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Guilty as Not (Re)Charged: Calling, Work-Recovery Guilt, and Their Effects on Recovery Experiences

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GUILTY AS NOT (RE)CHARGED: CALLING, WORK-RECOVERY GUILT, AND THEIR EFFECTS ON RECOVERY EXPERIENCES

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ABSTRACT

GUILTY AS NOT (RE)CHARGED: CALLING, WORK-RECOVERY GUILT, AND THEIR
EFFECTS ON RECOVERY EXPERIENCES

Jeffrey Drake Terry
Old Dominion University, 2022
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Public and scholarly interest in the concept of work as a calling has grown considerably

over the past few decades (Thompson & Bunderson, 2019). Much of this research has focused on

the positive outcomes of calling, including increased work engagement (e.g., Dobrow Riza et al.,

2019) and job performance (e.g., Park et al., 2016). However, a few studies have focused on the

negative outcomes of calling, such as limited psychological detachment from work (Clinton et

al., 2017). According to Work as Calling Theory (WCT; Duffy et al., 2018), psychological

climate and individual differences may help to explain why some individuals who are living a

calling may experience negative outcomes. The purpose of this study was to examine the

relationship between living a calling and recovery experiences (i.e., psychological detachment,

relaxation, mastery, and control; Sonnentag & Fritz, 2007). Using WCT (Duffy et al., 2018) as a

theoretical lens, I proposed that individuals who are living a calling would experience greater

work-recovery guilt (i.e., guilt experienced as a result of attempting to engage in recovery), and

that this relationship would be stronger for those individuals who are working in an overwork

climate (i.e., a work environment which encourages individuals to work more time than is

required; Mazzetti et al., 2014) and for those individuals who experience persistent,

uncontrollable thoughts about work (i.e., the cognitive dimension of workaholism; Clark et al.,

2020). Further, I proposed that work-recovery guilt would partially mediate the negative

relationship between living a calling and recovery experiences. Data were gathered at three time

points two weeks apart using Prolific and proposed relationships were tested using path analyses. None of the hypothesized relationships were supported. These findings support the notion, proposed by Duffy et al. (2018), that living a calling at work should primarily be associated with positive, rather than negative, outcomes.

To my parents, for nudging me toward excellence.

ACKNOWLEDGEMENTS

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CHAPTER I

INTRODUCTION

Public and scholarly interest in the concept of work as a calling has grown considerably over the past few decades (Thompson & Bunderson, 2019). Recent meta-analytic findings suggest that calling (i.e., a sense of transcendent summons, meaning, and prosocial orientation in one's work; Duffy & Dik, 2013) is related to important work outcomes such as increased job satisfaction, work engagement, perceived meaningfulness of work, career commitment, and psychological well-being (Dobrow Riza et al., 2019). Additionally, calling has been linked to increased job performance (e.g., Park et al., 2016). These positive outcomes associated with calling corroborate the view from a few researchers (Nielsen et al., 2020; Praskova et al., 2015; Terry & Cigularov, 2021) that calling may function as a personal resource (Hobfoll, 1989).

Despite these positive associations, some scholars have noted that strong callings may have a potential "dark side." For example, Bunderson and Thompson (2009) found that zookeepers with a sense of calling felt a sense of moral duty in their work and were more likely to sacrifice personal time for work. Similarly, Clinton et al. (2017) found that ministers who perceived greater calling intensity were motivated to work longer hours, which limited their evening psychological detachment from work. The present study expands on Clinton et al.'s findings by considering three other types of recovery experiences (i.e., relaxation, mastery, and control), in addition to psychological detachment (Sonnentag & Fritz, 2007). Specifically, the purpose of this study was to examine the relationship between living a calling and recovery experiences. Recovery refers to a process during which individuals no longer experience job stressors, allowing their resources to be restored (Meijman & Mulder, 1998). Recovery experiences are important because they allow individuals to recover from job stress (e.g., Etzion

et al., 1998). However, individuals who are living a calling may have a hard time psychologically detaching from work (Clinton et al., 2017) and, hence, may engage less in recovery experiences.

Further, the present study sought to uncover the mechanisms through which individuals who are living a calling may experience a lack of recovery. Specifically, I proposed that individuals who are living a calling would experience greater work-recovery guilt (i.e., guilt experienced because of attempting to engage in recovery). Guilt is a moral emotion, meaning that it is linked to the welfare or interests of other individuals or of society as a whole (Haidt, 2003). Guilt occurs as a result of a perceived wrong committed by the self (Tangney et al., 2007). For example, working parents may experience guilt regarding the negative impact of work on family (Borelli et al., 2017). Moreover, the experience of guilt can influence future behavior (Tangney et al., 2007). Indeed, individuals may anticipate that they will experience guilt as the result of engaging in a specific behavior, based on their similar past experiences, and then choose not to engage in the behavior that they believe will lead to guilt. Applied to the present study, individuals who are living a calling perceive their work to be purposeful and related to the welfare of others and society (Duffy & Dik, 2013). This perceived importance may lead these individuals to experience work-recovery guilt and, in turn, may be less likely to engage in recovery experiences.

Further, the relationship between living a calling and work-recovery guilt may be stronger for certain individuals working in certain environments. In general, the boundary conditions under which individuals who are living a calling may experience negative outcomes has received little research attention. Stated from a job demands-resources (JD-R) theory perspective (Bakker & Demerouti, 2017; Demerouti et al., 2001), the boundary conditions under

which calling may function as a personal resource or a demand are not yet well understood. According to Work as Calling Theory (WCT; Duffy et al., 2018), living a calling should primarily be associated with positive outcomes (e.g., positive job attitudes and increased job performance). However, WCT also proposes that psychological climate and individual differences may help to explain why some individuals who are living a calling may experience negative outcomes (e.g., burnout). Nonetheless, no studies to date have empirically examined how psychological climate or individual differences may moderate the effects of living a calling on negative outcomes.

The present study proposed that the relationship between living a calling and work-recovery guilt would be stronger for those individuals who are working in an overwork climate (i.e., a work environment which encourages individuals to work more time than is required; Mazzetti et al., 2014) and for those individuals who experience persistent, uncontrollable thoughts about work (i.e., the cognitive dimension of workaholism; Clark et al., 2020). Previous research has supported the interactive effects of overwork climate in the relationship between individual differences (e.g., self-efficacy) and negative outcomes, such as workaholism (Mazzetti et al., 2014) and job strain (Afota et al., 2020). Additionally, previous research has supported the role of workaholism as a moderator contributing to negative recovery outcomes (e.g., Bakker et al., 2013). The interaction of individuals' perceived importance in their work coupled with a work environment that promotes working long hours (i.e., overwork climate) and their own uncontrollable thoughts about work may lead these individuals to experience work-recovery guilt and, in turn, may be less likely to engage in recovery experiences. The full conceptual model of proposed relationships can be found in Figure 1. These relationships were examined using path analysis.

The present study sought to contribute to the calling literature in three ways. First, this study responds to Duffy et al.'s (2018) call for researchers to explore the environmental factors and individual differences that may predispose individuals to experience negative effects from living a calling. Specifically, this study proposed that individuals who are living a calling, perceive that they are working in an overwork climate, and are higher in the cognitive dimension of workaholism may be more prone to experience work-recovery guilt and, in turn, may be less likely to engage in recovery activities. The present study also contributes to the psychological climate and workaholism literatures by identifying living a calling as an individual difference which may interact with overwork climate and workaholism and, in turn, may be associated with negative outcomes (i.e., lowered recovery experiences). Additionally, this study contributes to the workaholism literature by specifically examining the cognitive dimension of workaholism. As noted by Clark et al. (2020), relatively few studies have examined this cognitive dimension, though it is prominent in most conceptualizations of workaholism.

Second, the present study introduces work-recovery guilt as a potential new outcome of the interactions among overwork climate, the cognitive dimension of workaholism, and living a calling. While previous studies have examined situational forms of guilt, such as work-interfering-with-family guilt (Borelli et al., 2017) and guilt associated with after-work media use (Reinecke et al., 2014), this study is the first to examine guilt associated with recovery experiences more generally. Third, the present study examines the relationship between living a calling and different types of recovery experiences. Previous research has only examined the relationship between living a calling and one recovery experience (i.e., psychological detachment) in one study (i.e., Clinton et al., 2017). Specifically, Clinton et al. found that calling intensity was related to working longer hours, which limited psychological detachment from

work in the evenings. Subsequently, working longer hours was related to poorer sleep quality because of reduced psychological detachment, and related to lower morning vigor because of both reduced psychological detachment and sleep quality. The present study seeks to expand on Clinton et al.'s findings by including relaxation, mastery, and control as additional recovery experiences potentially affected by living a calling. Further, the present study explores two moderators (i.e., overwork climate and the cognitive dimension of workaholism) and one mediator (i.e., work-recovery guilt) which may help to explain under what conditions and why calling may lead to reduced recovery experiences.

