04	<b>.13</b>	<b>.11</b>
Other	.00	.04	.02	-.02	-.01	-.04

*Note.* Correlations in bold are significant at  $p < .05$ .  $N = 443$ . IJI = Intensified Job Insecurity. Insecure = Traditional Job Insecurity. IDP = Intensified Decision-Making and Planning. Res = Job Responsibility. WI = Work Intensification. Time = Time Pressure.

Table 81 Cont.

Variable	IJI (T2)	Insecure (T2)	IDP (T2)	Res (T1)	WI (T2)	Time (T2)
Downsizing/layoffs	<b>.29</b>	<b>.31</b>	.07	.07	<b>.15</b>	<b>.29</b>
Hiring of new employees	-.04	-.07	.03	.06	.00	-.04
Internal organizational restructuring	<b>.16</b>	<b>.11</b>	<b>.15</b>	<b>.19</b>	<b>.18</b>	<b>.17</b>
Friendly merger/acquisition with another business	<b>.13</b>	<b>.10</b>	<b>.10</b>	<b>.16</b>	<b>.12</b>	<b>.14</b>
Hostile takeover from another business	.02	.00	.05	.06	.03	.03
New technology implementation	-.01	.02	.07	<b>.13</b>	<b>.10</b>	-.01
Launch of new product or service	.04	.07	.07	<b>.10</b>	.07	.04
Job description change/job redesign	<b>.14</b>	<b>.14</b>	<b>.14</b>	<b>.12</b>	<b>.16</b>	<b>.15</b>
Major changes to work processes	<b>.17</b>	<b>.18</b>	<b>.22</b>	<b>.20</b>	<b>.24</b>	<b>.16</b>
New ownership/top management	<b>.13</b>	<b>.12</b>	.08	<b>.11</b>	<b>.12</b>	<b>.14</b>
New supervisor	.05	.05	<b>.12</b>	-.01	.03	.05
New work policies and procedures	<b>.12</b>	<b>.12</b>	.06	<b>.15</b>	<b>.18</b>	<b>.13</b>
New training initiative	.08	.04	.03	<b>.12</b>	<b>.13</b>	.09
Unsatisfactory organizational performance	<b>.15</b>	<b>.18</b>	<b>.09</b>	<b>.14</b>	<b>.15</b>	<b>.15</b>
Increased threat of competition from other businesses	<b>.14</b>	<b>.16</b>	.05	<b>.14</b>	.09	<b>.15</b>
Loss of important contract or customers	<b>.13</b>	<b>.14</b>	<b>.10</b>	.07	.04	<b>.14</b>
Unwanted publicity	<b>.11</b>	.08	.02	<b>.16</b>	<b>.13</b>	<b>.12</b>
Lawsuit or regulatory action	<b>.14</b>	<b>.14</b>	.04	<b>.15</b>	.09	<b>.15</b>
Safety accident	.05	.06	.05	.04	.03	.05
Workplace abuse/aggression	<b>.18</b>	<b>.18</b>	.09	.08	<b>.14</b>	<b>.18</b>
Workplace discrimination	<b>.19</b>	<b>.19</b>	.05	.09	<b>.10</b>	<b>.19</b>
Other	-.07	-.05	.00	-.02	-.02	-.07

Note. Correlations in bold are significant at  $p < .05$ . N = 443. IJI = Intensified Job Insecurity. Insecure = Traditional Job Insecurity. IDP = Intensified Decision-Making and Planning. Res = Job Responsibility. WI = Work Intensification. Time = Time Pressure.

## APPENDIX G

### SELECTION OF CONTROL VARIABLES

As noted in the method section, a number of steps were taken to identify potential control variables. Correlations between demographic/organizational variables are presented in Table 82, NAICS aggregated occupational industry correlations in Table 83, and partial correlations between study variables controlling for reported organizational change, CSE, and NA are presented in Table 84. Due to the notable influence of the latter three variables for both burnout and work engagement as well as intensified job demands, a number of follow-up analyses were conducted to identify the precise nature of any third variable effects.

Results from Table 84 show that in many cases, organizational change, CSE, and NA tended to deflate the correlations for intensified job demands and burnout, but in the case of work intensification and to a lesser degree, IDP, they acted as suppressors as when they were included in the model, the effect sizes for the first order terms and interactions generally increased. In other words, with CSE, NA and the number of organizational changes held constant, intensified job demands and their interactions with transformational leadership dimensions were more strongly related to burnout and work engagement. In fact, in the case of intensified-decision making and planning and work intensification, the coefficient signs actually changed direction from negative to positive (although the effect sizes for the latter were too small to reach statistical significance).

This phenomenon was further probed by examining both multicollinearity statistics (one possible cause of coefficient sign changes; Cohen et al., 2003) as well as partial correlations between intensified job demands and burnout and work engagement with CSE, NA and organizational change individually controlled for. Both tolerance and VIF statistics were within a normal range (Cohen et al., 2003) while partial correlations also confirmed the results discussed above. In particular, controlling for the effect of CSE caused the relationship between work intensification and work engagement at T2 to go from  $r = -.10$  to  $r = .10$ .

Finally, the full measurement model was also run with all factor indicators also regressed on CSE, NA and the organizational change composite in addition to their respective factors in order to examine the potential biasing effect of these variables (Podsakoff et al., 2003). Results did show that this model had significantly better fit ( $\Delta\chi^2(6) = 206.53, p < .001$ ), although loadings and latent correlations between study variables remained similar, further underscoring the importance of these control variables.

