ANNUAL REVIEWS

Research on Work as a Calling…and How to Make It Matter

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Abstract

The concept of work as a calling has the potential to provide unique and powerful insights into how individuals relate to their work and organizations. However, although this concept may be one of the oldest in the study of work—harking back to the Protestant Reformation—its impact on mainstream OP and OB research has been limited. We review the research literature on work as a calling, and identify several issues that are preventing research in this area from reaching its potential—issues of definition, differentiation, generalizability, and relevance. We consider each of these questions and propose a path forward. Central to that path forward is an integrated conceptualization of calling—what we call a transcendent calling—that puts dual emphasis on the inner requiredness of passion and enjoyment and the outer requiredness of duty and destiny.

INTRODUCTION

The idea that work can be viewed as a calling may be one of the oldest and most well-established constructs in the study of work. According to Weber (1930), the concept was first introduced by the Protestant reformers in the sixteenth century and became diffused throughout society in the intervening centuries. In recent years, we have seen a wave of research on work as a calling in the organizational psychology and organizational behavior (OP/OB) literatures. This growth coincides with what some consider a generational trend toward emphasizing meaningful work and living one's calling (Ng et al. 2010, Twenge 2014, Twenge et al. 2010).
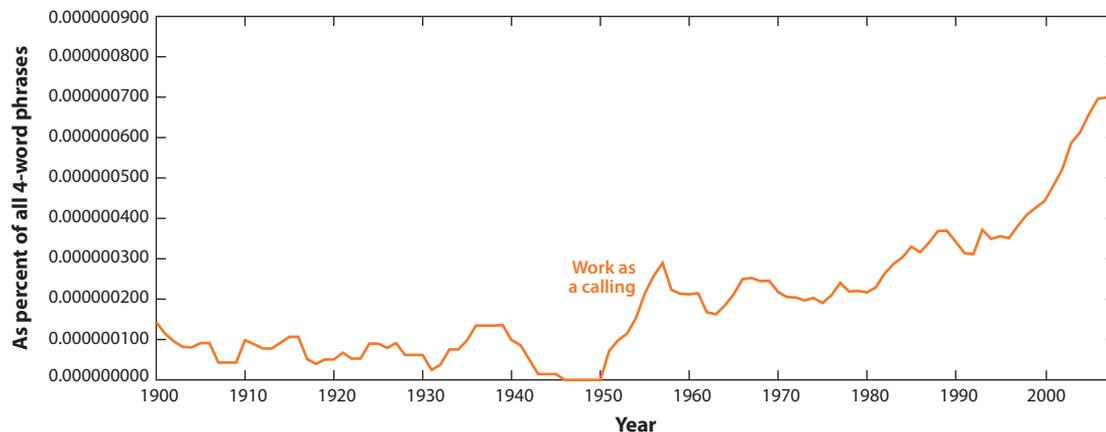
In a 2013 review of research on work as a calling, Duffy & Dik (2013) noted increased interest among researchers in the topic and identified several emerging themes. With a larger corpus of studies to consider today (approximately 130 articles having been published since 2012), and with the field now entering its third decade, we feel this is an opportune time to take stock of research on calling and reflect on challenges and opportunities going forward. To that end, we review the literature on work as a calling in an attempt to identify common themes, vulnerabilities, and opportunities for scholarly advancement. Our primary objective is to articulate developments needed in the calling literature to ensure that calling research matters or, put differently, that it realizes its potential to provide important insights into the meaning of work.

Careful accounts of the historical evolution of the calling concept are readily available (e.g., Bunderson & Thompson 2009, Elangovan et al. 2010, Hardy 1990). Consequently, we do not provide here a thorough description of the development of the calling construct over the centuries. We do, however, wish to frame our discussion with a thumbnail sketch of its historical progression.

The classical origins of the idea that professional work can be a calling reside, as noted above, in the Protestant Reformation. Martin Luther made the then-controversial assertion that secular work—not just the work of the ministry—constitutes a calling in life (Luther 1883). Luther's writings elevated secular work by articulating its religious significance and inherent nobility. John Calvin extended Luther's work by viewing calling as something uniquely personal. He argued that callings derive from the unique and innate talents with which one is born (Hardy 1990). To both Luther and Calvin, a calling represents an obligation to devote one's career in service to others. As Calvin (1574, p. 307) put it, "For as God bestows any ability or gift upon any of us, he binds us to such as have need of us and as we are able to help." A classical definition of calling, then, is "that place in the world of productive work that one was created, designed, or destined to fill by virtue of God-given gifts and talents and the opportunities presented by one's station in life" (Bunderson & Thompson 2009, p. 33).

