

THESIS

THE INFLUENCE OF LIVING A CALLING ON WORK CONTINUITY INTENTIONS AND
THE MEDIATING EFFECTS OF SUBJECTIVE AGE AND OCCUPATIONAL FUTURE
TIME PERSPECTIVE

Submitted by

Kemol Anderson

Department of Psychology

In partial fulfillment of the requirements

For the Degree of Master of Science

Colorado State University

Fort Collins, Colorado

Spring 2019

Master's Committee:

Advisor: Jeanette N. Cleveland

Kurt Kraiger

Bryan J. Dik

Lynn M. Shore

Copyright by Kemol J. Anderson 2019

All Rights Reserved

ABSTRACT

THE INFLUENCE OF LIVING A CALLING ON WORK CONTINUITY INTENTIONS AND THE MEDIATING EFFECTS OF SUBJECTIVE AGE AND OCCUPATIONAL FUTURE TIME PERSPECTIVE

Employee withdrawal has historically been – and continues to be – of significant concern to organizations. The present study investigates the effects of living a calling on work continuity intentions, specifically: turnover intentions, planned retirement age, intentions to retire fully, intentions to pursue career-related bridge employment, and intentions to pursue non-career related bridge employment. Drawing from continuity theory and socioemotional selectivity theory, it was hypothesized that the relationship between living a calling and these later career stage outcomes would be mediated by subjective age and occupational future time perspective (OFTP). The hypothesized mediated model was tested at two time points, one month apart. Using a sample of 266 at Time 1 and 171 at Time 2, Mturk participants completed surveys about their personal characteristics, job attitudes, and intentions regarding turnover and retirement. Results using the predictor and mediators at Time 1 and outcome variables at Time 2 showed that OFTP, but not subjective age, mediates the relationship between living a calling and turnover intentions, intentions on fully retiring and intentions to pursue non-career related bridge employment. Findings of the cross-sectional model suggest that OFTP, but not subjective age, mediates the relationship between living a calling and turnover intentions, as well as intentions to pursue career-related bridge employment and non-career related bridge employment. Theoretical and practical implications are discussed, and suggestions for future research are presented.

TABLE OF CONTENTS

Abstract.....	ii
Introduction.....	1
Supporting Theories & Hypotheses Generation.....	6
Methods.....	25
Results.....	32
Discussion.....	49
References.....	94
Appendices.....	110

Introduction

The loss of personnel and employee productivity to organizational withdrawal has historically been (Mobley, 1977; Graen, Liden, & Hoel, 1982; Pelled & Xin, 1999; Somers, 2009) and continues to be an important issue for organizations today (Zimmerman, Swider, Woo, & Allen, 2016; Carpenter & Berry, 2017). Withdrawal behaviors refer to the disengagement and removal of employee work or service, and encompasses a wide range of behaviors including but not limited to: absenteeism, psychological withdrawal, turnover intentions, actual turnover, early departure, lateness, retirement intentions, and actual retirement (Blau, 1985; Byrne, 2015; Hanisch & Hulin, 1990). The importance of employee withdrawal behaviors is reinforced through its linkages with other research areas, such as work engagement (Saks, 2006; Macey & Schneider, 2008;), counterproductive work behaviors (Carpenter & Berry, 2017; Fox, Spector, & Miles, 2001) and employee retention (Ambrosius, 2018; Habeck, Hunt, Rachel, Kregel, & Chan, 2010; Hausknecht, Rodda, & Howard, 2009; Ramlall, 2004; Sigler, 1999).

Not only are withdrawal behaviors important to researchers, they are also relevant to practitioners. For example, across two surveys conducted in 2010 and 2012 by the Society for Human Resource Management (SHRM), human resource (HR) executives were asked to identify what they think will be the three biggest challenges facing HR executives at their respective organizations. “Retaining and rewarding the best employees” was the most frequently anticipated challenge endorsed in 51% of the sample in 2010 and 59% in 2012 (SHRM, 2012). Similarly, results from a survey conducted in 2015 by Clearwater Consulting Group Inc. showed engaging and retaining employees as one of the top three challenges of their organizations (Dressel, 2015). Finally, and most recently in 2017 Forbes declared employee retention as the biggest threat to

talent management (Schmidt, 2016). The perceived importance of talent management held by organizational leaders is by no means surprising, as it is in line with findings suggesting that it is related to organizational profitability ($r = .79$) and return on investment ($r = .60$) (Kehinde, 2012).

Two ways of reducing employee withdrawal are by reducing and minimizing turnover intentions and to delay retirement. Turnover is the withdrawal of employees from an organization, and may be voluntary or involuntary (McElroy, Morrow, & Rude, 2001). It is also most often preceded by intentions to turnover (Tett & Meyer, 1993). Whether voluntary or involuntary, turnover can be costly for the employee and the organization. Hinkin and Tracey (2000) outlined various costs of employee turnover to an organization: separation costs (such as severance pay), recruiting and attracting costs, selection costs, hiring costs, and lost productivity. Results from Boushey and Glynn's (2012) meta-analysis on turnover costs revealed that in general, the more salary an employee earns, the higher the cost of turnover. In their study, turnover costs to the organization ranged from 16% to 213% of the employee's annual salary. Non-monetary costs of turnover such as increased strain on coworkers, reduced morale and loss of institutional knowledge are also important to consider (Boushey & Glynn, 2012).

In addition to turnover, retirement also results in the loss of employees and their expertise. Retirement is most salient to middle aged and older workers. The retention of middle aged and older workers has increasingly become a priority for organizations. Older workers bring a host of unique benefits to the workplace (Waldman & Avolio, 1986). They tend to have more relevant institutional knowledge (Eschtruth, Sass, & Aubrey, 2007), and outperform younger workers on non-core domains of job performance such as organizational citizenship behaviors and safety related behaviors (Ng & Feldman, 2008). The many upsides brought to the

workplace by older workers has contributed to an increase in research related to the retention and attraction of older workers (Armstrong-Stassen & Ursel, 2009; Claes & Heymans, 2008; Lundberg & Marshall, 2007), retirement intentions (Rudolph, Kooji, Rauvola, & Zacher, 2018), bridge employment; i.e. transitional employment after retirement (Gobeski & Beehr, 2009) and even the retention of workers in bridge employment (Moghimi, Zacher, Scheibe & Van Yperen, 2017).

Withdrawal behaviors and intentions of workers are influenced by many job attitudes such as job satisfaction, organizational commitment, and perceptions of fairness (Griffeth, Hom, & Gaertner, 2000; Meyer, Stanley, Herscovith, & Topolnysky, 2002). As one would expect, employees who are satisfied, committed to the organization, and perceive the organization to be fair are less likely to intend on withdrawing from work. Hackman and Oldham's job characteristics theory (JCT; 1976), supported by meta-analytic findings (Fried & Ferris, 1987), posits that high internal motivation, job satisfaction, work performance, and fewer withdrawal behaviors are influenced by core job dimensions via critical psychological states. One of the critical psychological states serving as an antecedent of these desirable outcomes is meaningfulness of work (Hackman & Oldham, 1976). In further support of JCT, Duffy, Dik, and Steger (2011), with a sample of 370 university employees spanning young, middle, and old ages, also found meaningfulness of work to be negatively related to withdrawal intentions.

A high sense of meaningfulness of work is typically found in individuals who view themselves as living out their career calling. Living a calling refers to the extent to which individuals feel as if they have a calling in a particular career, and are actively living out that experience (Duffy, Allan, Autin, & Bott, 2013). Workers reporting a high sense of living their career calling typically report higher satisfaction with their jobs, higher commitment to their

careers, and lower intentions on withdrawing from their current jobs (Duffy, Dik, & Steger, 2011). As such, workers with a high sense of living their career calling were expected to have lower withdrawal intentions – both more proximal withdrawal as in turnover, and more distal withdrawal as in retirement intentions.

With the exception of extensive work investigating the career calling – turnover intentions relationship (for example: Duffy & Autin, 2013; Duffy et al., 2011), there is little published empirical work looking at the relationship between career calling and retirement related withdrawal intentions (specifically, planned or intended retirement age and bridge employment intentions). In the present study, I was interested in identifying and testing individual and situational factors that may be influential in the delaying or minimizing of employee withdrawal. I proposed that the extent to which employees are living their calling significantly influences work continuity intentions, i.e. turnover intentions, planned retirement age, and bridge employment intentions.

As the majority of the work continuity intentions variables were retirement related, and with retirement decisions being most salient to middle age and older workers, the aging literature was consulted for plausible explanatory variables. Subjective age and occupational future time perspective (OFTP) have received significant attention in the aging literature as significant predictors of health at work outcomes, beyond that of chronological age. However, little research has examined subjective age or OFTP in relation to living a calling. This brings to light a critical gap in research because living a calling may be linked to greater work continuity among workers – particularly middle age and older workers with greater OFTP and younger subjective age. OFTP, or the extent to which one sees their remaining time and career opportunities as limited or open-ended (Zacher & Frese, 2009), and subjective age, or how old one feels (Kleinspehn-

Ammerlahn, Kotter-Grühn, & Smith, 2008), are related constructs (Zabel, 2016) and believed to be related to both living a calling and work continuity intentions. As discussed more extensively in later sections, subjective age and living a calling share some correlates such as meaningfulness of work (Duffy et al., 2013; Kunze, Raes, & Bruch, 2015) and life satisfaction (Chua, Cote, & Leong, 1990; Duffy et al., 2013).

To understand how living a calling can affect the retention of workers, thereby reducing withdrawal behaviors, it is important to understand how subjective age and OFTP are related to intended work continuity. For this reason, in this study, I investigated the direct effects of living a calling on intended work continuity, as well as the mediating effects of subjective age and OFTP. In order to provide evidence for the proposed linkages in the current research, literatures on vocational psychology, aging and subjective aging, retirement, and bridge employment were reviewed and integrated. Continuity theory (Atchley, 1989) and Socioemotional Selectivity Theory (SST; Carstensen, Isaacowitz, & Charles, 1999) were jointly used as the underlying theoretical frameworks that guided the conceptual model (shown in Figure 1 below) and proposed hypotheses.

Supporting Theories & Hypotheses Generation

Living a Calling and Workplace Withdrawal Intentions among Older Workers

A calling is defined as: “A transcendent summons, experienced as originating beyond the self, to approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness and that holds other-oriented values and goals as primary sources of motivation” (Dik & Duffy, 2009, p. 427). As Dik and Duffy’s definition suggests, an individual may be called to carry out just about any life role. For purposes of this study however, calling referred exclusively to a charge to hold and fulfill a particular job role or career. While the general conceptualization of calling is widely shared today, there have historically been evolving perspectives.

Calling perspectives. In a discussion of the various conceptions of calling, Ponton, Brown, McDonnell, Clark, Pepe, and Deykerhoff (2014) identified three perspectives on calling. According to the authors, these are: (i) the classical perspective, (ii) the modern perspective, and (iii) the neoclassical perspective. Though all three generally agree on what constitutes a calling, the three differ on the motive as well as *who* or *what* the caller is. Under the classical perspective, the caller is a deity or spiritual being. The modern perspective, identifies the call to come from within the individual. This perspective emphasizes the drive to achieve personal fulfillment and self-actualization (Bunderson & Thompson, 2009). The neoclassical perspective, like the classical perspective, views the call as originating externally of the individual; it is however less restrictive on who or what is doing the calling. Under this perspective, the caller may or may not be a supreme being. Other sources of the call may be family legacy or other life forces (Ponton et al., 2014). For this study, what is most important is that the individual identifies

with having a calling and living a calling. The calling perspective, or source of one's calling, was not relevant for this study.

Calling theory and related variables. Despite the growing number of studies conducted, and manuscripts published on in this topic area, there is still currently not an agreed upon theory or theoretical framework that explains the consistent findings of career calling's positive effects on life and work outcomes (Duffy, Dik, Douglass, England, & Velez, 2018). To my knowledge, only one published work by Duffy et al. (2018), addresses this issue with a proposed theoretical model for work as a calling. In their paper, the authors described mechanisms through which perceiving a calling may lead to living a calling. As living a calling was the outcome variable of interest in their paper, there was no theoretical explanation or discussion of how living a calling may lead to other important outcomes. To circumvent the absence of a calling theory, researchers such as Duffy and Sedlacek (2010) often apply theories from related areas of study to career calling.

Continuity Theory and Living a Calling

Continuity theory (Atchley, 1989; 1993) is primarily developed in the aging and retirement literature. The basic tenet of the theory is that people will seek to continue in roles, relationships, activities etc., they find to be personally meaningful and rewarding. Retirement, according to continuity theory, is a perceived opportunity to maintain a desired lifestyle and social contacts, rather than an unwelcomed disruption to work (Quick & Moen, 1998; Von Bonsdorff et al. 2009). The theory presumes that, when faced with life adjustment or transition decisions, middle-aged and older adults strive to preserve existing psychological and social patterns (Atchley, 1993). People aim to accomplish this by using strategies related to their past experiences (Atchley, 1989). Continuity theory maintains that, in consequence, adults adapt to

aging largely through stable patterns of activity that serve to maintain and preserve these patterns (Atchley, 1993). Therefore, as people age, and make age-related decisions they are expected to show consistency in their thinking, behaviors, roles etc.

While Atchley's (1989) continuity theory is most often applied in the aging and retirement literature, it can be used in explaining the hypothesized relationship between living a calling and intended work continuity. Continuity theory posits that employees who are very committed to their jobs will be more likely to seek continuity through related experiences and participation in work in some capacity (Atchley, 1989). Von Bonsdorff, Shultz, Leskinen, and Tansky (2009) provided evidence to support this assumption, showing that one's desire to maintain social networks associated with work motivated the delay of intended retirement, or the pursuit of bridge employment.

Living a calling connotes having positive feelings towards one's job and or career. This is maintained by its strong positive relationship with job satisfaction and career commitment (Duffy et al., 2013). Continuity theory would suggest that a person living their calling, (assuming they have high job satisfaction and more career commitment), will be more likely to want to prolong their association with that job in some capacity. This can be accomplished by intending to remain in that job, planning to retire at a later age, and opting to pursue career-related bridge employment rather than full retirement or non-career related bridge employment. Continuity theory provide one explanation for the proposed living a calling – intended work continuity relationship. Therefore, I hypothesized the following:

Hypothesis 1: Living a calling will be significantly related to work continuity intentions such that a high sense of living a calling will be related to (a) low intentions to turnover (negative relationship), (b) older planned retirement age (positive relationship), (c) lower

intentions to fully retire and exit the workforce upon retiring from the current job (negative relationship), (d) higher intentions to pursue career-related bridge employment (positive relationship), and (e) lower intentions to pursue non career-related bridge employment (negative relationship).

In the present study, I am investigating the link between calling perceptions and work continuity outcomes most often associated with middle age and older employees. This includes workplace retention or withdrawal using such outcomes as planned retirement age, bridge employment transitions or turnover intentions. Therefore, to understand such workplace withdrawal intentions more consistent with middle age and older workers, socioemotional selection theory was identified, from the aging and gerontology literatures, as providing a basis for understanding such behavior.

Socioemotional Selectivity Theory and Mature Workers

Socioemotional selectivity theory was introduced by Carstensen et al. (1999). The theory proposes that across our lifespan, our future time perspective (FTP) shifts from a view of time being more expansive (or unlimited) to a view of time being limited. It further states that time plays a role in the goals that people pursue and the people we choose to accomplish those goals with. Though the theory is most closely aligned with future time perspective, it can also be extended to both subjective age and occupational future time perspective (OFTP). Each of these key constructs are described below, followed by an elaboration of SST.

Subjective age. Subjective age is a multidimensional construct that relates to how old a person feels and which age group he or she identifies with (Kleinspehn-Ammerlahn et al., 2008; Settersten & Mayer, 1997). It is distinct from chronological age or actual age. Chronological age is usually described as one's distance from birth in years (Barak & Schiffman, 1981; Jarvik

1975). The aging process is said to be composed of several dimensions; chronological age merely represents one of those dimensions (Carstensen et al., 1999; Cleveland & Shore, 1992; Settersten & Mayer, 1997). As such, one's subjective age can be different from his chronological age. Multiple studies have reported that individuals' subjective age differs from their actual chronological age (Kunze et al., 2015). While chronological age is unidimensional and unidirectional, a person's subjective age can theoretically fluctuate, and sometimes vary across contexts (Kunze, et al., 2015).

Subjective age has been similarly conceptualized as psychological age, cognitive age, age identity, and personal age across various literatures. Age identity is a sense of how old a person feels (Shmerlina, 2015), or a subjective evaluation of an individual's age (Kaufman & Elder, 2002). Personal age, as described by Kastenbaum, Derbin, Sabatini, and Artt (1972), is how old an individual feels. The two major components of personal age are: (i) How old one looks (perceived physical age), and (ii) how old one feels (psychological age). Cognitive age is the self-perception of how old a person feels (Barak, & Schiffman, 1981), and consists of four major age dimensions: (i) feel-age (how old a person feels), (ii) look-age (how old a person looks), (iii) do-age (how involved a person is in doing "things" favored by members of a certain age group), and (iv) interest-age (how similar a person's interests are to members of a certain age group). These four dimensions are identical to those identified by Kastenbaum et al. as the four dimensions of personal age (Barak & Schiffman, 1981).

Research on subjective age indicates there is a tendency toward subjectively feeling younger than one's actual age; and this tendency becomes more apparent as one ages chronologically (Kastenbaum et al., 1972). Empirical studies consistently show that people under 25 years old tend to feel subjectively older than their chronological age, while people 25 and

older tend to feel subjectively younger (Rubin & Berntsen, 2006). A longitudinal study of older adults ages 70-104, conducted by Kleinspehn-Ammerlahn et al. (2008), similarly revealed that as subjects' chronological age increased, the discrepancy between their subjective age and actual chronological age also increased, while their satisfaction with aging decreased.

Chronological age has been shown to be the strongest predictor of subjective age (Cleveland & Shore, 1992). Other noteworthy correlates of subjective age include: life satisfaction (Chua et al., 1990; Montepare & Lachman, 1989), and meaningfulness of work (Kunze et al., 2015; Mathur & Moschis, 2005), both of which have been shown to be negatively related to subjective age. Finally, better self-rated health is generally related to a younger subjective age (Barak & Stern, 1986; Barrett, 2003; Hubley & Russell, 2009; Stephan, Demulier, & Terracciano, 2012).

Occupational future time perspective. OFTP is a term first coined by Zacher and Frese (2009), who applied the more general concept of FTP from Carstensen's research to the context of work. Increasingly, FTP and subjective age are discussed in the aging literature together. Future time perspective as described by (Andriessen et al., 2006; De Volder & Lens, 1982) underscores a person's cognitive ability to anticipate proximal and distal outcomes of a task in the future. This enables people to adjust their goals, expectations, and desires based on their evaluation of the present and anticipation of the future (Schmidt, Lamm, & Trommsdorff, 1978; Vázquez & Rapetti, 2006).

Consistent with this, Phan (2009) found evidence to suggest that future time perspective affects people's motivation for learning and professional development. Such findings complement correlational and experimental research studies showing that students who discern particular academic related tasks as instrumental to their educational goals are more likely to

persist in their academic studies (Husman & Lens, 1999; Lens, 2001; Lens, Simons, & Dewitte, 2002).

From a lifespan perspective, future time perspective relates to the aging process in such a way that older people tend to have a more limited future time perspective. Future time perspective is theorized to serve as a motivational force towards engaging in activities or tasks thought to be instrumental in the attainment of valued goals (Weikamp & Göritz, 2015) and future outcomes (McInerney, 2004). Older people increasingly prioritize the attainment of maintenance and generativity goals over more distal and knowledge-related goals (Lang & Carstensen, 2002). Although, both FTP and OFTP are developing areas of research, OFTP in particular continues to be in early stages of development (Kuppelwieser & Sarstedt, 2014; Weikamp & Göritz, 2015). Even with an emerging base of evidence for OFTP on work and retirement-related outcomes, there is evidence that the more general FTP can influence work-related goal pursuit and decision-making. A recent meta-analysis conducted by Rudolph, Kooji, Rauvola, and Zacher (2018), provides support for OFTP as relevant to withdrawal intentions. In their meta-analysis of 40 studies and 19,112 total participants, Rudolph et al. reported evidence for the following predictors of OFTP: age ($\rho = -.55$) job tenure ($\rho = -.23$), organizational tenure ($\rho = -.25$), level of education ($\rho = .16$), self-rated physical health ($\rho = .16$), and job autonomy ($\rho = .22$). OFTP was not found to vary by gender. Outcomes of OFTP included: job satisfaction ($\rho = .28$), organizational commitment ($\rho = .41$), work engagement ($\rho = .22$), retirement intentions ($\rho = -.37$) and work continuance intentions ($\rho = .16$). Unfortunately, because *retirement intentions* and *work continuance intentions* were not formally defined by Rudolph et al., it is difficult to assess just how relevant their findings are to the variables being tested in the present study, as they may have been operationalized differently across studies.

As the name suggest, OFTP refers to an individual's outlook on the future of the remainder of his or her career (Carstensen, 2006; Cate & John, 2007). The outlook can be characterized as a continuum from a very limited OFTP to a more expansive or open-ended OFTP. The construct is often described as two-dimensional: *remaining time at work* and *remaining opportunities at work* (Zacher & Frese, 2009). Remaining time at work pertains to how much time an individual feels they have remaining in their career or future working life before exiting the workforce. Remaining opportunities at work encompasses one's level of optimism about their career or work life as well as beliefs about how many opportunities, goals, and plans they can pursue in the future of their careers (Carstensen, 2006; Cate & John, 2007; Weikamp, Weikamp, & Göritz, 2015; Zacher & Frese, 2009). Having an open-ended perspective of remaining time at work means anticipating no limits, restrictions or boundaries in your occupational future (Weikamp & Göritz, 2015). SST theory when applied to OFTP suggests that older individuals tend to have a more restricted OFTP than younger workers, as they perceive having less time remaining before their eventual exit from the workforce.

As a consequence of middle age and older adults having a more limited future time perspective than their younger counterparts (Carstensen et al., 1999), they are described as more present-oriented. Late adolescents and early middle age adults, on the other hand, tend to prioritize knowledge striving. At times, this is the case even at the cost of emotional satisfaction (Carstensen et al., 1999). SST posits that emotional goals are prioritized later in life as they offer more immediate results and rewards. In line with the two trajectories proposed by SST, knowledge striving starts high and gradually lowers as we age, while the emotion satisfaction trajectory is high through childhood, lowers from mid-to-late adolescence through early adulthood, and gradually rises again through adulthood (Carstensen et al., 1999).