Table 82

*Correlations between Study Variables and Demographic and Organizational Variables*

Variable	Work Hrs.	Job Ten.	Sup. Ten.	Org. Ten	Sup. level	Work Hrs. (T2)	Sup Stat. (T2)
1. Burn (T1)	<b>.13</b>	-.04	<b>-.10</b>	-.03	-.07	<b>.13</b>	.02
2. Engage (T1)	.02	.09	<b>.10</b>	<b>.13</b>	<b>.16</b>	.03	.07
3. IJI (T1)	.03	-.01	-.08	-.01	<b>-.15</b>	.05	-.08
4. IDP (T1)	<b>.15</b>	-.05	.00	-.02	.07	<b>.10</b>	<b>.18</b>
5. WI (T1)	<b>.24</b>	-.01	-.02	.01	.01	<b>.18</b>	<b>.16</b>
6. Insecure (T1)	.01	.01	<b>-.10</b>	-.02	<b>-.10</b>	.06	-.07
7. Res. (T1)	<b>.18</b>	.06	.05	.10	<b>.15</b>	<b>.15</b>	<b>.18</b>
8. Time (T1)	<b>.22</b>	.02	-.04	.03	.03	<b>.15</b>	<b>.12</b>
9. IM (T1)	-.03	-.06	-.01	.00	<b>.12</b>	.02	<b>.12</b>
10. II (T1)	-.03	-.04	-.03	-.04	<b>.14</b>	.06	<b>.10</b>
11. IC (T1)	.01	-.05	.01	-.02	<b>.17</b>	-.02	.07
12. IS (T1)	<b>-.11</b>	-.02	.06	.02	<b>.13</b>	.06	<b>.15</b>
13. TL (T1)	-.05	-.05	.01	-.01	<b>.16</b>	.04	<b>.13</b>
14. CSE (T1)	.02	.09	<b>.18</b>	<b>.12</b>	<b>.12</b>	.01	.08
15. O. Change (T1)	<b>.25</b>	.08	-.09	.08	-.01	<b>.14</b>	.09
16. Burn (T2)	<b>.15</b>	-.05	-.09	-.05	-.08	<b>.11</b>	-.03
17. Engage (T2)	.02	<b>.10</b>	<b>.12</b>	<b>.14</b>	<b>.16</b>	-.01	<b>.14</b>
18. IJI (T2)	.06	-.02	<b>-.12</b>	-.04	<b>-.11</b>	.08	-.06
19. IDP (T2)	<b>.17</b>	-.06	.01	-.04	.03	<b>.10</b>	<b>.11</b>
20. WI (T2)	<b>.27</b>	.00	-.01	.02	.02	<b>.21</b>	<b>.18</b>
21. Insecure (T2)	.02	.03	-.08	-.02	-.07	.07	<b>-.10</b>
22. Res. (T2)	<b>.27</b>	.13	.09	<b>.13</b>	<b>.14</b>	<b>.22</b>	<b>.25</b>
23. Time (T2)	<b>.27</b>	.07	-.01	.07	.01	<b>.17</b>	<b>.20</b>
24. IM (T2)	-.05	-.05	-.06	-.02	<b>.14</b>	-.05	<b>.15</b>
25. II (T2)	-.07	-.04	-.04	.00	.08	-.02	.08
26. IC (T2)	-.09	-.04	.01	.00	.08	-.06	.04
27. IS (T2)	.03	-.03	-.03	.02	<b>.11</b>	.08	<b>.13</b>
28. TL (T2)	-.05	-.05	-.03	.00	<b>.12</b>	-.01	<b>.11</b>
29. NA (T2)	.03	-.05	<b>-.12</b>	<b>-.10</b>	-.06	<b>.11</b>	-.09

Note. Bolded correlations are significant at  $p < .05$ . N = 443. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJII = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. Work Intensification. Insecure = Quantitative Job Insecurity. Res = Job Responsibility. Time = Time Pressure. TL = Transformational Leadership. II = Idealized Influence. IM = Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration. O. Change = Change Event List. Gender 1 = Male, 2 = Female. Race 1 = White 2 = Other. Sup Pos = Supervisor Position (1 = Front-Line Management; 2 = Middle Management; 3 = Upper Management). Sector 1 = Private 2 = Public. Contract 1 = Permanent 2 = Other.

Table 82 Cont.