Figure 1

Conceptual Model of Proposed Relationships
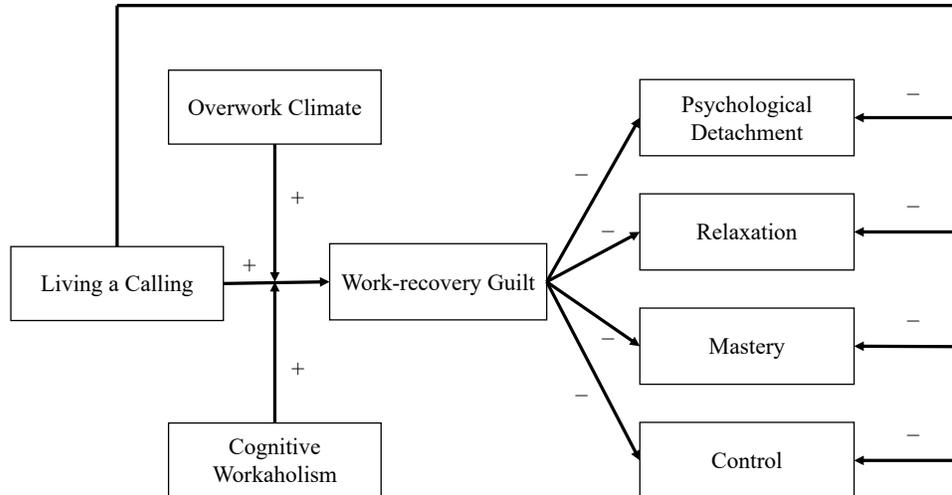
CHAPTER II

BACKGROUND

Work as a Calling

The concept of work as a calling dates back at least two millennia. The Apostle Paul wrote that he was "called by the will of God to be an apostle of Christ Jesus" (*English Standard Version Bible*, 2001, 1 Cor. 1:1). Max Weber later popularized the view that work could be God's calling and expanded it to include occupations beyond the realm of ministry (Weber, 1958). A few decades later, the sociologist Robert Bellah included calling as one of three general orientations people have toward their work (Bellah et al., 1985). Specifically, Bellah et al. argued that people either have a job orientation (i.e., work is about extrinsic rewards and not identity), a career orientation (i.e., work is about gaining power and being challenged by work), or a calling orientation (i.e., work is about fulfilling a sense of destiny, fueled by intrinsic motivation, and is central to one's identity). Most modern research on calling derives from this notion of calling as an orientation toward work (Dik & Duffy, 2009; Duffy & Dik, 2013; Wrzesniewski et al., 1997).

Nonetheless, researchers only began to empirically investigate the calling construct about a decade ago (Bunderson & Thompson, 2009). In this decade of work, two popular definitions of calling emerged. Duffy and Dik (2013) defined calling as "an approach to work that reflects the belief that one's career is a central part of a broader sense of purpose and meaning in life and is used to help others or advance the greater good in some fashion" (p. 429). This definition reflects three different components of the calling construct: transcendent summons (i.e., the individual was called to their line of work by something outside of himself or herself), purposeful work (i.e., the work is meaningful to the individual), and prosocial orientation (i.e., the individual feels that their work contributes to the good of others and society). Inherent within these definitions is

the notion that calling is both internal and external. In other words, Duffy and Dik argued that a calling originates outside the individual and fulfills individual needs for meaning and purpose for the good of those around them.

In contrast, other researchers define calling in terms of purpose (Hall & Chandler, 2005), or meaning and passion (Dobrow & Tosti-Kharas, 2011). For example, Dobrow and Tosti-Kharas defined calling as "a consuming, meaningful passion people experience toward a domain" (p. 1005). They emphasized that a calling is internal to the individual and indicates the fit between an individual and their work. However, definitions which include only internal, and not external, elements of calling are conceptually insufficient. Historically, the earliest conceptualizations of calling placed emphasis on the external, rather than internal, portion of calling, as reviewed earlier. In other words, calling was more about responding to a force outside of the individual, rather than individual needs. In fact, Weber (1958), in his discussion of calling, noted that work prevents an individual from indulging in selfish desires and keeps the individual externally focused. Only the most recent conceptualizations of calling place emphasis on both the external and internal aspects of calling. Further, the external aspects of calling (i.e., transcendent summon and prosocial orientation) are theoretically important to distinguish calling from other constructs (e.g., work passion; Vianello et al., 2018). For these reasons, the current study uses Duffy and Dik's (2013) conceptualization of calling as consisting of both internal and external components.

Work as Calling Theory

Recently, researchers have noted the theoretical and empirical distinctions between perceiving and living a calling. As stated in the recently proposed Work as Calling Theory (WCT; Duffy et al., 2018), an individual who perceives a calling may not be currently living a

calling. This proposition was based on prior research which showed that the two constructs, while related, are empirically distinct (Duffy et al., 2013; Duffy, Bott, et al., 2012; Duffy et al., 2016; Duffy et al., 2017). Further, WCT states that living a calling is a more proximal predictor of work and well-being outcomes (Duffy et al., 2018). For these reasons, the present study focuses on living, rather than perceiving, a calling.

Living a calling has been predominantly associated with positive, as opposed to negative, outcomes (Duffy et al., 2018). Most studies on the outcomes of living a calling have examined its positive relationship with job satisfaction (e.g., Duffy, Bott, et al., 2012) and other attitudes (e.g., life satisfaction; Duffy et al., 2013). Additionally, WCT states that living a calling should be positively related to job performance (Duffy et al., 2018). This proposition has been supported by previous research. For example, Park et al. (2016) found that living a calling was positively related to job performance (i.e., total commission and the number of policies sold in a year) and organizational citizenship behaviors among a sample of South Korean salespersons.

However, WCT also suggests that, under certain conditions, living a calling may be associated with negatives outcomes (Duffy et al., 2018). Given that individuals who are living a calling experience purpose in their work, perceive that their work is important to the people and communities around them, and may sense that their work is spiritually sanctioned, these individuals may be vulnerable to experience an overinvestment in their work (Dik & Duffy, 2012). Indeed, previous research suggests that calling is related to sacrificing personal time for work (Bunderson & Thompson, 2009; Schabram & Maitlis, 2017), a willingness to make sacrifices in nonwork domains (Duffy, Foley, et al., 2012), and working longer hours (Clinton et al., 2017; Keller et al., 2016). In the present study, I focus on the potential negative relationship between living a calling and recovery experiences.

Living a Calling and Recovery Experiences

According to the Effort-Recovery Model (Meijman & Mulder, 1998), individuals expend effort at work in response to job stressors, leading to load reactions such as the activation of functional systems and, over time, job strain. In the long term, job strain may accumulate and develop into burnout, depressive symptoms, and health complaints. To counteract the accumulation of strain and its associated outcomes, individuals may engage in recovery experiences. Recovery refers to a process through which individuals psychologically detach from work during nonwork time and no longer experience job stressors, resulting in the restoration of functional systems. When individuals engage in recovery, they likely experience a reduction in demands to their functional systems and are able to recover from job stress (e.g., Etzion et al., 1998). Nevertheless, if individuals fail to psychologically detach and are still ruminating about work, their functional systems remain under duress and no full recovery can occur (Meijman & Mulder, 1998).

Sonnentag and Fritz (2007) identified four distinct experiences through which individuals may experience recovery from work. *Psychological detachment* refers to mental disengagement from work. Detachment includes not only a physical absence from the workplace, but also the absence of work-related thoughts during nonwork time. *Relaxation* refers to engaging in leisure activities which are rejuvenating to the individual. *Mastery experiences* refer to activities that distract individuals from job-related thoughts. These activities include challenging experiences and learning opportunities through which individuals may gain competence and proficiency. Finally, *control during leisure time* refers to the extent to which an individual can determine which activities to engage in, as well as how and when to engage in them, during nonwork time. Meta-analytic evidence (Bennett et al., 2018) suggests that all four recovery experiences are

negatively related to fatigue (i.e., prolonged negative effects from work tasks) and positively

related to vigor (i.e., feeling energetic and experiencing vitality). Another recent meta-analysis

(Steed et al., 2021) found that all four recovery experiences were positively related to mental

well-being, life satisfaction, general health, and job performance, and that three of these recovery

experiences (with the exception of mastery experiences) were positively related to sleep.

To date, only one study (Clinton et al., 2017) has examined the relationship between

calling and a recovery experience (i.e., psychological detachment). Specifically, Clinton et al.

examined the potential "dark side" of calling among a sample of clergy, a population commonly

recognized as possessing a calling. Clinton et al. found that, while calling contributed to work-

related vigor, calling also motivated individuals to work longer hours. Further, calling, both

directly and indirectly through longer work hours, limited psychological detachment after work.

In turn, these ministers experienced reduced sleep quality and lower levels of morning vigor.

Hence, individuals who are living a calling may struggle to physically and psychologically

disengage from work during nonwork time. These results are corroborated by a qualitative study

which found that clergy often neglect their own needs to meet the needs of their congregants

(Terry & Cunningham, 2021).

Individuals who are living a calling likely not only experience a lack of psychological

detachment, but a lack of relaxation, mastery experiences, and control during leisure time as

well. These individuals may be prone to experience an overinvestment in their work due to its

perceived importance both internally and externally (Dik & Duffy, 2012), with previous research

suggesting that they work long hours and often sacrifice time outside of work to engage in work-

related tasks (Bunderson & Thompson, 2009; Clinton et al., 2017; Duffy, Foley, et al., 2012;

Keller et al., 2016). Because these individuals spend extra time engaged in their work, they likely do not take time for relaxation and mastery experiences.

Further, some researchers have suggested that individuals who are living a calling may be prone to experience organizational exploitation (Berkelaar & Buzzanell, 2015; Bunderson & Thompson, 2009; Dik & Duffy, 2012; Duffy et al., 2018; Duffy et al., 2015; Schabram & Maitlis, 2017). For example, in a qualitative study among zookeepers, Bunderson and Thompson (2009) found that some individuals who were living a calling perceived that they were at risk of being exploited by their employers. Specifically, these zookeepers, because they were intrinsically motivated to work by their calling, sensed that their employers did not see a need to provide them with extra incentives, and that their employers asked them to complete difficult and unpleasant tasks. In a similar way, individuals who are living a calling may have limited control during leisure time due to their employers taking advantage of their calling. Additionally, previous research suggests that some occupations defined by calling (e.g., clergy) may have an unpredictable work schedule and, hence, less control over when, how, or even if they engage in recovery experiences (Terry & Cunningham, 2021).