As Weikamp and Göritz (2015) found, people with an open-ended future time perspective perceive an occupational future with no time limits, restrictions or boundaries. In that event, an employee's OFTP is then expected to inform his or her attitude about extending their career through planning on retiring at a later age, intending on turning over, exploring bridge employment opportunities in the same or different fields, and delay full retirement from the workforce.

To date, few studies have documented empirical evidence for the relationship between subjective age and OFTP specifically. Zabel's (2016) finding of a negative relationship between FTP and subjective age ($r = -.16, p < .001$), suggests that subjective age and the more work relevant OFTP, will have a similar relationship. Chronological age and OFTP have been found to be negatively related ($r = .80$; Zacher & Frese, 2009). In their study, Zacher and Frese also found OFTP to be related to greater subjective physical health and lower subjective mental health. As is the case with chronologically younger workers, employees who are subjectively younger than their actual age, will have a more expansive [occupational] future time perspective for a longer period of time (Kunze et al., 2015). Subjective age is therefore expected to independently, albeit in a similar manner as OFTP, influence intended work continuity.

Integration of continuity and SST theories. Taken together, continuity theory posits that aging workers who are highly committed to their jobs will be more likely to want to prolong their services. Socioemotional selectivity theory complements continuity theory by advancing that workers of a younger subjective age and more expansive occupational future time perspective will feel empowered to actually pursue this extension of tenure. To that end, having the desire to continue working (continuity theory), and feeling empowered to do so (SST) should result in even stronger intended work continuity. The integration of the two gerontological

theories: continuity theory and SST, thus supports the proposed mediation in the conceptual model. The hypothesized relationships of the mediation model will be discussed in more detail below.

Relationship Parameters of Living a Calling, Subjective Age, and OFTP

Subjective age and FTP have been found to be negatively correlated (Zabel, 2016). Similarly, chronological age and OFTP have been found to be negatively related (Zacher & Frese, 2009). Further, evidence has shown that older people tend to have a more restricted OFTP (e.g., Stephens, 1991). Given the strong positive association between chronological age and subjective age (Cleveland & Shore, 1992; Stephan et al., 2012). I expect that subjective age will be associated with other variables in a manner that is similar to chronological age. I therefore hypothesize:

Hypothesis 2: Subjective age and OFTP will be significantly and negatively correlated.

As such, individuals reporting a younger subjective age will also report a more expansive (or longer) OFTP.

As previously discussed, to date, little published research has proposed and investigated the relationship between subjective age and career calling. The same holds true for the career calling – OFTP relationship. Despite being in distinct literatures, career calling and subjective age have correlates in common. Life satisfaction has been shown to be related to both living a calling (Duffy et al., 2013) and subjective age (Chua et al., 1990). In general, living a calling and feeling subjectively younger than one's chronological age are both associated with higher reported life satisfaction. Work meaning has also been shown to be associated with living a calling (Duffy et al., 2012, 2013; Rosso, Dekas & Wrzesniewski, 2010) and subjective age (Kunze et al., 2015). A high sense of living a calling and a younger subjective age have both

been found to be positively correlated with greater meaningfulness of work. Considering this, it is therefore feasible that living a calling influences subjective age through mechanisms of a heightened sense of experienced meaning in work and life satisfaction.

To this point, it is apparent that meaningfulness of work is an empirically-supported common thread between living a calling and subjective age. Despite some evidence suggesting that living a calling is likely associated with a younger subjective age, there is not a clear theoretical explanation that supports a clear hypothesis. As a result of this, the following research questions are posed:

Research Question 1: To what extent is living a calling related to subjective age?

Research Question 2: To what extent is living a calling related to OFTP?

The aim of this study was to explore the influence of living a calling on work continuity intentions, and the mediating roles of subjective age and OFTP. Work continuity can effectively be thought of as somewhat counter to withdrawal from work. An individual who intends on withdrawing from work is hoping to discontinue work in some capacity. Work continuity intentions, as defined in this study, refers to the quantity and quality of time one expects to spend in the workforce, or a more specific career and/ or job. It is comprised of three facets, namely: planned retirement age, bridge employment intentions (i.e. intentions to: (i) fully retire and exit the workforce, (ii) pursue career-related bridge employment, and (iii) pursue non-career related bridge employment), and turnover intentions. In the sections to follow, I discuss the aging and retirement literature, as well as past empirical findings of each facet of work continuity intentions and their relation to subjective age and OFTP.

The Linkages among Subjective Age, OFTP and Work Continuity

Planned retirement age. Planned retirement age, as the name suggests, refers to an individual's estimate of the age at which they intend on retiring. It is important to note that for this study, planned retirement age refers to when an individual intends to retire from their current job, and not necessarily the retirement from the workforce completely. It is also important to consider that while planned retirement age does not perfectly predict actual retirement, the two have been shown to be strongly related (Beehr, 1986; Beehr, Bennett, & Shultz, 2007). Montalto, Yuh, and Hanna (2000) found that planned retirement age is positively related to chronological age. It is often found that as people get older, their estimate for when they will retire increases substantially (Davies & Cartwright, 2011; Montalto et al., 2000).

Several theoretical approaches to retirement have been taken (Feldman & Beehr, 2011). Wang and Shultz (2010) pointed out however that the majority of theories applied to retirement decision-making note that the process is similar to approach-avoidance decisions. An example of the approach-avoidance theoretical approach is push and pull factors that influence retirement decisions (Shultz, Morton, & Weckerle, 1998). Push factors are described as negative considerations, such as dissatisfaction with the current job, that encourages older workers to retire. Pull factors are described as positive considerations, such as volunteer interests, that attracts older workers to retire (Shultz et al., 1998). Wang and Shultz reported that retirement has been conceptualized as one of four: (i) a decision-making process, (ii) an adjustment process, (iii) a career development stage, or (iv) a part of human resource management. Continuity theory, the guiding theoretical framework of this study, is largely conceptualized as an adaptive or adjustment process (Atchley, 1989, 1993).

Subjective age and OFTP with planned retirement age. Although there is little research that directly examines subjective age or OFTP as predictors of planned retirement age specifically, there are however studies that investigate the relationships among correlates of subjective age and [planned] retirement age. Correlates of subjective age have been shown to be associated with planned retirement age (Dwyer & Mitchell, 1999; Van Solinge & Henkens, 2009), including health perceptions, subjective life expectancy, chronological age, and OFTP.

Poor actual and perceived health were found to be predictive of older workers' earlier retirement behaviors (Dwyer & Mitchell, 1999). On average, people who reported poorer health or functional ability retired one to two years earlier than average. Poor self-assessed health was also found to be predictive of younger ages of planned retirement (Kilty & Behling, 1985). Similarly, subjective life expectancy was also found to be predictive of retirement intentions (Van Solinge & Henkens, 2009). Older employees who perceive a longer time horizon tend to report intentions to retire at older ages than older employees who have lower subjective life expectancy.

The well-documented link between chronological age and planned retirement age also provides evidence for subjective age and planned retirement age to be positively related. While Oakman and Well (2016) found that older workers were more likely to retire sooner than younger workers, Adams (1999) interestingly found that older workers reported later planned retirement ages than younger workers. Recall that older workers tend to think of themselves as subjectively younger (Rubin & Berntsen, 2006), and the discrepancy increases as they chronologically age (Kleinspehn-Ammerlahn et al., 2008). Though results similar to Adams' were obtained by Beehr (1986) and Talaga and Beehr (1995), neither author offered an explanation for this trend. A plausible explanation however is that older workers have a better

assessment of when they will likely retire, or wish to retire, than younger workers. This may be due to younger workers being more idealistic, and less accurate, about their retirement ages because they are farther removed from actually having to make a retirement decision.

Consistent with SST, employees with a younger subjective age also tend to have a more expansive OFTP, and as a result, plan on retiring at a later age than adults who have a more restricted OFTP (Zacher & Frese, 2009). This is believed to be true because people with an expansive OFTP and younger subjective age perceive less barriers and more remaining opportunities at work and will be motivated to pursue those opportunities. I therefore expect that, in an effort to take advantage of the more expansive OFTP, workers with a younger subjective age will opt to remain longer in the current job, thereby planning to retire at a later age than employees who have a more restrictive OFTP.

Bridge employment. Shultz (2003) defined bridge employment as transitional work force participation by older workers as they make their way out of their career jobs toward full retirement. This may be part-time, full-time, temporary, or self-employment (Zhan, Wang, Liu, & Shultz, 2008). Bridge employment is most often assessed by evaluating one's decision to pursue: (i) career bridge employment, (ii) non-career bridge employment, and (iii) full retirement (Bennett et al., 2016; Wang et al., 2008). In this study, *bridge employment path* will therefore assess one's likelihood of wanting to pursue each of these three routes. Career bridge employment refers to holding a transitional job that is related to one's most recent career. Non-career bridge employment denotes transitional work in a different industry or field from one's recent career. This is the most frequently sought-after bridge employment type (Boveda & Metz, 2016). Finally, full retirement implies that the individual will not partake in workforce activity after retirement from their current job.

Similar to planned retirement age, little research has investigated the linkages between subjective age (or OFTP) and bridge employment although there is a seemingly intuitive relationship among them. However, chronological age has been shown to be negatively related to one's intent to participate in career bridge employment over non-career bridge employment (Von Bonsdorff et al., 2009). In other words, as a person's age increased, they were less likely to prefer the prospect of pursuing career bridge employment over bridge employment in a different career.

Wang et al. (2008) examined the extent to which chronological age predicted employees' decision to pursue career bridge employment, bridge employment in a different career, or full retirement. Results showed that chronologically younger employees were more likely to report intentions to pursue career bridge employment, while chronologically older employees more frequently reported an intent to fully retire. Reported health status, a negative correlate of subjective age, was also found to be predictive of older workers' likelihood of choosing: (i) bridge employment versus no retirement, (ii) full retirement vs. no retirement, and (iii) re-careering versus no retirement (Boveda & Metz, 2016). In other words, when older workers did not have work-limiting health problems they were more likely to choose: (i) bridge employment over not retiring, (ii) not retiring over full retirement, and (iii) remaining in their current job than to re-career (Boveda & Metz, 2016).

Turnover intentions. Turnover intention refers to an employee's own appraised likelihood of leaving the organization in the near future (Vandenberg & Nelson, 1999). Turnover behavior then is the act of leaving an organization. Both lay experience and empiricism (Ajzen, 1991) tell us that intention does not always lead to actual behavior. In light of this fact, many turnover models and theoretical frameworks separate turnover intentions from turnover behavior

(Hom & Griffeth, 1991; Hom & Kinicki, 2001; Mobley, 1997). The common thread across Hom and colleagues' model and Mobley's models is that turnover intentions precede voluntary turnover behavior. Though intentions do not always translate into action, Tett and Meyer (1993) nonetheless reported that turnover intention is the strongest known predictor of turnover behavior ($\rho = .65$). Their meta-analytic finding was consistent with the weighted average correlation of .50 yielded in Steel and Ovalle's (1984) meta-analysis of the relationship between the two variables. A more recent meta-analysis conducted by found the relationship between turnover intentions and turnover behavior to be even lower at $\rho = .38$ (Griffeth et al., 2000). It is important to note that although the relationship here is lower than found in the past, turnover intentions was still found to be the strongest predictor.

Though the relationship between subjective age and turnover intentions is understudied, there are a number of empirical studies that examine the relationships between correlates of subjective age and actual turnover. There is, for example, evidence to suggest that subjective age and turnover intentions are positively related. Life satisfaction, has been shown to be a correlate of subjective age, wherein higher life satisfaction is related to having a younger subjective age (Chua et al., 1990; Westerhof & Barrett, 2005). Similarly, life satisfaction has been shown to be related to turnover intentions. Individuals who are more satisfied with life are less likely to want to quit their jobs (Ghiselli, La Lopa, & Bai, 2001). A younger subjective age has also been linked to more positive health outcomes, such as better physical health and mental health (e.g., Bergland, Nicolaisen, & Thorsen, 2014; Chua et al., 1990; Kotter-Grühn, Neupert, & Stephan, 2015). Consistent with trends discussed to this point, total negative health symptoms have been shown to be significantly and positively related to intentions to quit (Spector & Jex, 1991). Poorer health is associated with higher turnover intentions. Therefore, one would extrapolate that

a younger subjective age is associated with lower turnover intentions, in part to fewer experienced negative health symptoms.

Considerable evidence exists which supports a negative association between subjective age and turnover intentions, where subjectively younger workers tend to have higher turnover intentions than subjectively older workers. Perhaps the most compelling piece of evidence to suggest subjective age and turnover intentions being inversely related is that chronological age and turnover intentions are inversely related. Recall that chronological age is the strongest correlate of subjective age (Cleveland & Shore, 1992; Stephan et al., 2012). In a quantitative review of the relationship between chronological age and voluntary turnover, Healy, Lehman, and McDaniel (1995) found that the relationship between age and turnover was negligible ($\rho = -.08$), asserting that a meaningful relationship between the variables does not exist. This conclusion was later challenged by Ng and Feldman (2005) who showed the relationship between chronological age and turnover ($\rho = -.14$) to be stronger than reported by Healy et al. It was further found that these results were most likely to be seen in American samples, and when turnover was assessed one to two years later (Ng & Feldman, 2005). As further evidence for an inverse relationship Cleveland, Shore, and Goldberg (2003) found evidence of a positive relationship between subjective age and job satisfaction ($r = .16$) and organizational commitment ($r = .13$), suggesting that subjectively older employees were more satisfied with their jobs and committed to the organization. Griffeth et al. (2000) found both job satisfaction and organizational commitment as negatively related to turnover intentions.

The use of empirical evidence from proxies of subjective age and turnover intentions to predict the actual relationship between subjective age and turnover intentions leads to the conclusion that these two constructs could be either positively or negatively related.

Socioemotional selectivity theory does however offer some insight that favors one hypothesized relationship over the other. As previously discussed, SST asserts that, relative to younger adults, older people tend to have a more limited occupational future time perspective. Kunze et al. (2015) found subjective age and OFTP to be correlated such that people who feel subjectively younger have a more expansive OFTP. In line with SST, I expect that this more expansive occupational future time perspective will increase perceptions of having more time to explore further opportunities and feel less restricted to any one organization or job.

Park and Hung (2015) conducted the only published study to measure the relationship between FTP and turnover intentions, showing the two constructs to be unrelated ($r = -.05$). Noteworthy is that Park and Hung assessed FTP and turnover intentions. The more job-related construct of OFTP may prove to have a stronger relationship with the job-related construct of turnover intentions. In a meta-analytic study, Rudolph et al. (2018) did however find that OFTP was positively related to job satisfaction and organizational commitment, both negatively related to turnover intentions (Griffeth et al., 2000) suggesting that people of with a more expansive OFTP were more committed to the organization thereby having lower turnover intentions. To the degree that subjective age and OFTP are related, the following hypotheses are proposed:

Hypothesis 3: Subjective age will be significantly related to work continuity intentions such that a younger subjective age will be related to: (a) an older planned retirement age (negative relationship), (b) low intentions to retire fully from the workforce (positive relationship), (c) high intentions to pursue career bridge employment (negative relationship), (d) high intentions to pursue non-career bridge employment after retiring from current job (negative relationship), (e) and higher turnover intentions (negative relationship).

Hypothesis 4: OFTP will be significantly related to work continuity intentions such that a more expansive (or longer) OFTP will be related to: (a) an older planned retirement age (positive relationship), (b) low intentions to fully retire from the workforce (positive relationship), (c) high intentions to pursue career bridge employment (negative relationship), and (d) high intentions to pursue non-career bridge employment after retiring from current job (negative relationship), and (e) lower turnover intentions (negative relationship).

Hypothesis 5: Subjective age mediates the relationships between living a calling and (a) planned retirement age, (b) intentions to retire fully from the workforce, (c) intentions to pursue career-related bridge employment, (d) intentions to pursue non-career related bridge employment, and (e) turnover intentions.

Hypothesis 6: OFTP mediates the relationships between living a calling and (a) planned retirement age, (b) intentions to retire fully from the workforce, (c) intentions to pursue career-related bridge employment, (d) intentions to pursue non-career related bridge employment, and (e) turnover intentions.

Methods

Participants

An a priori power analysis was done to determine the appropriate sample size. Ranges of estimates, representing small to moderate effects, were used as input values for the power calculation. Taking model structure and the anticipated effect size into consideration, the power analysis indicated needing a sample size ranging from 700 to 1,454 (Soper, 2018). Given the time and financial constraints of data collection, I was unable to obtain the required sample size. See Table 10 for the range of sample sizes needed to power each test based on generally accepted standards of power, p-value etc.

Procedure

Participants from Amazon's Mechanical Turk (MTurk) website indicated their interest in the study by clicking on the survey's link from a list of advertised tasks displayed on the webpage. From that link, prospective participants were redirected to the survey. To ensure that all participants met the inclusion criteria, MTurk filtering mechanisms were utilized on both the screening and actual Time 1 and Time 2 surveys. Only participants living within the U.S., who had completed no fewer than 100 prior HITS with at least a 95% approval rate from requesters were allowed to take any of the three surveys.

Screening. First, all prospective participants were screened with a brief survey asking them to report their age and employment status. To be invited to take the full survey, participants had to be at least 18 years old and currently working at least 20 hours a week. Provided that they were still employed, there was not an upper bound limit on participants' age. In an effort to limit acquiescent responding ("yes saying") and demand characteristics, the purpose of the survey was

not shared with MTurk workers. All participants meeting the inclusion criteria were granted permission to view the advertisement for my full Time 1 survey.

Time 1 survey. Prospective participants were presented with the consent form of the survey, which outlined the purpose of the survey, the tasks to be performed, and the estimated time for completion. Although participants were informed that they would only be compensated if they completed the survey and passed all attention checks, the precise number of attention checks (five) was not shared with them. After consenting to take part in the study, participants were presented with a series of questions assessing career calling, job satisfaction, career commitment, chronological and subjective age, turnover intentions, planned retirement age, bridge employment path, and demographics. Five attention check items such as, “If you are paying attention, select ‘strongly disagree’,” were dispersed throughout. Finally, participants were then debriefed, compensated \$1.00 for successful completion of the survey, and informed of the follow-up survey to be published in a month.

Time 2 survey. All participants who successfully completed Time 1 and met the inclusion criteria (age, employment status, and attention checks) were granted the ability to view the advertisement for the Time 2 survey, posted a month later. After consenting to take part in the study, participants were again presented with a series of questions assessing: career calling, job satisfaction, career commitment, chronological and subjective age, turnover intentions, planned retirement age, and bridge employment path. Demographic information was not collected at Time 2. Four attention check items were dispersed throughout. Upon completion, participants were debriefed, compensated \$0.75 for successful completion of the survey, and thanked.

Measures

Living a calling. Living a calling was assessed using a six-item, seven-point Likert scale developed by Duffy et al. (2012). Participants indicated the extent to which they 1 = “Strongly disagree” to 7 = “Strongly agree” with each statement. Example items include: “I have regular opportunities to live out my calling,” and “I am currently working in a job that closely aligns with my calling.” The alpha coefficients for this study were $\alpha = .97$ at Time 1 and $\alpha = .98$ a month later at Time 2, with a test-retest reliability of $r = .52$.

Subjective age. Subjective age was assessed by asking participants to provide numerical responses to questions about (i) how old they feel (“I feel as if I was ____ years”), (ii) how old they look (“I look as if I was ____ years”), (iii) how old they act (“I act as if I was ____ years”), and (iv) the age that matches their interests (“My interests are those of someone who is ____ years”). This method has been used by a number of researchers such as Barak, Guiot, Mathur, Zhang, and Lee (2011) and Kotter-Grühn et al. (2015). The alpha coefficients for this study were $\alpha = .85$ at Time 1 and $\alpha = .84$ a month later at Time 2, with a test-retest reliability of $r = .84$. The alpha coefficients for this study were $\alpha = .85$ at Time 1 and $\alpha = .84$ a month later at Time 2, with a test-retest reliability of $r = .77$.

Occupational future time perspective. OFTP was measured with Zacher and Frese’s (2009) six-item adaptation of Carstensen and Lang’s (1996) Future Time Perspective Scale. The scale is comprised of two dimensions with three items assessing each. The dimension of remaining opportunities at work was measured with the items: “Many opportunities await me in my occupational future”, “I expect that I will set many new goals in my occupational future”, and “My occupational future is filled with possibilities”. Remaining time at work was measured with the items: “Most of my occupational life lies ahead of me”, “My occupational future seems

infinite to me”, and “As I get older, I begin to experience time in my occupational future as limited” (reverse coded). All six items were measured on a seven-point Likert scale where 1 = “Very untrue of me” and 7 = “Very true of me.” The alpha coefficients for the uni-dimensional OFTP scale in this study were $\alpha = .86$ at Time 1 and $\alpha = .90$ at Time 2, with a test-retest reliability of $r = .57$. For the two-dimensional OFTP scale, the alpha coefficients for *remaining time at work* were: $\alpha = .65$ at Time 1 and $\alpha = .78$ at Time 2 with a test-retest reliability coefficient of $r = .53$. For *remaining opportunities at work*, $\alpha = .90$ at Time 1 and $\alpha = .91$ at Time 2 with a test-retest reliability coefficient of $r = .54$.

Turnover intentions. Turnover intentions were assessed with three items used by Seashore, Lawler, Mirvis, and Cammann (1982). The first item “How likely is it that you will actively look for a new job in the next year?” was answered on a seven-point scale with 1 = “Very unlikely” and 7 = “Very likely.” The remaining two items was also assessed on a seven-point scale. Participants will rate the extent to which statements are 1 = “Not at all true of me” to “Totally true of me.” The items were “I often think about quitting” and “I will probably look for a new job in the next year.” The alpha coefficients for this study were $\alpha = .89$ at Time 1 and $\alpha = .94$ a month later at Time 2, with a test-retest reliability of $r = .68$.

Planned retirement age. A single item measure was used to measure planned retirement age. A numerical response was provided to the question: “At what age do you plan on retiring from your current job?” The test-retest reliability in this study was $r = .69$.

Bridge employment path. Bridge employment path was assessed with three single-item measures on a seven-point Likert scale. The items asked participants their likelihood of pursuing (i) full retirement, (ii) career-related bridge employment, and (iii) non-career related bridge employment, when they retire from their current job. The test-retest reliabilities of the bridge

employment path items in this study were: $r = .33$ for fully retiring, $r = .20$ for career-related bridge employment, and $r = .50$ for non-career related bridge employment.