Variable	Age	Gender	Race	Marital Stat.	Edu.	Emp. Type	Contract Type	Income
1. Burn (T1)	-.09	-.07	-.07	-.03	.07	-.02	-.02	-.03
2. Engage (T1)	<b>.10</b>	.04	.01	.04	-.05	.07	-.02	.06
3. IJI (T1)	.03	-.07	.02	.00	.13	-.03	.18	.01
4. IDP (T1)	-.10	.02	-.01	.02	-.02	-.02	-.01	-.02
5. WI (T1)	-.03	-.02	-.02	.03	.07	-.07	-.04	.07
6. Insecure (T1)	-.01	-.09	.03	.00	.09	-.03	.17	-.04
7. Res. (T1)	.04	<b>-.15</b>	.05	.00	<b>.19</b>	-.03	<b>-.10</b>	.18
8. Time (T1)	.02	-.05	-.02	-.03	.07	-.01	-.02	.09
9. II (T1)	-.09	-.08	.09	.01	-.02	.05	-.04	.01
10. IM (T1)	<b>-.10</b>	.00	<b>.11</b>	.01	.00	.08	.03	-.04
11. IS (T1)	<b>-.11</b>	-.05	<b>.14</b>	.03	.04	.08	.00	.05
12. IC (T1)	-.06	-.02	.05	.04	.05	.05	-.05	.06
13. TL (T1)	<b>-.10</b>	-.05	.11	.02	.02	.07	-.02	.02
14. CSE (T1)	.08	-.04	.01	.11	-.07	.05	-.05	.12
15. O. Change (T1)	.04	-.05	-.02	.00	.03	-.05	-.03	.08
16. Burn (T2)	-.08	-.03	-.03	<b>-.10</b>	.07	-.04	-.02	-.06
17. Engage (T2)	<b>.11</b>	.08	.01	.09	-.01	.07	.01	.08
18. IJI (T2)	-.01	.01	.05	.00	<b>.10</b>	-.04	<b>.13</b>	-.05
19. IDP (T2)	<b>-.11</b>	-.05	.04	.03	.02	-.08	-.01	-.02
20. WI (T2)	-.02	.02	.03	-.01	.06	-.06	.01	.02
21. Insecure (T2)	.02	.00	.04	-.01	.07	-.04	.12	-.05
22. Res. (T2)	.08	<b>-.10</b>	.04	.03	<b>.14</b>	.00	<b>-.16</b>	<b>.21</b>
23. Time (T2)	.04	-.01	-.02	.00	.00	-.07	.01	.05
24. II (T2)	-.03	-.07	.04	.04	.05	.03	-.02	.01
25. IM (T2)	-.06	-.02	.05	.04	.05	.05	-.04	.01
26. IS (T2)	-.08	-.02	.06	.04	<b>.11</b>	<b>.10</b>	-.09	.08
27. IC (T2)	-.03	-.02	.02	.08	.09	.06	-.03	.07
28. TL (T2)	-.06	-.04	.05	.06	.09	.07	-.05	.05
29. NA (T2)	-.08	<b>.11</b>	-.03	<b>-.15</b>	.03	-.05	.04	<b>-.13</b>

Note. Bolded correlations are significant at  $p < .05$ . N = 428 to 443. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJL = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. Work Intensification. Insecure = Quantitative Job Insecurity. Res = Job Responsibility. Time = Time Pressure. TL = Transformational Leadership. II = Idealized Influence. IM = Inspirational Motivation. IS = Intellectual Stimulation. IC = Individualized Consideration. O. Change = Change Event List. Gender 1 = Male, 2 = Female. Race 1 = White 2 = Other. Sup Pos = Supervisor Position (1 = Front-Line Management; 2 = Middle Management; 3 = Upper Management). Sector 1 = Private 2 = Public. Contract 1 = Permanent 2 = Other.



Table 83

*NAICS Aggregated Industry Correlations with Intensified Job Demands and Traditional Job Demands*

Variable	IJI (T1)	Insecure (T1)	IDP (T1)	Res (T1)	WI (T1)	Time (T1)	IJI (T2)	Insecure (T2)	IDP (T2)	Res (T2)	WI (T2)	Time (T2)
1. Natural Resources and Mining	-.03	-.06	-.03	-.01	.05	.04	-.01	-.02	.02	-.02	.03	-.01
2. Construction	-.05	-.02	.00	-.11	.02	.01	.00	-.02	.07	-.03	.06	.00
3. Manufacturing	-.01	.00	.01	-.03	-.01	-.01	.00	.01	-.01	.00	-.02	.00
4. Trade, Transportation, and Utilities	<b>.12</b>	<b>.12</b>	.05	.03	.04	.07	.09	.09	.03	-.04	-.01	.09
5. Information	.07	.04	.00	.08	.02	.03	.06	.06	.00	.07	.04	.06
6. Financial Activities	-.01	-.02	.01	.03	.03	.01	-.03	.02	.04	.01	.00	-.03
7. Professional and Business Services	.05	.07	.02	.06	-.04	-.06	.01	.00	.02	.02	.01	.01
8. Education and Health Services	-.09	-.09	-.07	.08	-.05	.00	-.08	-.07	-.05	.03	-.05	-.08
9. Leisure and Hospitality	-.01	-.04	-.05	-.04	-.01	.01	-.06	-.03	<b>-.11</b>	.00	-.03	-.06
10. Public Administration	-.05	.00	.01	-.05	.02	-.06	-.02	-.05	.00	-.02	-.02	-.02
11. Other	.01	.01	.07	-.10	.01	-.04	.03	.02	.00	-.05	-.01	.03
12. Self-Employed	.04	.00	.02	-.03	-.03	-.03	.07	-.01	.00	.01	.05	.07

*Note.* Correlations in bold are significant at  $p < .05$ .  $N = 443$ . IJI = Intensified Job Insecurity. Insecure = Traditional Job Insecurity. IDP = Intensified Decision-Making and Planning. Res = Job Responsibility. WI = Work Intensification. Time = Time Pressure.

