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Unanswered Occupational Calling: The Development and Validation of a New Measure

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Unanswered Occupational Calling:

The Development and Validation of a New Measure

by

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A thesis submitted in partial fulfillment
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DEDICATION

To My Daughter, Cecelia

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ABSTRACT

There is a limited body of research that illuminates the various positive life-, health-, and work-related outcomes that an individual may experience through the pursuit of his or her occupational calling. An occupational calling is defined as an occupation that a person feels drawn to, finds intrinsically enjoyable and meaningful, and identifies as a central part of his or her identity. The extant literature on occupational callings, however, rarely considers the possible detrimental effects of having an occupational calling other than to explain unexpected study results. These unexpected study results hint at adverse psychological and job-related outcomes when an individual fails or does not have the ability to pursue an occupational calling, a concept this paper refers to as an "Unanswered Occupational Calling." An Unanswered Occupational Calling is specifically defined as an occupational calling that an individual perceives, but is not currently pursuing. Scholarly work is needed to explore the individual and organizational consequences of an individual's experience of an Unanswered Occupational Calling.

Consequently, the purpose of this research was twofold: (1) to develop and generate preliminary construct validity evidence for a newly developed Unanswered Occupational Calling instrument; and (2) to explore the nomological network of the Unanswered Occupational Calling construct. To that end, I conducted two studies, the first of which was required for initial scale construction. The central purpose of the second was to explore the nomological network of Unanswered Occupational Callings.

Overall, Study 1 and 2 supported the construct validity of the newly developed Unanswered Occupational Calling instrument. As expected, the Unanswered Occupational Calling instrument was shown to relate positively to intrinsic work motivation and negatively to work engagement, job involvement, career commitment, and answered occupational callings. Also as expected, those who more strongly endorsed an Unanswered Occupational Calling also tended to experience more physical symptoms, psychological distress, and withdrawal intentions and less job and life satisfaction. These results are consistent with previous research that suggested that there may be detrimental effects of perceiving, but not pursuing, an occupational calling.

CHAPTER ONE:

INTRODUCTION

Over the past couple of decades, the importance of pursuing meaningful work has received a lot of play by the public press and social scientists alike. Such attention suggests that people desire more out of work than material benefits; they want their work to be personally rewarding. Notwithstanding, there has been relatively little consistency across studies regarding the experiential facets that comprise meaningful work. Yet, all seem to agree that meaningful work consists of participating in work that has purpose within the broader context of an individual's life, which participation is often done for personal fulfillment or the greater good (e.g., Steger, Dik, & Duffy, 2012).

The core dimension of meaningful work is meaningfulness, which has been broadly defined as "the sense made of, and significance felt regarding, the nature of one's being and existence" (Steger, Frazier, Oishi, & Kaler, 2006, p. 81). Within the specific context of work, meaningfulness has been more narrowly defined as "the value of a work goal or purpose, judged to the individual's own ideals or standards" (May, Gilson, & Harter, 2004, p. 11). Thus, the participation in meaningful work is a deeply personal and subjective experience that may have far reaching positive impacts on one's life (e.g., Steger & Dik, 2009).

Participating in meaningful work has been associated with positive health-, life-, and job-related outcomes. For example, those who report participation in meaningful work also report higher levels of well-being (e.g., Arnold, Turner, Barling, Kelloway, & McKee, 2007; Steger et al., 2012), job satisfaction (e.g., Kamdron, 2005), and work centrality and importance (e.g.,

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Kamdon, 2005; Harpaz & Fu, 2002) than those who do not. Contrarily, participating in work that holds little meaning has been associated with detachment from work, burnout, and apathy (May et al., 2004). Thus, participation in meaningful work might be expected to foster employee motivation towards work, and in turn, increase organizational productivity (e.g., Lips-Wiersma & Wright, 2012).

Pursuit of one's occupational calling is one avenue that may lead to meaningful work. A review of the literature supports two approaches to occupational calling research: (1) the existential approach; and (2) the secular approach. Both approaches agree that an occupational calling is an occupation that a person feels drawn to and finds meaningful within the broader context of life, but fundamentally disagree on the person's motivations for pursuing that work. The existential approach casts a narrow net over the employee-base by focusing on a religious or spiritual drive to pursue a particular line of work that is inextricably linked to other-oriented values and goals. The secular approach, on the other hand, adopts a broader perspective by focusing instead on the meaningfulness and enjoyment that an individual derives from participating in their chosen work domain. As such, the motivations for pursuing a secular occupational calling can range from personal fulfillment to a religious drive to service others.

Occupational Calling - The Existential Approach

The existential approach to an occupational calling was the first approach to emerge and can be traced back to the Protestant Reformation (e.g., Berg, Grant, & Johnson, 2010). This approach defines an occupational calling as a "transcendent summons" (Dik, Duffy, & Eldridge, 2009, p. 625) to a particular vocation that services others. As so defined, those who perceive an occupational calling are drawn to a vocation by a source external to the self, and the toiling

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therein is driven by a sense of service to others. From this perspective, an occupational calling is rooted in religiousness or spirituality (Steger, Pickering, Shin, & Dik, 2010).

Religiousness refers to an individual who is committed to living according to his or her religious beliefs (Duffy & Sedlacek, 2010, p. 29; Duffy, 2006). Spirituality, on the other hand, is more broadly, and perhaps more vaguely, defined than religiousness and loosely refers to those who are guided by a higher power, an ethereal energy, or a commitment to the good of others (e.g., Duffy, 2006). Scholarly work has shown that religiosity and spirituality positively influence work-related outcomes. For example, Lips-Wiersma (2002) empirically established a link between spirituality and career purpose, self-development, and prioritizing the service of others. Others have shown that various dimensions of religiosity and spirituality, particularly meaning making, are positively related to job satisfaction (Robert, Young, & Kelly, 2011), job involvement (Millman, Czaplewski, & Ferguson, 2003), career-decision self-efficacy (Duffy & Blustein, 2005), and productivity (Garcia-Zamor, 2003).

The existential approach to occupational calling research incorporates definitional elements of religiousness and spirituality, particularly an existential source of motivation and other-oriented values and goals. This approach has generated a body of literature that positively links an occupational calling with numerous life-, health-, and work-related outcomes. Studies utilizing cross-sectional designs have shown that college students who strongly endorse the presence of an occupational calling also have greater career maturity, career-decision self-efficacy (e.g., Dik, Sargent, & Steger, 2008; Duffy & Sedlacek, 2007), work hope, and academic satisfaction (Duffy, Allan, & Dik, 2011a) than those who do not. Similarly designed studies on employees have shown that those who strongly endorse an occupational calling also have greater career commitment, organizational commitment (Duffy, Dik, & Steger, 2011b), and life and

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work meaning (Bunderson & Thompson, 2009), but lower levels of withdrawal intentions (e.g., Duffy et al., 2011b; Wrzesniewski, McCauley, Rozin, & Schwartz., 1997), depression, and stress (e.g., Peterson, et al., 2008; Treadgold, 1999) than those who do not (e.g., Berg et al., 2010). Bolstering these cross-sectional results, Dik and Steger (2008) found statistically significant increases in career-self-efficacy in a sample of college students who participated in a randomized trial of calling-infused career decision-making workshops as compared to those in the wait-listed control group.

Inspired by positive research results, scholars explored the mechanisms by which an occupational calling affects work-related outcomes, albeit cross-sectionally. For example, Duffy et al. (2011b) found moderately strong positive relationships between experiencing an occupational calling and career (r = .48) and organizational (r = .35) commitment and job satisfaction (r = .31). Their results further supported a model in which career commitment: (1) fully mediated the relationship between occupational calling and job satisfaction; and (2) partially mediated the relationship between occupational calling and organizational commitment, suggesting that career commitment might be the critical link between occupational calling and positive work-related outcomes. Similarly, Duffy et al. (2011a) found evidence that the significant positive relationship between the presence of an occupational calling and academic satisfaction might be mediated by career self-efficacy and work hope in a diverse sample of undergraduate college students.

Occupational Calling - The Secular Approach

The existential approach to an occupational calling necessarily excludes individuals who are not religious or spiritual, or, more generally, do not heed to an existential power. To

overcome this oversight, another term intended to capture a broader employee base was used: *vocation*. Within the career counseling literature, these two psychological constructs were not clearly distinguished by definition or operationally and were often used interchangeably (e.g., Dik & Duffy, 2008). Scholars labored to draw a clear distinction between the two, but such efforts were mostly fruitless. More successfully, Dik and Duffy (2008) defined both as work that is both purposeful and meaningful, and which is motivated by the desire to accomplish other-oriented goals. Dik and Duffy's definitional distinction between the two rested solely in the source of the "summons" to a particular work domain. Occupational callings were defined to originate from a source external to the self (e.g., God or society), while a vocation had no such requirement.

Over time, scholars became frustrated with the limitations of the existential approach to an occupational calling, particularly the external source of the summons (e.g., Hall & Chandler, 2005). As such, a more secular approach to an occupational calling quickly evolved. Such an approach renders the forced distinction between an occupational calling and a vocation irrelevant. In other words, the secular definition of an occupational calling completely subsumes a vocation, making the two psychological constructs one. Any continuing scientific debate regarding the distinctiveness of these two terms is beyond the scope of this paper.

Since its conception, the secular approach to an occupational calling has become the most prevalent (e.g., Berg et al., 2010; Wrzesniewski, 2003). A secular occupational calling is conceptualized as a job attitude and is specifically defined as an occupation or work domain that an individual feels drawn to, finds intrinsically enjoyable and meaningful, and identifies as a central part of his or her identity (Berg et al., 2010; Dobrow & Tosti-Kharas, 2011). This definition includes both a hedonic (enjoyment) motivational element and eudemonic

(meaningfulness) motivational element, although the two are often difficult to distinguish in practice (e.g., King, Hicks, Krull, & Del Gaiso, 2006; Ryan and Deci 2001). Hedonic motivational states are associated with pleasure seeking and satisfaction, whereas eudemonic motivational states are associated with purpose making and personal growth or fulfillment (e.g., King et al. 2006, Ryan and Deci 2001).

Notably, this particular definition of an occupational calling does not necessarily incorporate religious, spiritual, or other-oriented motivations, although the definition is certainly broad enough to capture such motivations for pursuing a particular vocation. Put another way, this definition of a calling does not predetermine the reason that an individual is "called" to a particular occupation, just that he or she is for reasons that only the individual may know. In this way, this definition is broader than originally conceived and, thus, does not discriminate based on any particular motivation to purse a calling (e.g., Hall & Chandler, 2005). What is important, however, is that the individual is drawn towards, and derives meaningfulness, enjoyment, and a sense of identity from participation in his or her chosen work domain.

Recent empirical research indicates that a secular approach to an occupational calling also is strongly related to important life- and job-related outcomes, and casts a larger net over the employee-base than one that is centered on religiosity (Steger et al., 2010). In fact, the results of a longitudinal study consisting of 5,523 first year college students showed that the presence of and the search for an occupational calling only minimally overlapped with religiousness (Duffy & Sedlacek, 2010). Other studies have demonstrated that an occupational calling, assessed without reference to an existential power or other-oriented goals, was positively related to life meaning (Duffy & Sedlacek, 2010) and job satisfaction (Duffy et al., 2012).

Advancing this body of literature by employing a two-wave longitudinal study design, Duffy, Manuel, Borges, and Bott (2011c) showed that changes over time in occupational calling endorsement resulted in corresponding changes in well-being and vocational development in a sample of medical students. At both times 1 and 2, those with higher occupational calling scores tended also to agree that their lives had more meaning and their vocational development was more advanced than those with lower scores, albeit in the opposite causal flow than hypothesized. Duffy et al.'s (2011c) longitudinal design revealed that life meaning and vocational development predicted calling, rather than vice versa, challenging the prevailing assumption that the endorsement of an occupational calling precedes positive well-being and career-related outcomes. At least for theses medical students, increases in well-being indicators and vocational development over time predicted higher levels of occupational calling at time 2.