Analyses and Related Statistical Criteria

The structural equation modeling technique was utilized to test the general overarching hypothesis that the extent to which one is living a calling influences various conceptualizations of work continuity (i.e. turnover intentions, planned retirement age, and bridge employment path) through the mediating effects of occupational future time perspective (OFTP) and subjective age. All variables tested in the model were scored on a continuous scale. Analyses were conducted in Mplus 7.4 (Muthén & Muthén, 1998–2012).

A central challenge presented is making appropriate determinations and interpretations about the strength of an indirect effect. One of the assumptions of path analysis [and regression] state that predictor and criterion variables should be normally distributed, and that the product of paths a and b (producing the indirect effect) should also be on a normal distribution. At least the second assumption is often violated because mathematically, the product of two normal distributions is not itself a normal distribution. This violation of normality assumption in turn results in a loss of statistical power to detect effects for many traditional approaches to mediation testing, for example the Sobel Test. The use of standard symmetrical confidence intervals on this asymmetrical, non-normal distribution, likely produces misleading results. In an effort to avoid this issue, the best practice approach is to assess asymmetrical confidence intervals (ACIs) that accurately represent the true distribution of the product of coefficients (Efron, 1987). Statistical significance is determined when ACIs do not contain the value zero. Given the concerns discussed, asymmetrical confidence intervals were used in this study to make inferences regarding indirect effects.

Bias-corrected bootstrapped estimates (Efron & Tibshirani, 1993) based on 1000 bootstrapped samples were used to assess the indirect effects of the predictor variable on the outcome variables of interest. This method has been argued to provide a powerful test of mediation (Fritz & MacKinnon, 2007) and are asymmetrical. Statistical significance of indirect effects was determined by using 95% bias-corrected bootstrapped confidence intervals that do not contain the value of zero.

Alwin and Hauser's (1975) P_m ratio of indirect effect to the total effect was initially considered as an estimate for effect sizes of indirect effects. The P_m estimate can be interpreted as the proportion of the total effect that is mediated. In the hypothesized model however, the P_m estimate would have to be interpreted with great caution because of two major limitations of the statistic. First, the estimate is unstable with a model that includes less than 500 observations. Second, the model grows increasingly unstable as C' value approaches 0. Given that the largest sample size used in any particular model of this study was 266, and I did not anticipate particularly large C' values, the P_m statistic was not used to estimate effect sizes of indirect effects. As a result of this, effect sizes were not estimated for the hypothesized model.

To evaluate overall model fit of each iteration, Hu and Bentler's (1999) suggested model fit criteria were used. This includes the comparative fit index (CFI) $>.95$, Tucker-Lewis index (TLI) $>.95$, root mean square error of approximation (RMSEA) $<.06$, and standardized root mean square residual (SRMR) $<.08$. The chi-square test of model fit was also evaluated. For this test, a non-significant test indicates perfect fit of the model to the data. It is worth noting that the chi-square statistic is sensitive to sample size. When large samples are used, the test is almost always significant (Bentler & Bonnet, 1980). Yet when small samples are used, there is the threat of a lack of power. In light of this double-edged sword, researchers have sought alternative indices to

assess model fit. One such index that reduces the impact of sample size on the chi-square goodness of fit test is Wheaton, Muthen, Alwin, and Summers' (1977) relative/ normed chi-square, derived from dividing the chi-square value by the degrees of freedom (χ^2/df). Despite a lack of consensus regarding an acceptable ratio for the statistic, more conservative standards recommend a ratio of 2:1 (Tabachnick & Fidel, 2007), or 3:1 (Kline, 2015), while more permissive standards recommend a ratio of 5:1 or less (Wheaton et al., 1997). To avoid the use of more extreme standards, Kline's 3:1 ratio standard was used to assess the obtained normed chi-square values.

Finally, it is worth noting that fit indices and statistics were assessed and evaluated holistically. This means that a model that fell short on one criterion of fit was not necessarily labelled as having inadequate fit if the indices on other criteria were acceptable. For example, if a model met all the criteria for good fit i.e. CFI > .95, TLI > .95, RMSEA < .06, SRMR < .08, but there was a significant chi-square test ($p < .05$), this model was still holistically regarded as a good fitting model despite one of the criteria not being met.

Results

Data Cleaning and Merging

Before the collected data was analyzed to test the hypotheses, it was subject to a thorough data cleaning process. The process was a non-compensatory, multiple hurdle approach in which responses from subjects who failed to meet the pre-determined standards for employment status, attention checks, or total survey completion time were discarded.

Time 1 survey. Pilot testing indicated that the Time 1 survey took about 12 – 15 minutes to complete. The median value for Time 1 survey completion time was 8 minutes and 29 seconds. The cut-off time set for research participants was set to no less than five minutes, with no upper bound on completion time. This discrepancy in the pilot tested average time of completion and cut-off time for participants was thought to be acceptable as experienced MTurk workers are more likely to be more adept at completing surveys and may do so at a faster rate than graduate students completing the pilot test. A total of five attention check items were included in the Time 1 survey. Data of participants who failed to pass any of the five attention check items were discarded. This stringent cut-off was used as a means of ensuring that participants are engaged and attentive throughout the entirety of the survey and not more or less engaged at various points throughout the process. Finally, all participants who reported their employment status as “unemployed” were discarded. Of the initial 319 participants, a total of $n = 266$ remained after going through the Time 1 screening process.

Time 2 survey. Pilot testing indicated that the Time 2 survey took about 10-12 minutes to complete. The median value for the total survey completion time was 7 minutes and 19 seconds. The cut-off time set for research participants was no less than 3 minutes. There was no

established or enforced upper bound on completion time. A total of four attention checks were embedded in the Time 2 survey. Data of participants who failed to pass all four attention checks were discarded. Finally, all participants who self-reported their employment status as “unemployed” were removed from the data pool. Of the 183 participants in the original sample, data of 12 were discarded for failure to meet all three cut-offs, resulting in a final sample size of $n = 171$.

As a second way of identifying careless responders, I used the intra-individual response variability (IRV) index - a relatively new technique introduced by Dunn, Heggstad, Shanock, and Theilgard (2018). The IRV index is calculated as the standard deviation of responses across a series of responses for an individual (Dunn et al., 2018). Lower values of IRV indicate higher levels of insufficient effort responding (IER; Dunn et al., 2018). After removing irrelevant items such as demographic questions and attention checks, raw scores from 76 items were used to calculate the IRV scores of participants in the Time 1 and Time 2 datasets separately. Given that there is currently not an agreed-upon IRV benchmark (Dunn et al., 2018), at Time 1 I opted to compare the 53 participants flagged with my multiple hurdle approach (attention checks, time cut-off, and employment status) to the participants associated with the lowest 53 IRV values. I then noted when both approaches agreed on flagging and not flagging participants. There was 81% agreement between the two approaches at Time 1. At Time 2, I compared the nine participants flagged with my multiple hurdle approach to the nine lowest IRV values. There was 91% agreement between the two approaches at Time 2.

From the results above, it is apparent that the two approaches to managing data quality most often results in the same participants being flagged for their data being discarded. As a result, I chose to use my multiple hurdle approach as it is more conservative and does not require

an arbitrary cut-off to differentiate between participants whose data are worth keeping or discarding.

Independent sample T-tests and chi-square tests were run to identify potential differences in participants completing only the Time 1 survey versus participants who completed both surveys at both time-points. Demographically, the two groups of people were not significantly different on the basis of race (dummy coded, where 0 = white and 1 = all other races), chronological age, income, wealth, or education. A non-significant chi-square test indicated no gender differences between the two samples $\chi^2(1) = 1.13, p = .29$. There were however significant differences in responses on two measures used in the hypothesized model. There was a significant difference in the reported planned retirement ages of participants who only completed the Time 1 survey ($M = 65.63, SD = 8.67$) and participants who completed both Time 1 and Time 2 surveys ($M = 63.93, SD = 8.12$); $t(258) = 2.51, p < .05$. There was also a significant difference in the reported turnover intentions of participants who only completed the Time 1 survey ($M = 3.82, SD = 1.94$) and participants who completed both Time 1 and Time 2 surveys ($M = 3.34, SD = 1.88$); $t(264) = 1.99, p < .05$.

From these results, it is clear that participants who chose to complete Time 2 had younger planned retirement ages and lower turnover intentions. This suggests that self-selection bias is present and may be an issue. Self-selection bias is described as bias attributed to participants having the freedom to choose to participate in the study or not. It becomes potentially problematic when participation in the survey or study is related to important variables in the study, rather than a truly random sample. This may in turn lead to biased results.

Data merging. Data was merged in Microsoft Excel 2016 using the VLOOKUP function, through the matching of self-reported MTurk ID numbers. The VLOOKUP function in

Microsoft Excel is a reference tool that works by locating a designated reference value (i.e. MTurk ID in Time 1 and Time 2 surveys) and returns the specified results related to that designated value (i.e. all the data from T2 surveys linked to MTurk ID). The merged data set was then imported into SPSS 25 and Mplus 7.4 for further analyses.

Outliers

Outliers are responses that vary from an established referenced pattern of responses. While there is not universal consensus on what constitutes “extreme” scores (Kline, 2011), it is generally accepted that these extreme scores can have potentially unfavorable effects on data analyses, leading to both type I and type II errors (Tabachnick & Fidel, 2007).

Outliers were detected using two approaches. First, flagging values outside of the interquartile range (IQR), using the formula below: $[Q_1 - 1.5*(Q_3 - Q_1), Q_3 + 1.5*(Q_3 - Q_1)]$, where Q_1 is the first quartile (25th percentile), and Q_3 is the third quartile (75th percentile) (IBM Knowledge Center). The second method used to detect outliers was through the transformation of raw scores to z scores and flagging values ± 3.29 as outliers (Kline, 2011). Values identified as outliers by each method were considered for exclusion in analyses. Ultimately, cases were dropped if they were judged to be implausible and/or contributed to the violation of assumptions for regression and path analysis, such as making a distribution less normal. See Table 4 for a list of all relevant variables and their associated final sample sizes.

Testing of Assumptions

Structural equation modeling (SEM) was used to test the hypotheses of this project. In order for the results of the SEM output to be trusted, the assumptions of the test must be met to a reasonable degree. The evaluation and management of each assessment is discussed below.

Multicollinearity. Correlation analyses confirmed that no two predictor variables met the $r > .79$ standard of multicollinearity.

Normality. The normality assumption was tested using measures of skew and kurtosis calculated in SPSS 25. Skew and kurtosis indices of value 0 represent a perfectly normal distribution (Tabachnick & Fidel, 2007). These values are however very unlikely to be obtained with real unstimulated data. The skew index (*SI*) and kurtosis index (*KI*) were therefore assessed with the following standards: values between -0.49 and +0.49 suggested a fairly symmetrical and normal distribution; values between -0.99 and -0.5 or +0.99 and +0.5 suggested moderate skew, while values less than -1.0 or greater than +1.0 suggested a highly skewed distribution. Scores with greater than moderate skew were transformed as recommended by Tabachnick and Fidel.

Eventual testing of the measurement and structural models with transformed variables resulted in model misspecification and non-convergence. As a result, all models tested used raw scores with outliers eliminated. The case-wise elimination of outliers, even without transformation, proved to be enough to get have all variables approach normality and meet the established standards for skew and kurtosis.

Linearity. Linearity was checked with the use of bivariate scatterplots. For cases in which this assumption was violated, the scatterplots illustrated data patterns that were not of any particular shape. As a result, alternative types of regression analyses were not run as none would likely improve the fit of data. Path analyses and SEM are robust to the violations of this assumption.

Homoscedasticity. This assumption was largely not violated. Based on visual inspections, of QQ and PP plots in SPSS 25, residuals most often did not show much variance at

different levels of the independent variable. SEM is also robust to the violation of this assumption.

Participant Demographics

Time 1. A total of 266 participants were retained for analyses at Time 1. Participants were on average 37.95 years old ($SD = 10.8$). Of the 266 participants that were retained for analyses, 116 (43.6%) were male and 149 (56.0%) were female, with 1 person choosing to be identified as “Other.” The majority of participants identified as White (211 or 79.3%), while 21 (7.9%) identified as Asian, 16 (6.0%) identified themselves as Black, 16 (6.0%) Hispanic, and two (.8%) Other. Most participants (95 or 35.7%) had some college education, slightly fewer 92 (34.6%) had a bachelor’s degree, 47 (17.7%) had a master’s degree, 26 (9.8%) had a high school diploma, and six (2.3%) had a doctorate.

Time 2. Qualified participants at Time 2 were on average 38.6 years old ($SD = 10.8$). Of the 171 participants retained for analyses, 80 (46.8%) were male and 90 (52.6%) female, with one person choosing to be identified as “Other.” Again, the majority (139 or 81.3%) identified as White, 11 (6.4%) Black, 11 (6.4%) Asian, nine (5.3%) Hispanic, and one (.8%) Other. Most participants 63 (36.8%) had some college education, 61 (35.7%) had bachelor’s degrees, 28 (16.4%) master’s degree, 15 (8.8%) had a high school diploma, and four (2.3%) had a doctorate degree.

Measurement of Latent Constructs

Living a calling. The six-item Living a Calling Scale (Duffy et al., 2012) at Time 1 showed relatively good model-data fit ($\chi^2(9) = 100.53$, $p < .001$, CFI = .96, TLI = .93, RMSEA = .196, SRMR = .018). The alpha coefficient was .97. The six-item Living a Calling Scale (Duffy et al., 2012) at Time 2 also showed similarly fair model-data fit ($\chi^2(9) = 72.20$, $p < .001$,

CFI = .96, TLI = .93, RMSEA = .203, SRMR = .023). The alpha coefficient was .98. The scales at both time-points was retained for hypotheses testing.

Two factor OFTP. The six-item, bi-dimensional OFTP scale (Zacher & Frese, 2009) at Time 1 showed good-data fit ($\chi^2(8) = 19.92$, $p < .05$, CFI = .99, TLI = .97, RMSEA = .08, SRMR = .03). The alpha coefficient of factor 1 *remaining opportunities* was .90, while the alpha coefficient of factor 2 *remaining time* was an unsatisfactory .65. The six-item, bi-dimensional OFTP scale at Time 2 showed excellent model-data fit ($\chi^2(8) = 4.57$, $p = .80$, CFI = 1.00, TLI = 1.01, RMSEA = 0, SRMR = .02). The alpha coefficient of factor 1 *remaining opportunities* was .91, while the alpha coefficient of factor 2 *remaining time* was an unsatisfactory .78. While the 2 factor OFTP scale was not used in primary hypotheses testing, it was retained for testing of alternate models.

One factor OFTP. The six-item uni-dimensional OFTP scale at Time 1 showed good model-data fit ($\chi^2(9) = 28.957$, $p < .001$, CFI = .98, TLI = .96, RMSEA = .09, SRMR = .03). The alpha coefficient was .86. The six-item uni-dimensional OFTP scale at Time 1 showed slightly worse, but relatively good model-data fit ($\chi^2(9) = 41.73$, $p < .001$, CFI = .95, TLI = .92, RMSEA = .15, SRMR = .05). The alpha coefficient was .90. In light of the insufficiently low internal consistency of factor 2 (*remaining time*) at time 1, the one factor OFTP scales were retained for hypotheses testing.

Subjective age. The four-item subjective age scale at Time 1 showed relatively good model-data fit ($\chi^2(2) = 10.77$, $p < .01$, CFI = .98, TLI = .94, RMSEA = .13, SRMR = .03). The alpha coefficient was .85. The four-item subjective age scale at Time 2 showed relatively poor model-data fit ($\chi^2(2) = 29.36$, $p < .01$, CFI = .91, TLI = .74, RMSEA = .28, SRMR = .06). The alpha coefficient was .84. The scales at both time-points was retained for hypotheses testing.

Turnover intentions. The three-item turnover intentions scale at Time 1 showed excellent model-data fit ($\chi^2(0) = 0$, $p < .001$, CFI = 1.00, TLI = 1.00, RMSEA = 0, SRMR = 0). The alpha coefficient was .89. The three-item turnover intentions scale at Time 1 also showed excellent model-data fit ($\chi^2(0) = 0$, $p < .001$, CFI = 1.00, TLI = 1.00, RMSEA = 0, SRMR = 0). This indicates that the model, which was specified a-priori, is saturated. The alternative to using this measurement of the construct is to run separate regressions, but this method does introduce some limitations. Some downsides of running separate regressions instead of SEM include a loss of power and no reporting of model fit statistics. In order to compare results in which the factor scores versus the scale scores were used, the turnover intentions factor score was used for hypotheses testing at both time points, while separate regressions were run using the turnover intentions scale scores for post-hoc analyses. The alpha coefficient was .94. See Table 4 for descriptive statistics and alpha coefficients of all relevant variables.

Measurement Model Testing of Hypothesized Model 1A - Calling on Work Continuity via OFTP and Subjective Age

Statisticians generally describe SEM as a stepwise process. Anderson and Gerbing (1988) recommend first establishing and testing the measurement model, relating observed variables to latent variables. In this step, the goodness of fit of the model on its own is evaluated. After the measurement model has been shown to adequately fit the data, then the structural model may be tested and interpreted. In testing the measurement model, all relevant latent variables were defined with their respective indicators. The measurement model was shown to have good fit ($\chi^2(146) = 318.55$, $p < .001$, CFI = .96, TLI = .95, RMSEA = .07, SRMR = .05).

Structural Model Testing of Model 1A - Calling (T1) on Work Continuity (T2) via OFTP (T1) and Subjective Age (T1)

After establishing a sound measurement model, the structural model, with the hypothesized paths was tested for model fit. The hypothesized model of living a calling (T1) influencing turnover intentions (T2), planned retirement age (T2), and bridge employment path attitudes (T2) via the mediating effects of subjective age (T1) and OFTP (T1) was shown to have good fit ($\chi^2(206) = 408.60, p < .001, CFI = .95, TLI = .94, RMSEA = .06, SRMR = .05$). See Table 2. Given the good fit of the hypothesized model, the parameter estimates of the structural model were interpreted. See Figure 2.

Hypotheses Testing of Model 1A - Calling (T1) on Work Continuity (T2) via OFTP (T1) and Subjective Age (T1)

Direct effects. Hypothesis 1 was partially supported as living a calling (T1) was found to be a negative predictor of turnover intentions (T2) ($\beta = -.41, p < .001$), and a positive predictor of the intentions to bridge employment path of full retirement (T2) ($\beta = .22, p < .001$).

Living a calling was not found to be directly related to planned retirement age ($\beta = -.00, p = .96$), intentions to pursue post-retirement career bridge employment ($\beta = -.04, p = .30$), or intentions to pursue post-retirement non-career bridge employment ($\beta = -.15, p = .12$). H1a was therefore supported. Despite reaching a level of significance, H1c was hypothesized to be in the opposite direction and was therefore not supported. H1b, H1d and H1e failed to reach statistical significance and were therefore not supported.

Inter-correlations among all variables are presented in Tables 1-3. As shown in Table 1, correlation analyses revealed subjective age and OFTP to be significant negative correlates ($r = -.36, p < .001$), supporting H2. Research question #1 asked: To what extent are living a calling

and subjective age related? Results indicated that living a calling (T1) did not predict subjective age (T1) ($\beta = .06, p = .39$). Research question #2 asked: To what extent are living a calling and OFTP related? Results indicated that living a calling was shown to positively predict OFTP (T1) ($\beta = .39, p < .001$).

Subjective age (T1) did not significantly predict any of the work continuity variables (turnover intentions, $\beta = -.01, p = .89$; planned retirement age, $\beta = .06, p = .49$; attitudes toward pursuing full retirement, $\beta = -.01, p = .91$; attitudes towards pursuing career-related bridge employment, $\beta = .13, p = .10$; and attitudes toward non career-related bridge employment, $\beta = -.02, p = .78$). Thus, hypothesis 3 was not supported.

Occupational future time perspective (OFTP; T1), on the other hand, was shown to significantly and positively predict turnover intentions (T2) ($\beta = .28, p < .01$), negatively predict attitudes toward the bridge career path of full retirement (T2) ($\beta = -.18, p < .05$), and positively predict one's attitude toward pursuing bridge employment in a different field (T2) ($\beta = .20, p < .05$). OFTP (T1) did not however predict planned retirement age (T2) ($\beta = .03, p = .76$), or workers' attitudes toward pursuing the bridge employment in the same career/ field (T2) ($\beta = -.04, p = .70$). Taken together, there was partial support for hypothesis 4, as H4b and H4d were supported, while no support was found for H4a, H4c, and H4e. As shown in Figure 6, three of five work continuity outcome measures were related to OFTP.

Indirect effects. The bias-corrected bootstrapped confidence intervals were assessed to evaluate the significance of the indirect effects of living a calling on the work continuity outcome variables via the mediators of subjective age and OFTP. Of all the hypothesized indirect effects, only three reached statistical significance, and OFTP was the only one of two mediators that reached statistical significance. Hypothesis 5 was therefore not supported. The indirect

effects of H6b - living a calling (T1) → OFTP (T1) → bridge employment path – full retirement (T2) ($B = -.09$, 95% CIs $[-.20, -.01]$), H6b - living a calling (T1) → OFTP (T1) → bridge employment in a different career/ field (T2) ($B = .09$, 95% CIs $[.01, .18]$), and H6e - living a calling (T1) → OFTP (T1) → turnover intentions (T2) ($B = .13$, 95% CIs $[.04, .23]$) were all found to be significant. Therefore, hypothesis 6 was partially supported as H6b, H6d and H6e were all supported. All other indirect effects failed to reach statistical significance. As shown in Table 6, OFTP was shown to partially mediate living a calling on turnover intentions and intentions on fully retiring from the workforce upon retiring from the current job, and fully mediate the relationship between living a calling and intentions to pursue bridge employment in another field. Table 11 presents a summary of results for Model 1A.

Alternative Model Testing

Model 1B: Calling (T1) on work continuity (T2) via OFTP (T1). Subjective age was found not to be significantly related to the predictor or outcome variables in the hypothesized model. Although it was included as a mediator in the initial model, it was removed in the alternative model tested (Model 1B). Model 1B is therefore: living a calling (T1) → OFTP (T1) → turnover intentions, planned retirement age, and bridge employment path attitudes (all measured at Time 2).