Table 84

*Partial Correlations between Main Study Variables Controlling for the Effect of Core Self-Evaluations, Negative Affectivity, and Organizational Change Composite*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Burn (T1)																
2. Engage (T1)	<b>-.42</b>															
3. IJI (T1)	<b>.21</b>	<b>-.10</b>														
4. IDP (T1)	<b>.16</b>	.05	<b>.13</b>													
5. WI (T1)	<b>.38</b>	.07	<b>.18</b>	<b>.42</b>												
6. Insecure (T1)	<b>.18</b>	<b>-.11</b>	<b>.63</b>	<b>.15</b>	<b>.15</b>											
7. Res. (T1)	.08	<b>.21</b>	<b>.08</b>	<b>.34</b>	<b>.35</b>	.08										
8. Time (T1)	<b>.25</b>	<b>.18</b>	<b>.12</b>	<b>.23</b>	<b>.60</b>	.07	<b>.41</b>									
9. Burn (T2)	<b>.67</b>	<b>-.47</b>	<b>.16</b>	.06	<b>.20</b>	<b>.14</b>	.00	<b>.11</b>								
10. Engage (T2)	<b>-.38</b>	<b>.80</b>	<b>-.11</b>	.04	<b>.10</b>	<b>-.12</b>	<b>.19</b>	<b>.21</b>	<b>-.57</b>							
11. IJI (T2)	<b>.20</b>	-.01	<b>.51</b>	.09	<b>.12</b>	<b>.45</b>	.01	.08	<b>.34</b>	<b>-.16</b>						
12. IDP (T2)	<b>.17</b>	.04	<b>.13</b>	<b>.48</b>	<b>.32</b>	<b>.13</b>	<b>.26</b>	<b>.19</b>	<b>.18</b>	.04	<b>.19</b>					
13. WI (T2)	<b>.31</b>	.02	.09	<b>.28</b>	<b>.51</b>	<b>.10</b>	<b>.23</b>	<b>.52</b>	<b>.31</b>	.06	<b>.30</b>	<b>.40</b>				
14. Insecure (T2)	<b>.17</b>	<b>-.10</b>	<b>.46</b>	.08	.06	<b>.57</b>	-.03	.00	<b>.26</b>	<b>-.18</b>	<b>.72</b>	<b>.14</b>	<b>.23</b>			
15. Res. (T2)	<b>.12</b>	<b>.16</b>	.06	<b>.26</b>	<b>.26</b>	.07	<b>.61</b>	<b>.34</b>	.09	<b>.20</b>	<b>.13</b>	<b>.26</b>	<b>.38</b>	<b>.10</b>		
16. Time (T2)	<b>.23</b>	<b>.15</b>	.06	<b>.18</b>	<b>.45</b>	.04	<b>.27</b>	<b>.64</b>	<b>.20</b>	<b>.19</b>	<b>.19</b>	<b>.24</b>	<b>.67</b>	<b>.11</b>	<b>.44</b>	

*Note.* All correlations are partial correlations controlling for core self-evaluations, negative affectivity, and organizational change composite, Correlations in bold are significant at  $p < .05$ . N=443. Burn = Burnout. EE = Emotional Exhaustion. Cyn = Cynicism. Engage = Work Engagement. Vig = Vigor. Ded = Dedication. Abs = Absorption. IJI = Intensified Job Insecurity. IJII = Intensified Job-Loss Insecurity. IJIF = Intensified Job-Feature Insecurity. IDP = Intensified Decision-Making and Planning. WI = Work Intensification. Insecure = Traditional Job Insecurity. Res = Job Responsibility. Time = Time Pressure. IM = Inspirational Motivation. II = Idealized Influence. IC = Individualized Consideration. IS = Intellectual Stimulation.

## APPENDIX H

### POWER ANALYSIS

A key consideration in any research involving moderation analyses is sufficient statistical power (probability of rejecting a false null hypothesis; Cohen et al., 2003) to detect an interaction effect (Aguinis, 1995). Given the small size of most continuous interactions in organizational observation studies and the difficulties researchers face finding and recruiting participants, it is not surprisingly that most studies examining moderation effects may be underpowered (Cohen et al., 2003). Consequently, it is critical the current study has a sufficiently large sample to adequately test its hypotheses. Although there are a variety of different methods and/or recommendations for determining power provided in the literature (Shieh, 2009), Monte-Carlo simulations are currently considered the best option due to their ability to provide power estimates for a variety of different potential conditions (Muthen & Mutehn, 2002). However, one drawback of the Monte-Carlo method, and all a priori power analyses for that matter, is that the researcher needs to have an idea of the expected effect size beforehand. Since the current study is both highly novel and exploratory in nature, there is little existing empirical research on which to base an effect size estimate. Still, the three previous studies (Arnold & Walsh, 2015; Bass et al., 2016; Syrek et al., 2013), which examined construct-level transformational leadership as a moderator, provide some clues. In terms of the absolute value of the moderation effect size, Arnold and Walsh (2013) reported  $\beta = .12$ ,  $p < .05$ ,  $N = 215$ , Syrek et al. (2013) reported  $\beta = .13$ ,  $p < .05$ ,  $N = 262$   $\beta = .12$  and Bass et al. (2016) reported  $\beta = .08$ ,  $p < .05$ ,  $N = 679$ . The small effect sizes reported by these authors are consistent with other reported moderation effects in the occupational health and leadership literatures (Aguinis, 1995).

In order to determine a sufficient sample size, an a priori power analysis was conducted via Monte-Carlo simulation. Simulations were run for the hypothesis testing analyses for the range of different effect sizes reported in the aforementioned studies ( $\beta = .08$ ,  $\beta = .10$ ,  $\beta = .12$ ) and sample sizes ( $N = 300$ ,  $N = 400$ ,  $N = 500$ ,  $N = 600$ ). Based on the results (see Table 85), it was determined that for 80% power, the minimum sample size for  $\beta = .08$  was approximately  $N = 500$  while the sample size to detect an effect of  $\beta = .12$  was far below the minimum of  $N = 300$ . Consequently, based on the Monte-Carlo results, and findings from the literature, the current study aimed for a matched sample of approximately  $N = 500$ .