The foregoing research rested on imprecise definitions of a secular occupational calling and on a two-item calling measure that has not been empirically validated (Dobrow & Tosti-Kharas, 2011). To encourage more rigorous research in this area, Dobrow and Tosti-Kharas (2011) developed and provided preliminary construct validity evidence for an instrument designed to assess the extent that people perceive their *current* occupation as their secular calling, a construct this paper refers to as an "answered occupational calling." These authors further empirically demonstrated that an answered occupational calling is significantly related to important work-related outcomes. Employing a multi-sample, longitudinal design, theses scholars found significant positive relationships between their 12-item answered occupational calling measure and work domain satisfaction (r = .18 to.54), career-related self-efficacy (r = .20 to .30), clarity of professional identity (r = .34), and career insight (r = .21 to.48).

Unanswered Occupational Calling

The extant literature strongly supports the notion that pursuing an occupational calling predicts better psychological health and fosters positive job-related outcomes. Does the inability to pursue an occupational calling result in adverse health and job-related consequences? Recent empirical work suggests that it does. In fact, researchers have suggested that the outcomes associated with occupational callings may be a function of the calling group in which any given individual falls. Work in this area supports at least five different occupational calling groups: (1) currently living a calling; (2) searching for a calling; (3) perceiving but not pursuing a calling; (4) irrelevancy of a calling; and (4) perceiving a calling in addition to living a calling (e.g., Dik & Duffy, 2009; Duffy et al., 2012). For example, Duffy and Sedlacek (2007) demonstrated that having an occupational calling was positively related to career decidedness ($r = .58$), career choice comfort ($r = .54$), and vocational self-clarity ($r = .55$) and negatively related to indecisiveness ($r = -.27$) and lack of educational information ($r = -.20$) in a sample of college students. Conversely, the search for an occupational calling had relationships of comparable magnitudes with these outcomes, but in opposite directions.

More recently, Duffy et al. (2012) found that living an occupational calling was a significant moderator of the relationship between having a calling and career commitment, such that those who were living an occupational calling were more committed to their careers than those who merely had, but were not living, an occupational calling. The same relationships held when work meaning, rather than commitment, was the outcome. Importantly, the positive relationships between having an occupational calling, career commitment, and work meaning were all but extinguished for those low on living an occupational calling. Further, they developed and tested a moderated, multi-mediator model that supported commitment and meaning in work

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as mediators of the relationship between having an occupational calling and job satisfaction. Overall then, having an occupational calling is related to job satisfaction through commitment and meaningful work, but only for those having the opportunity to live out that calling.

What about those who perceive an occupational calling, but for whatever reasons are unable to pursue it? Duffy et al.'s (2011b) analyses further revealed that career commitment had a suppressor effect on the relationship between having an occupational calling and withdrawal intentions, such that when career commitment was controlled for, the negative relationship between the two turned positive. In explanation, withdrawal intentions were higher among those who had an occupational calling, but little commitment to their current career. This outcome suggests that those reporting both an occupational calling and an intent to withdrawal from work may have what this paper proposes as an "Unanswered Occupational Calling," which is specifically defined as an occupational calling that an individual perceives, but currently is not pursuing (Berg et al., 2010). In other words, those individuals may have been experiencing an Unanswered Occupational Calling, which led to stronger withdrawal intentions.

Theoretical Development of Unanswered Occupational Calling

Surprisingly, the vast majority of the occupational calling literature is devoid of theory. A notable exception is the research conducted by Hall and Chandler (2005), wherein these authors developed a 'calling model of psychological success,' which has its roots in what Cameron, Dutton, and Quinn (2003) coined as positive organizational scholarship. Positive psychology focuses on strengths, health, and psychological well-being, rather than on weakness and poor physical and psychological health (e.g, Fredrickson, 1998; Luthans, Luthans, & Luthans, 2004).

Hall and Chandler (2005) argued that those living their occupational callings are the ones that reap the deepest forms of psychological success, a process that is both dynamic and cyclical in nature. According to Hall and Chandler (2005), those who sense a calling towards their work domain are likely to experience higher levels of psychological success than those who do not by setting, exerting effort towards, and then achieving personally meaningful and challenging work goals. Psychological success, in turn, is theorized to bolster self-efficacy, lead to a more competent identity, and foster work engagement, all of which feed into the individual's existing sense of calling towards their work domain. At this point, the positive, self-directed, feedback loop repeats by the continued setting of personally meaningful and challenging goals. According to these authors, a person with an occupational calling is buffered against occasional setbacks by his or her enhanced sense of self and purpose. In the absence of a calling, such failures may diminish the person's self-efficacy and thwart his or her identity development. These theoretical explanations are certainly helpful in explaining the psychological experiences and job-related successes of a person living their calling, but provide little insight into what one experiences when he or she unable to answer an occupational calling.

The regulatory focus theory (RFT) is a motivational theory that may provide insight into how and why an individual experiences an Unanswered Occupational Calling. This paper draws upon RFT because it makes conceptual sense and is parsimonious. Berg et al. (2010) also drew upon RFT to illuminate the experience of an Unanswered Occupational Calling. RFT simply posits that people develop both job attitudes and behavioral inclinations as a function of how they interpret affective experiences at work and incorporates both approach and avoidance self-regulatory principles (Higgins, 1997). In short, according to the RFT, people are motivated to approach pleasurable work experiences, and to avoid undesireable ones.

RFT offers two types of motivational states that an employee may adopt when confronted with workplace experiences: (1) prevention-focused; and (2) promotion-focused (Higgins, 1997). RFT predicts that negative work events will trigger prevention-focused states, and positive events will trigger promotion-focused states (Higgins, 1997). Prevention-focused individuals are likely to attend to and attempt to avoid negative workplace experiences, whereas promotion-focused individuals are likely to attend to and seek out positive ones (Higgins, 1997).

Extending RFT to the experience of Unanswered Occupational Callings, RFT suggests that when employees experience adverse events and emotions at work, they will enter a prevention-focused state. In such a state, they may find their current occupation unfulfilling. In an attempt to dissociate from these adverse events and emotions, prevention-focused employees may actively ruminate on an Unanswered Occupational Calling as one way to fill their current occupational void. Indeed, participants in Berg et al.'s (2010) study admitted that negative experiences within their current occupation triggered their preoccupation with an Unanswered Occupational Calling. In an attempt to dissociate from and reduce job dissatisfaction, they opened themselves up to the possibility of pursuing their Unanswered Occupational Calling.

Rumination is an avoidance or emotion-focused coping strategy that is employed to reduce the emotional discomfort associated with work stressors (e.g., Fortes-Ferreira, Peiro, Gonzalez-Morales, & Martin, 2006). Research suggests that emotion-focused coping strategies fail to generate positive outcomes. For example, Gibbons, Dempster, and Moutray (2011) recently demonstrated that employing avoidance coping strategies in response to stressful experiences was the strongest predictor of adverse psychological well-being in a sample of nursing students. Similarly, Fortes-Ferreira et al. (2006) demonstrated that emotion-focused coping strategies interacted with work stressors to increase psychosomatic complaints.

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In sum, the body of literature on occupational callings strongly suggests that an employee's inability to pursue his or her occupational calling has far reaching health, life, and job-related ramifications. However, too little knowledge is currently known about the experience, antecedents, and outcomes of an Unanswered Occupational Calling, particularly because no established, theoretically-grounded instrument currently exists to systematically assess Unanswered Occupational Callings. Thus, this research aims to commence rigorous inquiry into these unanswered questions.

CHAPTER TWO:

STUDY 1

No studies to my knowledge have attempted to operationalize the Unanswered Occupational Calling construct or directly establish a statistical link between Unanswered Occupational Callings and job-related or well-being outcomes. However, nascent empirical research has qualitatively linked an inability to pursue a calling with feelings of frustration, regret, and adverse perceptions of psychological well-being, all of which, in turn, may result in adverse job-related outcomes (e.g., Berg et al.,2010).

Various operational calling measures do exist that are designed to assess the extent that one perceives an occupational calling, but only one to my knowledge that takes the secular approach and also has published evidence of validity (Dobrow & Tosti-Kharas, 2011). Dobrow and Tosti-Kharas' (2011) answered occupational calling measure assesses the extent to which one believes that their *current* occupation is his or her calling and has been shown to possess good initial psychometric properties. This study draws upon Dobrow and Tosti-Kharas' (2011) study to develop, establish the psychometric properties, and provide preliminary validation evidence for a secular Unanswered Occupational Calling measure.

I define an Unanswered Occupational Calling as a secular occupational calling that an individual perceives, but is not currently pursuing (Berg et al., 2010). Neither the answered occupational calling nor the Unanswered Occupational Calling construct is binary or necessarily exists in the absence of the other; instead each exists on its own continuum ranging from strong to weak (Dobrow & Tosti-Kharas, 2011). In other words, an Unanswered Occupational Calling

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is not merely the lower end of the answered occupational calling continuum. Conceptually speaking, weakly identifying a current work role as a calling is not synonymous with failing to pursue a calling. Take for example, two individuals, neither of whom identify his or her current occupation as a calling, but only one of whom is concurrently experiencing an Unanswered Occupational Calling. It seems likely that the latter individual will experience higher levels of psychological distress, which, in turn, may lead to work dissatisfaction, and, potentially, poorer job performance.

The literature on occupational callings certainly suggests that there may be detrimental effects associated with an Unanswered Occupational Calling. To advance research in this area, it is crucial to develop a theoretically-grounded instrument to assess an Unanswered Occupational Calling in a conceptually clear, precise, and thorough manner, which is the primary purpose of Study 1.

Distinguishing Conceptually Related Constructs

To demonstrate preliminary evidence of construct validity, I will examine the relationships between Unanswered Occupational Calling and several conceptually-related, but distinct, constructs. There are a number of existing constructs related to the importance of work. Some of the more relevant to this study and sample (i.e., college students) include: answered occupational calling, calling orientation, intrinsic and extrinsic work motivation, and work centrality. It seems improbable that an individual will identify strongly with an occupation as an Unanswered Occupational Calling, but fail to be intrinsically motivated or possess a calling orientation towards work. Consequently, I expect to find positive relationships between Unanswered Occupational Calling and each of the those constructs. On the other hand, I expect

Unanswered Occupational Calling to be negatively related to both answered occupational calling and extrinsic work motivation.

Intrinsic Motivation

Intrinsically motivated people prefer occupations that offer them internal satisfaction (Amabile, Hill, Hennessey, & Tighe,1994). The psychological construct of internal work motivation is defined as an individual's motivation to engage in work because he or she finds the work itself engaging, enjoyable, satisfying, or interesting (Amabile et al., 1994). Intrinsic motivation and Unanswered Occupational Calling conceptually overlap because both are internal in nature and incorporate enjoyment and interest aspects. Intrinsic motivation also differs from Unanswered Occupational Calling because it does not incorporate Unanswered Occupational Calling's definitional components of meaningful work that is central to identity.

On the other hand, individuals who are extrinsically motivated are influenced by external tangible incentives, such as power, prestige, competition, and money (Amabile et al., 1994). Extrinsic motivation and Unanswered Occupational Calling have little to no conceptual overlap. Nevertheless, I expect those who strongly endorse an Unanswered Occupational Calling to be less extrinsically motivated than those who do not.

Hypothesis 1. Unanswered Occupational Calling will be positively related to intrinsic motivation.

Hypothesis 2. Unanswered Occupational Calling will be negatively related to extrinsic motivation.

Work Centrality

Work centrality reflects the importance of work in an individual's life irrespective of his or her current work roles (Paullay, Alliger, & Stone-Romero, 1994). While those endorsing an Unanswered Occupational Calling are more likely to view work as a main component of their lives, the psychological construct of work centrality neither incorporates the definitional elements of meaningful and enjoyable work, nor applies to a particular work domain. As such, I expect that the two constructs will be positively related.

Hypothesis 3. Unanswered Occupational Calling will be positively related to work centrality.

Calling Orientation

Research supports three types of orientations toward work that individuals may adopt: (1) job orientation; (2) career orientation; and (3) callings orientation. Those that are job orientated tend to view their job as merely the means by which they acquire material benefits that can be successfully applied in other life domains. Those who possess a career orientation view their work as a means of achieving career advancement, power, or prestige. Those holding either a job or career orientation tend to view their work as a separate sphere that has little to no overlap with other life domains. On the other hand, those with a calling orientation find their work to be "morally inseparable from [their] life," intrinsically rewarding, personally fulfilling, and central to identity (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1996, p. 66).