Measurement Model. The measurement model was shown to have very good fit (χ^2 (87) = 244.58, $p < .001$, CFI = .96, TLI = .95, RMSEA = .08, SRMR = .05).

Structural Model. After establishing a sound measurement model, the structural model, with the hypothesized paths was tested for model fit. The structural model, as shown in Figure 3, was shown to have good fit (χ^2 (135) = 326.47, $p < .001$, CFI = .95, TLI = .94, RMSEA = .07, SRMR = .05). Although the normed chi-square (χ^2 /df) and RMSEA values favor Model 1A, the

more parsimonious Model 1B has comparatively good fit, as shown in Table 4. Given the good fit of the hypothesized model, the parameter estimates of the structural model were interpreted.

Direct Effects. As presented in Figure 7, living a calling (T1) was found to significantly predict turnover intentions (T2) ($\beta = -.41, p < .001$) and intent to pursue full retirement after retiring from the current job (T2) ($\beta = .21, p < .05$). The relationship between living a calling and intent to pursue non-career bridge employment post-retirement was not significant ($\beta = -.18, p = .098$).

Living a calling (T1) was shown to predict OFTP (T1) ($\beta = .39, p < .001$). Similar to the results in Model 1A OFTP (T1) living a calling was shown to be predictive of turnover intentions ($\beta = .28, p < .01$), bridge employment path – full retirement ($\beta = -.18, p < .05$), and bridge employment in a different career/ field ($\beta = .20, p < .05$). Occupational future time perspective (OFTP T1) did not predict planned retirement age ($\beta = .02, p = .84$) or bridge employment in the same career/ field ($\beta = -.04, p = .62$).

Indirect Effects. As shown in Table 7, results from Model 1B mirror those from Model 1A. The indirect effect of living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ turnover intentions (T2) ($B = .13$, 95% CIs [.04, .23]) and living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ bridge employment path – full retirement (T2) ($B = -.09$, 95% CIs [-.20, -.01]) were both found to be significant. Unlike results observed from Model 1A, the living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ bridge employment in same career/ field (T2) path was found to be significant ($B = .09$, 95% CIs [.01, .20]). All other indirect effects failed to reach statistical significance.

To summarize, as shown in Figure 2, OFTP was shown to partially mediate living a calling on turnover intentions and intentions on fully retiring from the workforce upon retiring

from the current job, and fully mediate the relationship between living a calling and intentions to pursue bridge employment in another field.

Model 2A: Calling (T1) on work continuity (T1) via OFTP (T1) and subjective age (T1). Another alternative model (Model 2A) was tested to investigate if the same relationships seen across Time 1 and Time 2 would hold if cross-sectional data were to be modeled in the same way as Model 1A. This allows for a comparison of whether the model has more or less utility in predicting concurrently or over time. Therefore, Model 2A tests a similar series of relationships as hypothesized in Model 1A, with the variables in Model 2A measured at Time 1. Recall that the work continuity intention variables of Model 1A were all measured at Time 2. Model 2A is therefore: living a calling (T1) → subjective age & OFTP (T1) → turnover intentions (T1), planned retirement age (T1), and bridge employment path attitudes (T1). All variables are measured at Time 1.

Measurement Model. The measurement model was shown to have good fit ($\chi^2 (146) = 377.82, p < .001, CFI = .95, TLI = .94, RMSEA = .08, SRMR = .06$).

Structural Model. After establishing a sound measurement model, the structural model, with the hypothesized paths was tested for model fit. The structural model, as presented in Figure 4, was shown to have good fit ($\chi^2 (206) = 488.85, p < .001, CFI = .94, TLI = .93, RMSEA = .07, SRMR = .06$). Given the relatively good fit of the hypothesized model, the parameter estimates of the structural model were interpreted.

Direct Effects. As shown in Figure 8, living a calling (T1) was found to positively predict OFTP (T1) ($\beta = .39, p < .001$) but not subjective age (T1) ($\beta = .06, p = .40$). Subjective age (T1) was only found to be related to one outcome variable, i.e., planned retirement age ($\beta = .17, p < .05$). Occupational future time perspective (OFTP T1) was found to be significantly predictive

of turnover intentions (T1) ($\beta = .19, p < .01$), bridge employment in same career/ field (T1) ($\beta = .25, < .001$), and bridge employment in a different career/ field (T1) ($\beta = .27, p < .001$). Living a calling (T1) was found to significantly predict turnover intentions (T1) ($\beta = -.49, p < .001$), and bridge employment in a different career/ field (T1) ($\beta = -.31, p < .001$), and trended toward significance for bridge employment path – full retirement (T1) ($\beta = .12, p < .10$). See Figure 8 for a summary of the results of the cross-sectional model.

Indirect Effects. As reflected in Table 8, the indirect effect of living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ turnover intentions ($B = .09$, 95% CIs [.02, .16]), living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ bridge employment in same career/ field (T1) ($B = .12$, 95% CIs [.05, .20]), living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ bridge employment in a different career/ field paths (T1) ($B = .12$, 95% CIs [.05, .20]) were found to be significant. All other indirect effects failed to reach statistical significance.

Conclusively, as depicted in Figure 8, OFTP was shown to partially mediate living a calling on turnover intentions and intentions to pursue bridge employment in a different field, and fully mediate the relationship between living a calling and intentions to pursue bridge employment in the same field.

Model 2B: Calling (T1) on work continuity (T1) via OFTP (T1). Subjective age was found to be related to one outcome variable in Model 2A. Because it was not related to the predictor variable of living a calling, a fundamental condition of mediation was not met. This model is effectively Model 2A with the removal of all paths related to subjective age. Model 2B is therefore defined as: living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ turnover intentions (T1), planned retirement age (T1), and bridge employment path (T1). All variables are measured as Time 1.

Measurement Model. The measurement model was shown to have good fit ($\chi^2 (87) = 306.386, p < .001, CFI = .95, TLI = .94, RMSEA = .10, SRMR = .07$).

Structural Model. The structural model, as shown in Figure 5, was shown to have good fit ($\chi^2 (211) = 490.286, p < .001, CFI = .94, TLI = .93, RMSEA = .07, SRMR = .06$). Given the relatively good fit of the hypothesized model, the parameter estimates of the structural model were interpreted.

Direct Effects. As shown in Figure 9, living a calling (T1) was found to positively predict OFTP (T1) ($\beta = .39, p < .001$). Occupational future time perspective (OFTP T1) was found to be significantly predictive of turnover intentions (T1) ($\beta = .19, p < .01$), bridge employment in same career/ field (T1) ($\beta = .25, < .001$), and bridge employment in a different career/ field (T1) ($\beta = .27, p < .001$). Living a calling (T1) was found to significantly predict turnover intentions (T1) ($\beta = -.49, p < .001$), and bridge employment in a different career/ field (T1) ($\beta = -.31, p < .001$), and trended toward significance for bridge employment path – full retirement (T1) ($\beta = .12, p < .10$).

Indirect Effects. As shown in Table 9, the indirect effect of living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ turnover intentions ($B = .09, 95\% \text{ CIs } [.03, .16]$), living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ bridge employment in same career/ field (T1) ($B = .12, 95\% \text{ CIs } [.05, .20]$), living a calling (T1) $\rightarrow$ OFTP (T1) $\rightarrow$ bridge employment in a different career/ field paths (T1) ($B = .12, 95\% \text{ CIs } [.05, .20]$) were found to be significant. All other indirect effects failed to reach statistical significance.

Conclusively OFTP was shown to partially mediate living a calling on turnover intentions and intentions to pursue bridge employment in a different field, and fully mediate the relationship between living a calling and intentions to pursue bridge employment in the same field.

Post Hoc Analyses

The majority of the outcome variables in this study are retirement related (i.e. planned retirement age and bridge employment intentions) and are therefore more salient to middle age and older workers. In fact, although turnover intentions are not necessarily more relevant to middle age and older workers, there are documented differences in turnover intentions between younger and older workers. The majority of the work continuity measures may not have been as relevant or salient to younger workers, and therefore could have a significant impact on the results seen in the present study, with the full sample. As such, I thought it important to assess the hypothesized relationships with younger participants (ages 18 -34) excluded from the sample. Given that the majority of the participants were below the age of 35, I conducted a series of multiple regression analyses, rather than SEM, to test the hypothesized relationships. Multiple regression (a univariate statistical method) was thought to be more appropriate as smaller samples sizes are required for this method, than the more complex SEM (a multivariate statistical method).

Hypothesized model tested at two time points. Living a calling (T1) was found to be positively related to a more expansive or longer OFTP (T1) ($\beta = .28$, S.E. = .08, $p < .01$) and unrelated to subjective age (T1) ($\beta = -.05$, S.E. = .54, $p = .65$), mirroring the pattern of results seen in the full sample.

In relation to work continuity intentions, living a calling was found to be significantly related to lower turnover intentions (T2) ($\beta = -.32$, S.E. = .11, $p < .01$) and higher intentions to fully retire from the workforce upon retiring from the current job (T2) ($\beta = .20$, S.E. = .12, $p < .05$). Living a calling was not found to be related to planned retirement age (T2) ($\beta = -.07$, S.E. = .40, $p = .53$), intentions to pursue career-related bridge employment (T2) ($\beta = .01$, S.E. = .12, p

= .96), or intentions to pursue non-career bridge employment (T2) ($\beta = -.14$, S.E. = .12, $p = .18$). These results again mirror those seen with the full sample.

A noticeably different pattern of results is seen with the mediating effects of subjective age and OFTP. Neither subjective age nor OFTP were found to be significantly related to any of the work continuity intentions variables, after accounting for the variance explained by living a calling.

Hypothesized model tested cross-sectionally. A high sense of living a calling (T1) was found to be significantly related to a more expansive OFTP (T1) ($\beta = .28$, S.E. = .08, $p < .01$), and unrelated to subjective age (T1) ($\beta = -.05$, S.E. = .54, $p = .65$), mirroring the pattern of results seen in the full sample.

In relation to work continuity intentions, a high sense of living a calling (T1) was found to be significantly related to lower turnover intentions (T1) ($\beta = -.42$, S.E. = .10, $p < .001$), higher intentions to fully retire from the workforce upon retiring from the current job (T1) ($\beta = .26$, S.E. = .11, $p < .05$), and intentions to pursue non career-related bridge employment (T1) ($\beta = -.22$, S.E. = .11, $p < .03$). Living a calling was not shown to be related to planned retirement age (T1) ($\beta = -.03$, S.E. = .40, $p = .79$) or intentions to pursue career-related bridge employment (T1) ($\beta = .18$, S.E. = .12, $p = .09$). This largely mirrors the effect seen in the full sample.

Again, a noticeably different pattern of results is seen with the mediating effects of subjective age and OFTP. Subjective age (T1) was only found to significantly mediate the living a calling – intentions to pursue career-related bridge employment relationship (T1) ($\beta = -.21$, S.E. = .02, $p < .05$). OFTP (T1) was found to only significantly mediate the living a calling – intentions to fully retire from the workforce relationship (T1) ($\beta = -.22$, S.E. = .15, $p < .05$). All other mediation analyses failed to reach statistical significance.

Discussion

The purpose of the study was to investigate the extent to which living a calling affect subjective age and occupational future time perspective to in turn influence intentions of continuing to work in the same job and career. More specifically, the work continuity intentions variables of interest were: (i) planned retirement age, (ii) intentions to retire fully from the workforce, (iii) intentions to pursue career-related bridge employment, (iv) intentions to pursue non-career-related bridge employment, and (v) turnover intentions. The hypothesized model and several alternative models were tested.

General Models Tested

Model 1A tested the hypothesized model with the predictor variable (living a calling) and two mediating variables (subjective age and OFTP) measured at time 1, and the outcome variables (work continuity intentions) measured a month later at time 2. Model 1B, similar to Model 1A, tested the hypothesized model with living a calling at time 1 and work continuity intentions at time 2. In this model however, subjective age was removed from the model and OFTP served as the only mediator, measured at time 1.

To investigate the predictive utility of this model, Models 2A and 2B were tested. Model 2A tested the hypothesized relationships all cross-sectionally. As such, the predictor of living a calling, the mediating variables of subjective age and OFTP, and the outcome variables of work continuity intentions were all measured and assessed concurrently. Model 2B, similar to Model 2A, tested the relationships cross-sectionally, but with subjective age removed from the model. As such, living a calling, OFTP and work continuity intentions were all measured at time 1.

Direct Effects Across All Models

Although there were some variations in the results obtained across models, there were some trends observed across models. Across all models, employees with a high sense of living a calling have a more expansive OFTP and have lower intentions on turning over from their current jobs. It was also found that employees with a more expansive are also consistently more likely to report higher turnover intentions and intentions to pursue career-related bridge employment. Finally, it is also clear that, across all models, subjective age does not predict work continuity outcomes and is not related to living a calling.

Indirect Effects Across All Models

Across all models, we can conclude that OFTP mediates the relationship between living a calling and turnover intentions and the relationship between living a calling and intentions to pursue non career-related bridge employment. Subjective age was not found to be a significant mediator in any model.

Discrepancies in Findings Across Models

Although there were more similarities than differences between models in this study, an important question to answer is: Why are there differences in predictors of work continuity variables when measured at the same time point versus when measured a month apart? Evidence for common method bias was not found due to results of the Harman single factor test (Harman, 1976; Podsakoff, MacKenzie & Podsakoff, 2012). In this test all latent variables are loaded onto a single factor, and if the variance explained by that one common factor exceeds 50%, common method bias is said to be a significant issue for the survey (Harman, 1976; Podsakoff et al., 2012). Test results revealed that only 27% of the variance was explained by this one common factor.

One possible explanation for the difference in results seen in the cross-sectional and one-month time-lagged model is that some pairs of variables are simply more proximal in nature. For example, I would expect that how I feel today has a greater influence on today's plans, attitudes, and intentions than how much my feelings today will influence my plans, attitudes, and intentions assessed a month from now. Similarly, it appears that how old or young someone feels in the present is more predictive of their same day assessment of when they plan on retiring than their assessment made a month later of when they will retire. Accordingly, one's OFTP is more related to their concurrent attitudes about pursuing bridge employment in the same field, but unrelated to those attitudes a month later. I speculate that people may use different indicators to direct their decision making at different points in time, or that people may not reliably predict their future attitudes or intentions.

Relatedly, in cognitive psychology, there is discussion about how accurate people's self-perceptions are (Silvia & Gendolla, 2001). Citing a number of studies, Silvia and Gendolla argued that people are not as good at making accurate judgments of their own cognition (such as attitudes) and somatic conditions (such as feelings) as we assume they are. Similarly, the affective forecasting literature in personality and social psychology points to a similar trend. People are generally very good at relaying how they feel in real time but are not very good at forecasting how they will feel about the same thing in the future (Wilson & Gilbert, 2005). Still, despite some variations in findings across models, this study's results have significant theoretical and practical implications for researchers and practitioners alike.

The Perspective of Middle Aged and Older Workers

Given that four of five work continuity intention variables are related to retirement and therefore more salient to middle age and older workers, it was expected that the relationships

observed in the full sample (which is younger) would be even more pronounced in an age restricted sample. This was largely not the case as most relationships, seen in the full sample which includes younger workers, were also mirrored in findings using only middle age and older workers. Perhaps the most notable difference seen in analyses including the middle age and older sample is that subjective age was found to be a significant mediator of the living a calling – intentions to pursue career-related bridge employment relationship.

The Importance and Role of Subjective Age in the Study

Recall that the results of model 1A (time-lagged model) suggested that subjective age was unrelated to the living a calling and work continuity intentions. In model 1B, the cross-sectional model, subjective age was found to be related to planned retirement age. Contrary to my predictions, workers who reported feeling subjectively younger tended to report wanting to retire at a younger age. This finding is especially puzzling because subjective age was not found to be related to any other of the work continuity variables. The results from the study do not suggest that subjectively younger workers are planning on retiring from their jobs earlier in order to pursue bridge employment or even full retirement. A plausible explanation for the observed relationship is that as workers think about their subjective ages, they concurrently have a sense of what age they would like to retire from their current jobs, but also have no sense of what to do upon retiring from their current job. They may also think of their subjective age and their post-retirement plans as unrelated. To that end, a comparison of results from models 1A and 2A suggest that there may some different concurrent and future predictors of work continuity variables.

In general, OFTP was found to be a more appropriate mediator of the living a calling – work continuity intentions relationship than subjective age. Occupational future time perspective

was found to be positively related to living a calling, such that a higher sense of living a calling was associated with a more expansive OFTP. The negative relationship between living a calling and OFTP is not surprising as both variables share common correlates such as job satisfaction and organizational commitment. The consistent non-significance of subjective age with the hypothesized predictor and outcome variables, while finding more promising results with OFTP suggests that occupational future time perspective may be a more relevant variable for work continuance and turnover intentions than subjective age. Subjective age as a construct is broader in scope than OFTP, and therefore less specific to work. Subjective age may in fact be a better predictor of general life satisfaction and similar variables. OFTP, on the other hand, is more specific to the work context. In hindsight, considering that subjective age was the lone non-work specific variable in the proposed model, the absence of significant findings is less surprising.

The Importance and Role of OFTP in the Study

Occupational future time perspective was also found to be significantly related to three of five work continuity intentions outcome variables. A more expansive (or open-ended) OFTP was found to be related to higher intention to turnover from the current job, higher intention to pursue bridge employment in a different field, and greater intent on fully retiring from the workforce upon retiring from their current job or career. Socioemotional selectivity theory (Carstensen et al., 1999) and findings from past studies were used to inform the hypotheses. Interestingly, SST theory and empirical findings were not always in line. For instance, SST posits that people with a more expansive OFTP among other things perceive less career barriers (Zacher & Frese, 2009). This would imply that these individuals may not see changing jobs or careers as a daunting ordeal but merely an opportunity for knowledge striving. Rudolph et al.'s (2018) meta-analytic findings on the other hand show that OFTP and turnover intentions are negatively related.

Findings from the current study are in line with SST and suggest that workers who perceive more time and opportunities at work do not necessarily plan on spending that extra time with the same organization or within the same job. It appears that employees with a more expansive OFTP perceive fewer barriers and restrictions in their jobs and careers and therefore are more willing to turnover in order to pursue additional career opportunities, both at their current career stage and in their later career stages as they pursue non-career-related bridge employment.

These findings compliment Mobley's (1977) turnover model. A key aspect of Mobley's turnover model is a period of contemplation. Employees spend time thinking about the idea of leaving their jobs and the push and pull factors, planning the job search, and evaluating the alternatives. Having an OFTP with fewer perceived limits that is more open-ended appears to be akin to empowering employees in their beliefs that they can be successful in another job or career.

The mediating role of OFTP. Among some of the more interesting findings from the hypothesized model (1A) were the significant indirect effects of living a calling on some bridge employment paths through the effects of OFTP. Specifically, individuals with a higher sense of living a calling, and subsequently a more expansive OFTP, were less likely to fully retire from the workforce when they retire from their current jobs (measured a month later). Contrary to my hypotheses, people's sense of living their calling and OFTP did not significantly predict their intentions of pursuing employment in the same field they are living their calling in. They were however more likely to intend to pursue bridge employment in a different field. An explanation for the results observed could be that individuals with a more expansive and less limited OFTP see themselves as having more time and opportunities ahead of them (Carstensen et al., 1999); even beyond their current fields or careers. They may perceive having spent enough time in one

area of interest and see themselves as having an opportunity to pursue other areas that may have peaked their interest.

In their paper, Oates, Hall, and Anderson (2005) quoted an interviewee as saying: “For me, I feel like I have two callings [teaching and mothering]. I’m committed to both of those and everything else just falls by the wayside” (p. 217). It is therefore plausible that people may feel that they have multiple callings, and while some callings may be compatible, other pairings of callings may prove to be more difficult and impractical to simultaneously pursue. Thus, some employees may see retirement from their current job or career as an opportunity to pursue other callings or interests. This explanation could also serve to justify why I found that people higher on living a calling and OFTP were more likely to intend on leaving their jobs, and planning to pursue bridge employment in a different field.

Another potential explanation of the pattern observed is that the concepts of having and living a calling are not necessarily specific to one job or career. Career calling (both having a calling and living a calling) transcends any one job and/ or career. An individual, for example, may describe their calling as “to help inner city students turn away from a life of crime.” Such a calling may be lived out and realized through a career in education as a teacher, principal, superintendent, etc. Still, that same calling to help inner city students turn away from a life of crime can also conceivably be realized through a career or service in religion (as a youth pastor), social work (as a family and school social worker), law enforcement (as a police officer), or mental health (as a counselor), etc. It is therefore apparent that having a calling or living a calling alone does not necessarily lead an individual to pursue and remain in one job or on one career path. Indeed, as Cardador, Dane, and Pratt (2011) put it: “The same work can be done in many contexts” (p. 369). Furthermore, a calling is not simply a one-time, once and for all

discovery about the self. Rather it is described as an ongoing process of evaluating and re-evaluating the purpose and meaningfulness one gets from a job or work activities (Dik & Duffy, 2009). In summary then, the living a calling - turnover intentions relationship may be explained as employees with a high sense of living their calling simply looking to live out that same calling in a different context.

Enhanced Understanding of Career Calling

Career calling and work continuity intentions. Workers with a higher sense of living a calling were, a month later, found to be less likely to intend on leaving their current jobs. Interestingly, they were also more likely to want to fully retire from the workforce when they retire from their current jobs, and no more or less likely to intend on pursuing either type of bridge employment. They were also no more or less likely to plan on retiring at an earlier or later age.

The finding of living a calling predicting turnover intentions is well-documented in the literature (Dik & Duffy, 2009, 2012; Duffy et al., 2015), and is in line with the assumption that people who get meaning from their jobs will be more likely to intend on staying in that job. This finding signifies strong commitment to the job or career currently held by workers living a calling. It appears that compared to people with a lower sense of living their calling, people higher on the spectrum will want to remain in the job presumably until they are ready to completely retire from the workforce. Work continuity theory (Atchley, 1989) suggests that if an employee is satisfied with their jobs, they should want to remain in that role in some capacity such as through career-related bridge employment (Lytle, Foley, & Cotter, 2015). This theory suggests that individuals living their calling would initially choose to not fully retire from the workforce, but to instead be more likely to pursue career-related bridge employment and less

likely to pursue non-career-related bridge employment. Against continuity theory, results instead suggest that people living their calling are no more likely to want to pursue either type of bridge employment and prefer to retire from the workforce completely.