Table 85

*Monte-Carlo Simulation Results for Statistical Power to Detect Hypothesized Interaction Terms*

<b>Sample Size</b>	<b>Population Effect Size</b>	<b>Average Effect Size</b>	<b>95% Coefficient Coverage</b>	<b>% of Trials Significant</b>
300	.0800	.0807	.947	.626
400	.0800	.0803	.955	.731
500	.0800	.0803	.951	.824
600	.0800	.0801	.950	.956
300	.1000	.1007	.948	.808
400	.1000	.1003	.954	.904
500	.1000	.1003	.949	.957
600	.1000	.1101	.950	.996
300	.1200	.1207	.950	.919
400	.1200	.1204	.952	.977
500	.1200	.1203	.950	.989
600	.1200	.1201	.951	1.00

*Note.* Power analysis was run with 5000 repetitions. Effect size in table is for the hypothesized interaction term. First-order terms were not included due to space limitations. 95% Coefficient Coverage = percentage of total repetitions where the population effect size was included in the 95% confidence interval. % of Trials Significant = percentage of total repetitions where the effect size was statistically significant (e.g., power).

## APPENDIX I

### FULL STUDY MEASURES

Unless otherwise noted, all scales used the following response format:

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

#### **Burnout and Work Engagement (T1 & T2)**

Below are statements that describe various job-related thoughts and feelings. Please indicate the extent to which you agree or disagree with each statement about YOUR CURRENT, FULL-TIME JOB at present:

#### ***Burnout***

##### *Emotional Exhaustion*

1. I feel emotionally drained from my work
2. I feel used up at the end of the workday
3. I feel burned out from my work

##### *Cynicism*

1. I've become more callous toward people since taking this job.
2. I worry that this job is hardening me emotionally.
3. I feel increasingly less involved in the work I do.

#### ***Work Engagement***

##### *Vigor*

1. At my work, I feel bursting with energy
2. At my job, I feel strong and vigorous
3. When I get up in the morning, I feel like going to work

##### *Dedication*

4. I am enthusiastic about my job
5. My job inspires me
6. I am proud of the work that I do

##### *Absorption*

7. I feel happy when I am working intensely
8. I am immersed in my work
9. I get carried away when I'm working

### **Traditional Job Demands (T1 & T2)**

Below are statements that describe various job-related thoughts and feelings. Please indicate the extent to which you agree or disagree with each statement about YOUR CURRENT, FULL-TIME JOB at present:

#### ***Quantitative Job Insecurity***

1. I am worried about having to leave my job before I would like to
2. There is a risk that I will have to leave my present job in the year to come
3. I feel uneasy about losing my job in the near future

#### ***Time Pressure***

1. I feel very busy at work.
2. I find that the given time at work is very limited.
3. I always feel in a hurry during work hours.

#### ***Responsibility***

1. At work I must often make decisions that will lead to far-ranging consequences
2. At work I must often make decisions with consequences that are difficult to foresee
3. My job often requires intensive thinking

## **Intensified Job Demands (T1 & T2)**

Below are statements that describe how your thoughts and feelings about your current, full-time job may have changed over the past 4 weeks (~30 days). Please think of your work experiences in the past 4 weeks (~30 days) and indicate the extent to which you agree or disagree with each statement.

### ***Intensified Job Insecurity***

#### *Job Loss Insecurity*

In the past 4 weeks (~30 days), I have increasingly ...

1. thought about the likelihood of being laid-off permanently<sup>a</sup>
2. thought about the likelihood of being laid-off for a short while<sup>a</sup>
3. thought about the likelihood of losing my job<sup>b</sup>
4. thought my future with this organization was uncertain<sup>b</sup>

#### *Job-Feature Insecurity*

In the past 4 weeks (~30 days), I have increasingly ...

1. thought the number of hours my company could offer me was uncertain<sup>a</sup>
2. thought about the likelihood of unfavorable changes to my job<sup>b</sup>
3. thought about the possibility that the rewards of my job would diminish<sup>b</sup>
4. thought about the possibility that I might lose many of the features of my job that I valued the most<sup>b</sup>

*Note.* a = adapted from Ashford et al. (1989). b = adapted from O'Neill & Sevastos (2013).

### ***Intensified Job-Related Planning and Responsibility***

In the past 4 weeks (~30 days),

1. it has become increasingly necessary to plan the workflow (activities, appointments, breaks, etc.) by myself
2. I have had to increasingly determine by myself how to do the work
3. I have had to increasingly determine the sequence of activities by myself
4. I have had to more often make decisions without consultation with supervisors
5. I have had to more often check by myself whether work goals have been met

### ***Work Intensification***

In the past 4 weeks (~30 days),

1. it has been increasingly rare for me to have enough time for work tasks
2. it has been increasingly harder for me to take time for breaks
3. the time between the more intense work phases has decreased
4. I have had to do two or three things at once more often (such as eating lunch, writing emails, and talking on the phone)
5. I have had to increasingly complete more work with fewer resources

## **Transformational Leadership (T1 & T2)**

Below are statements that describe various supervisor behaviors. Please indicate the extent to which you agree or disagree with each statements about YOUR CURRENT, DIRECT SUPERVISOR. If you report to more than one supervisor, for your answers, select the supervisor with whom you work most closely.

### ***Articulating a Vision***

My current, direct supervisor ...

1. is always seeking new opportunities for the unit/department/organization.
2. paints an interesting picture of the future for our group.
3. has a clear understanding of where we are going.
4. inspires others with his/her plans for the future.
5. gets others committed to his/her dream of the future.