While conceptually overlapping, work orientation differs from an Unanswered Occupational Calling in that the former describes peoples' general orientations toward work rather than a pull towards a particular work role. Empirical evidence suggests that people are

capable of placing themselves into one of the three categories of work orientation, and that each orientation is related to predictable outcomes (Wrzesniewski et al., 1997). For example, those endorsing a calling orientation report higher levels of self-reported well-being and job satisfaction and lower levels of work absenteeism than those with job or career orientations (Wrzesniewski et al., 1997). I expect calling orientation and Unanswered Occupational Calling to be positively related.

Hypothesis 4. Unanswered Occupational Calling will be positively related to calling orientation.

Answered Occupational Calling

The currently existing answered occupational calling instrument assesses the extent that an individual views their *current* occupation as their calling. An Unanswered Occupational Calling, as defined in this paper, is the notion that a person has an occupational calling, but is not currently experiencing it in his or her current work roles. As such, while each construct deals specifically with a person's attitude towards a particular occupation, they differ as to the person's present occupational experience. Conceptually speaking, weakly identifying a current work role as a calling is not synonymous with failing to pursue a calling. Neither the answered occupational calling nor the Unanswered Occupational Calling construct is binary or necessarily exists in the absence of the other; instead each exists on its own continuum ranging from strong to weak (Dobrow & Tosti-Kharas, 2011). In other words, an Unanswered Occupational Calling is not merely the lower end of the answered occupational calling continuum, but is a distinct construct. Failure to have an answered occupational calling would be associated with having an Unanswered Occupational calling if the person has a calling, but not if he or she does not. While

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theorized to be independent of one another, I do not expect participants to score high on both. Thus, I expect the two to be related negatively.

        Hypothesis 5. Unanswered Occupational Calling and answered occupational calling will be related negatively.

CHAPTER THREE:

STUDY 1 METHOD

Participants

Study 1's sample consisted of 261 persons employed no fewer than 20 hours a week, all of whom were recruited from a large southeastern university. An *a priori* power analysis suggested a sample size of 200 to achieve sufficient power (.80) to detect small to medium effect sizes ($r = .2$ to $.5$) among this study's variables. Study 1's sample size meets this criteria.

Of the 261 participants, 204 were female and 56 were male (1 missing). The mean age of the participants was 22 years ($SD = 4.80$), with a range from 18 to 54 years old. Participants worked in a variety of industries, ranging from retail (e.g., cashier, manager) to healthcare (e.g., respiratory therapist, nurse). The mean job tenure of the participants was 22.4 months, with a range of .5 to 375 months. The majority (209 participants) of this sample worked 20 to 30 hours a week. Thirty-nine participants worked between 31 and 40 hours a week, while 13 worked over 40 hours a week.

Procedure

I generated a preliminary set of 41 items for the Unanswered Occupational Calling instrument, all of which are contained in Appendix A. The content domain from which I broadly and systematically sampled these items was based on the secular definition of an Unanswered Occupational Calling originally developed by Berg et al. (2010). Berg et al (2010) defined an Unanswered Occupational Calling as an occupation that a person: "(1) feels drawn to pursue; (2)

expects to be intrinsically enjoyable and meaningful, and (3) sees as a central part of his or her

identity, but (4) is not [currently pursuing]" (Berg et al. 2010, p. 974). The items were designed

to apply in a variety of occupations and to employees having various educational backgrounds.

In Phase 1 of this study, I submitted the initial item pool to six industrial/organizational

psychology doctoral students, all of whom served as my subject matter experts (SMEs) for a

content validly review. I also provided to the SMEs Berg et al.'s (2010) definition of an

Unanswered Occupational Calling. Each SME was instructed to confirm that each item captured

some aspect of the content domain of the Unanswered Occupational Calling construct as defined

by Berg et al. Each SME also was instructed to determine whether: (1) any item contaminated

the content domain of the unanswered occupational calling construct; and (2) the initial item pool

was deficient in some way (i.e., failed to capture a facet of the construct).

Based on this review, I revised and supplemented as necessary the items that I had

initially developed to better capture the content domain of the Unanswered Occupational Calling

construct. This was an iterative process that proceeded until no fewer than five of the SMEs

independently determined that an item adequately sampled the content domain of the

Unanswered Occupational Calling construct. This process generated a total of 25 items

determined by the SMEs to adequately capture the content domain of the construct. All 25 items

are contained in Appendix A to this paper. This instrument had six response options ranging

from 1 (*strongly disagree*) to 6 (*strongly agree*).

In Phase 2, I administered the Unanswered Occupational Calling items to a sample of

persons employed no fewer than 20 hours a week in order to: (1) select items for the Unanswered

Occupational Calling instrument based on an evaluation of the items' psychometric properties;

and (2) generate preliminary construct validity evidence for the newly constructed scale by

examining the relationships between Unanswered Occupational Calling and five existing

psychological constructs that are conceptually related to, but also distinct from, the Unanswered

Occupational Calling construct.

I recruited participants from the Department of Psychology human subjects pool, a web-

based system that allows students to participate in studies by logging into web-based surveys.

For this study, each participant completed a web-based survey. A letter preceded entry into the

actual survey instrument that informed participants of the nature and content of the

questionnaire, that participation was completely voluntary and anonymous, and that they must be

currently employed at no fewer than 20 hours per week. I received IRB approval for this research

protocol prior to data collection (IRB#: Pro00011845).

Measures

All Study 1 scale items are included in Appendix B. Table 1 contains the intercorrelations

among and the mean, standard deviation, and internal consistency reliability (Cronbach's alpha)

estimate for each of this study's measurement instruments.

Answered Occupational Calling

I assessed the extent that each participant perceives their *current* occupation as his or her

calling through an adapted version of Dobrow and Tosti-Kharas's (2011) 12-item answered

occupational calling measure. Dobrow and Tosti-Kharas's answered occupational calling

measure was specifically designed to tap into a particular occupation, for example, music,

artistry, or business. In this study, participants held a variety of jobs in a variety of fields. As

such, I adapted each item of this measure to apply more broadly to a variety of occupations. For

example, item 5 was adapted to read as follows: "I would sacrifice everything to do what I currently do for work." This scale had 6 response options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Intrinsic and Extrinsic Work Motivation

The 30-item Work Preference Inventory developed by Amabile et al., (1994) was used to assess the extent to which participants agree that they are extrinsically (15 items) and intrinsically (15 items) motivated at work (WPI). The WPI had 4 response options ranging from 1 (*never or almost never true of me*) to 4 (*always or almost always true of me*).

Work Centrality

The 12-item scale developed by Paullay et al. (1994) was used to assess the degree to which the participants believe that work is a main component of their lives. This scale had 6 response options from 1 (*strongly disagree*) to 6 (*strongly agree*).

Calling Orientation

The shortened version of Wrzesniewski et al.'s (1997) University of Pennsylvania Work–Life Questionnaire was used to assess the extent to which participants identify themselves as calling oriented towards work. As originally developed, this questionnaire contained two parts. The first part requested participants to (1) read three paragraphs that described an individual as either job (Mr. A.), career (Mr. B.), or calling (Mr. C.) oriented, and (2) rate the extent that they are like each individual. Response options ranged from 0 (*not at all like me*) to 3 (*very much like me)*. Individuals were categorized by the orientation associated with the paragraph they endorsed

as being most like them. Unfortunately, there is no set of criteria to apply if an individual endorses two or more of the orientations and being most like them. As such, this approach to categorization is less than ideal.

The second part consisted of 18 true-false items that, once administered, were correlated with the scores for each of the paragraphs described above. The correlation coefficients generated through this analysis indicated that job and calling orientation are inversely related, whereas career orientation is independent of the other two. This study utilized these items to assess the extent to which an individual is calling oriented towards work instead of the orientation paragraphs described above. In lieu of the true-false response format, a 6 point response format, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*), was used to achieve greater response variability. The higher the score, the stronger an individual identified with a calling orientation towards work.

Demographics

Each participant was asked questions regarding their age, gender, and job tenure.

CHAPTER FOUR:

STUDY 1 RESULTS

Development of the Unanswered Occupational Calling Scale

The mean and standard deviation of each Unanswered Occupational Calling item are outlined in Table 2. I conducted an item analysis to select items that would comprise the Unanswered Occupational Calling scale. The item analysis included examining the alpha coefficient for a scale that included all of the items together with the following additional information: (1) the alpha for scale if item was deleted; (2) inter-item correlations; and (3) corrected item-total correlations. Based on this analysis, none of the original 25 items evidenced heterogeneity in relation to the other items of the scale. None of the items: (1) demonstrated low or negative inter-item or item-total correlations; or (2) would result in an increase in coefficient alpha if the item was deleted from the scale. When all items were considered simultaneously, the scale had an internal consistency reliability (Cronbach's alpha) estimate of .97.

To evaluate the dimensionality of the scale items, I entered all 25 items into an exploratory factor analysis (EFA) using the common factor model, with varimax rotation. The results of that analysis are summarized in Table 2. As shown in Figure 1, the scree plot suggested a 3-factor solution, each accounting for 63.95% (Factor 1; 12 items), 9.10% (Factor 2; 9 items), and 4.40% (Factor 3; 4 items) of the variance respectively. Upon closer inspection, only Factor 1 appeared to represent the unanswered occupational calling construct as conceptualized and

Table 1. Interrcorrelations among Study 1's Focal Variables.

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. UOC Factor 2	4.44	1.18	(.95)													
2. UOC Factor 3	4.39	1.43	.47**	(.92)												
3. UOC_Factor 1	4.64	1.25	.87**	.51**	(.98)											
4. UOC_25 Items	4.53	1.13	.94**	.65**	.97**	(.97)										
5. UOC_6 items	4.66	1.28	.85**	.50**	.99**	.95**	(.96)									
6. AOC	2.93	1.31	-.54**	-.74**	-.51**	-.62**	-.49**	(.96)								
7. Intrinsic Motivation	2.91	.47	.13*	.14*	.22**	.19**	.23**	-0.02	(.86)							
8. Extrinsic Motivation	2.59	.41	-0.04	-0.01	0.01	-0.02	0.01	0.10	.30**	(.74)						
9. Work Centrality	3.03	.76	-.24**	-.44**	-.23**	-.30**	-.23**	.43**	-0.05	.18**	(.80)					
10. Calling Orientation	3.23	.72	-.54**	-.64**	-.48**	-.59**	-.47**	.74**	0.01	0.08	.55**	(.76)				
11. Work Hours	-	-	-0.07	-0.10	-0.03	-0.06	-0.03	.14*	0.04	0.01	.13*	0.08	na			
12. Job Tenure (months)	22.37	31.04	-0.03	-0.04	-0.01	-0.02	0.00	0.039	0.079	0.006	-0.033	-0.01	.15*	na		
13. Sex	-	-	0.07	0.05	0.11	0.10	.13*	-0.04	0.01	0.00	-0.07	-0.06	-0.02	-.14*	na	
14. Age (years)	22.23	4.80	-0.02	-0.03	0.03	0.00	0.05	0.08	0.06	0.01	-0.03	0.00	.35**	.33**	-0.01	na

Notes. Sex (1 = male; 2 = female)

UOC = Unanswered Occupational Calling; AOC = Answered Occupational Calling

** Correlation is significant at the 0.01 level.

* Correlation is significant at the 0.05 level.

N=260

Table 2. Items and Factor Loadings of the Unanswered Occupational Calling Scale.