Role theory offers insight into why employees, despite having a higher sense of calling, may intend on transitioning out of the workforce when faced with retirement decisions. George (1993) explains retirement through the lens of role theory as a transitional period in life. People are said to enter and exit different roles as they age and move from one stage of life to the next. From this study's results, it therefore seems that people with a higher sense of calling see retirement as less of an opportunity to continue their association with their jobs as continuity theory suggests, but instead see it as an opportunity to transition to the age-ascribed role of full retirement as role theory suggests.

To my knowledge no other study has looked at or documented the relationship between living a calling and OFTP, and researchers (Duffy, Torrey, England, & Tebbe, 2017) have just recently begun looking at calling in retirement.

Calling and OFTP. From this study, living a calling has direct effects on work continuity variables in ways consistent with previous findings, i.e. intending on remaining in the same job when living a calling. When the indirect effects of calling are examined (e.g. living a calling → OFTP → turnover intentions, full retirement from the workforce, and non-career bridge employment) results are all in the opposite direction compared to when OFTP is not factored in as a mediator. Mediator variables explain the nature of relationships, while moderators alter the nature of relationships. Given that positive relationships become negative when OFTP is factored in, this likely suggests that OFTP may serve as a moderator. Although OFTP was tested as a mediator in this study, its effects of changing the magnitude and direction

of the relationship between the independent and dependent variables would suggest that OFTP may also serve as a moderator to the calling – work continuity relationships.

Theoretical Contributions to Career Calling and Aging & Gerontology

This study makes a unique contribution to both the aging and vocational psychology literatures. As there still is not a general or comprehensive theory of career calling (Duffy & Sedlacek, 2010), findings from this study could contribute to the eventual construction of calling theory through discussing nuances of living a calling with lifespan and aging constructs.

Career Calling and Vocational Theories. Living a calling implies that one is occupying a meaningful work role that is central to that person's identity. Continuity theory would suggest that someone who is actively living their calling should pursue avenues that allows them to continue to associate with the work role or job that is currently serving as a source of meaning in their lives. While the results of the study may not particularly discredit continuity theory, it does suggest some nuances to the assumption that employees in an enjoyable and meaningful role will look to continue in that role. For example, workers with a high sense of living out their callings, through the effects of OFTP, were concurrently more likely to intend on pursuing bridge employment in the same and also in other fields. They also had higher intentions to turnover. This could reflect an intentional turning away from the current job or career. Alternatively, it could reflect a desire for a shift in jobs or careers that is in some unobserved way related to the current job, career or work role.

Findings from this study also suggests that continuity theory may not be the most appropriate theory to account for the results obtained. Atchley's continuity theory was introduced in 1989 and may be less relevant today than it was then. Results from the study reflect the way people think about work today. Generally, people no longer anticipate staying in one job

throughout their career, or to even stay within one career throughout their lives. Baruch (2001) wrote that people today are less concerned with securing employment and are more concerned with gaining employability. With greater employability people are afforded more agency to navigate the labor market. Arthur, Khapova, and Wilderom (2005) identified DeFillippi and Arthur (1994) as one of the first to use the term *boundaryless career*. The term speaks to a conceptualization of careers in which career opportunities go beyond just one employer (Arthur & Rousseau, 1996). This is similar to the concept of the *protean career* (Hall, 2002). A protean career is described as characterized by greater job mobility, developmental progression, and a more “whole-life” perspective (Arthur et al., 2005; Hall, 2002). From the results obtained in the present study, it appears that even when employees are living a calling in their current jobs, both changing jobs in the more immediate future and changing career paths post-retirement are very much viable options. What is also apparent is in line with Hall’s assertions, people today may appraise career success with more emphasis on what is personally meaningful to them, and less about attaining a particular position or promotion (Arthur et al., 2015). Perhaps employees who are living their calling, a month later report having higher turnover intentions, lower intentions to retire fully upon retiring from the current job, and a higher likelihood of pursuing bridge employment in a different field because they are in pursuit of career success that transcends just one job or field.

Aging and Gerontology. Results from the current study also make contributions to the gerontology literature pertaining to subjective age and OFTP. Findings show that OFTP is a stronger predictor of work continuity intentions than subjective age. This suggests that employees’ perceptions of how much time and opportunities they have remaining at work is more related to work continuity intentions, both concurrently and a month later, than how old

they feel. This is particularly informative as according to SST (Carstensen et al., 1999) as subjective age is theorized to have very similar effects as OFTP on retirement and turnover decisions. My findings therefore suggest that work continuity intentions can be understood and predicted without the consideration of subjective age.

A noticeable trend in OFTP research, also highlighted in Rudolph et al.'s (2018) recent meta-analysis of antecedents and outcomes of OFTP, is that most studies tend to focus on the more positive outcomes of having a more expansive OFTP. Results from my study point to a potential “dark side” of having a more open-ended OFTP – at least as it relates to employee retention. Past studies have shown an expansive OFTP to be related to higher job satisfaction (Zacher & Yang, 2016), work engagement (Schmitt, Gielnik, Zacher, & Klemann, 2013) and organizational commitment (Zacher & Yang, 2016). From these results, one would assume that individuals with a more open-ended OFTP are more likely to intend on staying within the same job or organization. Nonetheless, this was not necessarily found. In fact, people with a more expansive OFTP had higher turnover intentions and intentions of pursuing non-career bridge employment both at Time 1 and a month later at Time 2. OFTP. Still, despite obtaining results that are not in line with previous findings, the effects found were not surprising. SST theory (Carstensen et al., 1999) posits that people with a more open ended OFTP perceive fewer obstacles and more time to accomplish goals. They are also said to prioritize knowledge striving and future-oriented goals over goals of maintenance and generativity which are favored by adults with a more restricted OFTP (Lang & Carstensen, 2002). This being the case, it is fitting that individuals with a more expansive OFTP were more likely to want to turnover and pursue post-retirement work in another field.

It is clear that these results make theoretical contributions to the aging and gerontology literatures, bringing attention to how OFTP is related to other relevant age and retirement constructs. These results also bring to light how OFTP could affect efforts to improve employee retention, reducing turnover and delaying retirement. While the research implications of this study's findings are important, the field of psychology – and I/O psychology, more specifically – places great value on the scientist-practitioner model. Under the scientist-practitioner model, research is guided by practice and practice guided by research. This in turn means that research with both implications for science and practice are highly valued. Below, I discuss practical implications of this study's findings.

Practical Implications

Occupational Future Time Perspective. Organizational leaders, employers and employees can also benefit from the application of the information this study provides. Given the many other benefits that are associated with a more open-ended OFTP, such as higher job satisfaction and greater work engagement (Rudolph et al., 2018), it would not be in the best interest of organizational leaders to seek to restrict employees' OFTP in an effort to improve employee retention. Alternatively, organizational leaders would benefit from knowing that an employees' more expansive OFTP can work in the best interest of the organization (in the case of a high performing employee being more engaged in their job) but can also work against an organization's best interest (in the case of a high performing employee opting to leave the company). With that knowledge, organizational leaders should pursue other ways to intervene on work continuity intentions such as increasing autonomy on the job and/ or increasing task significance (Hackman & Oldham, 1976). Hackman and Oldham's Job Characteristics Theory (1976) is supported by several meta-analytic studies, such as Fried and Ferris (1987) and Loher,

Noe, Moeller, and Fitzgerald (1985). In a more recent study, task significance was also shown to increase job performance and self-driven commitment behaviors such as exercising initiative, being punctual, etc. (referred to as job dedication) (Grant, 2008).

Living a Calling. It is clear from these results that the employees living their calling can significantly benefit the organization. The direct effect of living a calling on turnover intentions and intentions to pursue career related bridge employment were in the direction that organizational leaders trying to retain employees would want. In fact, organizations that offer mobility could potentially benefit from workers who have a high sense of living their calling also intending on pursuing non-career related bridge employment. Considering the low turnover intentions associated with living a calling, employees looking to change career paths could potentially be open to taking a different position within the same company.

Therefore, it is clear that employers looking to improve employee retention, through the reduction of turnover and delaying of retirement, should strive to increase the extent to which employees are living their calling, thereby cultivating a culture of meaningfulness in the workplace. The attraction-selection-attrition (ASA) model by Schneider, Smith, and Goldstein (200) outlines how this can be accomplished. First employers seek to attract (via recruitment) workers called to that particular job or career. Organizational decision makers then select for having a calling as a relevant criterion. Finally, individuals selected to the job who do not fit the culture will ultimately eventually self-select out. In their book *Make Your Job a Calling: How the Psychology of Vocation Can Change Your Life at Work*, Dik and Duffy (2012) noted that everyone potentially has a calling. The authors further say that a sense of calling can be cultivated even in undesirable and stigmatized jobs by reframing, recalibrating, or refocusing the functions of work tasks to emphasize the employees' impact on others. A sense of living a

calling can also be developed by job crafting (Dik & Duffy, 2009). One way of doing this is by changing tasks to better align with an employee's interests, abilities, values and personality (Dik & Duffy, 2009). Therefore, the cultivation of a calling would require organizational leaders to know their employees. This likely means that an assessment of an individual's interests, values, personality etc., through interviews, surveys, etc., may be necessary to inform effective job crafting.

Meaningfulness of work is an integral component of career calling. Hackman and Oldham's Job Characteristics Theory (1976) posits that the core job dimensions of skill variety, task identity, task significance, autonomy, and feedback affect to three critical psychological states. These three states are: (i) experienced meaningfulness of work, (ii) experienced responsibility for outcomes of work, and (iii) knowledge of actual results of work activities. These three psychological states are then said to impact the personal and work outcomes of: internal work motivation, work performance, job satisfaction, absenteeism and turnover. Taken together then, employers may increase one's sense of living a calling by working to increase each of the five job dimensions.

Finally, while some jobs may be more readily re-crafted, others simply do not have much malleability. In such instances, the most plausible way to increase one's sense of living a calling, while retaining that employee, would be to relocate employees from jobs they find boring and devoid of meaning to a job within the organization they may find to be more meaningful.

Strengths and Limitations

Strengths. A strength of this study is having data collected at two time-points. Longitudinal studies, even with just two time-points, allow for the study of change over time.

The use of a one-month time lag therefore brings us one step closer to making inferences about causes of changes in work continuity intentions.

Another strength of the study was the use of the structural equation modeling technique. This technique was thought to be most appropriate to test the proposed hypotheses. Assessing measurement models prior to interpreting structural models are very helpful. Alternatively, the use of path analysis or regression analysis does not incorporate a measurement model, neither do they account for varying degrees of measurement error. This method was also strengthened by the use of validated scales to assess latent variables, all of which showed at least good reliability and fit to the data.

Limitations. An a-priori power analysis indicated that a sample size of at least 342 was needed to detect effect sizes of $< .20$ (Soper, 2018), even when the complexity of the model structure is not taken into account. Therefore, with a sample of 266 (T1) and 171 (T2), there was insufficient power to detect particularly small effect sizes. It is then possible that small effects remained uncovered as a result of the underpowered test. Conversely, on a more optimistic note, it is possible that the significant results and effect sizes obtained in this study could be shown to be more robust in a more adequately powered test.

The mean age of the sample was particularly low approximately 38 at Time 1 and 39 at Time 2. Although the main research question is not age specific, many of the outcome variables are related to retirement which is more salient to older workers. Furthermore, there is evidence to suggest that the greater discrepancy between subjective age and chronological age increases as chronological age increases (Kleinspehn-Ammerlahn et al., 2008).

Although sampling from an online marketplace can be rewarding it also presents some challenges. Some advantages identified by Chandler, Paolacci, Mueller (2013) include

transaction cost effectiveness, easy accessibility, efficiency in task completion, low market prices and recruitment flexibility. Limitations of crowdsourcing marketplaces such as Mturk were identified as: workers' lack of motivation, workers' cognitive limitations, instruction ambiguity, workers' non-naivety (through duplication or repetition of the same task), and workers' dishonesty. Another challenge inherent with online surveys is self-selection bias (Wright, 2005). This type of bias occurs as there are some individuals who are more likely than others to express interest in or complete a particular survey. Relatedly, the sheer size of the MTurk community makes it difficult to track non-response rates (Andrews, Nonnecke, & Preece, 2003) or compare demographics of responders and non-responders. In a more recent study, Kraiger, McGonagle, and Sanchez (2018) compared data quality across samples from: (i) a single organization, (ii) university students, (iii) a Qualtrics panel, and (iv) Mturk participants. Interestingly, results showed that the Mturk sample had the least careless responders, performing about as well as the organization sample, which is often held as the "gold standard." The authors did however point out that Mturk workers are often experienced survey-takers and may be sharp enough to evade detection of careless response measures while putting forth minimal effort (Kraiger et al., 2018).

There are some concerns about the quality of data obtained from my research participants. These concerns largely stem from time taken to complete the survey. Despite the survey pilot indicating that the Time 1 survey should take about 15 – 20 minutes to complete, and about 10 – 12 minutes to complete the Time 2 survey, most participants completed the surveys in considerably less time. The median time for survey completion was approximately 8.5 minutes for Time 1 and 7 minutes for Time 2, even after screening for unreasonably fast completion times and inattentiveness. As previously discussed in the results section, most participants passed the screening process looking to eliminate careless responding. Still it should

be noted that qualification criteria for all MTurk participants taking my survey required that potential participants must have had completed 100 prior HITS from other MTurk requesters and have had their work approved at least 95% of the time. This was done in pursuance of careful and diligent workers/ study participants. Nonetheless, an unintended consequence of using these criteria could be limiting my sample to individuals who are adept at passing attention checks while completing surveys quickly without truly giving it the time or attention I would hope. As such, warning participants of attention checks and total task completion time could have inadvertently prompted at least some of them to be vigilant of attention checks, still complete the survey quickly and wait to submit responses after a reasonable amount of time had passed. An alternative method of gauging careless responses would be to build in time tracking into multiple points of the survey only using participants who spend a reasonable length of time on multiple sections.

While many would agree that the study with two time-points has many advantages to a cross-sectional rendition, this method also introduced unique limitations. First, is difficult to determine the most appropriate time lag to test the hypothesized effects. Some important questions include: Is the effect of living calling on OFTP concurrent or does living a calling better serve as a predictor of OFTP at a later point in time? If it does serve better as a predictor then when is the most appropriate time to measure this effect, and how persistent is it? Without the answers to these questions, I have no basis to be confident about any arbitrarily selected time lag to test the hypothesized effects.

Another related area of concern were the low test-retest reliability coefficients. Efforts to locate an established standard for acceptable test-retest reliability were unsuccessful. There are however widely documented standards for reliability coefficients in general, suggesting that the

same standard is used for various types of reliability (internal consistency, test-retest, inter-rater reliability etc.). Nunnally, Bernstein, and Berge's (1967) describe and discuss cutoffs for measurement reliability. Nunnally (1978) writes that it is not appropriate to have a universal cut-off value for reliability coefficients. Cut-off values should depend on how a measure is being used. In research and development contexts, with less dire consequences for measurement error, standards of .70 will suffice. However, in applied settings where important decisions are linked to measurement, standards of .80, .90, and higher may be more appropriate. Given that all measures in this study were used for research purposes, the generally accepted cut-off of .70 was used as my standard for acceptable test-retest reliability.

Test-retest reliabilities of this study's measures ranged from .20 - .83. In fact, the measures with the highest test-retest scores were chronological age ($r = .83$) and subjective age ($r = .77$), two measures that we would expect to observe high (if not even higher) test-retest reliabilities with a month-long interval. If subjective age and chronological age are disregarded, say for illustration purposes, the test-retest reliability coefficients would range from .20 to .69 – all below the generally accepted standard of .70 (Nunnally, 1978). This becomes particularly problematic when inferences are being made about how one's sense of living their calling at one point in time influences their attitudes and intentions regarding retirement and turnover one month later. While all the variables tested in the hypothesized model are more or less dynamic in nature, and can change over time, the observed reliability coefficients are uncharacteristically low for a lag of one month. It should be noted that low test-retest reliability between time points could suggest real change in the phenomenon, measurement unreliability, or a combination of both (Peter, 1979). Therefore, low reliability coefficients obtained should not nonchalantly be

attributed to measurement error. Instead, the low test-retest reliabilities were regarded as potential further evidence of low data quality.

Another issue with collecting data at two time-points is attrition of subjects. With the loss of participants over time, sample representativeness and statistical power could be adversely impacted. Demand characteristics are also sometimes an issue for longitudinal studies when participants change responses over time to better fit what is thought to be the intended goal of the researchers. Although demand characteristics are not unique to longitudinal studies, being exposed to the same questions more than once does give participants more opportunities to take a guess at what the intended goal of the researcher is and adjust their responses over time. Considering the threats to data quality and integrity discussed, the survey would have benefited from the inclusion of a social desirability scale.

Finally, it is worth noting that most variables used in hypotheses testing had distributions that had small to moderate violations of normality and linearity. Violation of linearity and normality increases the chances of having a type II error. Although SEM is robust to violations of these assumptions, an accumulation of violations could have negatively affected model fit and subsequent interpretation of path coefficients. As not all constructs are normally distributed because they naturally occur, it is not surprising that some variables did not quite meet the assumptions of the statistical technique used.

Future Directions

One of the chief concerns of this project was not having enough statistical power to detect small effects. This was particularly an issue because of the model complexity. As a result of this, it is unknown whether there are true effects, perhaps the hypothesized relationships of subjective age with the predictor and outcome variables, that have not been uncovered. Future

researchers should therefore seek to replicate the procedures of this study with a sufficiently large sample size to detect the anticipated effect sizes.

Within the calling literature, there is very little discussion of individuals having multiple career callings, and how individuals navigate this. Future research should seek to assess the prevalence of having multiple career callings, the nature of these callings, and how one calling may compliment the other or adversely lead to role conflict. Also of importance is the work – non-work interface. As one may have multiple career callings, it is also possible that an individual's second calling may be in a non-work role, such as being a parent, grandparent or traveler. Future studies should look to examine this phenomenon and how much this has an impact on work or retirement-related decisions.

One contribution of the present study is examining the relationship between calling and age-related constructs, such as subjective age and OFTP. Future studies should aim to replicate, extend, and/ or improve on my findings, to ensure that results were not simply an artifact of the sample. One way to improve on the current study is by carrying out a longitudinal study, with at least three time-points. A longitudinal study could for example could follow individuals throughout their careers. In such a study, job attitudes, career choices and retirement decisions could be tracked and compared across people with varying levels of having – and living a calling. Studies conducted in the future may also benefit from using a stratified random sample of employees, on the basis of age groups. This would ensure that there is an adequate number of participants in each age group for statistical analyses. It would also be beneficial to target careers likely to have a high number of employees living their callings (such as police officers, EMTs, clergy) and juxtapose outcomes to people in careers who are likely to report not living their callings (i.e. jobs with high turnover rates such as call center employees, and fast food workers).

As the relationship between career calling and retirement-related variables has not received much attention, it could benefit from a more exploratory empirical and or statistical approach. An exploratory approach allows researchers more flexibility in the research questions tested and does not necessarily limit the understanding of the relationships to a particular theoretical framework or paradigm. This may especially be informative given that there is currently not one primary theory that accounts for and explains the relationships observed among the calling and age-related variables. Furthermore, there is still not an agreed upon comprehensive career calling theory (Duffy et al., 2018). As the relationship between living a calling and OFTP has not received much attention, qualitative studies consisting of open-ended questions may prove to be informative in explaining the positive relationship found in this study. This contribution to the literature could in turn serve to stimulate more ideas for developing a theory of career calling. Alternatively, a relatively new and underutilized quantitative statistical approach is exploratory structural equation modeling (Asparouhov & Muthén, 2009). The EFA-SEM (ESEM) approach, uses an EFA measurement model with rotations in place of, or in addition to, a CFA measurement model in a structural equation model (Asparouhov & Muthén, 2009). The ESEM approach would be particularly useful with the introduction and development of new unexplored constructs to the model tested in this study.

Results from models 1A and 1B (the hypothesized model at T1 and T2) suggest that people with a higher sense of living a calling view themselves as having a more expansive occupational future time perspective and resultantly are less likely to intend on completely exiting the workforce upon retirement from their current jobs. Interestingly, results also suggest that people higher on living a calling and OFTP are more likely to intend on pursuing bridge employment in another field, but no more likely to intend on pursuing a career in the same field

they report living their calling in. On the other hand, results from models 2A and 2B (alternative cross-sectional models of the hypothesized relationships) suggest that people with a higher sense of living a calling and a more expansive or longer perspective on the future of their careers are both more likely to intend on pursuing bridge employment in their same career fields, and a different career field. Further studies should seek to further understand these findings and the apparent discrepancy. It may be helpful to inquire about which bridge career fields people anticipate entering upon retirement from their current jobs. Answers to this question could point to a trend toward a popular bridge career field or shed light on how similar or different their intended bridge career field is to their current careers.

Conclusions

In conclusion living a calling, via the effects of OFTP, was found to predict a month later: higher turnover intentions, lower intentions to fully retire after retiring from the current job, and higher intentions to pursue non-career related bridge employment. Similar, although not identical, results were found cross-sectionally. When assessed concurrently, living a calling, via the effects of OFTP, was found to predict: higher turnover intentions, higher intentions to pursue career-related bridge employment, and higher intentions to pursue non-career related bridge employment. Overall, the findings from this study suggested that being employees' living a calling in a particular job is not a guarantee that they intend on staying in that job before or after retirement.

Table 1

Correlation Matrix for Time 1 Variables

Variable	1	2	3	4	5	6	7	8	9	10
1 Live Call (T1)	--									
2 Sub Age (T1)	.03	--								
3 OFTP (T1)	.35**	.01	--							
4 Remain Opp (T1)	.04	-.26**	.00	--						
5 Remain Time (T1)	.01	-.42**	.00	.70**	--					
6 Turnover Int (T1)	-.46**	-.05	-.03	-.01	-.06	--				
7 Retire Age (T1)	-.02	.17**	.03	-.10	-.04	.05	--			
8 Bridge - Retire (T1)	-.05	.02	-.10*	-.10	-.10*	.07	-.25**	--		
9 Bridge - Same (T1)	.04	-.15**	.01	.25**	.17**	.05	.05	-.09	--	
10 Bridge - Other T1)	.01	-.14**	.00	.14**	.10*	.06	-.02	-.12*	.06	--

Note. Values in Parentheses indicate at which time-point the variable was measured. Live Call = Living a Calling, Sub Age = Subjective Age, OFTP = Occupational Future Time Perspective (One Factor), Remain Opp = Remaining Time (OFTP Factor 1), Remain Time = Remaining Time (OFTP Factor 2), Turnover Int = Turnover Intentions, Retire Age = Planned Retirement Age, Bridge - Retire = Full Retirement, Bridge - Same = Bridge Employment in Same Field, Bridge - Other = Bridge Employment in Other Field.