### ***Providing an Appropriate Model***

My current, direct supervisor ...

1. leads by “doing” rather than simply by “telling.”
2. provides a good model to follow.
3. leads by example.
4. Exhibits the kind of work ethic and behavior that others try to imitate.

### ***Individualized Support***

My current, direct supervisor ...

1. considers my personal feelings when implementing actions that will affect me.
2. shows respect for my personal feelings.
3. behaves in a manner that is thoughtful of my personal needs.
4. treats me with consideration of my personal feelings.

### ***Intellectual Stimulation***

My current, direct supervisor ...

1. provides me with new ways of looking at things which used to be a puzzle for me.
2. has ideas that have forced me to rethink some of my own ideas I have never questioned before.
3. stimulates me to think about old problems in new ways.
4. encourages me to rethink ideas which had never been questioned before



### Core Self-Evaluations (T1)

Below are statements that describe your thoughts and feelings about your life IN GENERAL. Please indicate the extent to which you agree or disagree with each statement:

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

### Negative Affectivity (T2)

Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
1	2	3	4	5

1. afraid
2. scared
3. nervous
4. jittery
5. irritable
6. hostile
7. guilty
8. ashamed
9. upset
10. distressed

### Organizational Event Checklist (T1)

Have you experienced or observed any of the following major changes or events at your organization or business unit in the past year (12 months)? Please check all that apply.

1. Downsizing/layoffs
2. Hiring of new employees
3. Organizational restructuring
4. Friendly merger/acquisition with another business
5. Hostile takeover from another business
6. New technology implementation
7. Launch of new product or service
8. Job description change/job redesign
9. Major changes to work processes
10. New ownership/top management
11. New supervisor
12. New work policies and procedures
13. New training initiative
14. Unsatisfactory organizational performance
15. Increased threat of competition from other businesses
16. Loss of important contract or customers
17. Unwanted publicity
18. Lawsuit or regulatory action
19. Safety accident
20. Workplace abuse/aggression
21. Workplace discrimination
22. Other (Please specify) \_\_\_\_\_

## Demographics (T1)

1. What is your gender (Male, Female)
2. What is your ethnicity (African American, Asian, Caucasian, Hispanic, Native American, Other)
3. What is the highest level of education you have completed? (Less than High School, High School/GED, Some college, 2-year College Degree, 4-year College Degree, Master's degree, Professional degree [e.g., J.D., M.D], Doctoral degree)
4. What type of employer do you work for (Private Sector, Public Sector, Not-for-profit Sector)
5. How long have you been working for this employer (in your current and previous jobs)?
6. What is the nature of your employment contract (Permanent, On-Call, Temporary, Seasonal, Independent Contractor)
7. In what industry or industries do you work on your current job? (Please check all that apply)
  - a. Agriculture, Forestry, Fishing and Hunting
  - b. Mining, Quarrying, and Oil and Gas Extraction
  - c. Utilities
  - d. Construction
  - e. Manufacturing
  - f. Wholesale Trade
  - g. Retail Trade
  - h. Transportation and Warehousing
  - i. Information
  - j. Finance and Insurance
  - k. Real Estate and Rental and Leasing
  - l. Professional, Scientific, and Technical Services
  - m. Management of Companies and Enterprises
  - n. Administrative and Support and Waste Management and Remediation Services
  - o. Educational Services
  - p. Health Care and Social Assistance
  - q. Arts, Entertainment, and Recreation
  - r. Accommodation and Food Services
  - s. Public Administration
  - t. Other Services
  - u. Self-Employed
8. What is the position level of your current, direct supervisor? (First-line Management, Middle Management, Top/Executive Management)
9. What is your annual gross income? (Under \$25,000, \$20,000-29,000, \$30,000-\$39,000, \$40,000-\$49,999, \$50,000-\$59,000, \$60,000-\$69,000, \$70,000-\$79,000, \$80,000-\$89,000, \$90,000-\$99,000, Over \$100,000)
10. What is your marital status? (Single, Married)
11. Please select the state and county in which you are currently employed (drop-down menu)

**Demographics (T2)**

1. In the past 4 weeks, (~30 Days), how many hours per week did you work on average?
2. Do you supervise other employees at your job?

**Quality Control (T1 & T2)**

1. Please select Neither Agree nor Disagree.
2. Please select Strongly Agree
3. Please select Strongly Disagree

**Quality Control (T2)**

1. In the past 4 weeks, (~30 Days), have you changed jobs?
2. How many days ago did you change jobs?
3. In the past 4 weeks, (~30 Days), have you changed direct-report supervisors?
4. How many days ago did you change direct-report supervisors?