Based on the above theoretical and empirical rationale, my first hypothesis was as follows:

Hypothesis 1: Living a calling is negatively related to recovery experiences, namely (a) psychological detachment, (b) relaxation, (c) mastery experiences, and (d) control over leisure time.

Work-Recovery Guilt

One mechanism through which living a calling may influence recovery experiences is work-recovery guilt, which I define as a state of guilt an individual experiences when attempting

to engage in recovery experiences. Guilt is a moral emotion, meaning it is "linked to the interests or welfare either of society as a whole or at least of persons other than the judge or agent" (Haidt, 2003, p. 276). Moral emotions motivate individuals to do good and to avoid doing bad (Kroll & Egan, 2004). Additionally, guilt is a negative self-conscious emotion, meaning it is evoked by self-reflection, and provides immediate and salient punishment of a specific behavior (Lewis, 1971; Tangney et al., 2007; Tracy & Robins, 2004). In response to a perceived wrong committed by the self, guilt serves as an "emotional moral barometer, providing immediate and salient feedback on our social and moral acceptability" (Tangney et al., 2007, p. 347). Moreover, the experience of guilt can influence future behavior. Indeed, individuals may anticipate that they will experience guilt as the result of engaging in a specific behavior, based on their similar past experiences, and then choose not to engage in the behavior that they believe will lead to guilt.

Whereas shame involves a negative evaluation of the global self, guilt involves a negative evaluation of a specific behavior (Lewis, 1971). Stated differently, shame is self-focused and guilt is other-focused. Individuals who are experiencing guilt recognize the negative consequences that their behavior is having on others (i.e., empathy; Stuewig et al., 2010). Additionally, guilt has an adaptive function which allows individuals to make reparations for their perceived wrong or, if such reparations are not possible, to avoid committing the perceived wrong in the future (Tangney et al., 2007).

Recently, researchers have studied guilt related to specific recovery experiences and nonwork activities. Reinecke et al. (2014) found that individuals who were experiencing ego depletion (i.e., exhaustion of willpower and feeling drained) perceived their after-work media use (i.e., a recovery activity) to be procrastination for not doing something else. These individuals then reported experiencing guilt associated with their media use, and this guilt was

negatively related to media-induced recovery experiences, enjoyment of media use, and vitality after media use. In other words, this study suggests that these individuals did not experience recovery or its associated benefits due to guilt associated with the recovery activities. Researchers have also studied guilt associated with the negative impact of work on family (i.e., work-interfering-with-family guilt; Borelli et al., 2017). In a series of five studies, Borelli et al. found that this domain-specific form of guilt was positively related to depressive symptoms, anxiety symptoms, work-interfering-with-family conflict, family-interfering-with-work conflict, and negatively related to parenting satisfaction and job satisfaction.

The aim of the present study is to expand on these previous studies to examine guilt associated with recovery experiences in general (i.e., work-recovery guilt). Additionally, the present study proposes that living a calling is positively related to work-recovery guilt. To date, no studies have examined the relationship between calling and guilt. Conceptually, both calling and guilt are prosocial in nature. An individual who is living a calling feels that their work contributes to the welfare of others and society (Duffy & Dik, 2013), and, similarly, guilt is linked to the welfare of others and/or society (Haidt, 2003). When an individual who is living a calling at work attempts to engage in an activity that is not directly related to their work (e.g., a recovery activity), they may experience guilt because they perceive that they are letting others and/or society down. For example, Bunderson and Thompson (2009) found that zookeepers felt they had a moral obligation to act on their calling as a means of caring for the earth and preserving captive animals. Further, they felt that, if they did not care for the captive animals, then no one else would. As one participant stated, "If I don't stay then who's going to be here to make sure that the animals are taken care of the way I want them to be taken care of? I'm here for that" (p. 41).

Likewise, Terry and Cunningham (2021) noted that some clergy spent less time engaged in recovery activities because they put the needs of others before their own. In an earlier qualitative study among clergy, Proeschold-Bell et al. (2011) noted that clergy might perceive recovery activities to be selfish. At the same time, these participants recognized that, without taking time to engage in recovery activities, they would likely not be able to sustain their ministry work in the long run. One participant compared engaging in recovery activities to an emergency situation on an airplane: "You're supposed to put the oxygen mask on your face first but that often doesn't happen with clergy health issues, emotional and spiritual and physical" (p. 712).

These qualitative studies suggest that individuals who are living a calling perceive that they have a moral obligation to care for the needs of others (e.g., Bunderson & Thompson, 2009). Further, these individuals may even perceive engaging in self-care activities to be selfish (Proeschold-Bell et al., 2011). Given that guilt is a moral emotion (Haidt, 2003) and may influence future behavior (Tangney et al., 2007), work-recovery guilt may help to explain why individuals who a living a calling may be prone to experience a lack of recovery from work. Indeed, previous quantitative research suggests that both calling (Clinton et al., 2017) and guilt (Reinecke et al., 2014) are associated with a lack of recovery experiences. Due to the perceived importance of their work and their perceived moral obligation to others and society, individuals who are living a calling may be prone to experience work-recovery guilt and, hence, engage in fewer recovery experiences. Based on the above conceptual and empirical support, my next two hypotheses were as follows:

Hypothesis 2: Living a calling is positively related to work-recovery guilt.

Hypothesis 3: Work-recovery guilt mediates the negative relationship between living a

calling and recovery experiences, namely (a) psychological detachment, (b) relaxation,

(c) mastery experiences, and (d) control over leisure time.

Overwork Climate

According to WCT, psychological climate and individual differences may help to explain

the relationship between living a calling and negatives outcomes (Duffy et al., 2018). Stated

differently, certain individuals who are living a calling in certain work environments may be

prone to experience negative outcomes. One way to understand a work environment is through

its psychological climate, an individual's perception of their work environment (James et al.,

2008). To date, no studies have examined how the effects of calling may be moderated by

psychological climate. Rather, a few studies have examined how the effects of climate may be

moderated by calling. For example, Andel et al. (2016) found that calling moderated the effect of

safety climate on safety behavior, such that, when perceptions of calling were high, the

relationship between safety climate and safety behaviors was stronger. In another study, Keller et

al. (2016) found that calling moderated the relationship between competitive climate and

workaholism, such that this relationship was stronger when perceptions of calling were stronger.

The present study focuses specifically on psychological climate for overwork (hereafter

referred to as overwork climate). Overwork climate refers to an employee's perception that

"working beyond set work hours, taking work home, and working during weekends or holidays

are considered to be indispensable conditions for success and career advancement" (Mazzetti et

al., 2014, p. 234). Previous research has supported the role of overwork climate as a moderator in

the relationship between individual differences and negative outcomes. Specifically, Afota et al.

(2020) found that leader-member exchange (LMX) was positively related to subsequent

workaholism when employees perceived an overwork climate, and that workaholism mediated the interactive effects of LMX and overwork climate on job strain. Moreover, Mazzetti et al. (2014) found that individuals who were higher in achievement motivation, perfectionism, conscientiousness, and self-efficacy were more likely to experience workaholism when they perceived an overwork climate, operationalized from an organizational (i.e., aggregate) perspective (James et al., 2008).

As stated earlier, individuals who are living a calling may be prone to experience an overinvestment in their work (Dik & Duffy, 2012). For example, a member of the clergy stated "that ministry has a tendency to be all-consuming if allowed to be" (Terry & Cunningham, 2021, p. 1240). Moreover, previous research suggests that individuals who are living a calling tend to work long hours (e.g., Clinton et al., 2017). The interaction of living a calling, with its potential associated overinvestment in work and long work hours, together with a work environment that promotes such overinvestment and long work hours (i.e., overwork climate) may further increase the likelihood that these individuals are unable to experience recovery from work due to the potential guilt associated with recovering from work (i.e., work-recovery guilt). For instance, some zookeepers from Bunderson and Thompson's (2009) qualitative study perceived that if they did not care for the captive animals, no one else would. These zookeepers may have been working in environment that encouraged them to overinvest in their work because, without their overinvestment, the animals may not have received adequate care. Similarly, some clergy from Proeschold-Bell et al.'s (2011) qualitative study noted that congregants expect them to have constant availability, leading these clergy to perceive recovery experiences to be selfish. In both studies, these individuals felt pressure from their work environment to work long hours, lest the needs of those in their care go unmet. Such perceived moral obligations from an overwork

climate may lead individuals who are living a calling to experience guilt associated with recovery experiences, since they perceive they are engaging in such experiences to the neglect of those in their care. Based on the above theoretical and empirical support, my next hypothesis was as follows:

> *Hypothesis 4*: Overwork climate moderates the relationship between living a calling and work-recovery guilt, such that this relationship is stronger for individuals who perceive higher levels of overwork climate in their workplace.