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

* . Correlation is significant at the 0.05 level (1-tailed).

Table 2

Correlation Matrix for Time 2 Variables

Variable	1	2	3	4	5	6	7	8	9	10
1 Live Call (T2)	--									
2 Sub Age (T2)	.11	--								
3 OFTP (T2)	.27**	-.01	--							
4 Remain Opp (T2)	-.02	-.41**	-.05	--						
5 Remain Time (T2)	.06	-.45**	.08	.71**	--					
6 Turnover Int (T2)	-.47**	.11	.27**	-.02	.06	--				
7 Retire Age (T2)	.04	.13*	.07	-.05	-.04	.04	--			
8 Bridge - Retire (T2)	-.174*	-.01	-.25**	-.07	-.08	-.17*	-.16*	--		
9 Bridge - Same (T2)	.14	.00	.13	.10	.11	.14	-.02	-.17*	--	
10 Bridge - Other T2)	.02	-.11	-.16*	.09	.03	.02	-.03	-.16*	.00	--

Note. Values in Parentheses indicate at which time-point the variable was measured. Live Call = Living a Calling, Sub Age = Subjective Age, OFTP = Occupational Future Time Perspective (One Factor), Remain Opp = Remaining Time (OFTP Factor 1), Remain Time = Remaining Time (OFTP Factor 2), Turnover Int = Turnover Intentions, Retire Age = Planned Retirement Age, Bridge - Retire = Full Retirement, Bridge - Same = Bridge Employment in Same Field, Bridge - Other = Bridge Employment in Other Field.

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

* . Correlation is significant at the 0.05 level (1-tailed).

Table 3

Correlations of Time 1 and Time 2 Variables

Variable	1 (T1)	2 (T1)	3 (T1)	4 (T1)	5 (T1)	6 (T1)	7 (T1)	8 (T1)	9 (T1)	10 (T1)	11 (T1)
1 Live Call (T2)	.52**	.14*	.14*	-.06	-.10	-.25**	.19**	-.09	.06	.04	.09
2 Sub Age (T2)	-.04	.77**	-.08	-.30**	-.40**	-.05	.24**	-.09	-.20**	-.15*	.59**
3 OFTP (T2)	.10	.03	.57**	-.12	-.10	.07	.09	-.13*	.00	-.11	.01
4 Remain Opp (T2)	.11	-.36**	.04	.54**	.54**	-.07	-.14*	.01	.22**	.12	-.38**
5 Remain Time (T2)	.12	-.47**	.02	.35**	.53**	-.10	-.20**	-.05	.21**	.08	-.57**
6 Turnover Int (T2)	-.29**	-.17*	.07	.11	.11	.68**	-.10	.16*	.15*	.07	-.17*
7 Retire Age (T2)	.00	.06	-.01	-.05	-.03	-.11	.69**	-.18*	.08	-.10	.154*
8 Bridge - Retire (T2)	-.06	-.05	-.02	-.11	-.08	.07	-.17*	.33**	.08	-.15*	.07
9 Bridge - Same (T2)	.15*	-.01	.07	-.03	.04	-.11	-.03	-.02	.20**	-.02	-.10
10 Bridge - Other T2)	.00	-.06	-.01	.14*	.09	-.02	.05	.02	-.04	.50**	-.08
11 Chron Age (T2)	-.06	.60**	-.03	-.27**	-.48**	-.11	.17*	.02	-.12	-.10	.83**

Note. Test re-test reliabilities in the diagonals. Values in Parentheses indicate at which time-point the variable was measured. Numbers in horizontal occurring before the parentheses correspond with the values and labels in the left most columns. labels live Call = Living a Calling, Sub Age = Subjective Age, OFTP = Occupational Future Time Perspective (One Factor), Remain Opp = Remaining Time (OFTP Factor 1), Remain Time = Remaining Time (OFTP Factor 2), Turnover Int = Turnover Intentions, Retire Age = Planned Retirement Age, Bridge - Retire = Full Retirement, Bridge - Same = Bridge Employment in Same Field, Bridge - Other = Bridge Employment in Other Field.

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

* . Correlation is significant at the 0.05 level (1-tailed).

Table 4

Descriptive Statistics and Alpha for Time 1 and Time 2 Variables

Variables	N	M	Time 1			Alpha	N	M	Time 2			Alpha
			SD	Min	Max				SD	Min	Max	
Living Calling	266	3.54	1.81	1.00	7.00	0.97	171.00	3.65	1.83	1.00	7.00	0.98
OFTP - Rem							171.00					
Opportunity	266	4.78	1.51	1.00	7.00	0.90		4.78	1.50	1.00	7.00	0.91
OFTP - Rem Time	266	4.11	1.38	1.00	7.00	0.65	171.00	4.03	1.50	1.00	7.00	0.78
OFTP 1 Factor	266	4.44	1.33	1.00	7.00	0.86	171.00	4.40	1.39	1.00	7.00	0.90
Subjective Age	264	33.43	8.17	12.33	60.00	0.85	168.00	33.89	8.29	7.50	58.00	0.84
Turnover Intentions	266	3.51	1.91	1.00	7.00	0.89	171.00	3.29	1.98	1.00	7.00	0.94
Bridge – Retirement	266	2.92	2.10	1.00	7.00	--	171.00	3.34	2.19	1.00	7.00	--
Bridge - Same Field	266	3.80	2.03	1.00	7.00	--	171.00	3.87	2.05	1.00	7.00	--
Bridge - Other Field	266	3.36	1.97	1.00	7.00	--	171.00	3.57	2.03	1.00	7.00	--
Age	264	37.61	10.420	19	64	--	168.00	38.32	10.166	23	64	--
Retirement Age	245	63.96	5.694	50	75	--	161.00	63.75	5.774	50	77	--

Note. -- indicates an observed variable with no alpha calculated. Rem Opportunity = remaining opportunities at work, Rem Time = remaining time at work.

Table 5

Fit Statistics for All Measurement Models

Model	χ^2	df	χ^2/df	CFI	TLI	RMSEA	SRMR
Model 1A	408.60	206	1.98	0.95	0.94	0.06	0.05
Model 1B	326.47	135	2.42	0.95	0.94	0.07	0.05
Model 2A	488.85	206	2.37	0.94	0.93	0.07	0.06
Model 2B	490.30	211	2.32	0.94	0.93	0.07	0.06

Note. CFI = Comparative Fit Index. RMSEA = Root Mean Square Error of Approximation. SRMR = Standardized Root Mean Square Residual. Model 1A = Initial Model (with DVs at Time 2). Model 1B = Initial model with DVs at Time 2 and subjective age removed from model. Model 2A = Initial model with all variables at Time 1. Model 2B = Initial Model with all variables measured at Time 1, and subjective age removed from model.

Table 6

Indirect Effects for Model 1A

Path	Indirect Effect	95% LCI	95% UCI	Sig.
Live Calling --> OFTP --> Turnover Intentions	0.13	0.04	0.23	*
Live Calling --> Sub Age --> Turnover Intentions	0.00	-0.02	0.02	NS
Live Calling --> OFTP --> Planned Retirement Age	0.04	-0.22	0.32	NS
Live Calling --> Sub Age --> Planned Retirement Age	0.01	-0.04	0.09	NS
Live Calling --> OFTP --> Bridge - Retirement	-0.09	-0.20	-0.01	*
Live Calling --> Sub Age --> Bridge - Retirement	0.00	-0.02	0.02	NS
Live Calling --> OFTP --> Bridge - Same Field	-0.02	-0.11	0.06	NS
Live Calling --> Sub Age --> Bridge - Same Field	0.01	-0.02	0.04	NS
Live Calling --> OFTP --> Bridge - Other Field	0.09	0.01	0.18	*
Live Calling --> Sub Age --> Bridge - Other Field	0.00	-0.02	0.02	NS

Note. LCI = Lower Confidence Interval. UCI = Upper Confidence Interval

Table 7

Indirect Effects for Model 1B

Path	Indirect Effect	95% LCI	95% UCI	Sig.
Calling --> OFTP --> Turnover Intentions	0.13	0.04	0.23	*
Calling --> OFTP --> Planned Retirement Age	0.03	-0.23	0.30	NS
Calling --> OFTP --> Bridge - Retirement	-0.09	-0.20	-0.01	*
Calling --> OFTP --> Bridge - Same Field	-0.02	-0.11	0.06	NS
Calling --> OFTP --> Bridge - Other Field	0.09	0.01	0.18	*

Note. LCI = Lower Confidence Interval. UCI = Upper Confidence Interval

Table 8

Indirect Effects for Model 2A

Path	Indirect Effect	95% LCI	95% UCI	Sig.
Calling --> OFTP --> Turnover Intentions	0.09	0.02	0.16	*
Calling --> Sub Age --> Turnover Intentions	0.00	-0.01	0.02	NS
Calling --> OFTP --> Planned Retirement Age	-0.04	-0.25	0.17	NS
Calling --> Sub Age --> Planned Retirement Age	0.03	-0.05	0.13	NS
Calling --> OFTP --> Bridge - Retirement	-0.02	-0.09	0.04	NS
Calling --> Sub Age --> Bridge - Retirement	0.00	-0.01	0.02	NS
Calling --> OFTP --> Bridge - Same Field	0.12	0.05	0.20	*
Calling --> Sub Age --> Bridge - Same Field	0.00	-0.02	0.02	NS
Calling --> OFTP --> Bridge - Other Field	0.12	0.05	0.20	*
Calling --> Sub Age --> Bridge - Other Field	0.00	-0.01	0.02	NS

Note. LCI = Lower Confidence Interval. UCI = Upper Confidence Interval

Table 9

Indirect Effects for Model 2B

Path	Indirect Effect	95% LCI	95% UCI	Sig.
Calling --> OFTP --> Turnover Intentions	0.09	0.03	0.16	*
Calling --> OFTP --> Planned Retirement Age	-0.04	-0.25	0.16	.
Calling --> OFTP --> Bridge - Retirement	-0.02	-0.09	0.04	.
Calling --> OFTP --> Bridge - Same Field	0.12	0.05	0.20	*
Calling --> OFTP --> Bridge - Other Field	0.12	0.05	0.20	*

Note. LCI = Lower Confidence Interval. UCI = Upper Confidence Interval

Table 10

A-Priori Sample Size Power Analysis as Expected Effect Size Increases

Criteria	Values in Calculation of Sample Size				
Minimum Effect Size Expected	0.10	0.15	0.20	0.25	0.30
Desired Statistical Power	0.80	0.80	0.80	0.80	0.80
Number of Latent Variables	4	4	4	4	4
Number of Observed Variables	4	4	4	4	4
Probability level	0.05	0.05	0.05	0.05	0.05
Minimum <i>N</i> to Detect Effect	1454	630	342	209	137
Minimum <i>N</i> for Model Complexity	700	700	700	700	700

Note. Values are calculated based on the values input for each of the five criteria. All values except minimum effect size expected are held constant.

Table 11

Summary of Hypotheses, Significance Tests and Conclusions Drawn for Hypothesized Model 1A

	Hypothesis	Significance	Conclusion
H1a	Calling & turnover intentions are negatively related	*	Supported
H1b	Calling & planned retirement age, positively related	NS	Not Supported
H1c	Calling & full retirement intentions, negatively related	*	Not Supported
H1d	Calling & career bridge employment intentions, positively related	NS	Not Supported
H1e	Calling & non-career bridge employment intentions, negatively related	NS	Not Supported
H2	OFTP & subjective age are negatively correlated	*	Supported
RQ1	Calling positively predicts subjective age	NS	N/A
RQ2	Calling positively predicts OFTP	*	N/A
H3a	Subjective age & planned retirement age, negatively related	NS	Not Supported
H3b	Subjective age & full retirement intentions, positively related	NS	Not Supported
H3c	Subjective age & career bridge employment intentions, negatively related	NS	Not Supported
H3d	Subjective age & non-career bridge employment intentions, negatively related	NS	Not Supported
H3e	Subjective age & turnover intentions, negatively related	NS	Not Supported
H4a	OFTP & planned retirement age, positively related	NS	Not Supported
H4b	OFTP & full retirement intentions, negatively related	*	Supported
H4c	OFTP & career bridge employment intentions, positively related	NS	Not Supported
H4d	OFTP & non-career bridge employment intentions, positively related	*	Supported
H4e	OFTP & turnover intentions, negatively related	*	Not Supported

	Hypothesis	Significance	Conclusion
<i>H5a</i>	<i>Calling related to planned retirement age through subjective age</i>	<i>NS</i>	<i>Not Supported</i>
<i>H5b</i>	<i>Calling related to full retirement intentions through subjective age</i>	<i>NS</i>	<i>Not Supported</i>
<i>H5c</i>	<i>Calling related to career bridge employment intentions through subjective age</i>	<i>NS</i>	<i>Not Supported</i>
<i>H5d</i>	<i>Calling related to no-career bridge employment intentions through subjective age</i>	<i>NS</i>	<i>Not Supported</i>
<i>H5e</i>	<i>Calling related to turnover intentions through subjective age</i>	<i>NS</i>	<i>Not Supported</i>
<i>H6a</i>	<i>Calling related to planned retirement age through OFTP</i>	<i>NS</i>	<i>Not Supported</i>
<i>H6b</i>	<i>Calling related to full retirement intentions through OFTP</i>	<i>*</i>	<i>Supported</i>
<i>H6c</i>	<i>Calling related to career bridge employment intentions through OFTP</i>	<i>NS</i>	<i>Not Supported</i>
<i>H6d</i>	<i>Calling related to non-career bridge employment intentions through OFTP</i>	<i>*</i>	<i>Supported</i>
<i>H6e</i>	<i>Calling related to turnover intentions through OFTP</i>	<i>*</i>	<i>Supported</i>

Note. Indirect effects are italicized.

Table 12

Table of Models Tested

Model	Predictor	Mediator(s)	Outcome
Model 1A	Living a Calling (T1)	Subjective Age and OFTP (T1)	Withdrawal Intentions (T2)
Model 1B	Living a Calling (T1)	OFTP (T1)	Withdrawal Intentions (T2)
Model 2A	Living a Calling (T1)	Subjective Age and OFTP (T1)	Withdrawal Intentions (T1)
Model 2B	Living a Calling (T1)	OFTP (T1)	Withdrawal Intentions (T1)

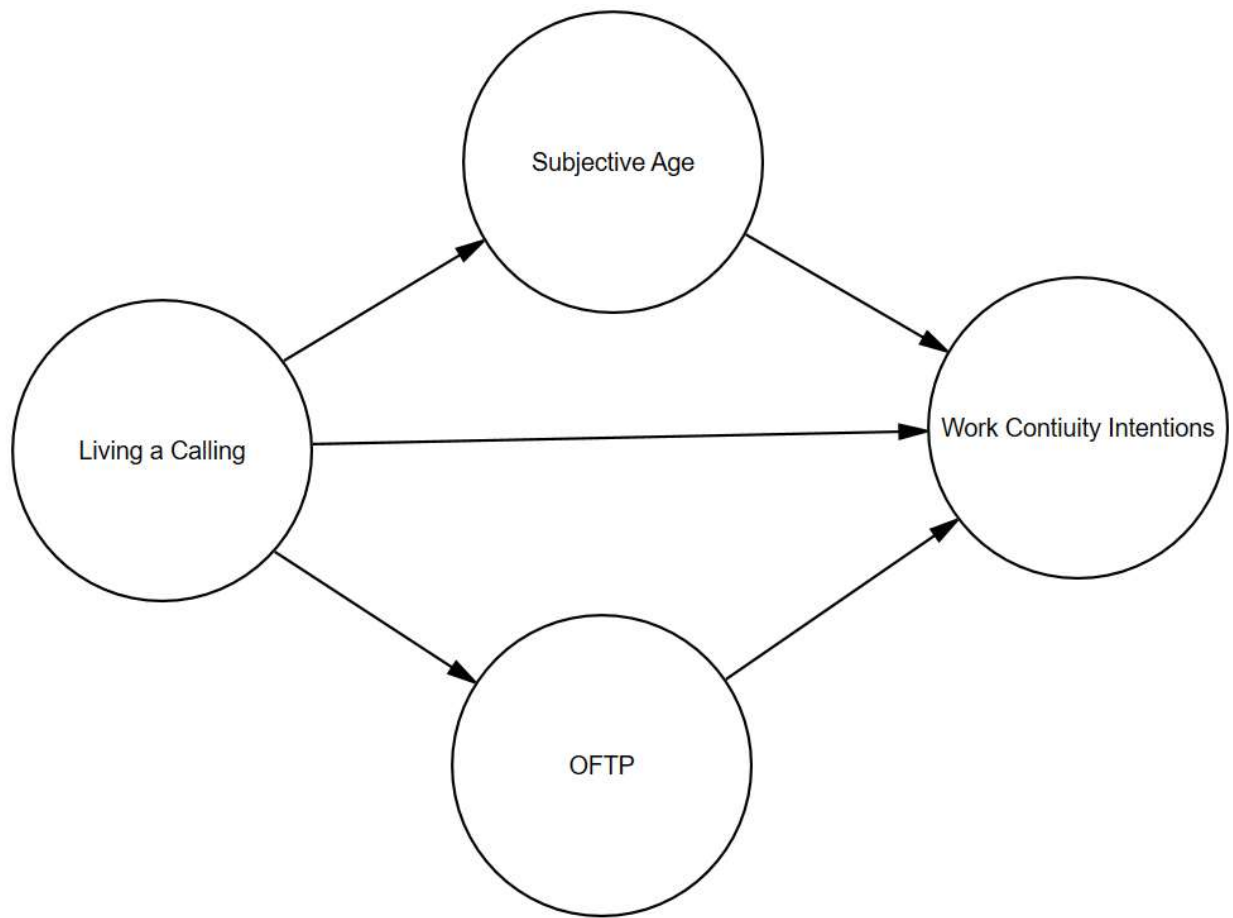


Figure 1. The hypothesized conceptual model. OFTP = occupational future time perspective; work continuity intentions = turnover intentions, planned retirement age, intentions to retire fully, intentions to pursue career-related bridge employment, and intentions to pursue non-career related bridge employment.

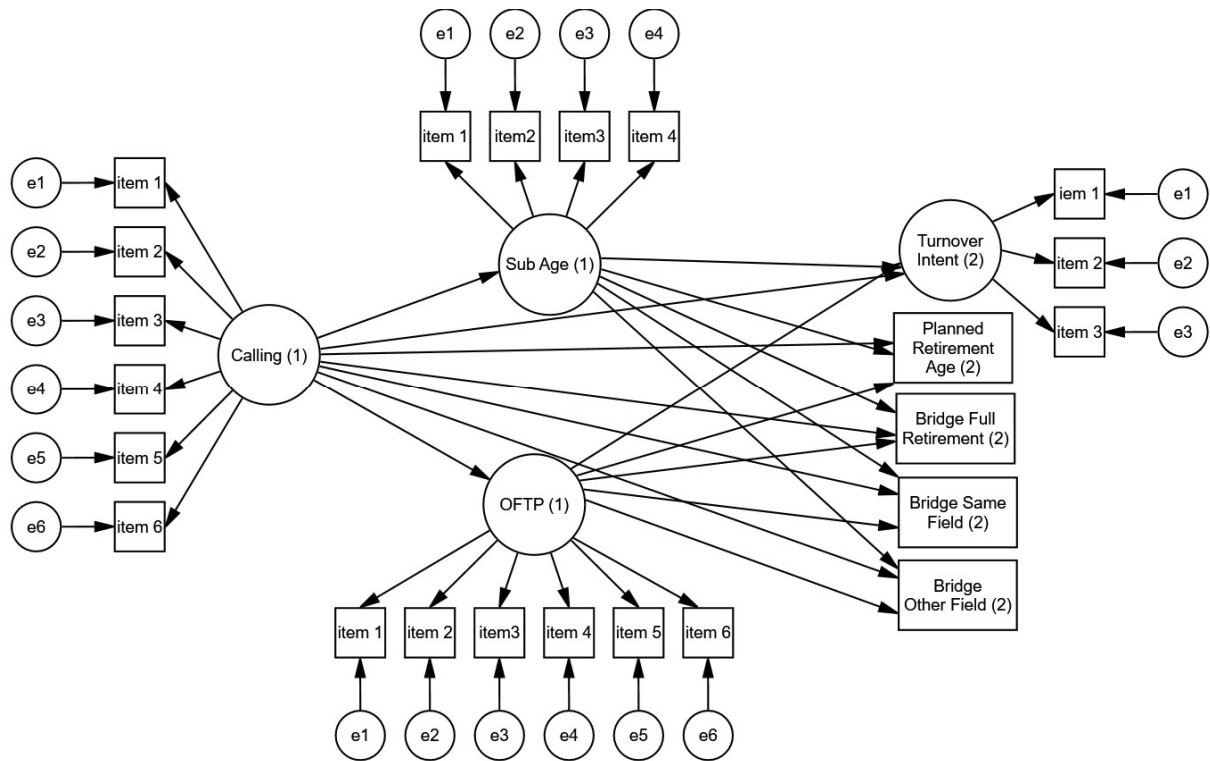


Figure 2. Model 1A. The hypothesized model to be tested. Dependent variables are measured at Time 2.

Note. Numbers in parentheses indicate at which time-point the variable was measured.