Item	M	SD	Factor		
			1	2	3
1. I feel drawn to an occupation other than my own.	4.55	1.45	0.46	**0.67**	0.19
2. I am drawn to another occupation because I expect the work to be enjoyable.	4.52	1.34	0.45	**0.66**	0.21
3. I often think about an occupation other than my own.	4.61	1.37	0.41	**0.69**	0.21
4. If I could do it all over again, there is another occupation that I would pursue.	4.08	1.47	0.35	**0.56**	0.15
5. I can't imagine another occupation that would be more meaningful to me than the one I currently have.	4.58	1.57	0.23	0.17	**0.82**
6. I can't imagine another occupation that would be more enjoyable to me than the one I currently have.	4.55	1.60	0.23	0.15	**0.81**
7. I was meant for my current occupation.	4.27	1.63	0.21	0.15	**0.82**
8. If I could do it all over again, I would pursue the same occupation.	4.16	1.57	0.13	0.19	**0.82**
9. I would enjoy work more if I had a different occupation.	4.17	1.51	0.28	**0.73**	0.15
10. There is another occupation that I would enjoy more than my own.	4.54	1.48	0.39	**0.73**	0.20
11. I am passionate about work done in another occupation.	4.40	1.41	0.45	**0.66**	0.10
12. There is another occupation that would be more meaningful to me than my own.	4.60	1.41	0.51	**0.65**	0.28
13. I am drawn to another occupation because I expect the work to be pleasurable.	4.52	1.35	0.55	**0.65**	0.23
14. I feel drawn to another occupation that reflects my work values.	4.52	1.35	**0.62**	0.59	0.22
15. I am drawn to another occupation because I expect the work to be personally satisfying.	4.69	1.36	**0.68**	0.57	0.22
16. I feel drawn to another occupation that reflects my personal values.	4.60	1.39	**0.76**	0.44	0.19

17. There is another occupation that inspires me more than my own.	4.79	1.33	**0.73**	0.46	0.26
18. I feel a sense of destiny towards another occupation.	4.57	1.40	**0.72**	0.41	0.23
19. I feel pulled towards another occupation that reflects the values that I hold.	4.57	1.41	**0.81**	0.34	0.21
20. I feel pulled towards another occupation that reflects the goals I want to achieve.	4.74	1.38	**0.77**	0.40	0.26
21. I fantasize about another occupation that holds meaning for me.	4.55	1.40	**0.72**	0.47	0.20
22. I personally identify with an occupation that I don't currently have.	4.52	1.50	**0.73**	0.44	0.20
23. I am drawn to another occupation because I expect the work to be personally fulfilling.	4.72	1.38	**0.79**	0.43	0.21
24. I feel called to an occupation that I don't currently have.	4.70	1.38	**0.71**	0.44	0.28
25. I am drawn to another occupation because I expect the work to be meaningful.	4.74	1.40	**0.73**	0.39	0.30

specifically defined by Berg et al. (2010). The extant literature on occupational callings suggests that people may have more than one calling (e.g., Dobrow & Tosti-Kharas, 2011). In other words, two or more occupational callings can coexist for any given individual. In large part, the items that comprise Factors 2 and 3 compare one's current occupation to another, thus making an unwarranted assumption that another occupation might be more of a calling than a participant's current one. In addition, those items that comprise Factor 3 are more indicative of whether or not a person's current occupation is his or her calling than whether he or she has an Unanswered Occupational Calling. As further evidence, Factor 3 is more highly correlated with answered occupational calling ($r = -.74$, p<.01) than either one of Factors 1 or 2 ($r = -.51$, $-.54$, respectively).

Consistent with the foregoing analysis, items for the Unanswered Occupational Calling scale were selected from Factor 1 only. Of those 12 items, six were chosen (i.e., 15, 19, 20, 22, 23, 25). Because all 12 items loaded strongly on Factor 1 (see Table 2), care was taken to choose items that adequately sampled the content domain of the Unanswered Occupational Calling construct. Specifically, three of the items (i.e., 15, 23, 25) were chosen to reflect the 'intrinsically enjoyable and meaningful' aspect of the construct, while the other three were chosen to reflect its 'central to identify' aspect (i.e., 19, 20, 22). Once the items were chosen, I reran the EFA to confirm the unidimensionality of scale. As shown in Figure 2, the scree plot suggested a 1-factor solution, accounting for 83.36% of the total variance. Factor loadings ranged from .88 to .95. For all further analyses, the 6-item Unanswered Occupational Calling scale was used.
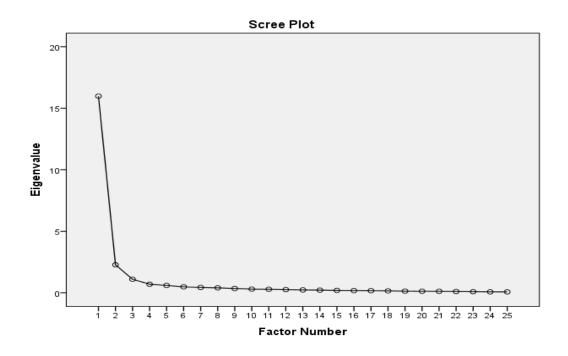
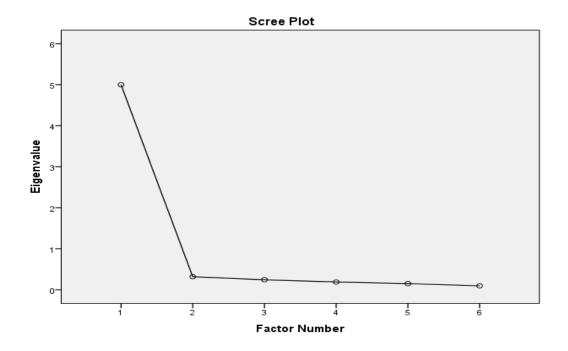**Figure 1**. Scree plot for 25-item Unanswered Occupational Calling scale.

Figure 2. Scree plot for 6-item Unanswered Occupational Calling scale.

Hypotheses Testing

I predicted that Unanswered Occupational Calling would be positively related to intrinsic work motivation (H1), work centrality (H3), and calling orientation (H4) but negatively related to extrinsic work motivation (H2) and answered occupational calling (H5). As summarized in Table 1, Unanswered Occupational Calling was positively related to intrinsic work motivation (r = .23, p<.01), lending support to Hypothesis 1. Unanswered Occupational Calling had no relationship with extrinsic work motivation (r = .00, p> .05). Thus, Hypothesis 2 was not supported. Further, Unanswered Occupational Calling had significant relationships with work centrality (r = -.23, p<.01) and calling orientation (r = -.47, p<.01) but in the opposite directions than predicted. Consequently, neither Hypothesis 3 nor 4 was supported. Finally, Unanswered Occupational Calling had a significant negative relationship with answered occupational calling (r = -..49, p<.01), in full support of Hypothesis 5.

CHAPTER FIVE:

STUDY 1 DISCUSSION

The primary purpose of Study 1 was to develop and provide preliminary construct validity evidence for a new instrument intended to measure the extent to which a person is experiencing one or more Unanswered Occupational Callings. This was done through a series of phases. In Phase 1, I drafted an initial set of items designed to broadly and systematically sample the content domain of the Unanswered Occupational Calling construct as defined by Berg et al. (2010). I then submitted this initial item pool to six SMEs for a content validity analysis. Based on that analysis, 25 items were determined to adequately capture the content domain of the Unanswered Occupational Calling construct. In Phase 2, all 25 items were administered together with five additional instruments intended to assess conceptually similar constructs: answered occupational callings, intrinsic and extrinsic work motivation, work centrality, and calling orientation.

Development of the Unanswered Occupation Calling Instrument

An EFA on the original 25-item scale indicated a 3-factor solution. An interpretation of these three factors indicated that Factors 2 and 3 spoke more to whether or not a person's current occupation was their calling than to whether or not that person was experiencing an Unanswered Occupational Calling. For example, a Factor 2 item stated, "If I could do it all over again, there is another occupation that I would purse." As another example, a Factor 3 item stated, "I can't imagine another occupation that would be more meaningful to me than the one I currently have."

Both examples use a person's current occupation as a comparison to another. Factors 2 and 3 inadvertently contaminated the Unanswered Occupational Calling construct because each assumes that a person can only have one answered occupational calling and, thus, confounds the Unanswered Occupational Calling construct with the answered occupational calling construct. As Dobrow and Tosti-Kharas (2011) explained, neither construct is binary nor necessarily exists in the absence of the other; instead each exists on its own continuum ranging from strong to weak. In other words, an Unanswered Occupational Calling is not merely the lower end of the answered occupational calling continuum, but is a distinct construct. Because my research goal was to create an instrument that contains no construct contamination, I chose to eliminate Factors 2 and 3 from further consideration. Consequently, I chose items to comprise the Unanswered Occupational Calling instrument from Factor 1 only.

Originally, Factor 1 contained 12 items. Of those 12 items, six were retained. Because all 12 items loaded strongly on Factor 1, care was taken to choose items that adequately sampled the content domain of the Unanswered Occupational Calling construct. Specifically, three of the items were chosen to reflect the 'intrinsically enjoyable and meaningful' aspect of the construct, while the other three were chosen to reflect its 'central to identify' aspect. Once the items were chosen, an EFA confirm that the instrument was unidimensional. The 6-item scale had a internal consistency (Cronbach's alpha) estimate of .97.

Hypotheses

I predicted that Unanswered Occupational Calling would be positively related to intrinsic work motivation (H1), work centrality (H3), and calling orientation (H4) but negatively related to extrinsic work motivation (H2) and answered occupational calling (H%). As predicted,

Unanswered Occupational Calling was positively related to intrinsic work motivation ($r = .23$, p<.01), and negatively related to answered occupational calling ($r = -.49$, p<.01). While Unanswered Occupational Calling did have significant relations with work centrality ($r = -.23$, p<.01) and calling orientation ($r = -.47$, p<.01), they were in the opposite directions than predicted. Positive relationships were predicted between Unanswered Occupational Calling and each of work centrality and calling orientation because it seems logical that those who score highly on Unanswered Occupational Calling would necessarily view work as central to their identity (i.e., work centrality) and as a life's purpose (i.e., calling orientation), rather than merely a means to an end. Conceptually then, it seems surprising that Hypotheses 3 and 4 were not supported by the data. However, a review of the work centrality and calling orientation scale items reveals a possible explanation for this study's findings. Both instruments, and the calling orientation instrument in particular, seem to use a person's current job as a referent. For example, one work centrality item states, "I would probably keep working even if I didn't need the money," while one calling orientation item states, "I find my work rewarding." As such, rather than assessing how important work is to a person's life irrespective of his or her current work roles (i.e., work centrality) or a person's general orientations toward work (i.e., calling orientation), these items seem to tap into how a person feels about their current job. As such, a negative relationship between Unanswered Occupational Calling and either of work centrality and calling orientation, as operationalized in this study, makes sense.

Finally, Unanswered Occupational Calling had no relationship with extrinsic work motivation ($r = .00$, p> .05). While I predicted a negative relationship between extrinsic work motivation and Unanswered Occupational Callings, a null finding is not surprising given the minimal conceptual overlap between the two. A person's belief that a particular occupation is his

or her calling (i.e., enjoyable, meaningful, and central to identity) does not necessarily preclude other motivations for pursuing that occupation, such as power, prestige, competition, or money (i.e., extrinsic work motivation). In fact, Amabile et al. (1994) theorized that intrinsic and extrinsic work motivations were not mutually exclusive of one another; that is, they are not polar ends of one continuum, but distinct constructs.

CHAPTER SIX:

STUDY 2

The purpose of Study 2 is twofold: (1) to generate further evidence of the construct validity of the Unanswered Occupational Calling instrument by relating Unanswered Occupational Calling to conceptually similar, but distinct, work-related constructs; and (2) to explore the new construct's nomological network by relating Unanswered Occupational Calling to a number of health- and job-related outcomes.

For Study 2, I chose to sample faculty members from universities located across the United States, rather than college students. Generally speaking, college students may not have had the time or experience to develop a passion towards any particular occupation, potentially obfuscating or attenuating hypothesized relationships. On the other hand, faculty members likely vary in the extent to which they both (1) identify their current occupation as their calling; and (2) are experiencing an unanswered calling.

Distinguishing Conceptually Related Constructs

In Study 1, I intentionally limited the conceptually similar constructs to those that were most fitting to a convenience sample of college students. In other words, an individual's ability to relate to the constructs of work centrality, intrinsic and extrinsic work motivation, and calling orientation, as operationalized, does not necessarily require a great deal of work experience. Conversely, other job-related variables that are conceptually similar to Unanswered Occupational Calling do. As such, I first explored the relationships between Unanswered

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Occupational Calling and conceptually related but distinct constructs that are more applicable to Study 2's sample (i.e., faculty members) than Study 1's: (1) answered occupational calling; (2) work engagement; (3) job involvement; and (4) career commitment. As discussed above, I primarily wish to establish that an Unanswered Occupational Calling is not merely a low score on any one of these similar constructs, but rather is a distinct construct in and of itself.