Workaholism

In addition to psychological climate, individual differences may help to explain the relationship between living a calling and negative outcomes (Duffy et al., 2018). One such individual difference may be the cognitive dimension of workaholism, which refers to the experience of "persistent, uncontrollable thoughts about work" (Clark et al., 2020, p. 1286). The present study focuses on the cognitive dimension of workaholism, rather the other three dimensions (i.e., motivational, emotional, and behavioral) for two reasons. First, the cognitive dimension displayed the highest meta-analytic correlations with work, family, and individual outcomes (e.g., work-family conflict, emotional exhaustion) across Clark et al.'s validation studies. Second, psychological detachment (i.e., the absence of work-related thoughts) is essential to any recovery experience (Sonnentag & Fritz, 2007). Given that recovery experiences must involve a cognitive detachment from work, the present study focuses on how uncontrollable thoughts about work may prevent recovery.

Previous research suggests that calling and workaholism may relate similarly to certain work and well-being variables, such as work hours (Clark et al., 2020; Clinton et al., 2017). However, to date, only two studies have examined the relationship between calling and

workaholism. Specifically, Keller et al. (2016) found a small correlation ($r = .10$) between presence of calling, measured with two items from the Brief Calling Scale (Dik et al., 2012) and workaholism. Alternatively, Dalla Rosa and Vianello (2020) found a moderate correlation ($r = .31$) between presence of calling, measured using the Unified Multidimensional Calling Scale (Vianello et al., 2018), and workaholism. Nonetheless, no studies to date have examined the relationship between living a calling and workaholism.

A few studies suggest that workaholism may be related to lowered recovery experiences. For example, Huyghebaert et al. (2018) found that the cognitive dimension of workaholism was moderately and positively related to lack of psychological detachment. Further, workaholism may moderate the relationship between certain individual differences and negative outcomes. Specifically, Bakker et al. (2013) found that workaholism moderated the negative relationship between daily time spent on work-related activities during the evening and well-being at bedtime, such that this relationship was stronger for individuals relatively higher in workaholism. In other words, individuals higher in workaholism tended to spend more time on work-related activities during the evening, and, as a result, experienced less evening happiness, less momentary vigor before bedtime, and less momentary recovery before bedtime.

Clark et al. (2016) suggested that one reason why individuals who are high in workaholism may experience poor health and well-being outcomes is because they may experience guilt when not working. Ng et al. (2007) even theorized that guilt is a part of the affective dimension of workaholism. However, Clark et al. (2014) found small correlations between workaholism and guilt experienced at home and at work (both $r = .16$), suggesting that guilt may best be understood as an outcome of workaholism. Given that workaholism has been tied to the experience of guilt when not working both conceptually and empirically, workaholism

may help to explain why individuals who are living a calling may experience guilt when engaging in recovery experiences. Particularly, when individuals, who experience purpose in their work, feel that their work contributes to the needs of other and/or society, and perceive that something outside themselves has summoned them to their work also experience uncontrollable thoughts about work during nonwork time, they may be more likely to experience guilt when attempting to engage in recovery activities. Based on the above conceptual and empirical support, my final hypothesis was as follows:

>*Hypothesis 5*: The cognitive dimension of workaholism moderates the relationship between living a calling and work-recovery guilt, such that this relationship is stronger for individuals who are higher on this dimension.

CHAPTER III

METHOD

Participants

The sample for this study consisted of 202 working adults located within the U.S., who responded to surveys at Times 1, 2, and 3. On average, the age of participants was 32.23 ($SD =$ 9.32) years. Approximately 63.9% of participants were female. The ethnic composition of participants was 80.7% Caucasian, 8.4% Hispanic or Latinx, 5.0% Asian or Asian American, and 3.0% Black or African American. Participants' highest level of completed education included Doctoral degree (1.5%), Master's degree (20.8%), some graduate school (4.5%), Bachelor's degree (39.6%), Associate's degree (7.9%), some college or university (19.8%), and high school diploma (5.9%). Participants worked an average of 41.97 ($SD =$ 8.39) hours per week. Participants were employed in a wide range of industries, including education, training, and library (16.8%); healthcare (14.9%); business and financial (8.4%); computer and information technology (8.4%); sales (6.4%); and office and administrative support (5.4%). The mean durations for which participants were employed at their current organization and in their current job were 4.33 ($SD =$ 5.08) years and 4.43 ($SD =$ 5.30) years, respectively.

Participants were recruited through Prolific, which has been previously used for applied psychology research (e.g., Bennett et al., 2021). Prolific allows researchers to draw from a large and diverse participant pool with relative ease and flexibility, and at a reasonable cost. To be eligible to participate in the study, participants had to be at least 18 years old and had to be employed at least 30 hours per week at a job other than Prolific. These qualifiers were specified using Prolific free prescreening.

Procedure

Given that the majority of studies on calling have been cross-sectional, Duffy and Dik (2013) noted that more research is needed on the proximal work and well-being outcomes of calling over time. Similar calls for longitudinal studies have been made by occupational health scholars more generally (e.g., Brusso et al., 2014). Cross-sectional research designs may be affected by sources of common method variance, such as the mood a participant at the time of completing a survey (Spector, 2019). As noted by Spector, longitudinal designs allow researchers to control for some sources of common method variance. Hence, the current study used a three-wave longitudinal design to test the hypothesized model.

Qualification of potential participants was determined using Prolific free prescreening based on whether they were at least 18 years old and currently working at least 30 hours per week at a job other than Prolific. Participants were asked to provide their Prolific Worker ID during each survey. This number served as an identifier to link surveys anonymously across all three time points. Additionally, two demographic items (i.e., age and field of work) were included in all three surveys in the case that backup validation was needed to match responses. Following recommendations from Porter et al. (2019) for participants to be paid according to the U.S. federal minimum wage (i.e., $7.25 per hour), participants were paid $2.00 after completing the 10-minute survey and passing most (i.e., at least four out of five) or all of the attention checks at Time 1. Due to a dearth of longitudinal research on calling (Duffy & Dik, 2013), no optimal time interval for detecting the effects of living a calling has been established. Some studies have used a relatively brief time frame to examine the effects of calling (e.g., Clinton et al., 2017). Hence, the present study used a two-week time interval between surveys. Participants who completed the Time 1 survey and passed most or all the attention checks were sent the same

survey after two weeks (Time 2) of completing the first survey. Similarly, participants who completed the Time 2 survey and passed most or all of the attention checks were sent the same survey after two weeks (Time 3) of completing the second survey. To encourage participants to re-take the survey at Times 2 and 3, they were paid $2.10 and $2.25 at Times 2 and 3, respectively, for completing the survey and passing most or all the attention checks.

A total of 338 participants completed the survey at Time 1. Of these 338 participants, 24 failed two or more attention checks, eight were flagged by Prolific for timing out, and three had incomplete responses. Thus, the final sample for the Time 1 survey consisted of 303 participants.

Participants who completed the Time 1 survey and passed most or all the attention check items were sent the second survey two weeks after the first. Of the 303 participants at Time 1, 239 (78.9%) completed the survey at Time 2. Of these 239 participants, one failed multiple attention checks and one had incomplete responses. Thus, the final sample for the Time 2 survey consisted of 237 participants.

Independent samples t-tests indicated that participants who completed the first two surveys did not differ significantly from participants who only completed the survey at Time 1 in terms of age or hours worked per week. Participants who completed the first two surveys had had a longer tenure at their current organization ($M = 4.38$, $SD = 5.30$) than those participants who only completed the survey at Time 1 ($M = 3.14$, $SD = 3.77$), $t(144) = -2.16$, $p = .032$. Further, participants who completed the first two surveys had had a longer tenure in their current job ($M = 4.41$, $SD = 5.47$) than those participants who only completed the survey at Time 1 ($M = 3.11$, $SD = 3.68$), $t(154) = -2.27$, $p = .025$. Additionally, chi-square tests indicated that there were no significant differences across the two groups for sex, highest level of completed education, or industry. However, a chi-square test did indicate that there were significant differences across the

two groups in terms of ethnicity ($\chi^2(6) = 12.88$, $p = .045$). Specifically, participants who completed the first two surveys were more likely to be Caucasian (81.9%) than participants who only completed the first survey (74.2%).

Participants who completed the Time 2 survey and passed most or all the attention check items were sent the third survey two weeks after the second. Of the 237 participants at Time 2, 202 (85.2%) completed the survey at Time 3. All participants at Time 3 passed most or all the attention checks.

Independent samples *t*-tests indicated that participants who completed all three surveys did not differ significantly from participants who only completed the survey at Time 1 in terms of age, hours worked per week, tenure at current organization, and tenure in current job. Additionally, chi-square tests indicated that there were no significant differences across the two groups for sex, ethnicity, highest level of completed education, or industry.

A priori power analysis was conducted using G*Power software to determine the number of participants needed to test the hypothesized model depicted in Figure 1. This analysis used an alpha level of .05, a power level of .80, and an effect size of .15 (Cohen, 1988). The regressions conducted in the path analyses to test the hypotheses contained at most eight predictors. Hence, a sample size of 109 would be needed to obtain the specified effect. The sample size in the present study was 202, which was likely sufficient to provide adequate statistical power to test my hypotheses.

Measures

Measures included in the surveys, and the individual items within each measure, appeared in random order to account for potential order biases. All substantive measures were included at all three time points. Demographic variables were measured only at Time 1 except

for age and field of work, which were measured at all three time points to facilitate the linking of responses across time points. All measures along with instructions are included in the Appendix. Unless otherwise noted, participants rated items on a 5-point scale ranging from *strongly disagree* (1) to *strongly agree* (5). Additionally, participants were unable to continue the survey if they skipped any item. Participants received a message reminding them to respond if they attempted to continue the survey without answering every item on a page.