## APPENDIX J

### PILOT STUDY MEASURES

Unless otherwise noted, all scales used the following response format:

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

#### **Burnout and Work Engagement**

Below are statements that describe various job-related thoughts and feelings. Please indicate the extent to which you agree or disagree with each statement about YOUR CURRENT, FULL-TIME JOB at present:

##### ***Burnout***

###### *Emotional Exhaustion*

1. I feel emotionally drained from my work
2. I feel used up at the end of the workday
3. I feel burned out from my work

###### *Cynicism*

1. I feel increasingly less involved in the work I do
2. I can't really see the value and importance of my work
3. I doubt the significance of my work

##### ***Work Engagement***

###### *Vigor*

1. At my work, I feel bursting with energy
2. At my job, I feel strong and vigorous
3. When I get up in the morning, I feel like going to work

###### *Dedication*

1. I am enthusiastic about my job
2. My job inspires me
3. I am proud of the work that I do

###### *Absorption*

1. I feel happy when I am working intensely
2. I am immersed in my work
3. I get carried away when I'm working

## **Traditional Job Demands**

Below are statements that describe various job-related thoughts and feelings. Please indicate the extent to which you agree or disagree with each statement about YOUR CURRENT, FULL-TIME JOB at present:

### ***Quantitative Job Insecurity***

1. I am worried about having to leave my job before I would like to
2. There is a risk that I will have to leave my present job in the year to come
3. I feel uneasy about losing my job in the near future

### ***Time Pressure***

1. I feel very busy at work.
2. I find that the given time at work is very limited.
3. I always feel in a hurry during work hours.

### ***Responsibility***

1. At work I must often make decisions that will lead to far-ranging consequences
2. At work I must often make decisions with consequences that are difficult to foresee
3. My job often requires intensive thinking

## **Intensified Job Demands**

Below are statements that describe how your thoughts and feelings about your current, full-time job may have changed over the past 4 weeks (~30 days). Please think of your work experiences in the past 4 weeks (~30 days) and indicate the extent to which you agree or disagree with each statement.

### ***Intensified Job Insecurity***

#### *Job-Loss Job Insecurity*

In the past 4 weeks (~30 days), I have increasingly ...

1. thought about the likelihood of being laid-off permanently<sup>a</sup>
2. thought about the likelihood of being laid-off for a short while<sup>a</sup>
3. thought about the likelihood of losing my job<sup>b</sup>
4. felt my future with this organization was uncertain<sup>b</sup>

#### *Job-Feature Job Insecurity*

In the past 4 weeks (~30 days), I have increasingly ...

1. felt the number of hours my company could offer me was uncertain<sup>a</sup>
2. thought about the likelihood of unfavorable changes to my job<sup>b</sup>
3. thought about the possibility that the rewards of my job would diminish<sup>b</sup>
4. thought about the possibility that I might lose many of the features of my job that I valued the most<sup>b</sup>

*Note.* a = adapted from Ashford et al. (1989). b = adapted from O'Neill & Sevastos (2013).

### ***Intensified Job-Related Planning and Responsibility***

In the past 4 weeks (~30 days),

1. it has become increasingly necessary to plan the workflow (activities, appointments, breaks, etc.) by myself
2. I have had to increasingly determine by myself how to do the work
3. I have had to increasingly determine the sequence of activities by myself
4. I have had to more often make decisions without consultation with supervisors
5. I have had to more often check by myself whether work goals have been met

### ***Work Intensification***

In the past 4 weeks (~30 days),

1. it has been increasingly rare for me to have enough time for work tasks
2. it has been increasingly harder for me to take time for breaks
3. the time between the more intense work phases has decreased
4. I have had to do two or three things at once more often (such as eating lunch, writing emails, and talking on the phone)
5. I have had to increasingly complete more work with fewer resources

## **Transformational Leadership**

Below are statements that describe various supervisor behaviors. Please indicate the extent to which you agree or disagree with each statements about YOUR CURRENT, DIRECT SUPERVISOR. If you report to more than one supervisor, for your answers, select the supervisor with whom you work most closely.

### ***Articulating a Vision***

My current, direct supervisor ...

1. is always seeking new opportunities for the unit/department/organization.
2. paints an interesting picture of the future for our group.
3. has a clear understanding of where we are going.
4. inspires others with his/her plans for the future.
5. gets others committed to his/her dream of the future.

### ***Providing an Appropriate Model***

My current, direct supervisor ...

1. leads by “doing” rather than simply by “telling.”
2. provides a good model to follow.
3. leads by example.
4. strives towards higher purposes or ideals.
5. is driven by higher purposes or ideals.

### ***Individualized Support***

My current, direct supervisor ...

1. considers my personal feelings when implementing actions that will affect me.
2. shows respect for my personal feelings.
3. behaves in a manner that is thoughtful of my personal needs.
4. treats me with consideration of my personal feelings.

### ***Intellectual Stimulation***

My current, direct supervisor ...

1. provides me with new ways of looking at things which used to be a puzzle for me.
2. has ideas that have forced me to rethink some of my own ideas I have never questioned before.
3. stimulates me to think about old problems in new ways.
4. encourages me to rethink ideas which had never been questioned before



### Core Self-Evaluations

Below are statements that describe your thoughts and feelings about your life IN GENERAL. Please indicate the extent to which you agree or disagree with each statement:

1. Sometimes, I do not feel in control of my life.
2. I do not feel in control of my success in my life.
3. I am confident I get the success I deserve in life.
4. Sometimes I feel depressed.
5. I am capable of coping with most of my problems.

### Organizational Event Checklist

Have you experienced or observed any of the following major changes or events at your organization or business unit in the past year (12 months)? Please check all that apply.