Work Engagement

Work engagement is conceptually related to an Unanswered Occupational Calling, but does not include Unanswered Occupational Calling's core definitional elements of meaningful work that is central to identity. Specifically, work engagement is defined as a "positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Bakker, & Salanova, 2006, p. 702). Scholars and practitioners alike tend to agree that work engagement consists of two fundamental dimensions: (1) energy; and (2) dedication (e.g., Bakker, Albrecht, & Leiter, 2011). Scholars continue to debate whether absorption is a fundamental dimension or an outcome of energy and dedication (Bakker et al., 2011). Work engagement has been empirically linked to self-reported psychological and physical health symptoms (Demerouti, Bakker, de Jonge, Janssen, & Schaufeli, 2001; Hakanen, Bakker, & Schaufeli, 2006; Peterson et al., 2008; Shirom, 2010). While conceptually overlapping, I anticipate that those who strongly endorse an Unanswered Occupational Calling will be less engaged in their current work than those who do not. Consequently, I expect that the two constructs will be negatively related.

Hypothesis 6. Unanswered Occupational Calling will be negatively related to work engagement.

Job Involvement

Job involvement and work centrality are often confounded in the literature (Paullay et al. (1994). Paullay et al. (1994) operationally distinguished the two related, but distinct, constructs. Job involvement is the extent that a person is absorbed or preoccupied by aspects of their jobs. Work centrality is defined as the extent that an individual views work as a main component in his or her life. Conceptualized in this way, work centrality is broader in scope than job involvement in that work centrality reflects the importance of work in an individual's life irrespective of his or her current work roles.

Job involvement conceptually overlaps with Unanswered Occupational Calling, but does not include Unanswered Occupational Calling's definitional elements of meaningful and intrinsically enjoyable work that is central to identity. While conceptually overlapping, I expect those who strongly endorse an Unanswered Occupational Calling to be less involved in their current job. As such, I expect that the two will be negatively related.

Hypothesis 7. Unanswered Occupational Calling will be negatively related to job involvement.

Career Commitment

Career commitment is a measure of people's commitment to their current career, occupation, or profession, and has been operationally distinguished from job involvement and organizational commitment (Blau, 1989). Career commitment and Unanswered Occupational Calling conceptually overlap because both emphasize the importance of work; however, commitment to a career does not necessarily include participating in meaningful and enjoyable work that is central to identity.

Career commitment has been empirically related to withdrawal cognitions and turnover (Blau, 1989). It also has been successfully tested as a mediator of the relationship between occupational calling and relevant job-related outcomes (Duffy et al., 2011b). As a potential mediator between Unanswered Occupational Calling and job-related outcomes, I expect that Unanswered Occupational Calling and career commitment will be negatively related.

Hypothesis 8. Unanswered Occupational Calling will be negatively related to career commitment.

Answered Occupational Calling

The currently existing answered occupational calling instrument assesses the extent that an individual views their *current* occupation as their calling. An Unanswered Occupational Calling, as defined in this paper, is the notion that a person has an occupational calling, but is not currently experiencing it in his or her current work roles. As such, while each construct deals specifically with a person's attitude towards a particular occupation, they differ as to the person's present occupational experience. Conceptually speaking, weakly identifying a current work role as a calling is not synonymous with failing to pursue a calling. Neither the answered occupational calling nor the Unanswered Occupational Calling construct is binary or necessarily exists in the absence of the other; instead each exists on its own continuum ranging from strong to weak (Dobrow & Tosti-Kharas, 2011). In other words, an Unanswered Occupational Calling is not merely the lower end of the answered occupational calling continuum, but is a distinct construct. Failure to have an answered occupational calling would be associated with having an Unanswered Occupational calling if the person has a calling, but not if he or she does not. While

theorized to be independent of one another, I do not expect participants to score high on both. Thus, I expect the two to be related negatively.

Hypothesis 9. Unanswered Occupational Calling and answered occupational calling will be related negatively.

Outcome Variables

I further propose to explore the relationships between Unanswered Occupational Calling and a variety of life-, job-, and health-related variables I expect to be related to Unanswered Occupational Calling based on the foregoing literature review. Those variables include life satisfaction, job satisfaction, withdrawal intentions, physical symptoms, and psychological distress as represented by depression, irritation, and anxiety. I expect Unanswered Occupational Calling to have a negative relationship with job satisfaction and life satisfaction. On the other hand, I expect Unanswered Occupational Calling to have positive relationships with withdrawal intentions, psychological distress, and physical symptoms. Finally, I expect that Unanswered Occupational Calling will contribute predictive variance in each of the foregoing life-, job-, and health-related outcomes over and above that which is contributed by each of this Study 2's conceptually-related but distinct constructs alone.

Hypothesis 10. Unanswered Occupational Calling will be positively related to withdrawal intentions, psychological distress, and physical symptoms.

Hypothesis 11. Unanswered Occupational Calling will be negatively related to job satisfaction and life satisfaction.

Hypothesis 12. Unanswered Occupational Callings will contribute predictive variance in each of this Study 2's outcome variables over and above that which is contributed by each of work engagement, job involvement, career commitment, and answered occupational calling.

Potential Moderating Effects of Unanswered Calling

There are a host of reasons why any given individual may fail or have the inability to pursue their occupational calling, such as, for example, a lack of time, talent, or means. Consequently, this study further proposes to explore the possibility that Unanswered Occupational Calling might moderate the relationships between answered occupational calling and this study's outcome variables. As previously discussed, Duffy et al. (2012) demonstrated that living a calling was a significant moderator of the relationships between having a calling and career commitment and work meaning, such that those who were living an occupational calling were more committed to and derived more meaning from their careers than those who merely had, but were not living, a calling. This research further demonstrated that having an occupational calling is indirectly related to job satisfaction through commitment and work meaning, but only for those also having the opportunity to live out that calling. The body of literature on occupational calling further supports: (1) positive relationships among answered occupational calling and life and job satisfaction; and (2) negative relationships among answered occupational calling and psychological distress and withdrawal intentions.

Extrapolating from the foregoing research results, unanswered calling might moderate the relationships between answered calling and job and life satisfaction, such that these relationships remain significantly positive only for those who score low on Unanswered Occupational Calling. Similarly, the predicted negative relationships between answered occupational calling and

physical and psychological health symptoms and withdrawal intentions may hold only for those who score low on Unanswered Occupational Calling. To further investigate these suppositions, I propose to use moderated regression to test the following hypotheses:

Hypothesis 13. Unanswered Occupational Calling will moderate the positive relationships between answered occupational calling and job and life satisfaction, such that these relationships will be weaker for those high on Unanswered Occupational Calling.

Hypothesis 14. Unanswered Occupational Calling will moderate the negative relationships between answered occupational calling and physical symptoms, psychological distress, and withdrawal intentions, such that these relationships will be weaker for those high on Unanswered Occupational Calling.

CHAPTER SEVEN:

STUDY 2 METHOD

Participants

In total, 493 faculty members attempted to take my online survey in response to my recruitment emails (see Procedure below). Fifteen of those participants were excluded from the sample for failure to meet Study 2's inclusion criteria that he or she must be currently employed as a faculty member. One hundred additional participants were excluded from the sample because they failed to answer a sufficient number of survey questions (more than a few of one measure) for analysis purposes. Consequently, Study 2's sample consisted of 378 faculty members from 36 public universities located across the United States. An *a priori power* analysis indicated that I needed a sample size of 300 to 500 participants to achieve adequate power to detect the small moderating effects hypothesized in this study. This study's sample size meets this criterion.

Of the 378 participants, 178 were females and 163 were male (37 missing). Of the 378 participating faculty members, 4 were instructors, 44 were lecturers, 65 were assistant professors, 125 were associate professors, and 136 were full professors or of higher professional rank (4 missing). The mean age of the participants was 51 years ($SD = 11.76$), with a range from 27 to 82 years old. The mean job tenure of the participants was 14 years, with a range of .08 to 46 years.

Procedure

Recruitment of participants for Study 2 proceeded in stages. For Stage 1, publicly available email addresses for faculty members and their department chairs were compiled by searching public university websites across the US for that information. For Stage 2, I requested via email (see Appendix C) the department chairs to forward to their faculty members the web link to my online survey. For Stage 3, I sent via email (see Appendix D) a follow-up request to voluntarily participate in my online study directly to the individual faculty members of each department in which the chair was contacted in Stage 2. Each consenting faculty member took all survey instruments online through a web-based survey administrator. A letter preceded entry into the actual survey instruments that informed participants of the nature and content of the questionnaire, that participation was completely voluntary and anonymous, and that they must be currently employed as a faculty member. I received IRB approval for this research protocol prior to data collection (IRB#: Pro00011845).

Measures

All Study 2 scale items are included in Appendix E. Table 3 contains the intercorrelations among and the mean, standard deviation, and internal consistency reliability (Cronbach's alpha) estimate for each of this study's measurement instruments.

Work Engagement

The 9-item scale developed by Schaufeli et al. (2006) was used to assess the extent to which participants are engaged at work as represented by their aggregated scores on the three

dimensions of work engagement (1) vigor; (2) dedication; and (3) absorption. This scale had 6 response options ranging from 1 (*never*) to 6 (*always*).

Job Involvement

To assess job involvement, I used the 13-item role involvement subscale of Paullay et al.'s (1994) Job Involvement scale. The full version of this scale consists of two subscales: (1) role involvement (13 items); and (2) setting involvement (14 items). Role involvement is defined as the degree to which an individual "is engaged in the specific tasks that make up [his or her] job" (p. 225). Setting involvement is defined as the extent to which an employee "finds carrying out the task of [his or her] job in the present job environment to be engaging." (p. 225). This study is primarily concerned with the extent that people are drawn to a particular line of work, rather than the settings in which that work may be accomplished. For that reason, I assessed job involvement by the role involvement subscale only. This scale had 6 response options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Career Commitment

I used Blau's (1989) career commitment scale to assess each participant's level of commitment to his or her current career. This 7-item scale had 6 response options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Answered Occupational Calling

I assessed the extent that each participant perceives their *current* occupation as his or her calling through an adapted version of Dobrow and Tosti-Kharas's (2011) 12-item answered

occupational calling measure. Dobrow and Tosti-Kharas's answered occupational calling measure was specifically designed to tap into a particular occupation, for example, music, artistry, or business. As such, I adapted each item of this measure to specifically attend to the profession of academia. I chose the term academia to represent the profession of a faculty member because it is broad enough to capture the various tasks that a faculty member may engage in, including, but certainly not limited to, researching, teaching, and student mentoring. As used in the scale, the general term "academia" is qualified to be discipline-specific. This scale had 6 response options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Physical Symptoms Inventory

I used a measure developed by Spector and Jex (1998) to assess the extent to which the participants have experienced 13 different physical symptoms over the past 30 days. This measure had 5 response options ranging from 1 (*not at all*) to 5 (*everyday*).

Work-Related Psychological Distress

I used three dimensions of emotional strain from the scale developed by Caplan, Cobb, French, Van Harrison, and Pinneau (1980) to assess work-related psychological distress. This Work-Related Depression, Anxiety, and Irritation Scale consists of a total of 12 items. Participants were instructed to rate the frequency with which they experience depressive (6 items), irritable (3 items), and anxious (3 items) symptoms over the past month. There were 6 response choices from 1 (*not at all*) to 6 (s*everal times per day*).

Life Satisfaction

The 5-item Satisfaction with Life scale developed by Diener, Emmons, Larson, and Griffin (1985) was used to assess the participants' cognitive appraisal of their well-being (SWLS). This scale had 6 response options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Job Satisfaction

The job satisfaction subscale of the Michigan Organizational Assessment Questionnaire was used to assess the overall job satisfaction of each participant (Cammann, Fichman, Jenkins, & Klesh, 1983). This 3-item scale had 6 response options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Withdrawal Intentions

I used a single item to assess withdrawal intentions. Specifically, participants were asked how often they have seriously considered quitting their job (Spector, Dwyer, Jex, 1988). Response options ranged from 1 (*never*) to 6 (*extremely often*).