Living a Calling

Living a calling was measured using the Living a Calling Scale (Duffy, Allan, et al., 2012). This measure consisted of six items and displayed acceptable reliability in its original study (α = .85). Previous studies have found significant relationships between this measure and presence of calling, life satisfaction, life meaning (Duffy, Allan, et al., 2012), as well as occupational self-efficacy, job performance, and organizational citizenship behavior (Park et al., 2016). An example item is, "I have regular opportunities to live out my calling." Cronbach's alpha reliability for this measure at Time 1 was .96.

Overwork Climate

Consistent with previous research on overwork climate (Afota et al., 2020), the present study operationalized overwork climate from a psychological (i.e., individual) climate perspective, rather than from an organizational (i.e., aggregate) climate perspective (James et al., 2008). Overwork climate was measured using the eight item scale from Mazzetti et al. (2014). Afota et al. (2020) found that this measure displayed acceptable reliability (α = .88) and that this measure correlated significantly with workaholism and job strain (Afota et al., 2020). An example item is, "Performing overwork is important to be promoted." Cronbach's alpha reliability for this measure at Time 1 was .82.

Workaholism, Cognitive Dimension

The cognitive dimension of workaholism was measured using the cognitive items from the Multidimensional Workaholism Scale (Clark et al., 2020). This measure consisted of four items and displayed acceptable reliability across Clark et al.'s validation studies (α ranging from .91 to .94). Additionally, meta-analytic estimates across Clark et al.'s studies revealed that this measure related significantly to work-family conflict, emotional exhaustion, physical symptoms, absorption, and work hours. An example item is, "I feel like I cannot stop myself from thinking about working." Participants rated items on a 5-point scale ranging from *never true* (1) to *always true* (5). Cronbach's alpha reliability for this measure at Time 1 was .90.

Work-Recovery Guilt

Work-recovery guilt was measured using eight items. Five of the items were adapted from the State Shame and Guilt Scale (Marschall et al., 1994). The original stem for these items asked participants to "rate each statement based on how you are feeling right at this moment." The adapted stem for these items was, "In the past two weeks, when I attempted to engage in nonwork activities." Additionally, the items were adapted to reflect experiences of guilt-related emotions (e.g., remorse) specifically when not working. For example, the item, "I feel remorse, regret," was been adapted to, "I felt remorse because I should have been working." Reinecke et al. (2014) used a similar approach by adding the phrase "When I [watched TV/played video games] yesterday after work/school" prior to each of the five guilt items. Further, Reinecke et al.'s adapted measure displayed acceptable reliability (α = .93) and related significantly with ego depletion, procrastination, recovery, vitality, and enjoyment. In addition to the five items adapted from Marschall et al. (1994), three items were created for this study based on a review of the recovery literature. These three items were, "I felt bad for trying to relax," "I felt remorse for

engaging in leisure activities," and, "I felt like I should not fully engage in hobbies." Cronbach's alpha reliability for this eight-item measure at Time 2 was .95. Further reliability analyses revealed that deleting any items from this measure would not improve Cronbach's alpha. Inter-item correlations for this measure ranged from .39 to .85. Exploratory factor analysis suggested that one factor fit the data well (one-factor eigenvalue = 5.86; two-factor eigenvalue = .69). The proportion of variance accounted for by the individual items ranged from .41 to .83. Together, the eight items accounted for 73.2% of the variance.

Recovery Experiences

Four recovery experiences (i.e., psychological detachment, relaxation, mastery experiences, and control over leisure time) was measured using the four scales from the Recovery Experience Questionnaire (Sonnentag & Fritz, 2007). Each of these four scales consists of four items. These four measures displayed acceptable reliability in Sonnentag and Fritz's original validation study (α ranging from .79 to .89). The stem for these items is, "During time after work…," and example items are, "I forget about work" (psychological detachment), "I kick back and relax" (relaxation), "I learn new things" (mastery), and, "I feel like I can decide for myself what to do" (control). Previous meta-analyses found that these four measures related significantly with fatigue and vigor (Bennett et al., 2018), and with mental well-being, life satisfaction, and general health (Steed et al., 2021). Cronbach's alpha reliabilities for these measures at Time 3 were .83 (psychological detachment), .94 (relaxation), .83 (mastery), and .85 (control).

Control Variables

Trait Guilt. The current study focused on a specific situational form of guilt. Hence, trait guilt was measured as a control variable using the Personal Feelings Questionnaire-2 Guilt

subscale (Harder & Zalma, 1990). This measure consists of six items and achieved acceptable reliability in its original study (α = .72; two-week test-retest reliability = .85). The stem for these items is, "Please indicate how common the following feeling is for you," with an example item being, "Mild guilt." This measure correlated significantly with depression, self-derogation, and private self-consciousness in Harder and Zalma's original validation study. Participants rated items on a five-point frequency scale ranging from *never experience the feeling* (1) to *always experience the feeling* (5). Cronbach's alpha reliability for this measure at Time 1 was .81.

Negative Affect. Negative affect was also included as a control variable. Meta-analytic evidence suggests that negative affect is negatively related to all four recovery experiences (Steed et al., 2021). Negative affect was measured using the Positive and Negative Affect Schedule (Watson et al., 1988). This scale consists of ten items and achieved acceptable reliability in its original study (α = .87). The stem for this measure is, "Please indicate to what extent you generally feel this way, that is, how you feel on the average," with an example item being, "Scared." Scores on this scale, using "past few weeks" in the stem, correlated significantly with depression and state anxiety in Watson et al.'s original validation study. Cronbach's alpha reliability for this measure at Time 1 was .88.

Attention Checks

In order to identify potential insufficient effort responding, two items developed by Huang et al. (2015) were inserted throughout each survey. An example item is, "I can run 2 miles in 2 min." A third item, "For data quality purposes, please select 'Strongly agree,'" was also included in each survey as an attention check. The rating scales for these items differed depending on which measure the item was placed into. All responses to these items should have been on the "disagreement" side of the scale. Following a similar practice from Zelin (2017), two

additional items were used as further attention checks and to double check that participants met survey requirements: "I work 20 or more hours per week," and, "I am 18 years old or older." Responses to the items should have been on the "agreement" side of the scale.

Demographics

The following demographic information was gathered to fully understand and report on the sample: gender, race/ethnicity, age, highest level of completed education, hours worked per week, field of work (e.g., health care), duration at current job, and tenure at current organization.

Analyses

Main analyses were performed using path analysis in Mplus 8.0 (Muthén & Muthén, 1998-2017). Hypothesis testing involved the Time 1 (T1) measures of living a calling, overwork climate, the cognitive dimension of workaholism, trait guilt, and negative affect; the Time 2 (T2) measure of work-recovery guilt; and the Time 3 (T3) measures of the four recovery experiences. Trait guilt and negative affect were included as covariates in the path models. Two path models were used for hypothesis testing: a simple mediation model (i.e., Hypotheses 1-3) and a moderated mediation model (i.e., Hypotheses 4 and 5). Fit of the proposed path models was evaluated using the Mplus Model Indirect function (Muthén & Muthén, 1998-2017; Muthén et al., 2017), as recommended by Valente et al. (2020). This function allowed me to obtain a bias-corrected 95% confidence interval (CI) of the potential indirect effects (i.e., Hypothesis 3) using 10,000 bootstrap samples (Cheung, 2007; MacKinnon et al., 2012; Muthén, 2011). For all hypothesis testing, standardized path coefficients were reported and a cutoff of $p < .05$ was used to determine if an effect was statistically significant.

CHAPTER IV

RESULTS

Preliminary Results

All preliminary analyses were run after each data collection. Collected data were first examined for attention checks. Any cases with two or more failed attention checks on any of the three surveys were removed from further analyses. Descriptive statistics and intercorrelations were calculated using IBM SPSS Statistics Software Version 26.

For the purposes of this study, data for living a calling, overwork climate, the cognitive dimension of workaholism, trait guilt, and negative affect at Time 1, work-recovery guilt at Time 2, and the four recovery experiences at Time 3 were utilized. These data were examined for accuracy, normality, and outliers using SPSS before testing study hypotheses. Specifically, frequency tables were examined to determine whether item values fell within the range of their respective scales. Values were inspected to ensure that they were neither higher nor lower than the maximum or minimum integer values (Tabachnick & Fidell, 2019). There were no missing data as participants were required to complete all items in order to receive payment. Thus, analyses proceeded to examine normality. To examine normality of data, histograms were visually examined for each study variable. Additionally, skewness and kurtosis values of study variables were assessed. Skewness values ranged between -1.13 to .41, while kurtosis values ranged between -1.04 to 1.43. No variables departed significantly from normality (Tabachnick & Fidell, 2019). The data were also examined for any potential outliers using graphs and charts (Cohen et al., 2003), and no notable outliers were found. Reliabilities for the study variables ranged between .81 and .96, and were deemed acceptable (Nunnally & Bernstein, 1994).

Hypotheses-Testing Results

Correlational Results

Table 1 provides means, standard deviations, internal consistency reliabilities, and correlations for all study variables included in the hypothesis-testing analyses. Hypothesis 1 stated that living a calling would be negatively related to recovery experiences. Correlation coefficients indicated that living a calling was not significantly related to three out of the four recovery experiences. Unexpectedly, living a calling was positively correlated with mastery ($r =$ .15, $p < .05$). Thus, Hypothesis 1 was not supported. Hypothesis 2 stated that living a calling would be positively related to work-recovery guilt. The correlation coefficient indicated that living a calling and work-recovery guilt were not related, and hence, Hypothesis 2 was not supported.