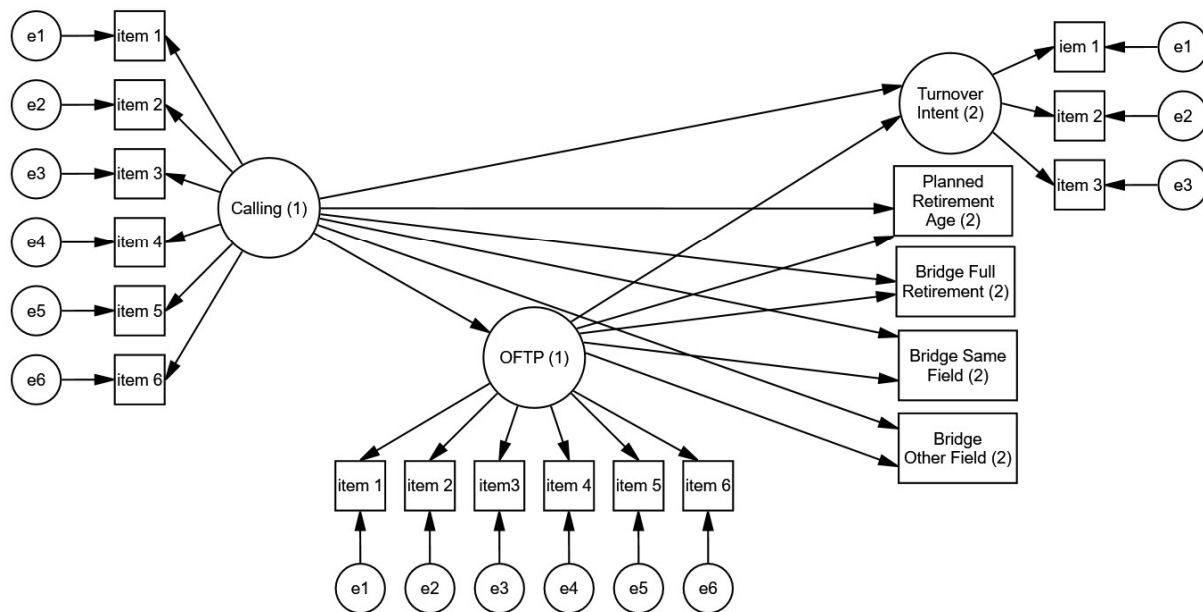


Figure 3. Model 1B. The hypothesized model to be tested, with all subjective age paths removed. Dependent variables are measured at Time 2.

Note. Numbers in parentheses indicate at which time-point the variable was measured.

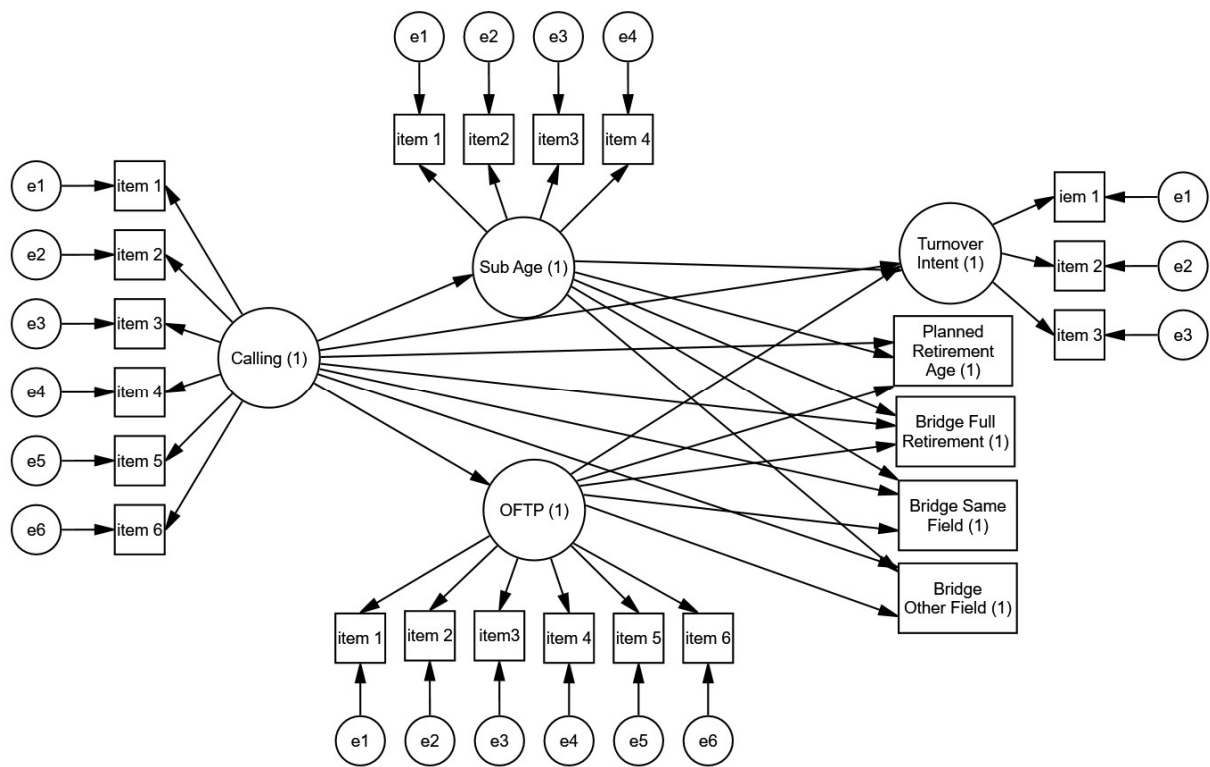


Figure 4. Model 2A. An alternative model tested. All variables are measured at Time 1.
Note. Numbers in parentheses indicate at which time-point the variable was measured.

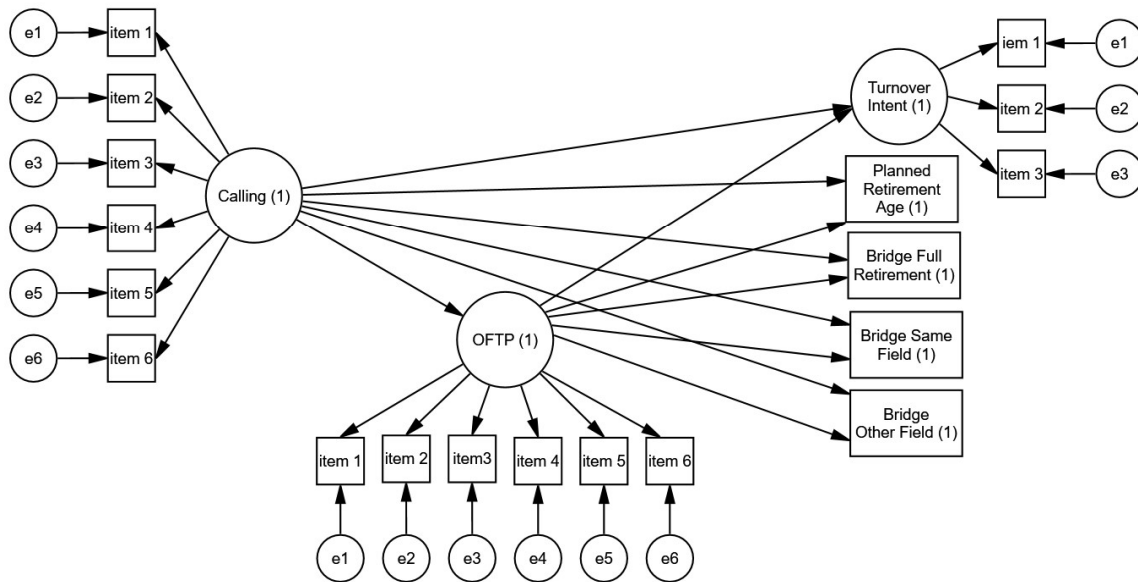


Figure 5. Model 2B. An alternative model tested, with all subjective age paths removed. All variables are measured at Time 1.

Note. Numbers in parentheses indicate at which time-point the variable was measured.

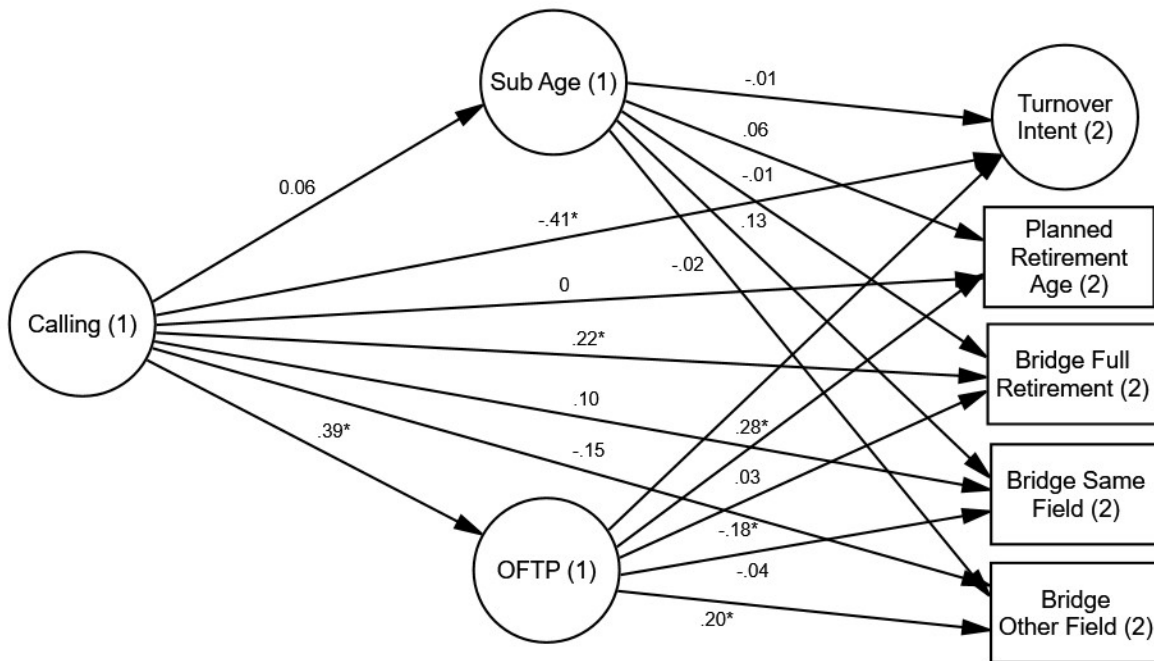


Figure 6. Structural model of the initial hypothesized relationships. All dependent variables are measured at Time 2.

Note. † $p < .10$ * $p < .05$. Numbers in parentheses indicate at which time-point the variable was measured.

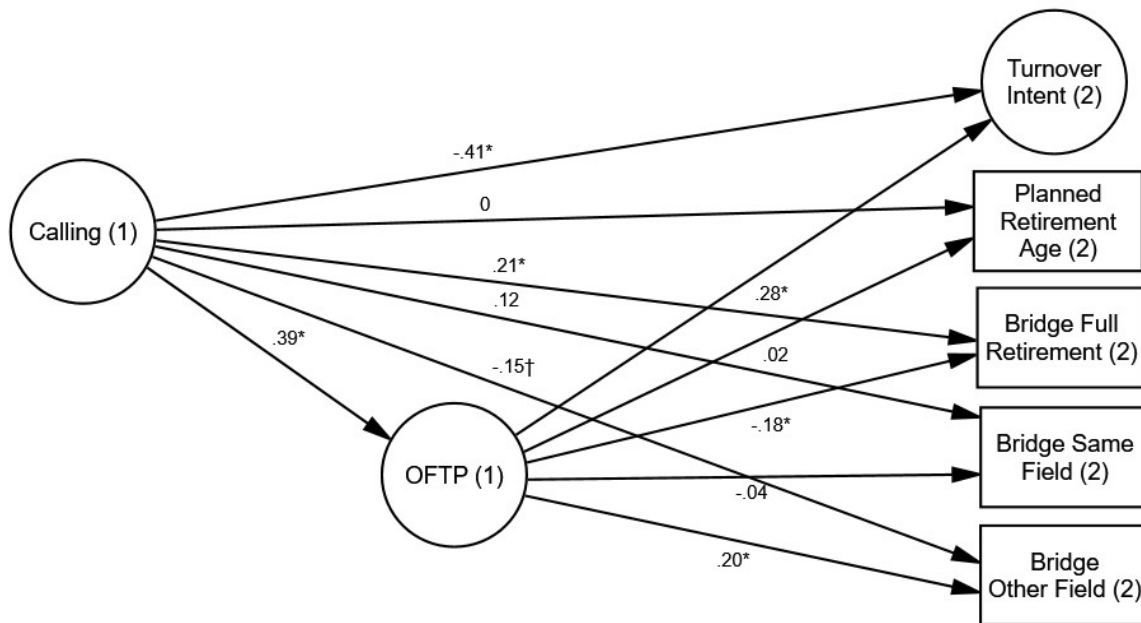


Figure 7. Structural model of the initial hypothesized relationships, with subjective age paths removed. All dependent variables are measured at Time 2.

Note. † $p < .10$, * $p < .05$. Numbers in parentheses indicate at which time-point the variable was measured.

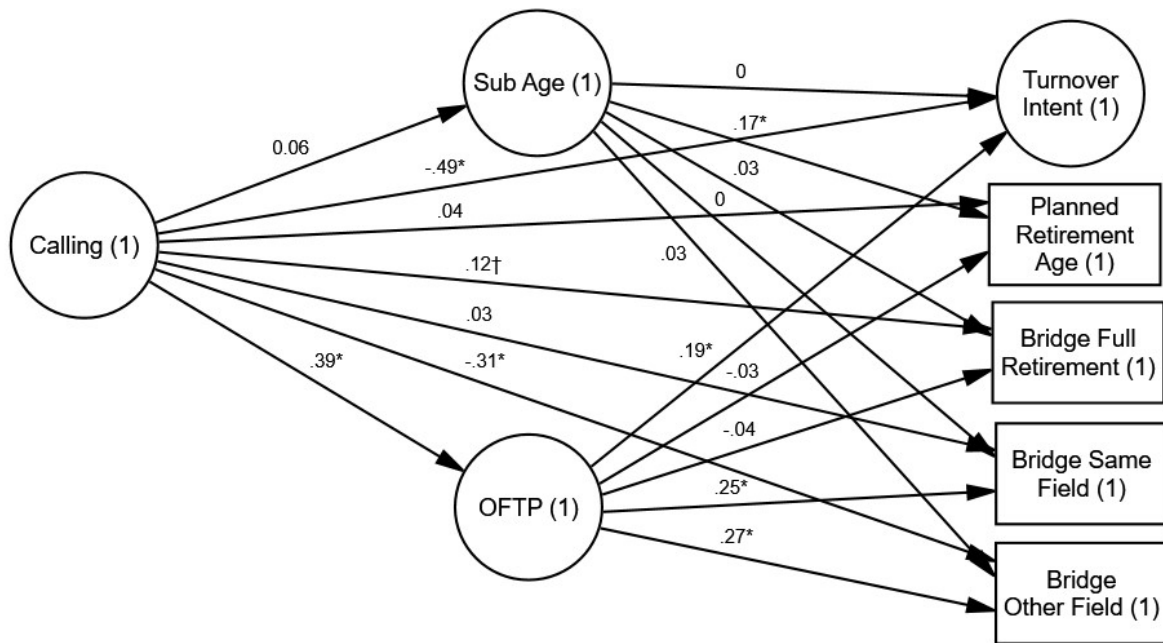


Figure 8. Structural model of the hypothesized relationships tested cross-sectionally. All variables are measured at Time 1.
Note. † $p < .10$ * $p < .05$. Numbers in parentheses indicate at which time-point the variable was measured.

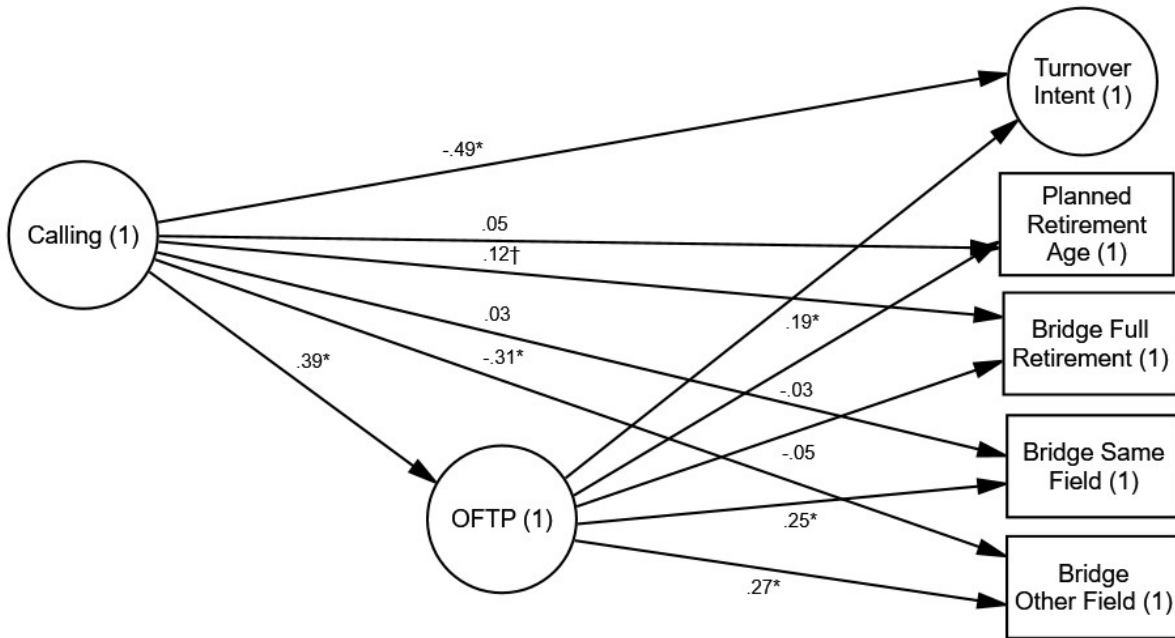


Figure 9. Structural model of the hypothesized relationships tested cross-sectionally, with all subjective age paths removed. All variables are measured at Time 1.
Note. † $p < .10$ * $p < .05$. Numbers in parentheses indicate at which time-point the variable was measured.

References

- Adams, G. A. (1999). Career-related variables and planned retirement age: An extension of Beehr's model. *Journal of Vocational Behavior*, 55, 221-235.
- Adams, S. J. (2004). Age discrimination legislation and the employment of older workers. *Labour Economics*, 11, 219-241.
- Adams, G. A., & Beehr, T. A. (1998). Turnover and retirement: A comparison of their similarities and differences. *Personnel Psychology*, 51, 643-665.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ambrosius, J. (2018). Strategic talent management in emerging markets and its impact on employee retention: Evidence from Brazilian MNCs. *Thunderbird International Business Review*, 60(1), 53-68.
- Andrews, D., Nonnecke, B., & Preece, J. (2003). Electronic survey methodology: A case study in reaching hard-to-involve Internet users. *International Journal of Human-Computer Interaction*, 16, 185-210.
- Armstrong-Stassen, M., & Ursel, N. D. (2009). Perceived organizational support, career satisfaction, and the retention of older workers. *Journal of Occupational and Organizational Psychology*, 82, 201-220.
- Arthur, M. B., Khapova, S. N., & Wilderom, C. P. (2005). Career success in a boundaryless career world. *Journal of Organizational Behavior*, 26, 177-202.
- Arthur, M. B., & Rousseau, D. M. (1996). The boundaryless career. New York: Oxford University Press. In Arthur, M. B., Khapova, S. N., & Wilderom, C. P. (2005). Career

- success in a boundaryless career world. *Journal of Organizational Behavior*, 26, 177-202.
- Asparouhov, T., & Muthén, B. (2009). Exploratory structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 16, 397-438.
- Atchley, R. C. (1989). A continuity theory of normal aging. *Gerontologist*, 29, 183-190.
- Barak, B., Guiot, D., Mathur, A., Zhang, Y., & Lee, K. (2011). An empirical assessment of cross-cultural age self-construal measurement: Evidence from three countries. *Psychology & Marketing*, 28, 479-495.
- Barak, B., & Stern, B. (1986). Subjective age correlates: A research note. *The Gerontologist*, 26, 571-578.
- Barak, B., & Schiffman, L.G. (1981). Cognitive age: a non-chronological age variable. In NA - *Advances in Consumer Research*, 08, p. 602-606. Ann Arbor, MI: Association for Consumer Research.
- Barrett, A. E. (2003). Socioeconomic status and age identity: The role of dimensions of health in the subjective construction of age. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 58, S101-S109.
- Baruch, Y. (2001). The status of research on teleworking and an agenda for future research. *International Journal of Management Reviews*, 3, 113-129.
- Beehr, T. A. (1986). The process of retirement: A review and recommendations for future investigation. *Personnel Psychology*, 39, 31-55.
- Bennett, M. M., Beehr, T. A., & Lepisto, L. R. (2016). A longitudinal study of work after retirement: Examining predictors of bridge employment, continued career employment, and retirement. *The International Journal of Aging & Human Development*, 83, 228-255.

- Bentler, P.M. & Bonnet, D.C. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606.
- Bergland, A., Nicolaisen, M., & Thorsen, K. (2014). Predictors of subjective age in people aged 40–79 years: A five-year follow-up study. The impact of mastery, mental and physical health. *Aging & Mental Health*, 18, 653-661.
- Blau, G. J. (1985). Relationship of extrinsic, intrinsic, and demographic predictors to various types of withdrawal behaviors. *Journal of Applied Psychology*, 70, 442-450.
- Bunderson, J. S., & Thompson, J. A. (2009). The call of the wild: Zookeepers, callings, and the double-edged sword of deeply meaningful work. *Administrative Science Quarterly*, 54, 32–57.
- Byrne, Z. (2015). *Organizational psychology and behavior: An integrated approach to understanding the workplace*. Dubuque, IA: Kendall Hunt..
- Cardador, M. T., Dane, E., & Pratt, M. G. (2011). Linking calling orientations to organizational attachment via organizational instrumentality. *Journal of Vocational Behavior*, 79, 367-378. doi:10.1016/j.jvb.2011.03.009
- Carpenter, N. C., & Berry, C. M. (2017). Are counterproductive work behavior and withdrawal empirically distinct? A meta-analytic investigation. *Journal of Management*, 43, 834-863.
- Carstensen, L. L. (2006). The influence of a sense of time on human development. *Science*, 312, 1913-1915.
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54, 165-181.
- Carstensen, L. L., & Lang, F. R. (1996). Future Time Perspective Scale. Unpublished manuscript, Stanford University.

- Cate, R. A., & John, O. P. (2007). Testing models of the structure and development of future time perspective: Maintaining a focus on opportunities in middle age. *Psychology and Aging, 22*, 186-201.
- Chandler, J., Paolacci, G., & Mueller, P. (2013). Risks and rewards of crowdsourcing marketplaces. In *Handbook of human computation* (pp. 377-392). Springer, New York, NY.
- Chua, C., Cote, J. A., & Leong, S. M. (1990). The antecedents of cognitive age. *Advances in Consumer Research, 17*, 880-885.
- Claes, R., & Heymans, M. (2008). HR professionals' views on work motivation and retention of older workers: a focus group study. *Career Development International, 13*, 95-111.
- Cleveland, J.N., & Shore, L.M. (1992). Self- and supervisory perspectives on age and work attitudes and performance. *Journal Applied Psychology, 77*, 469-484.
- Davies, E., & Cartwright, S. (2011). Psychological and psychosocial predictors of attitudes to working past normal retirement age. *Employee Relations, 33*, 249-268.
- De Volder, M. L., & Lens, W. (1982). Academic achievement and future time perspective as a cognitive–motivational concept. *Journal of Personality and Social Psychology, 42*, 566-571.
- Dik, B. J., & Duffy, R. D. (2009). Calling and vocation at work: Definitions and prospects for research and practice. *The Counseling Psychologist, 37*, 424-450.
- Dik, B. J., & Duffy, R. D. (2012). *Make your job a calling: How the psychology of vocation can change your life at work*. Templeton Foundation Press.