Demographics

Each participant was asked questions regarding their age, gender, professional rank (e.g., assistant professor), and job tenure.

CHAPTER EIGHT:

STUDY 2 RESULTS

Factorial Validity

Using the *MPlus*, version 7, I conducted a series of confirmatory factor analyses (CFAs) to confirm that the items for the Unanswered Occupational Calling scale load on a factor distinct from the items of answered occupational calling, work engagement, job involvement, and career commitment. For each pair, I compared a single-factor model to a 2-factor model. Because all Study 2 variables were measured using Likert-scales, the weighted least squares means and variance adjusted (WLSMV) estimator was used, rather than maximum likelihood (Kline, 2012). As a result, a typical chi-square difference test for model comparison purposes is inappropriate (Kline, 2012). Instead, I ran the chi-square DIFFTEST option available in *MPlus*, which is designed specifically for use with the WLSMV estimator. For ordinal measures, a CFI of .95 or higher and a WRMR of 1.0 or lower (Yu, 2002) indicates good model fit to the data.

As summarized in Table 4, for each pair, the 2-factor solution was a significantly better fit to the data than the single-factor solution as indicated by the chi-square DIFFTEST. Without exception, the CFI values indicated that each 2-factor solution was a good fit to the data. For all comparisons, except for Unanswered Occupational Calling with job involvement, the WRMR values were higher than 1.0 (1.53 to 1.90). In those cases, however, the 2-factor solutions generated much lower WRMR values than the single-factor solutions (7.74 to 12.35). Finally, for all analyses, the Unanswered Occupational Calling items loaded no less than .84 on their own factor.

Table 3. Intercorrelations among Study 2's Focal Variables.

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. UOC	2.28	1.37	(.96)															
2. Work Engagement	4.51	0.89	-.44**	(.93)														
3. Job Involvement	5.27	0.56	-.20**	.54**	(.82)													
4. Career Commitment	4.92	1.03	-.66**	.64**	.32**	(.88)												
5. AOC	4.38	0.10	-.49**	.52**	.39**	.61**	(.92)											
6. Physical Symptoms	1.74	0.53	.28**	-.23**	0.00	-.32**	-.15**	(.82)										
7. Depression	2.13	0.63	.33**	-.52**	-.17**	-.48**	-.28**	.43**	(.89)									
8. Irritation	2.08	0.61	.30**	-.24**	0.02	-.32**	-.27**	.36**	.34**	(.89)								
9. Anxiety	2.13	0.65	.30**	-.32**	-0.09	-.37**	-.20**	.45**	.51**	.41**	(.75)							
10. Life Satisfaction	4.55	1.20	-.35**	.51**	.17**	.57**	.31**	-.33**	-.68**	-.31**	-.41**	(.92)						
11. Job Satisfaction	5.06	1.16	-.46**	.59**	.27**	.72**	.45**	-.34**	-.58**	-.36**	-.40**	.67**	(.89)					
12. Withdrawal Intent	1.82	0.98	.44**	-.42**	-.17**	-.64**	-.42**	.33**	.38**	.34**	.28**	-.47**	-.68**	na				
13. Sex	-	-	0.08	-0.03	0.10	-.12*	-0.05	.22**	0.04	-0.01	0.07	-0.01	-0.08	.19**	na			
14. Age (years)	50.62	11.76	-.15**	.15**	.12*	0.10	.11*	-.23**	-.12*	-.19**	-.30**	0.09	.12*	-.12*	-.12*	na		
15. Tenure (years)	14.71	11.58	-0.09	0.09	0.03	0.05	0.07	-.16**	-.11*	-.14*	-.24**	0.09	.11*	-.12*	-.13*	.79**	na	
16. Professional Rank	-	-	-.21**	0.10	0.06	.17**	.13*	-.24**	-.11*	-0.06	-.19**	.21**	.19**	-.18**	-.13*	.58**	.52**	na

Notes. Sex (1 = male; 2 = female)

UOC = Unanswered Occupationa Calling; AOC = Answered Occupational Calling

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

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Table 4. Summary of Study 2 CFA Analyses.

Model	$\chi^{2\ \text{DIFFTEST}}$	df	p	CFI	WRMR
UOC & AOC					
Single-Factor	-	-	-	0.62	10.86
2-Factor	752.362	1	0.00	0.97	1.54
UOC & JI					
Single-Factor	-	-	-	0.50	14.48
2-Factor	5608.846	1	0.00	0.99	1.01
UOC & CC					
Single-Factor	-	-	-	0.68	7.74
2-Factor	530.971	1	0.00	0.96	1.90
UOC & WE					
Single-Factor	-	-	-	0.70	12.35
2-Factor	989.409	1	0.00	0.98	1.53

UOC = Unanswered Occupational Calling; AOC = Answered Occupational Calling;
JI = Job Involvement; CC = Career Commitment; WE = Work Engagement

Discriminant Validity

As predicted by Hypotheses 6 through 9 and summarized in Table 3, Unanswered Occupational Calling was negatively related to work engagement (H6; $r = -.44$, p<.01), job involvement (H7; $r = -.20$, p<.01), career commitment (H8; $r = -.66$; p<.01), and answered occupational calling (H9; $r = -.49$, p<.01).

Nomological Network

As predicted by Hypotheses 10, the zero-order correlations (summarized in Table 3) showed that Unanswered Occupational Calling was positively related to withdrawal intentions ($r = .44$, p<.01), depression ($r = .33$, p<.01) , irritation ($r = .29$, p<.01), anxiety ($r = .30$, p<.01) and physical symptoms ($r = .28$, p<.01). As predicted by Hypothesis 11, Unanswered Occupational Calling was negatively related to job satisfaction ($r = -.46$, p<.01) and life satisfaction ($r = -.35$, p<.01).

Finally, I conducted a series of multiple regression analyses to test Hypothesis 12, which predicted that Unanswered Occupational Calling would explain predictive variance in each of the foregoing outcome variables over and above that which was explained by each of this Study 2's conceptually-related constructs (i.e., work engagement, job involvement, career commitment, and answered occupational calling). I regressed each outcome on Unanswered Occupational Calling and only one of the conceptually-related constructs simultaneously. As summarized in Table 5, Unanswered Occupational Calling explained predictive variance in each of this Study 2's outcome variables over and above that which was explained by each conceptually-related construct alone, except for career commitment. Unanswered Occupational Calling explained unique predictive variance over and above career commitment in irritation only. Taken together, Hypothesis 12 was partially supported.

Moderating Effects

Hypotheses 13 and 14 predicted that Unanswered Occupational Calling would moderate the relationship between answered occupational calling and each of Study 2's outcome variables, such that those relationships would be weaker for those high on Unanswered Occupational Calling. To test the moderating effects of Unanswered Occupational Calling on the relationship between answered occupational calling and each of this study's outcome variables, I ran a series of moderated regression analyses. I entered into Step 1 the answered occupational calling and Unanswered Occupational Calling variables. In Step 2, the cross-product of those two variables was entered. As summarized in Table 6, neither Hypothesis 13 nor Hypothesis 14 was supported because the cross-product failed to account for a significant amount of variance in any of the outcome variables. As such, there was no need to plot the results for interpretation purposes.

Table 5. Study 2;s Multiple Regression Analyses.

	Withdrawal Intentions	Psychological Distress			Physical Symptoms	Job Satisfaction	Life Satisfaction
		Depression	Irritation	Anxiety			
	β	β	β	β	β	β	β
UOC	.38**	.13**	.23**	.20**	.22**	-.25**	-.15**
WE	-.28**	-.47**	-.14**	-.23**	-.13*	.48**	.44**
R²	.26**	.29**	.10**	.13**	.09**	.40**	.27**
UOC	.43**	.31**	.31**	.29**	.29**	-.42**	-.33**
JI	-.08	-.10	.08	-.03	.06	.18**	.10
R²	.20**	.12**	.09**	.09**	.08**	.24**	.13**
UOC	.04	.03	.14*	.10	.11	.02	.05
CC	-.62**	-.47**	-.23**	-.30**	-.25**	.73**	.61**
R²	.41**	.23**	.11**	.14**	.11**	.51**	.33**
UOC	.31**	.26**	.21**	.26**	.27**	-.32**	-.25**
AOC	-.27**	-.16**	-.17**	-.07	-.01	.30**	.19**
R²	.25**	.13**	.10**	.09**	.08**	.28**	.15**

UOC = Unanswered Occupational Calling; AOC = Answered Occupational Calling;

JI = Job Involvement; CC = Career Commitment; WE = Work Engagement

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 6. Study 2's Moderated Regression Analyses.

| | Withdrawal Intentions | Psychological Distress | | | Physical Symptoms | Job Satisfaction | Life Satisfaction |
		Depression	Irritation	Anxiety			
	β	β	β	β	β	β	β
Step 1							
UOC	.31**	.26**	.21**	.26**	.27**	-.32**	-.25**
AOC	-.27**	-.16**	-.17**	-.07	-.01	.30**	.19**
R2	.25**	.13**	.10**	.09**	.08**	.28**	.15**
Step 2							
UOC	.31**	.27**	-.17**	.27**	.28**	-.32**	-.27**
AOC	-.27**	-.17**	.21**	-.08	-.02	.30**	.20**
UOC x AOC	.00	.08	.02	.02	.04	-.02	-.09
ΔR2	.00	.01	.00	.00	.00	.00	.01

UOC = Unanswered Occupational Calling; AOC = Answered Occupational Calling

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Study 2's primary purpose was twofold: (1) to generate further evidence of the construct validity of the Unanswered Occupational Calling instrument; and (2) to explore the new instrument's nomological network.

Factorial Validity

A series of CFAs supported the distinctiveness of the Unanswered Occupational Calling instrument from other conceptually-related constructs, namely work engagement, job involvement, career commitment, and answered occupational calling. The results of the CFAs confirmed that the data fit a 2-factor solution, one factor consisting only of the Unanswered Occupational Calling items, and one factor conforming to the conceptually-related construct items. As predicted by Hypotheses 6 through 9, Unanswered Occupational Calling was negatively related to work engagement (H6; $r = -.44$, p<.01), job involvement (H7; $r = -.20$, p<.01), career commitment (H8; $r = -.66$; p<.01), and answered occupational calling (H9; $r = -.49$, p<.01). Taken together, the results of the factor and correlational analyses lend support to the factorial validity of the Unanswered Occupational Calling instrument.

Nomological Network

As predicted by Hypotheses 10, Unanswered Occupational Calling was positively related to withdrawal intentions ($r = .44$, p<.01), depression ($r = .33$, p<.01) , irritation ($r = .29$, p<.01),

anxiety ($r = .30$, p<.01) and physical symptoms ($r = .28$, p<.01). As predicted by Hypothesis 11, Unanswered Occupational Calling was negatively related to job satisfaction ($r = -.46$, p<.01) and life satisfaction ($r = -.35$, p<.01).

Finally, as predicted by Hypotheses 12, Unanswered Occupational Calling explained unique variance in each of this Study 2's outcome variables over and above that which was explained by each conceptually-related but distinct construct (i.e., work engagement, job involvement, answered occupational calling), except for career commitment. The extant literature suggests that career commitment mediates the relationship between occupational callings and job-related outcomes (Duffy et al., 2011b), which might explain Unanswered Occupational Calling's failure to account for predictive variance in this study's outcomes over and above that which was accounted for by career commitment alone.

Each of this study's outcome variables was regressed on Unanswered Occupational Calling and career commitment simultaneously. As so analyzed, if career commitment is a mediator of the effects of Unanswered Occupational Callings on any one of this Study's outcome variables, then it would not be surprising for Unanswered Occupational Calling's regression coefficient to be insignificant. To explore this possibility, I ran a series of Sobel tests using SPSS macro developed by Preacher and Hayes (2004). These tests provide preliminary cross-sectional evidence that career commitment: (1) fully mediated the effects of Unanswered Occupational Calling on physical symptoms (*Sobel's z* = 3.29, p<.01), depression (*Sobel z* = 6.77, p<.01), anxiety (*Sobel z* = 4.98, p<.01), life satisfaction (*Sobel's z* = -8.71, p<.01), job satisfaction (*Sobel's z* = -10.89, p<.01), and withdrawal intentions (*Sobel's z* = 9.24, p,.01); and (2) partially mediated the effects of Unanswered Occupational Calling on irritation (*Sobel's z* = 3.39, p<.01) . Longitudinal work is required to bolster confidence in these preliminary results.