Table 1

Means, Standard Deviations, Reliabilities, and Correlations Among Studied Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
1. Living a calling (T1)	2.98	1.11	(.96)									
2. Overwork climate (T1)	2.89	.86	.04	(.82)								
3. Cognitive workaholism (T1)	2.59	.93	.13	.56**	(.90)							
4. Trait guilt (T1)	2.53	.69	−.18**	.15*	.25**	(.81)						
5. Negative affect (T1)	2.62	.63	−.19**	.22**	.39**	.68**	(.88)					
6. Work-recovery guilt (T2)	2.40	1.07	.00	.35**	.49**	.34**	.39**	(.95)				
7. Psychological detachment (T3)	3.27	.89	−.06	−.51**	−.67**	−.15*	−.25**	−.53**	(.83)			
8. Relaxation (T3)	3.85	.79	−.03	−.25**	−.40**	−.21**	−.29**	−.51**	.63**	(.94)		
9. Mastery (T3)	3.16	.82	.15*	−.07	−.00	−.12	−.15*	−.07	.08	.16*	(.83)	
10. Control (T3)	3.77	.75	.08	−.22**	−.31**	−.16*	−.23**	−.41**	.49**	.59**	.29**	(.85)

Note. *N* = 202. T1 = Time 1; T2 = Time 2; T3 = Time 3. Cronbach's alphas are presented in parentheses along the diagonal.

* $p < .05$.   ** $p < .01$.

Path Analyses

Prior to path analyses, I examined model identification to determine the degrees of freedom for the two models. Such examination is necessary to determine whether there are enough observation to estimate the parameters (Clavel, 2014). Both the simple mediation model and the moderated mediation model were just-identified (zero degrees of freedom). Since the models fit the data perfectly, examining model fit was irrelevant (Klem, 1995). Hence, only the path coefficients were examined. In addition to the path models presented below, I examined path models that included the Time 1 endogenous variables as covariates. These latter path models did not produce substantively different results and, thus, are not reported here.

Simple Mediation Model. In the simple mediation model (see Figure 2), living a calling was not related to psychological detachment ($\beta = -.06$, $p = .31$; total $R^2 = .30$, $p < .01$), relaxation ($\beta = -.05$, $p = .39$; total $R^2 = .27$, $p < .01$), mastery experiences ($\beta = .12$, $p = .08$; total $R^2 = .04$, $p = .23$), or control over leisure time ($\beta = .07$, $p = .31$; total $R^2 = .18$, $p < .01$). Thus, Hypothesis 1 was not supported. Living a calling was also not related to work-recovery guilt ($\beta = .09$, $p = .20$; total $R^2 = .17$, $p < .01$), and hence, Hypothesis 2 was not supported.

Hypothesis 3 stated that work-recovery guilt mediates the negative relationship between living a calling and the four recovery experiences. However, this hypothesis was not supported for psychological detachment ($\beta = -.05$, $p = .21$), relaxation ($\beta = -.04$, $p = .21$), mastery experiences ($\beta = .12$, $p = .09$), or control over leisure time ($\beta = -.03$, $p = .22$).

Moderated Mediation Model. In the full moderated mediation model (see Figure 3), living a calling was not related to psychological detachment ($\beta = .03$, $p = .51$; total $R^2 = .53$, $p < .01$), relaxation ($\beta = -.02$, $p = .78$; total $R^2 = .29$, $p < .01$), mastery experiences ($\beta = .11$, $p = .14$; total $R^2 = .06$, $p = .13$), or control over leisure time ($\beta = .11$, $p = .11$; total $R^2 = .21$, $p < .01$).

Thus, Hypothesis 1 was not supported. Living a calling was also not related to work-recovery

guilt ($\beta = .01$, $p = .94$; total $R^2 = .32$, $p < .01$), and hence, Hypothesis 2 was not supported.

Hypothesis 3 stated that work-recovery guilt mediates the negative relationship between

living a calling and the four recovery experiences. However, this hypothesis was not supported

for psychological detachment ($\beta = <-.01$, $p = .94$), relaxation ($\beta = <-.01$, $p = .94$), mastery

experiences ($\beta = <.01$, $p = .97$), or control over leisure time ($\beta = <-.01$, $p = .94$).

Hypothesis 4 stated that overwork climate moderates the relationship between living a

calling and work-recovery guilt. This hypothesis was also not supported ($\beta = .04$, $p = .58$).

Finally, Hypothesis 5 stated that the cognitive dimension of workaholism moderates the

relationship between living a calling and work-recovery guilt. Nonetheless, this hypothesis was

not supported ($\beta = -.14$, $p = .08$). Interestingly, when considered using path analysis without

overwork climate as a moderator, cognitive workaholism did moderate the relationship between

living a calling and work-recovery guilt ($\beta = -.12$, $p < .05$), such that individuals who were living

a calling and who experienced uncontrollable thoughts about work experienced less work-

recovery guilt.