- Dik, B. J., Eldridge, B. M., Steger, M. F., & Duffy, R. D. (2012). Development and validation of the calling and vocation questionnaire (CVQ) and brief calling scale (BCS). *Journal of Career Assessment, 20*, 242-263.
- Dressel, K. (2015, July). *Survey results: The top 3 challenges facing organizations*. Clearwater Consulting Group Inc. Retrieved March 17, 2018, from: <http://www.clearwaterconsulting.com/extraordinary-leadership-blog/survey-results-the-top-3-challenges-facing-organizations>
- Duffy, R. D., Allan, B. A., Autin, K. L., & Bott, E. M. (2013). Calling and life satisfaction: It's not about having it, it's about living it. *Journal of Counseling Psychology, 60*, 42-52.
doi:10.1037/a0030635
- Duffy, R. D., & Autin, K. L. (2013). Disentangling the link between perceiving a calling and living a calling. *Journal of Counseling Psychology, 60*, 219-227.
doi: 10.1037/a0031934
- Duffy, R.D., Autin, K.L., Allan, B.A., & Douglass, R.P. (2015). Assessing work as a calling: An evaluation of instruments and practice recommendations. *Journal of Career Assessment, 23*, 351-366. doi:10.1177/1069072714547163
- Duffy, R. D., Bott, E. M., Allan, B. A., Torrey, C. L., & Dik, B. J. (2012). Perceiving a calling, living a calling, and job satisfaction: testing a moderated, multiple mediator model. *Journal of Counseling Psychology, 59*, 50-59.
- Duffy, R. D., Dik, B. J., & Steger, M. F. (2011). Calling and work-related outcomes: Career commitment as a mediator. *Journal of Vocational Behavior, 78*, 210-218.
- Duffy, R. D., Dik, B. J., Douglass, R. P., England, J. W., & Velez, B. L. (2018). Work as a calling: A theoretical model. *Journal of Counseling Psychology, 65*(4), 423–439.

<http://dx.doi.org/10.1037/cou0000276>

- Duffy, R. D., & Sedlacek, W. E. (2010). The salience of a career calling among college students: Exploring group differences and links to religiousness, life meaning, and life satisfaction. *The Career Development Quarterly*, 59, 27-41.
- Duffy, R. D., Torrey, C. L., England, J., & Tebbe, E. A. (2017). Calling in retirement: A mixed methods study. *The Journal of Positive Psychology*, 12, 399-413.
- Dunn, A.M., Heggstad, E.D., Shanock, L.R., & Theilgard, N. (2018). Intra-individual response variability as an indicator of insufficient effort responding: Comparison to other indicators and relationships with individual differences. *Journal of Business and Psychology*, 33, 105-121.
- Dwyer, D. S., & Mitchell, O. S. (1999). Health problems as determinants of retirement: Are self-rated measures endogenous? *Journal of Health Economics*, 18, 173-193.
- Efron, B. (1987). Better bootstrap confidence intervals. *Journal of the American Statistical Association*, 82, 171-185.
- Efron, B., & Tibshirani, R. J. (1993). *An Introduction to the Bootstrap (Monographs on Statistics and Applied Probability)*. Chapman & Hall/CRC Press, New York, NY.
- Feldman, D. C., & Beehr, T. A. (2011). A three-phase model of retirement decision making. *American Psychologist*, 66, 1-11.
- Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, 59, 291-309.
- Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology*, 40, 287-322.

- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science*, 18, 233-239.
- Galletta, M., Portoghese, I., & Battistelli, A. (2011). Intrinsic motivation, job autonomy and turnover intention in the Italian healthcare: The mediating role of affective commitment. *Journal of Management Research*, 3, 1-19.
- George L. K. (1993). Sociological perspectives on life transitions. *Annual Review of Sociology*, 19, 353–373.
- Gobeski, K. T., & Beehr, T. A. (2009). How retirees work: Predictors of different types of bridge employment. *Journal of Organizational Behavior*, 30, 401-425.
- Graen, G. B., Liden, R. C., & Hoel, W. (1982). Role of leadership in the employee withdrawal process. *Journal of Applied Psychology*, 67, 868-872.
- Grant, A. M. (2008). The significance of task significance: Job performance effects, relational mechanisms, and boundary conditions. *Journal of Applied Psychology*, 93, 108-124.
- Habeck, R., Hunt, A., Rachel, C. H., Kregel, J., & Chan, F. (2010). Employee retention and integrated disability management practices as demand side factors. *Journal of Occupational Rehabilitation*, 20, 443-455.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279.
- Hall, D. T. (2002). *Careers in and out of organizations*. Thousand Oaks, CA: Sage.
- Hanisch, K. A., & Hulin, C. L. (1990). Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. *Journal of Vocational Behavior*, 37, 60-78.
- Harman, H. H. (1976). *Modern factor analysis*. University of Chicago Press.

- Hausknecht, J. P., Rodda, J., & Howard, M. J. (2009). Targeted employee retention: Performance-based and job-related differences in reported reasons for staying. *Human Resource Management, 48*, 269-288.
- Hom, P. W., & Kinicki, A. J. (2001). Toward a greater understanding of how dissatisfaction drives employee turnover. *Academy of Management Journal, 44*, 975-987.
- Hu, L. T. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*, 1-55. doi: 10.1080/10705519909540118
- Hubley, A. M., & Russell, L. B. (2009). Prediction of subjective age, desired age, and age satisfaction in older adults: Do some health dimensions contribute more than others?. *International Journal of Behavioral Development, 33*, 12-21.
- Jarvik, L. F. (1975). Thought on the psychobiology of aging. *American Psychologist, 30*, 576-583.
- Judge, T. A. (2009). Core self-evaluations and work success. *Current Directions in Psychological Science, 18*, 58-62.
- Judge, T. A., Parker, S., Colbert, A. E., Heller, D., & Ilies, R. (2001). Job Satisfaction: a cross cultural review, In N. Andersen, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of industrial, work and organizational psychology* (Vol. 2, pp. 25–52). London: Sage.
- Kastenbaum, R., Derbin, V., Sabatini, P., & Artt, S. (1972). “The ages of me”. Toward personal and interpersonal definitions of functional aging. *Internal Journal of Aging and Human Development, 3*, 197-211.

- Kaufman, G., & Elder, G. H. (2002). Revisiting age identity: A research note. *Journal of Aging Studies, 16*, 169-176.
- Kehinde, J.S. (2012). Talent management: Effect on organizational performance. *Journal of Management Research, 4*, 178.
- Khapova, S. N., & Wilderom, C. P. (2005). Career success in a boundaryless career world. *Journal of Organizational Behavior, 26*, 177-202.
- Kilty, K. M., & Behling, J. H. (1985). Predicting the retirement intentions and attitudes of professional workers. *Journal of Gerontology, 40*, 219-227.
- Kleinspehn-Ammerlahn, A., Kotter-Grühn, D., & Smith, J. (2008). Self-perceptions of aging: Do subjective age and satisfaction with aging change during old age? *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 63*, 377-385.
- Kline, R.B. (2005), Principles and practice of structural equation modeling (2nd ed.). NY: Guilford Press.
- Kline, R. B. (2011). Principles and practice of structural equation modeling. NY: Guilford Press.
- Kotter-Grühn, D., Neupert, S. D., & Stephan, Y. (2015). Feeling old today? Daily health, stressors, and affect explain day-to-day variability in subjective age. *Psychology & Health, 30*, 1470-1485.
- Kraiger, K., McGonagle, A. K., & Sanchez, D. R. (2018). *What's in a Sample? comparison of effect size replication and response quality across organizational, student, MTurk, and Qualtrics samples*. Manuscript submitted for publication.

- Kunze, F., Raes, A. M., & Bruch, H. (2015). It matters how old you feel: Antecedents and performance consequences of average relative subjective age in organizations. *Journal of Applied Psychology, 100*, 1511-1526.
- Lang, F. R., & Carstensen, L. L. (2002). Time counts: Future time perspective, goals, and social relationships. *Psychology and Aging, 17*, 125.
- Levy, B. (2009). Stereotype embodiment: A psychosocial approach to aging. *Current Directions in Psychological Science, 18*, 332-336.
- Loher, B. T., Noe, R. A., Moeller, N. L., & Fitzgerald, M. P. (1985). A meta-analysis of the relation of job characteristics to job satisfaction. *Journal of Applied Psychology, 70*, 280-289.
- Lundberg, D., & Marshallsay, Z. (2007). *Older workers' perspectives on training and retention of older workers. A national vocational education and training research and evaluation program report*. National Centre for Vocational Education Research Ltd. PO Box 8288, Stational Arcade, Adelaide, SA 5000, Australia.
- Lytle, M. C., Foley, P. F., & Cotter, E. W. (2015). Career and retirement theories: Relevance for older workers across cultures. *Journal of Career Development, 42*, 185-198.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology, 1*, 3-30.
- Mathur, A., & Moschis, G. P. (2005). Antecedents of cognitive age: A replication and extension. *Psychology & Marketing, 22*, 969-994.
- McElroy, J. C., Morrow, P. C., & Rude, S. N. (2001). Turnover and organizational performance: a comparative analysis of the effects of voluntary, involuntary, and reduction-in-force turnover. *Journal of Applied Psychology, 86*, 1294-1299.

- Moghimi, D., Zacher, H., Scheibe, S., & Van Yperen, N. W. (2017). The selection, optimization, and compensation model in the work context: A systematic review and meta-analysis of two decades of research. *Journal of Organizational Behavior*, 38, 247-275.
- Montalto, C. P., Yuh, Y., & Hanna, S. (2000). Determinants of planned retirement age. *Financial Services Review*, 9, 1-15.
- Montepare, J. M., & Lachman, M. E. (1989). "You're only as old as you feel": self-perceptions of age, fears of aging, and life satisfaction from adolescence to old age. *Psychology and Aging*, 4, 73-78.
- Muthén, L. K., & Muthén, B. O. (1998-2012). Mplus User's Guide. Seventh Edition. Los Angeles, CA: Muthén & Muthén.
- Ng, T. W., & Feldman, D. C. (2008). The relationship of age to ten dimensions of job performance. *Journal of Applied Psychology*, 93, 392-423.
- Nunnally, J. C. (1978). *Psychometric theory (2nd ed.)*. New York: McGraw-Hill.
- Nunnally, J. C., Bernstein, I. H., & Berge, J. M. T. (1967). *Psychometric theory*. New York: McGraw-Hill.
- Oakman, J., & Wells, Y. (2016). Working longer: What is the relationship between person-environment fit and retirement intentions? *Asia Pacific Journal of Human Resources*, 54, 207-229. doi:10.1111/1744-7941.12075
- Oates, K. L. M., Hall, M. E. L., & Anderson, T. L. (2005). Calling and conflict: A qualitative exploration of interrole conflict and the sanctification of work in Christian mothers in academia. *Journal of Psychology and Theology*, 33, 210-223.

- Oliveira, A. (2007). A discussion of rational and psychological decision-making theories and models: The search for a cultural-ethical decision-making model. *Electronic Journal of Business Ethics and Organization Studies*, 12(2), 12-13.
- Park, I. J., & Jung, H. (2015). Relationships among future time perspective, career and organizational commitment, occupational self-efficacy, and turnover intention. *Social Behavior and Personality: An International Journal*, 43, 1547-1561.
- Pelled, L. H., & Xin, K. R. (1999). Down and out: An investigation of the relationship between mood and employee withdrawal behavior. *Journal of Management*, 25, 875-895.
- Peter, J. P. (1979). Reliability: A review of psychometric basics and recent marketing practices. *Journal of Marketing Research*, 16, 6-17.
- Phan, H. P. (2009). Future time perspective in sociocultural contexts: A discussion paper. *Electronic Journal of Research in Educational Psychology*, 7(18), 761-778.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539-569.
- Ponton, R., Brown, T., McDonnell, B., Clark, C., Pepe, J., & Deykerhoff, M. (2014). Vocational perception: A mixed-method investigation of calling. *The Psychologist-Manager Journal*, 17, 182-204.
- Quick, H. E., & Moen, P. (1998). Gender, employment and retirement quality: A life course approach to the differential experiences of men and women. *Journal of Occupational Health Psychology*, 3, 44-64.

- Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *Journal of American Academy of Business*, 5, 52-63.
- Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, 30, 91-127.
- Rubin, D. C., & Berntsen, D. (2006). People over forty feel 20% younger than their age: Subjective age across the lifespan. *Psychonomic Bulletin & Review*, 13, 776-780.
- Rudolph, C. W., Kooji, D. T., Rauvola, R. S., & Zacher, H. (2018). Occupational future time perspective: A meta-analysis of antecedents and outcomes. *Journal of Organizational Behavior*, 39, 229-248.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21, 600-619.
- Seashore, S., Lawler, E., Mirvis, P., & Cammann, E. (1982). The Michigan Organizational Assessment Questionnaire. *Ann Arbor, MI: Institute for Social Research, University of Michigan*.
- Settersten, R. A., Jr., Mayer, K. U. (1997). The measurement of age, age structuring, and the life course. *Annual Review of Sociology*, 23, 233-261.
- Schmidt, L. (2016, December). Why retention will be the biggest talent challenge of 2017. *Forbes*. Retrieved March 17, 2018, from: <https://www.forbes.com/sites/larsschmidt/2016/12/16/why-retention-will-be-the-biggest-talent-challenge-of-2017/#a4493186ae4c>
- Schmitt, A., Gielnik, M. M., Zacher, H., & Klemann, D. K. (2013). The motivational benefits of specific versus general optimism. *The Journal of Positive Psychology*, 8, 425-434.
<https://doi.org/10.1080/17439760.2013.820338>

- Schmidt, R. W., Lamm, H., & Trommsdorff, G. (1978). Social class and sex as determinants of future orientation (time perspective) in adults. *European Journal of Social Psychology*, 8, 71-90.
- Schneider, B., Smith, D. B., & Goldstein, H. W. (2000). *Attraction–selection–attrition: Toward a Person–Environment Psychology of Organizations*. Mahwah, NJ: Erlbaum.
- Shmerlina, I. (2015). Features of the sense of age identity in older age. *Sociological Research*, 54, 203-219. doi:10.1080/10610154.2015.1098347
- SHRM: Future HR Challenges and Talent Management Tactics (2012, November). Retrieved March 17, 2018, from: <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/SHRM-Challenge-HR-2022-Spotlight.pdf>
- Shultz, K. S. 2003. Bridge employment: Work after retirement. In G. A. Adams & T.A. Beehr (Eds.), *Retirement: Reasons, processes, and results*: 214-241. New York: Springer
- Sigler, K. J. (1999). Challenges of employee retention. *Management Research News*, 22(10), 1-5.
- Silvia, P. J., & Gendolla, G. H. (2001). On introspection and self-perception: Does self-focused attention enable accurate self-knowledge?. *Review of General Psychology*, 5, 241-269.
- Somers, M. J. (2009). The combined influence of affective, continuance and normative commitment on employee withdrawal. *Journal of Vocational Behavior*, 74, 75-81.
- Soper, D.S. (2018). A-priori sample size calculator for structural equation models [Software]. Available from <http://www.danielsoper.com/statcalc>
- Spector, P. E., & Jex, S. M. (1991). Relations of job characteristics from multiple data sources with employee affect, absence, turnover intentions, and health. *Journal of Applied Psychology*, 76, 46-53. doi:10.1037/0021-9010.76.1.46

- Steel, R. P., & Ovalle, N. K. (1984). Self-appraisal based upon supervisory feedback. *Personnel Psychology*, 37, 667-685.
- Stephan, Y., Demulier, V., & Terracciano, A. (2012). Personality, self-rated health, and subjective age in a life-span sample: The moderating role of chronological age. *Psychology and Aging*, 27, 875-880.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Allyn & Bacon/Pearson Education.
- Talaga, J. A., & Beehr, T. A. (1995). Are there gender differences in predicting retirement decisions?. *Journal of Applied Psychology*, 80, 16-28.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: path analyses based on meta-analytic findings. *Personnel Psychology*, 46, 259-293.
- Thompson, L. F., Surface, E. A., Martin, D. L., & Sanders, M. G. (2003). From paper to pixels: Moving personnel surveys to the Web. *Personnel Psychology*, 56, 197-227.
- Vazquez, S. M., & Rapetti, M. V. (2006). Future time perspective and motivational categories in Argentinean adolescents. *Adolescence*, 41, 511-532.
- Von Bonsdorff, M. E., Shultz, K. S., Leskinen, E., & Tansky, J. (2009). The choice between retirement and bridge employment: A continuity theory and life course perspective. *The International Journal of Aging and Human Development*, 69(2), 79-100.
- Wang, M., Zhan, Y., Liu, S., & Shultz, K. S. (2008). Antecedents of bridge employment: a longitudinal investigation. *Journal of Applied Psychology*, 93, 818-830.

- Westerhof, G. J., & Barrett, A. E. (2005). Age identity and subjective well-being: A comparison of the United States and Germany. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 60(3), 129-136.
- Wheaton, B., Muthen, B., Alwin, D., F., & Summers, G. (1977). Assessing reliability and stability in panel models. *Sociological Methodology*, 8, 84-136.
- Wilson, T. D., & Gilbert, D. T. (2005). Affective forecasting: Knowing what to want. *Current Directions in Psychological Science*, 14, 131-134.
- Wright, K. B. (2005). Researching Internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of Computer-Mediated Communication*, 10, 1034-1052.
- Zabel, K. L. (2016). *The impact of age on workplace motivation: A person-centered perspective* (Doctoral dissertation, Wayne State University).
- Zacher, H., & Frese, M. (2009). Remaining time and opportunities at work: Relationships between age, work characteristics, and occupational future time perspective. *Psychology and Aging*, 24, 487-505.
- Zacher, H., & Yang, J. (2016). Organizational climate for successful aging. *Frontiers in Psychology*, 8, 1-12. <https://doi.org/10.3389/fpsyg.2016.01007>
- Zhan, Y., Wang, M., Liu, S., & Shultz, K. S. (2009). Bridge employment and retirees' health: A longitudinal investigation. *Journal of Occupational Health Psychology*, 14, 374-389.
- Zimmerman, R. D., Swider, B. W., Woo, S. E., & Allen, D. G. (2016). Who withdraws? Psychological individual differences and employee withdrawal behaviors. *Journal of Applied Psychology*, 101, 498-519.

Appendices

Appendix A: Predictor and Mediating Variables

Living a Calling

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

Subjective Age

1. I feel as if I was ____ years
2. I look as if I was ____ years
3. I act as if I was ____ years and
4. My interests are those of someone who is ____ years

OFTP

Remaining Opportunities

1. I expect that I will set many new goals in my occupational future
2. My occupational future is filled with possibilities
3. Many opportunities await me in my occupational future

Remaining Time

4. Most of my occupational life lies ahead of me
5. My occupational future seems infinite to me
6. As I get older, I begin to experience time in my occupational future as limited” (reverse coded)

Appendix B: Outcome Variables

Turnover Intentions

1. How likely is it that you will actively look for a new job in the next year?
2. I often think about quitting
3. I will probably look for a new job in the next year

Planned Retirement Age

1. At what age do you plan on retiring from your current job?

Bridge Employment Path

Instruction: When you retire from this job/ career, how likely is it that you will pursue each of the retirement paths?

1. Fully retire from the workforce
2. Pursue a full time/ part time job in *my current* career/ professional field
3. Pursue a full time/ part time job in *a different* career/ professional field

Appendix C: Demographic Questions

1. What is the employment status of your SPOUSE?

- ☐ N/A. I do not have a spouse
- ☐ Unemployed
- ☐ Retired
- ☐ Part-time
- ☐ Full-time

2. What race/ ethnicity do you most identify with?

- ☐ White/ Caucasian
- ☐ Black/ African American
- ☐ Hispanic/ Latino
- ☐ Asian/ Asian American
- ☐ American Indian/ Alaskan Native
- ☐ Other _____

3. What gender do you most identify with?

- ☐ Male
- ☐ Female
- ☐ Other _____

4. Please indicate the highest level of education completed.

- ☐ Less than high school diploma
- ☐ High school diploma/ GED
- ☐ Some college/ Associates degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctorate degree

5. Please provide a numerical value to answer the question below. What is your gross annual income from all sources, before taxes or anything else is taken out?

- ☐ \$0 - \$9,999
- ☐ \$10,000 - \$19,999
- ☐ \$20,000 - \$29,999
- ☐ \$30,000 - \$39,999
- ☐ \$40,000 - \$49,999
- ☐ \$50,000 - \$59,999
- ☐ \$60,000 - \$69,999
- ☐ \$70,000 - \$79,999
- ☐ \$80,000 - \$89,999

- ☐ \$90,000 - \$100,000
- ☐ \$100,000+

6. Now I would like for you to provide a rough estimate of your wealth. In order to do this, consider things of value that you own (house, car business etc.), money (income, savings, retirement funds etc.) subtracted from your debt (such as mortgage to pay, loans, credit card balance etc.). For example: If you have \$200,000 in debt and \$250,000 in cash, savings, assets etc., then your net worth is \$50,000.

What is your net worth?

- ☐ \$0 - \$24,999
- ☐ \$25,000 - \$49,999
- ☐ \$50,000 - \$74,999
- ☐ \$75,000 - \$99,999
- ☐ \$100,000 - \$124,999
- ☐ \$125,000 - \$149,999
- ☐ \$150,000 - \$199,999
- ☐ \$200,000 - \$224,999
- ☐ \$225,000 - \$299,999
- ☐ \$300,000+

Appendix D: Attention Check Items

1. If you are paying attention please select “neither agree nor disagree”
2. If you are paying attention please select “somewhat disagree”
3. If you are paying attention please select “somewhat agree”
4. If you are paying attention please select “mostly agree”
5. If you are paying attention, please type the number “5” in the field below