Moderating Effects

Hypotheses 13 and 14 predicted that Unanswered Occupational Calling would moderate the relationship between answered occupational calling and each of Study 2's outcome variables, such that those relationships would be weaker for those high on Unanswered Occupational Calling. Specifically, I hypothesized that Unanswered Occupational Calling would moderate: (1) the positive relationships between answered occupational calling and job and life satisfaction, (2) the negative relationship between answered occupational calling and physical symptoms, psychological distress, and withdrawal intentions. None of these predictions were supported.

A review of the literature offers an explanation for these null findings. Scholarly work on occupational callings has suggested at least five different occupational calling groups: (1) currently living a calling; (2) searching for a calling; (3) perceiving but not pursuing a calling; (4) irrelevancy of a calling; and (4) perceiving a calling in addition to living a calling (e.g., Dik & Duffy, 2009; Duffy et al., 2012). The primary purpose of Study 2's research design was to distinguish the Unanswered Occupational Calling construct from other conceptually-related constructs and to explore its nomological network. It was not specifically designed to place individuals into any one or more of the foregoing 5 groups. For example, those for which a calling is irrelevant should not be included in either of the Unanswered Occupational Calling or answered occupational calling groups. If not identified and excluded, the scores of these individuals might attenuate the relationships among these constructs and other variables. Specifically, failure to place individuals into their occupational calling groups may have obfuscated any potential moderating effects predicted in this study.

CHAPTER TEN:

GENERAL DISCUSSION

There is a limited body of research that illuminates the various positive life-, health-, and work-related outcomes that an individual may experience through the pursuit of his or her occupational calling. The extant literature on occupational callings, however, rarely considers the possible detrimental effects of having an occupational calling other than to explain unexpected study results. These unexpected study results hinted at adverse psychological- and job-related outcomes when an individual fails or does not have the ability to pursue an occupational calling, a concept this paper referred to as an Unanswered Occupational Calling. This paper defined an Unanswered Occupational Calling as an occupational calling that an individual perceives, but is not currently pursuing. Scholarly work is needed to explore the individual and organizational consequences of an individual's experience of an Unanswered Occupational Calling.

Consequently, the purpose of this research was twofold: (1) to develop and generate preliminary construct validity evidence for a newly developed Unanswered Occupational Calling instrument; and (2) to explore the nomological network of the new instrument. To that end, I conducted two studies, the first of which was required for initial scale construction. The central purpose of the second was to explore the nomological network of Unanswered Occupational Callings. To my knowledge, this paper is the first scholarly attempt to operationalize the Unanswered Occupational Calling construct and to explore the individual and organizational consequences of an individual's experience of an Unanswered Occupational Calling.

Overall, Study 1 and 2 support the construct validity of the newly developed Unanswered Occupational Calling instrument. As expected, the Unanswered Occupational Calling instrument was shown to relate positively to intrinsic work motivation and negatively to work engagement, job involvement, career commitment, and answered occupational callings. Also as expected, those who more strongly endorsed an Unanswered Occupational Calling also tended to experience more physical symptoms, psychological distress, and withdrawal intentions and less job and life satisfaction. These results are consistent with previous research that suggested that there may be detrimental effects of perceiving, but not pursuing, an occupational calling (e.g., Dik & Duffy, 2009; Duffy et al., 2012; Duffy et al., 2011b; Duffy & Sedlacek, 2007).

CHAPTER ELEVEN:

LIMITATIONS, FUTURE RESEARCH, AND CONCLUSIONS

Limitations

The results of this study are promising given its limitations. First, the samples of Study 1 and Study 2 represent distinctively different examples of the working population. Study 1 consisted largely of young females working in part-time jobs. The entire sample consisted of undergraduate college students. Consequently, it is probable that many of the participants perceived an Unanswered Occupational Calling simply because they did not yet possess the educational credentials to pursue their occupational callings. This conclusion is bolstered by Study 1's high mean on the Unanswered Occupational Calling instrument (M = 4.66) and low mean on the answered occupational calling instrument (M = 2.93) .

As compared to Study 1's sample, Study 2's sample generated a low mean on the Unanswered Occupational Calling instrument (M = 2.28) and a high mean on the answered occupational calling instrument (M = 4.38). A t-test confirmed that the means of these two groups (i.e., college students and faculty members) differed significantly for Unanswered Occupational Calling (t(637) = 22.24, p<.01) and answered occupational calling (t(613) = -15.59, p<.01). This result is not surprising because Study 2's sample consisted entirely of university faculty members, a group that must dedicate a large number of years to their education (a feat that might require a great deal of passion for one's chosen work). Given these sample differences, it would not have been surprising if the Unanswered Occupational Calling instrument, which was developed on a sample of college students, failed to relate as hypothesized in a group of faculty

members. Instead, the instrument not only related to Study 2's outcome variables as expected, but also demonstrated discriminate validity against conceptually-related constructs. However, future research should conduct further validation research on samples of the working population that fall somewhere in between college students and university faculty members in terms of calling pursuit.

Second, this study did not categorize individuals into occupational calling groups for analytic purposes. As suggested by the extant occupational callings literature, there are potentially 5 different occupational calling groups, one of which consists of those for which an occupational calling is irrelevant (e.g., Dik & Duffy, 2009; Duffy et al., 2012). Including such individuals into any of the other calling groups (e.g., answered, unanswered, searching) might attenuate the relationships among occupational calling constructs and other variables. Future work in this area should pay careful attention to whether these group distinctions could affect study results.

Finally, both studies employed a cross-sectional research design. While cross-sectional work is appropriate in the nascent stages of construct and scale development, longitudinal work is required to advance the literature on and the theoretical development of Unanswered Occupational Callings. For example, does the existence of an Unanswered Occupational Calling lead to adverse job- and health related consequences, such as job dissatisfaction, or vice versa as RFT suggests?

Future Research Directions

First, more theoretical development is required to understand the experiences of occupational callings and the job- and health-related consequences thereof. This is especially

true for Unanswered Occupational Callings. To my knowledge, Hall and Chandler (2005) are the only scholars to offer theoretical explanations for the psychological experiences and job-related successes of a person living their calling. While Hall and Chandler's theoretical explanations are helpful in explaining the job- and health-related outcomes of an answered occupational calling, they provide little insight into what one experiences when he or she is unable to answer an occupational calling. In order to advance work in occupational callings, it is imperative that scholars work to understand the circumstances under which a person might experience: (1) an Unanswered Occupation Calling; and, more importantly, (2) adverse job- and health-related consequences as a result thereof.

Second, if Unanswered Occupational Callings lead to adverse job- and health-related outcomes as this study suggests, then research on how to mitigate against those adverse outcomes is important. RFT, although not specifically developed to understand the experiences of an Unanswered Occupational Calling, suggests that prevention-focused employees may actively ruminate on an Unanswered Occupational Calling as one way to dissociate from and reduce current job dissatisfaction (e.g., Berg et al., 2010). Rumination, unfortunately, is an avoidance or emotion-focused coping strategy that has not been met with positive outcomes (e.g., Fortes-Ferreira et al., 2006; Gibbon et al., 2011).

Research suggests that problem-focused coping strategies are more effective (e.g., Fortes-Ferreira et al., 2006; Koeske, Kirk, & Koeske, 1993). Berg et al.'s (2010) qualitative study revealed two problem-focused coping strategies by which those experiencing an Unanswered Occupational Calling may protect against related adverse outcomes: (1) Job Crafting; and (2) Leisure Crafting. Pursuing an Unanswered Occupational Calling is one way for an individual to cope with stress experienced within his or her current occupation; but, for some, pursuing an

Unanswered Occupational Calling is not a viable option (e.g., lack of time, talent or means). For these employees, other problem-focused coping strategies may prove successful. Incorporating aspects of an Unanswered Occupational Calling into current work roles or leisure times may be two practical problem-focused coping strategies to eliminate or reduce negative outcomes associated with the inability to pursue an occupational calling. Future empirical work could test whether these hypothesized crafting strategies work to mitigate against adverse consequences of an Unanswered Occupational Calling.

Conclusions

With the help of the newly developed Unanswered Occupational Calling instrument (Study 1), this thesis is the first to directly test the proposition that an inability to pursue one's occupational calling may lead to adverse job- and health-related consequences (Study 2), as suggested by past research (e.g., Dik & Duffy, 2009; Duffy et al., 2012; Duffy et al., 2011b; Duffy & Sedlacek, 2007). Study 2 demonstrated that those who strongly endorse an Unanswered Occupational Calling tend to experience lower levels of job and life satisfaction, and higher levels of physical symptoms, psychological distress, and withdrawal intentions. Future theoretical and empirical work is required to gain a fuller understanding of the mechanisms that link Unanswered Occupational Callings with adverse job- and health-related consequences and to explore possible ways to mitigate against the possible negative effects of an Unanswered Occupational Calling.

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APPENDICES

Appendix A: Original 25 Unanswered Calling Items

Think about your **CURRENT JOB** and then indicate how much you agree or disagree with each of the following statements:	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
1. I feel drawn to an occupation other than my own. (D)						
2. I often think about an occupation other than my own. (D)						
3. If I could do it all over again, there is another occupation that I would pursue. (D)						
4. I can't imagine another occupation that would be more meaningful to me than the one I currently have. (R) (M)						
5. I can't imagine another occupation that would be more enjoyable to me than the one I currently have. (R) (E)						
6. I was meant for my current occupation. (R) (I)						
7. If I could do it all over again, I would pursue the same occupation. (R) (D)						
8. I would enjoy work more if I had a different occupation. (E)						
9. There is another occupation that I would enjoy more than my own. (E)						
10. I am passionate about work done in another occupation. (D)						
11. There is another occupation that would be more meaningful to me than my own. (M)						
12. I feel drawn to another occupation that reflects my work values. (D) (I)						
13. I feel drawn to another occupation that reflects my personal values. (D) (I)						
14. There is another occupation that inspires me more than my own. (D)						
15. I feel a sense of destiny towards another occupation. (D)						
16. I feel pulled towards another occupation that reflects the values that I hold. (D) (I)						
17. I feel pulled towards another occupation that reflects the goals I want to achieve. (D) (I)						
18. I fantasize about another occupation that holds meaning for me. (M)						
19. I personally identify with an occupation that I don't currently have. (I)						
20. I am drawn to another occupation because I expect the work to be personally fulfilling (M)						
21. I feel called to an occupation that I don't currently have. (D)						
22. I am drawn to another occupation because I expect the work to be personally satisfying. (D) (E)						
23. I am drawn to another occupation because I expect the work to be pleasurable (D) (E)						
24. I am drawn to another occupation because I expect the work to be meaningful (D) (M)						
25. I am drawn to another occupation because I expect the work to be enjoyable. (D) (E)						

Items Eliminated by SMEs:

1. While at my current job, I often think about pursuing a different kind of work.
2. I was destined for my current occupation (R).
3. The occupation I wish I had is more like me than my own.
4. Work would be more meaningful to me if I had a different job.
5. I am inspired by the occupation I wish I had.
6. There is another occupation that would make me happier than my own.
7. I think I would be happier if I had a different job.
8. The occupation I wish I had reflects my life goals.
9. There is another job that I would be prouder to call my own.
10. I would be prouder of my work if I had a different job.
11. I would be more involved in my work if I had a different job.
12. I think pursuing a different job would produce positive changes in my life.
13. I think that I would gain personal satisfaction if I could pursue a different job.
14. I think that my purpose in life would be fulfilled if I had a different occupation.
15. I have a job in mind that I would rather have.
16. I don't get to do the kind of work I want to do at my current job.
17. I dream of pursuing a different line of work.
18. I think a different line of work would be more pleasurable than what I currently do for work.
19. I would rather be pursuing another line of work.
20. My life would be positively impacted by participating in a different occupation.
21. There is another occupation I wish to pursue.