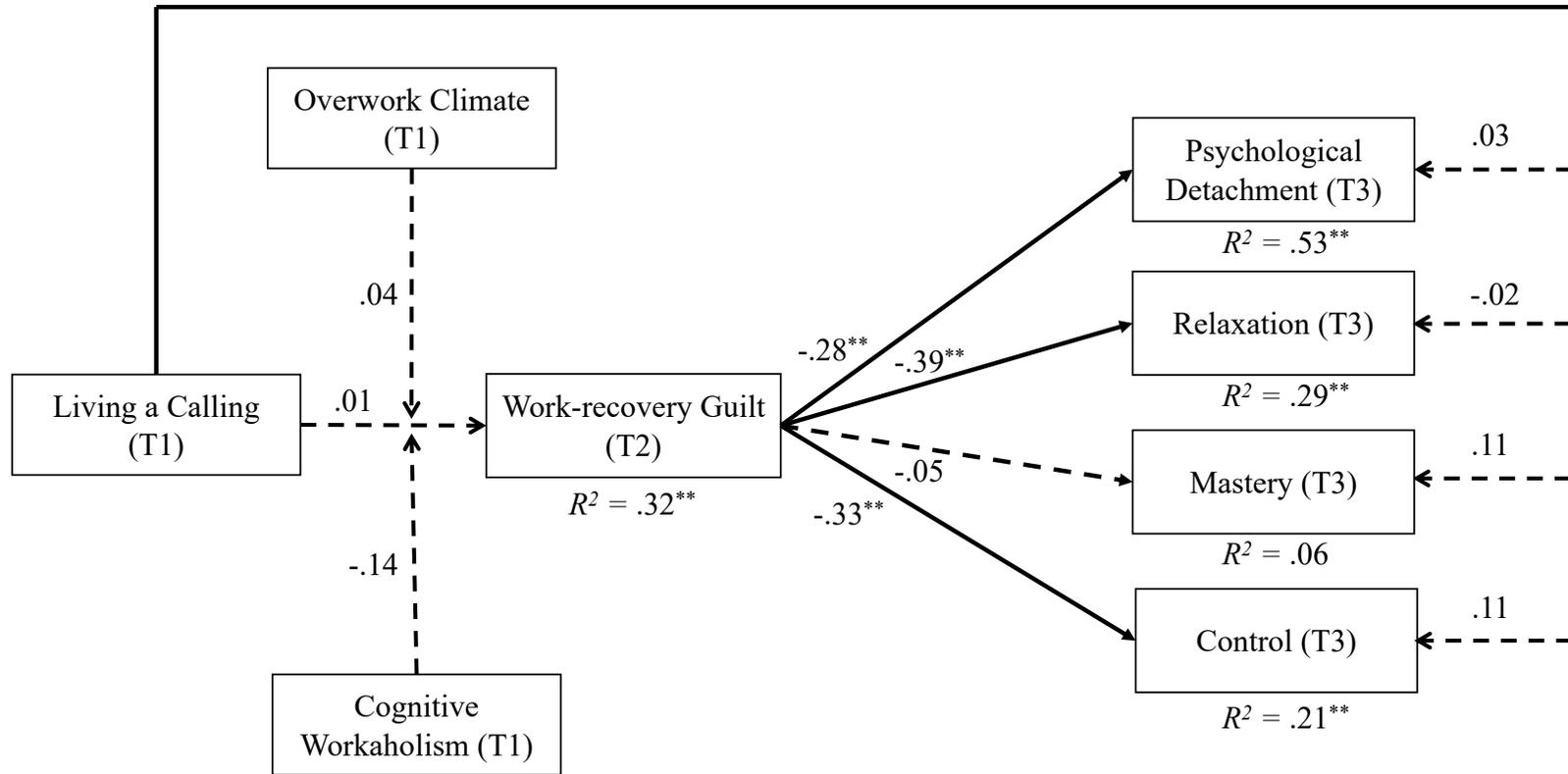**Figure 2**

Results of the Simple Mediation Path Model Analyses
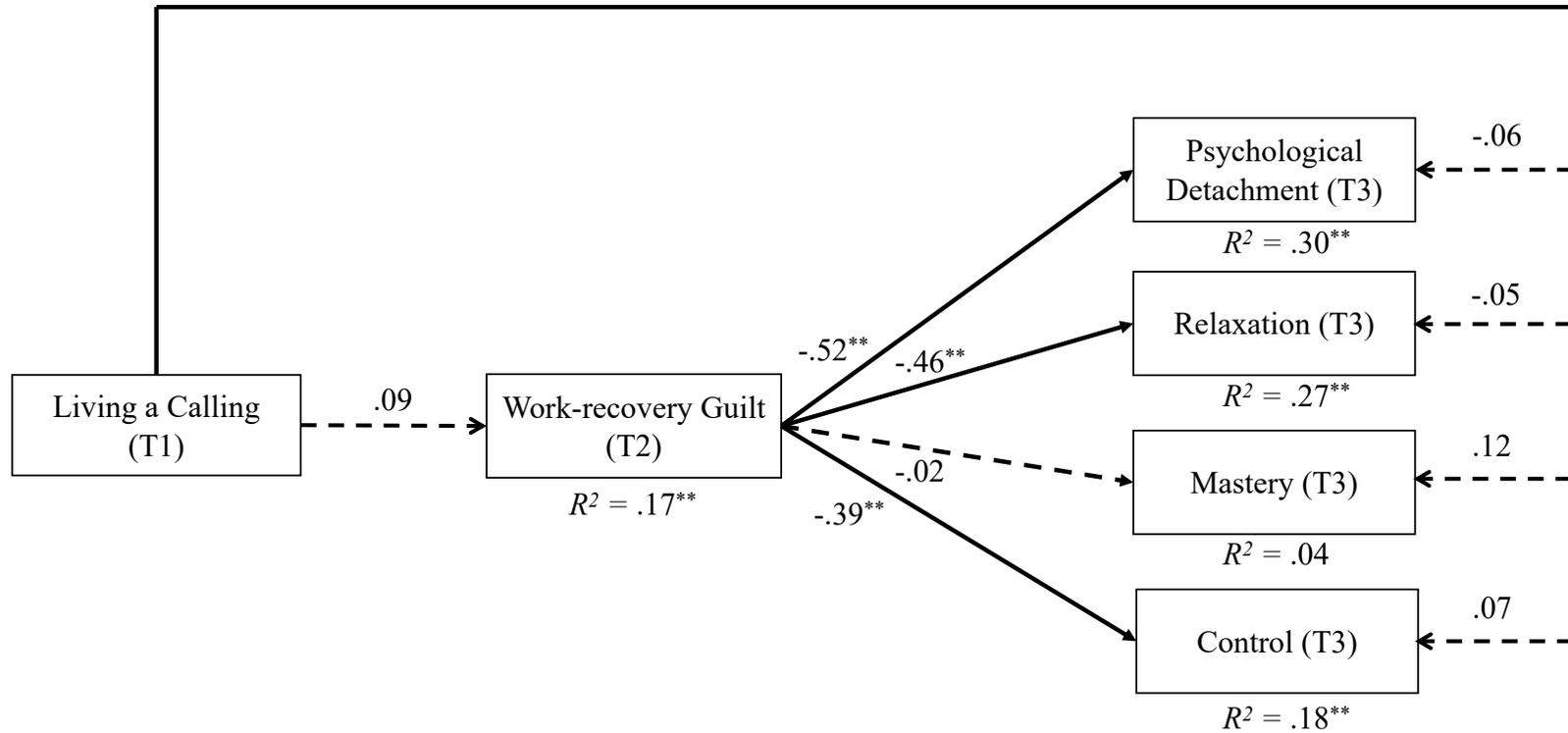
Note. Standardized estimates are displayed. T1 = Time 1; T2 = Time 2; T3 = Time 3. Dashed lines mean the coefficient of the path is not significant. Effect sizes (R^2) are displayed below outcome variables. The control variables (trait guilt and negative affect) are not shown in this model. * $p < .05$. ** $p < .01$.

Figure 3

Results of the Moderated Mediation Path Model Analyses

Note. Standardized estimates are displayed. T1 = Time 1; T2 = Time 2; T3 = Time 3. Dashed lines mean the coefficient of the path is not significant. Effect sizes (R^2) are displayed below outcome variables. The control variables (trait guilt and negative affect), as well as the direct effects from overwork climate and cognitive workaholism, are not shown in this model. $^*p < .05.$ $^{**}p < .01.$

CHAPTER V

DISCUSSION

The purpose of this study was to examine the relationship between living a calling and recovery experiences (i.e., psychological detachment, relaxation, mastery, and control; Sonnentag & Fritz, 2007). I hypothesized that living a calling would be negatively related to recovery experiences, and that this relationship would be mediated by work-recovery guilt (i.e., guilt experienced as a result of attempting to engage in recovery). Moreover, I expected that the relationship between living a calling and work-recovery guilt would be stronger for individuals who work in an overwork climate (i.e., a work environment which encourages individuals to work more time than is required; Mazzetti et al., 2014) and for those individuals who experience persistent, uncontrollable thoughts about work (i.e., the cognitive dimension of workaholism; Clark et al., 2020). Contrary to my expectations, living a calling was not related to any of the recovery experiences, nor was it related to work-recovery guilt. Further, work-recovery guilt did not mediate the relationship between living a calling and recovery experiences, and neither overwork climate nor the cognitive dimension of workaholism moderated the relationship between living a calling and work-recovery guilt.

To my knowledge, this study is the first to examine the relationship between living a calling and all four recovery experiences (Sonnentag & Fritz, 2007). One previous study (Clinton et al., 2017) found that calling, both directly and indirectly through longer work hours, limited psychological detachment after work among a sample of clergy. However, Clinton et al. did not find a statistically significant zero-order correlation between calling and psychological detachment. Similarly, in the present study, zero-order correlations indicated that living a calling was not related to psychological detachment, relaxation, or control. Contrary to expectations,

living a calling was positively related to mastery experiences ($r = .15$, $p < .05$). This finding suggests that individuals who are living a calling may prefer to spend their time outside of work engaged in challenging experiences and learning opportunities that help them to disengage from job-related thoughts (Sonnentag & Fritz, 2007). Indeed, a qualitative study (Terry & Cunningham, 2021) found that common self-care practices among clergy included engaging in personal hobbies, reading, exercising, doing yoga, and taking classes.

One important difference to note between Clinton et al. (2017) and the present study is the choice of mediator. Clinton et al. found that daily work hours partially mediated the relationship between calling intensity and evening psychological detachment. In contrast, the present study considered work-recovery guilt as a mediator in the relationship between living a calling and recovery experiences. Taken together, these findings suggest that individuals who are living a calling may work more hours, but their working more hours may not be motivated by a sense of guilt associated with attempting to engage in recovery experiences. Future research should consider the underlying mechanisms for why individuals are who living a calling may be prone to work more hours. In particular, Clinton et al. suggested that people with intense callings might differ in the extent to which they could choose whether or not to work longer hours. For example, Bunderson and Thompson (2009) found that some zookeepers worked longer hours because otherwise the animals would not have received adequate care.

While living a calling did not have any direct or indirect effects on recovery experiences in the present study, work-recovery guilt had a negative direct effect on three out of the four recovery experiences (i.e., psychological detachment, relaxation, and control). Moreover, these effects were observed while controlling for trait guilt, which did not have a significant direct effect on any of the recovery experiences. This finding underscores the importance of

considering situationally relevant forms of guilt (e.g., work-recovery guilt), as well as broader trait-based measures of guilt. Indeed, previous studies have examined two other situational forms of guilt, namely work-interfering-with-family guilt (Borelli et al., 2017) and guilt associated with after-work media use (Reinecke et al., 2014).

Additionally, this study supports the validity of the work-recovery guilt construct. Not only did my newly developed eight-item measure exhibit excellent reliability ($\alpha = .95$), but this measure also related to overwork climate ($r = .35$, $p < .01$), cognitive workaholism ($r = .49$, $p < .01$), trait guilt ($r = .34$, $p < .01$), negative affect ($r = .39$, $p < .01$), psychological detachment ($r = -.53$, $p < .01$), relaxation ($r = -.51$, $p < .01$), and control ($r = -.41$, $p < .01$) in expected ways. Future research should consider the individual differences and situational factors which may be associated with the experience of work-recovery guilt, which may in turn limit recovery from work. In particular, overwork climate and cognitive workaholism may be two risk factors associated with the experience of work-recovery guilt.

Although overwork climate did not moderate the relationship between living a calling and work-recovery guilt, overwork climate did have a significant direct effect on psychological detachment ($\beta = -.17$, $p < .01$; see Figure 3). This finding suggests that overwork climate may be associated with a lack of mental disengagement from work. To my knowledge, the present study is the first to examine the relationship between overwork climate and recovery experiences.

Similar to overwork climate, cognitive workaholism did not moderate the relationship between living a calling and work-recovery guilt. Intriguingly, when considered using path analysis without overwork climate as a moderator, cognitive workaholism did moderate the relationship between living a calling and work-recovery guilt ($\beta = -.12$, $p < .05$). This finding was contrary to expectations, as it suggests that individuals who are living a calling and who

experience uncontrollable thoughts about work may experience less work-recovery guilt. However, it is important to note that in this same analysis, cognitive workaholism had a positive direct effect on work-recovery guilt ($\beta = .40$, $p < .01$). Additionally, in the full moderated mediation model, cognitive workaholism had a significant direct effect on work-recovery guilt ($\beta = .34$, $p < .01$), psychological detachment ($\beta = -.48$, $p < .01$), and relaxation ($\beta = -.19$, $p < .05$). Taken together, these findings suggest that individuals who experience uncontrollable thoughts about work may feel guilty when attempting to engage in recovery activities and may be unable to mentally disengage and relax during time outside of work.

Theoretical Implications

The present study has important theoretical implications for Work as Calling Theory (WCT; Duffy et al., 2018) and the potential "dark side" of calling. Specifically, WCT proposes that living a calling only leads to negative outcomes under certain conditions (i.e., psychological climate and individual differences). Indeed, in the present study, living a calling was not related to overwork climate, cognitive workaholism, or work-recovery guilt. Further, living a calling was not associated with a lack of recovery experiences. These finding suggests that living a calling, in and of itself, is not a risk factor for a lack of recovery or other negative outcomes. Additionally, in the present study, overwork climate and cognitive workaholism were not conditions under which living a calling was associated with work-recovery guilt. Nonetheless, future research should consider other potential conditions under which living a calling may be associated with negative outcomes.