1. Downsizing/layoffs
2. Hiring of new employees
3. Organizational restructuring
4. Friendly merger/acquisition with another business
5. Hostile takeover from another business
6. New technology implementation
7. Launch of new product or service
8. Job description change/job redesign
9. Major changes to work processes
10. New ownership/top management
11. New supervisor
12. New work policies and procedures
13. New training initiative
14. Unsatisfactory organizational performance
15. Increased threat of competition from other businesses
16. Loss of important contract or customers
17. Unwanted publicity
18. Lawsuit or regulatory action
19. Safety accident
20. Workplace abuse/aggression
21. Workplace discrimination
22. Other (Please specify) \_\_\_\_\_

## Demographics

1. What is your gender (Male, Female)
2. What is your ethnicity (African American, Asian, Caucasian, Hispanic, Native American, Other)
3. What is the highest level of education you have completed? (Less than High School, High School/GED, Some college, 2-year College Degree, 4-year College Degree, Master's degree, Professional degree [e.g., J.D., M.D], Doctoral degree)
4. What type of employer do you work for (Private Sector, Public Sector, Not-for-profit Sector)
5. How long have you been working for this employer (in your current and previous jobs)?
6. What is the nature of your employment contract (Permanent, On-Call, Temporary, Seasonal, Independent Contractor)
7. In what industry or industries do you work on your current job? (Please check all that apply)
  - a. Agriculture, Forestry, Fishing and Hunting
  - b. Mining, Quarrying, and Oil and Gas Extraction
  - c. Utilities
  - d. Construction
  - e. Manufacturing
  - f. Wholesale Trade
  - g. Retail Trade
  - h. Transportation and Warehousing
  - i. Information
  - j. Finance and Insurance
  - k. Real Estate and Rental and Leasing
  - l. Professional, Scientific, and Technical Services
  - m. Management of Companies and Enterprises
  - n. Administrative and Support and Waste Management and Remediation Services
  - o. Educational Services
  - p. Health Care and Social Assistance
  - q. Arts, Entertainment, and Recreation
  - r. Accommodation and Food Services
  - s. Public Administration
  - t. Other Services
  - u. Self-Employed
8. What is the position level of your current, direct supervisor? (First-line Management, Middle Management, Top/Executive Management)
9. What is your annual gross income? (Under \$25,000, \$20,000-29,000, \$30,000-\$39,000, \$40,000-\$49,999, \$50,000-\$59,000, \$60,000-\$69,000, \$70,000-\$79,000, \$80,000-\$89,000, \$90,000-\$99,000, Over \$100,000)
10. What is your marital status? (Single, Married)
11. Please select the state and county in which you are currently employed (drop-down menu)

**Quality Control**

1. In general, I pay attention when taking online surveys and will select strongly agree.
2. I have been paying close enough attention to this survey to select disagree.

## APPENDIX K

### SCREENING SURVEY MEASURES

1. In how many full-time jobs are you currently employed (excluding MTurk work)? (select from a drop-down menu)  
 If 0, then skip to “thank you” and “payment” page.  
 If 1, then proceed to Q2.  
 If > 1, then skip to “thank you” and “payment” page.

The following questions are related to your current, full-time job, excluding any MTurk work.

2. What is your current job title? (open-ended)
3. On average, how many hours per week do you work on your current job? (select from a drop-down menu)
4. How long have you been working at your current job? (select years and months from drop-down menus)
5. How many supervisors do you directly report to on your current job? (select from a drop-down menu)  
 If 0, then skip to “thank you” and “payment” page.  
 If 1, then proceed to Q7.  
 If > 1, then proceed to Q8.
6. How long have you been working with your direct supervisor on your current job? (select years and months from drop-down menus)
7. What is your year of birth? (select from a drop-down menu)

At this point, participants will be automatically invited to participate in the Pilot study for additional compensation if they reached Q8 and answered all of the below:

- Q3: 30 or more hours
- Q5: 1 month or more
- Q6: 1 or more
- Q7: 1 month or more
- Q8: 1997 or earlier

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### Education

**Old Dominion University**, Norfolk, VA (2012-present)  
Master of Sciences in Psychology (2014)

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### Publications

**Bass, B. I.**, Cigularov, K. P., Chen, P., Henry, K., Tomazic, R., & Li, Y. (2016). The effects of student violence against school employees on employee burnout and work engagement: The roles of perceived school unsafety and transformational leadership. *International Journal of Stress Management*, 23(3), 318-336. <http://dx.doi.org/10.1037/str0000011>

Litano, M. L., Major, D. A., Landers, R. N., Streets, V. N., & **Bass, B. I.** (2016). Leader-member exchange as a resource for work-family management: A meta-analytic test of work-family outcomes. *Leadership Quarterly*, 27(5), 802-817. <http://dx.doi.org/10.1016/j.leaqua.2016.06.003>

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### Conference Presentations

**Bass, B. I.**, & Cigularov, K. P. (2017, April). *Investigation of intensified job demands and leadership within the JD-R*. Poster presented at the 32<sup>nd</sup> Annual Conference of the Society of Industrial and Organizational Psychology, Orlando, FL.

**Bass, B. I.**, Cigularov, K. P., Chen, P. Y., Henry, K., Tomazic, R., & Li, Y. (2015, May). *The effects of student violence on employee burnout and work engagement*. Poster presented at the 11<sup>th</sup> International Conference on Occupational Stress & Health, Atlanta, GA.

Litano, M. L., Streets, V. N., **Bass, B. I.**, Major, D. A., & Landers, R. N. (2015, May). *Leader-member exchange as a resource for work-family management: A meta-analytic test of work-family outcomes*. Interactive paper presented at the 11<sup>th</sup> Annual International Conference on Occupational Stress and Health, Atlanta, GA.

**Bass, B. I.**, Cigularov, K. P., Mogan, T., Chen, P. Y., Henry, K., Tomazic, R., & Li, Y. (2013, May). *School employee experiences of student violence: Risk and protective factors*. Poster presented at the 10<sup>th</sup> International Conference on Occupational Stress & Health, Los Angeles, CA.