Appendix B: Study 1 Measures

Answered Occupational Calling (Dobrow & Tosti-Kharas, 2011)

Think about your CURRENT JOB and then indicate to what extent you agree or disagree with each of the following statements.	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
1. I am passionate about what I currently do for work.						
2. I enjoy what I currently do for work.						
3. What I currently do for work gives me immense personal satisfaction.						
4. I would sacrifice everything to do what I currently do for work.						
5. The first thing I often think about when I describe myself to others is what I currently do for work.						
6. I would continue what I do for work even in the face of severe obstacles.						
7. I know that what I currently do for work will always be part of my life.						
8. I feel a sense of destiny about what I currently do for work.						
9. What I currently do for work is always in my mind in some way.						
10. Even when not at work, I often think about it.						
11. My existence would be much less meaningful without what I currently do for work.						
12. What I currently do for work is a deeply moving and gratifying experience for me.						

Intrinsic and Extrinsic Work Motivation (Amabile et al., 1994)

Please indicate the extent to which each of the following statements is true of you:	never true of me	sometimes true of me	frequently true of me	Always or almost always true of me
1. I enjoy tackling problems that are completely new to me.				
2. I enjoy trying to solve complex problems.				
3. The more difficult the problem, the more I enjoy trying to solve it.				
4. I want my work to provide me with opportunities for increasing my knowledge and skills.				
5. Curiosity is the driving force behind much of what I do.				
6. I want to find out how good I really can be at my work.				
7. I prefer to figure things out for myself.				
8. What matters most to me is enjoying what I do.				
9. It is important for me to have an outlet for self expression.				

10. I prefer work I know I can do well over work that stretches my abilities.				
11. No matter what the outcome of a project, I am satisfied if I feel I gained a new experience.				
12. I'm more comfortable when I can set my own goals.				
13. I enjoy doing work that is so absorbing that I forget about everything else.				
14. It is important for me to be able to do what I most enjoy.				
15. I enjoy relatively simple, straightforward tasks.				
16. I am strongly motivated by the [grades] [money] I can earn.				
17. I am keenly aware of the [GPA (grade point average)] [promotion] goals I have for myself.				
18. I am strongly motivated by the recognition I can earn from other people.				
19. I want other people to find out how good I really can be at my work.				
20. I seldom think about [grades and awards.] [salary and promotions.]				
21. I am keenly aware of the [goals I have for getting good grades.] [income goals I have for myself.]				
22. To me, success means doing better than other people.				
23. I have to feel that I'm earning something for what I do.				
24. As long as I can do what I enjoy, I'm not that concerned about exactly [what grades or awards I can earn.] [what I'm paid.]				
25. I believe that there is no point in doing a good job if nobody else knows about it.				
26. I'm concerned about how other people are going to react to my ideas.				
27. I prefer working on projects with clearly specified procedures.				
28. I'm less concerned with what work I do than what I get for it.				
29. I am not that concerned about what other people think of my work.				
30. I prefer having someone set clear goals for me in my work.				

Work Centrality (Paullay et al., 1994)

Please indicate how much you agree or disagree with each of the following statements:	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
1) Work should only be a small part of one's life. R						
2) In my view, an individual's personal life goals should be work oriented.						
3) Life is worth living only when people get absorbed in work.						

	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
4) The major satisfaction in my life comes from my work.						
5) The most important things that happen to me involve my work.						
6) I have other activities more important than my work. R						
7) Work should be considered central to life.						
8) I would probably keep working even if I didn't need the money.						
9) To me, my work is only a small part of who I am. R						
10) Most things in life are more important than work. R						
11) If the unemployment benefit was really high, I would still prefer to work.						
12) Overall, I consider work to be very central to my existence.						

Work Orientation (Wrzesniewski et al., 1997)

Please indicate how much you agree or disagree with each of the following statements:	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
1. I find my work rewarding. Job/Calling						
2. I am eager to retire. Job/Calling (R)						
3. My work makes the world a better place. J/C						
4. I am very conscious of what day of the work week it is and I greatly anticipate weekends. I say, 'Thank God it's Friday!' J/C (R)						
5. I tend to take my work with me on vacations. J/C						
6. I expect to be in a higher level job in five years. Career						
7. I would choose my current work life again if I had the opportunity. J/C						
8. I feel in control of my work life. J/C						
9. I enjoy talking about my work to others. J/C						
10. I view my job primarily as a stepping stone to other jobs. Career						
11. My primary reason for working is financial-to support my family and lifestyle. J/C (R)						
12. I expect to be doing the same work in five years. Career						
13. If I was financially secure, I would continue with my current line of work even if I was no longer paid. J/C						

14. When I am not at work, I do not think much about my work. J/C (R)						
15. I view my job as just a necessity of life, much like breathing or sleeping. J/C (R)						
16. I never take work home with me. J/C (R)						
17. My work is one of the most important things in my life. J/C						
18. I would not encourage young people to pursue my kind of work. J/C (R)						

What is your job title?
What is the type of organization you work for (e.g., hospital, retail store, or school)?
How long have you worked at your current job?
How many hours to you usually work per week?
What is your gender?
What is your age in years?
Are you Asian, Black, Hispanic, White, or Other?

Appendix C: Department Chair Recruitment Email

Dear Department Chair:

My name is Michele W. Gazica and I am a doctoral student in Industrial/Organizational Psychology at the University of South Florida. In order to collect data for my thesis, I am surveying faculty members around the United States regarding the nature of their academic departments as well as their behavior and attitudes related to their work. The results of this research study should further the literature as well as provide information regarding faculty outcomes within academic departments.

I am contacting you to ask for your support. I am hoping that you would be willing to forward the link below to your faculty members and encourage them to complete the attached survey which should take no more than 15 minutes of their time. All responses will remain anonymous and confidential. In return, I am more than willing to provide you with a copy of the resulted research study. If you have any questions, please do not hesitate either to contact me at this e-mail address, mgazica@mail.usf.edu, or my major professor, Paul Spector, at pspector@usf.edu. Thank you in advance for your assistance in my professional development.

Click here to take survey

Sincerely,

Michele

Michele W. Gazica, JD
Doctoral Student
Industrial/Organizational Psychology
University of South Florida

Appendix D: Faculty Recruitment Email

Dear Professor:

My name is Michele W. Gazica and I am a doctoral student in Industrial/Organizational Psychology at the University of South Florida. In order to collect data for my thesis, I am surveying faculty members around the United States regarding the nature of their academic departments as well as their behavior and attitudes related to their work. The results of this research study should further the literature as well as provide information regarding faculty outcomes within academic departments.

Previously, I contacted your department chair asking him to forward a copy of the survey link to you and ask for your time to complete the survey. If your department chair has forwarded the link to you and you have already completed the survey, I thank you for your time and participation. If not, I am contacting you now to ask for your support. I am hoping that you would be willing to click on the link below and complete the attached survey. This should take no more than 15 minutes of your time. All responses will remain anonymous and confidential. In return, I am more than willing to provide you with a copy of the resulted research study. If you have any questions, please do not hesitate either to contact me at this e-mail address, mgazica@mail.usf.edu, or my major professor, Paul Spector, at pspector@usf.edu. Thank you in advance for your assistance in my professional development.

Click here to take survey

Sincerely,

Michele

Michele W. Gazica, JD
Doctoral Student
Industrial/Organizational Psychology
University of South Florida

Appendix E: Study 2 Measures

Work Engagement (Schaufeli et al., 2006)

Think about your present job, and then indicate how frequently you experience the following:	never	rarely	sometimes	often	very often	always
1. At my work, I feel bursting with energy. (V)						
2. At my job, I feel strong and vigorous. (V)						
3. I am enthusiastic about my job. (D)						
4. My job inspires me. (D)						
5. When I get up in the morning, I feel like going to work. (V)						
6. I feel happy when I am working intensely. (A)						
7. I am proud of the work that I do. (D)						
8. I am immersed in my work. (A)						
9. I get carried away when I am working. (A)						

Job Involvement (Paullay et al., 1994)

Academics generally possess the autonomy to set their own work schedules. Therefore, when answering questions that make reference to standard work hours (e.g., 'quitting time;' 'overtime,' arriving 'early,' etc.), please answer within the context of your own work schedule. Think about your present job, and then indicate how much you agree or disagree with each of the following statements:	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
1. I don't mind spending a half hour past quitting time, if I can finish something I've been working on.						
2. Often when I am not at work, I find myself thinking about things that I have done or things to be done at work.						
3. Generally, I feel detached from the type of work that I do in my present job.						
4. I will stay overtime to finish something that I am working on.						
5. Sometimes I lay awake at night thinking about the things I have to do the next day at work.						
6. In my current job I often do extra work that isn't required.						
7. I am absorbed in the type of work that I do in my present job.						
8. I'm really a perfectionist about the work that I do.						
9. I am very much involved personally in the type of work that I do in my present job.						
10. I usually show up for work a little early to get things ready.						
11. I often try to think of ways of doing my job more effectively.						
12. I am really interested in my work.						

	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
13. I do only what my job requires, no more no less.						

Career Commitment (Blau, 1989)

Think about your present profession (career), and then indicate how much you agree or disagree with each of the following statements:	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
1. I like this career too well to give it up.						
2. If I could go into a different profession which paid the same, I would probably take it.						
3. If I could do it all over again, I would not choose to work in this profession.						
4. I definitely want a career for myself in this profession.						
5. If I had all the money I needed without working, I would probably still continue to work in this profession.						
6. I am disappointed that I ever entered this profession.						
7. This is the ideal profession for a life's work.						
8. I like this career too well to give it up.						

Answered Occupational Calling (Dobrow & Tosti-Kharas, 2011)

As used in this survey, the term "*academia*" is discipline specific. Please indicate how much you agree or disagree with each of the following statements:	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
13. I am passionate about being an academic.						
14. I enjoy engaging in academia.						
15. Being in academia gives me immense personal satisfaction.						
16. I would sacrifice everything to be an academic.						
17. The first thing I often think about when I describe myself to others is that I'm an academic.						
18. I would continue being an academic even in the face of severe obstacles.						
19. I know that being an academic will always be part of my life.						
20. I feel a sense of destiny about being an academic.						
21. Being an academic is always in my mind in some way.						
22. Even when not engaging in any aspect of my job as an academic, I often think about it.						
23. My existence would be much less meaningful without my involvement in academia.						
24. Engaging in academia is a deeply moving and gratifying experience for me.						

Physical Symptoms Inventory (Spector & Jex, 1998)

Over the past month, how often have you experienced each of the following symptoms?	Not at all	Once or Twice	Once or twice per week	Most days	Every day
1. An upset stomach or nausea					
2. Trouble sleeping					
3. Headache					
4. Acid indigestion or heartburn					
5. Eye strain					
6. Diarrhea					
7. Stomach cramps (not menstrual)					
8. Constipation					
9. Ringing in the ears					
10. Loss of appetite					
11. Dizziness					
12. Tiredness or fatigue					
13. A backache					

Work-Related Depression, Anxiety, and Irritation (Caplan et al., 1980)

Please indicate how frequently you experience the following emotions:	never or very little	sometimes	frequently	most of the time	always
1. I feel sad.					
2. I feel unhappy.					
3. I feel good.					
4. I feel depressed.					
5. I feel blue.					
6. I feel cheerful.					
7. I get angry.					
8. I get aggravated.					
9. I get irritated or annoyed.					
10. I feel nervous.					
11. I feel jittery.					
12. I feel calm.					
13. I feel fidgety.					

Life Satisfaction (Diener et al., 1985)

Please indicate how much you agree or disagree with each of the following statements:	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
1. In most ways my life is close to my ideal.						
2. The conditions of my life are excellent.						
3. I am satisfied with my life.						
4. So far, I have gotten the important things I want in life.						
5. If I could live my life over, I would change almost nothing.						

Overall Job Satisfaction (Cammann et al., 1983)

Please indicate how much you agree or disagree with each of the following statements:	strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree
1. All in all, I am satisfied with my job.						
2. In general, I like working at my job.						
3. In general, I don't like my job.						

How often do you seriously consider quitting your job?	never	rarely	sometimes	often	extremely often

Are you currently employed as a faculty member of a university or college?
What is your job title?
What is your age in years?
What is your gender?
At which university (or college) are you currently employed?
In which university (or college) department do you currently work?
How long have you worked in your current department?
How long have you worked at your current job?
Are you Asian, Black, Hispanic, White, or Other?