Practical Implications

The results of the present study, in concert with recent theoretical development (Duffy et al., 2018), suggest that the "dark side" of calling has much less to do with calling and much more

to do with the environment in which individuals work, as well as individual differences other than calling. Therefore, individuals and organizations may be able to reap the benefits of calling (e.g., enhanced job performance; Park et al., 2016) without necessarily experiencing any negative costs. Further, organizations may be able to help individuals develop a sense of calling in their work through job crafting (Berg et al., 2010).

On the other hand, the results of the present study suggest that individuals and organizations should be concerned with the potentially detrimental effects of work-recovery guilt. Specifically, work-recovery guilt may prevent individuals from experiencing psychological detachment, relaxation, and control over leisure time. These three recovery experiences have been previously linked to well-being, sleep, life satisfaction, general health, and job performance (Steed et al., 2021). Hence, individuals and their organizations should consider ways to limit the experience of guilt for engaging in recovery experiences. An initial step toward guilt-free recovery experiences could involve recognizing why recovery experiences are important. To borrow an earlier-cited metaphor from a participant in Proeschold-Bell et al.'s (2011) qualitative study with clergy, individuals need to put on their own oxygen mask first before assisting others with their oxygen masks. In other words, individuals may need to recover first before they can perform at their best on the job and experience overall well-being.

Limitations and Future Directions

The implications of these findings are nuanced by a few limitations. First, the present study used a two-week time interval between surveys. Only a few previous studies on calling have used a longitudinal design (e.g., Clinton et al., 2017), and these studies have not established an optimal time length for observing the potential effects of calling. Hence, the results of the present study may have been different with a shorter or longer time interval between surveys.

Future research should seek to establish the optimal time interval for observing the potential effects of calling (Brusso et al., 2014). Future research should also consider whether the optimal interval may differ depending on whether positive or negative outcomes are expected. Further, this study used a between-person perspective. One avenue for future research could be studying the proposed relationships in this study based on within-person processes (e.g., a daily diary study design).

Second, the results of the present study may have been limited by the mediator in the center of the proposed model (i.e., work-recovery guilt). While my newly developed measure exhibited excellent reliability and related to other measures in expected mays, work-recovery guilt was not related to living a calling and, hence, the possibilities with finding significant results for mediation and moderation were limited. Given that work-recovery guilt, overwork climate, and cognitive workaholism all correlated with each other and all had direct effects on at least one of the recovery experiences, these three likely interact with each other in meaningful ways. Future research should consider the order of these potential interactions. For example, working in an environment where individuals perceive that working longer hours is encouraged could make those individuals more prone to experience work-recovery guilt, especially if they already experience uncontrollable thoughts about work.

CHAPTER VI

CONCLUSION

The purpose of the present study was to examine the potential relationship between living a calling and recovery experiences (i.e., psychological detachment, relaxation, mastery, and control; Sonnentag & Fritz, 2007). Based on Work as Calling Theory (WCT; Duffy et al., 2018), I proposed that living a calling would be associated with work-recovery guilt (i.e., guilt experienced as a result of attempting to engage in recovery), and that work-recovery guilt would partially mediate the proposed negative relationship between living a calling and recovery experiences. Further, I proposed that overwork climate and the cognitive dimension of workaholism would moderate the relationship between living a calling and work-recovery guilt, such that this relationship would be stronger for those individuals who worked in an environment where they perceived working longer hours to be valued and for those individuals who experienced uncontrollable thoughts about work. Nevertheless, none of these proposed relationships were supported. These findings corroborate the theoretical proposition from Duffy et al. (2018) that living a calling should primarily be associated with positive, rather than negative outcomes.

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APPENDIX

STUDY MEASURES

Living a calling (Duffy et al., 2012; originally a 7-point Likert scale)

Rating scale: 1=Strongly Disagree to 5=Strongly Agree

Please rate your agreement with the following items **in reference to your experiences at work.**

1. I have regular opportunities to live out my calling.
2. I am currently working in a job that closely aligns with my calling.
3. I am consistently living out my calling.
4. I am currently engaging in activities that algin with my calling.
5. I am living out my calling right now in my job.
6. I am working in the job to which I feel called.

Overwork climate (Mazzetti et al., 2014)

Rating scale: 1=Strongly Disagree to 5=Strongly Agree

In my workplace…

1. Performing overwork is important to be promoted.
2. It is considered normal to work on weekends.
3. Most employees work beyond their official work hours.
4. It is considered normal for employees to take their work home.
5. Almost everybody expects employees to perform unpaid overtime work.
6. It is difficult to take a day off or paid holidays.
7. Management encourages overtime work.
8. Working overtime is appreciated by management.

Workaholism, cognitive dimension (Clark et al., 2020)

Rating scale: 1=Never true, 2=Seldom true, 3=Sometimes true, 4=Often true, 5=Always true

Please report the degree to which each item describes you.

1. I feel like I cannot stop myself from thinking about working.
2. In general, I spend my free time thinking about work.
3. At any given time, the majority of my thoughts are work related.
4. It is difficult for me to stop thinking about work when I stop working.

Work-recovery guilt (first five items adapted from Marschall et al., 1994; see also Reinecke et al., 2014)

Rating scale: 1=Strongly Disagree to 5=Strongly Agree (rating anchors are adapted)

In the past two weeks, when I attempted to engage in nonwork activities,

1. I felt remorse because I should have been working.
2. I felt tension because I should have been working.
3. I could not stop thinking about work.
4. I felt like I should have apologized for not working.
5. I felt bad about not working.
6. I felt bad for trying to relax.
7. I felt remorse for engaging in leisure activities.
8. I felt like I should not fully engage in hobbies.

Recovery experiences (Sonnentag & Fritz, 2007)

Rating scale: 1=Strongly Disagree to 5=Strongly Agree

In the past two weeks, during time AFTER work…

Psychological Detachment
1. I forget about work.
2. I don't think about work at all.
3. I distance myself from my work.
4. I get a break from the demands of work.

Relaxation
5. I kick back and relax.
6. I do relaxing things.
7. I use the time to relax.
8. I take time for leisure.

Mastery
9. I learn new things.
10. I seek out intellectual challenges.
11. I do things that challenge me.
12. I do something to broaden my horizons.

Control
13. I feel like I can decide for myself what to do.
14. I decide my own schedule.
15. I determine for myself how I will spend my time.
16. I take care of things the way that I want them done.

Attention checks (Huang et al., 2015; Zelin, 2017)

Rating scale depended on which measure the item was placed into.

1. For data quality purposes, please select "Strongly agree"
2. I can run 2 miles in 2 min.
3. I eat cement occasionally.

Attention Check Items for Survey Requirements
4. I work 20 or more hours per week.
5. I am 18 years old or older.

Trait guilt (Harder & Zalma, 1990)

Rating scale: 1=Never experience the feeling, 2=Rarely experience the feeling, 3=Sometimes experience the feeling, 4=Often experience the feeling, 5=Always experience the feeling

Please indicate how often you experience the following feelings in general, that is, on the average.

1. Mild guilt
2. Worry about hurting or injuring someone
3. Intense guilt
4. Regret
5. Remorse
6. Feeling you deserve criticism for what you did

Negative affect (Watson et al., 1984; rating scale adapted to match trait guilt measure and in)

Rating scale: 1=Never experience the feeling, 2=Rarely experience the feeling, 3=Sometimes experience the feeling, 4=Often experience the feeling, 5=Always experience the feeling

Please indicate how often you experience the following feelings in general, that is, on the average.

1. Scared
2. Afraid
3. Upset
4. Distressed
5. Jittery
6. Nervous
7. Ashamed
8. Guilty
9. Irritable
10. Hostile

VITA

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PROFESSIONAL ACADEMIC EXPERIENCE

MISSISSIPPI COLLEGE, Clinton, MS
Instructor, Department of Psychology
Fall 2021 – Present

- Undergraduate instruction: Introduction to Psychology, Student Research, Experimental Psychology, Industrial and Organizational Psychology, Social Psychology, Cognitive Psychology

FORMAL EDUCATION

Old Dominion University, Norfolk, VA
Ph.D., Industrial and Organizational Psychology, May 2022

- Advisor: Dr. Konstantin P. Cigularov
- Dissertation: *Guilty as not (re)charged: Job demands, work-recovery guilt, and their effects on recovery outcomes*
- GPA: 3.97/4.00

The University of Tennessee at Chattanooga, Chattanooga, TN
M.S., Industrial and Organizational Psychology, May 2018

- Thesis: *A noble task: Testing an operational model of clergy occupational health*
  - Committee: Dr. Christopher J. L. Cunningham, Dr. Ralph W. Hood, Jr., Dr. Kristen Jennings Black
- GPA: 4.00/4.00

Mississippi College, Clinton, MS
B.A., English Writing and Psychology, May 2016

- Summa Cum Laude
- Minor in Christian Studies and Philosophy
- GPA: 4.00/4.00

RESEARCH INTERESTS

My research focuses primarily on occupational health, work as a calling, and recovery from work, particularly as these areas relate to one another. The goal of my research is to identify the demands and resources under which individuals and organizations can thrive at optimal and sustainable levels of performance. My research has often involved small organizations, such as regional hospitals, and occupations with broader community influence, such as clergy.