In the centuries since the Reformation, the idea of work as a calling has become secularized and diffused throughout society as a way to think about and connect to one's work. One way to visualize this diffusion is to diagram the frequency with which the phrase "work as a calling" has appeared in English language printed material over time. **Figure 1** (generated in Google NGrams; see Michel et al. 2011, Pechenick et al. 2015) depicts the frequency with which the phrase "work as a calling" appears in Google's corpus of almost 190 billion words from printed English language texts between 1900 and 2008. The y-axis is the percentage of all four-word phrases within the Google corpus that are "work as a calling." As we see in **Figure 1**, the concept of work as a calling has risen considerably in usage since the mid-twentieth century, and continues to rise. In fact, the steepest rise appears to be in just the past decade, with usage frequency nearly doubling between 1998 and 2008. Interest in the concept of work as a calling is clearly increasing.

We begin by describing our review of the literature and the key trends and findings we observed. We then provide a critical analysis of the field's contributions, weaknesses, and opportunities. We conclude by suggesting four key questions that must be answered before research on

Figure 1

NGram of "Work as a Calling" (1900–2008).

work as a calling can truly make a difference in advancing our understanding of how individuals relate to their work.

RESEARCH ON WORK AS A CALLING

Method

To identify relevant articles for our review, we used the PsycINFO database, searching for articles that contained "calling" in their titles or abstracts, or related keywords such as "work," "vocation," or "meaning." We also identified articles that cited either Wrzesniewski et al. (1997) or Dik & Duffy (2009), two seminal articles in the calling literature. We then examined abstracts and retained only those articles that were clearly related to the experience of work as a calling. This process resulted in the identification of 203 articles published between 1997 and 2018. A frequency graph based on date of publication (see **Figure 2**) suggests that calling research began to pick up steam between 2005 and 2010, with an exponential increase after 2011.

To focus our review on articles with the greatest impact, we considered articles published in journals with a Social Sciences Citation Index (SSCI) impact factor of 3.0 or higher. We also retained articles that had twenty or more SSCI citations, regardless of the impact of the journal in which the article was published.[1] After applying these criteria, we ended up with a sample of 84 articles that formed the basis for our review (see the **Supplemental Literature Cited** for a complete list of those 84).

High-Level Trends

Of the 84 articles in our final set, 72 (86%) were empirical. These 72 studies included a total of 53,047 subjects, ranging from eight participants in an inductive qualitative study (Ahn et al. 2017) to 9,803 participants in an online survey (Peterson et al. 2009). A significant portion of study participants were university students. Nevertheless, our sample of studies also considered a diversity

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[1]For articles that appeared in journals that are not tracked in the Web of Science database, we used Google Scholar citations and adopted a 50-citation minimum.
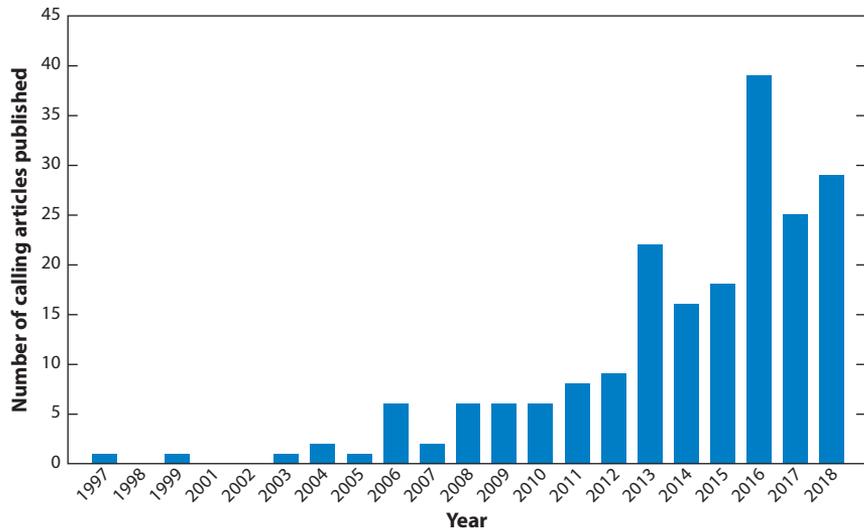
Figure 2

Number of calling articles published by year.

of occupations, including animal shelter workers (Schabram & Maitlis 2017), Korean firefighters (Jo et al. 2018), Church of England ministers (Clinton et al. 2017), information technology (IT) managers in Ireland (McKevitt et al. 2017), teachers and aides (Rawat & Nadavulakere 2015), health care workers (Cardador et al. 2011, Rasinski et al. 2012, Wrzesniewski et al. 1997), Chinese accountants (Lan et al. 2013), musicians (Dobrow 2013), faculty (Gazica & Spector 2015), law enforcement employees (Chen et al. 2018), megachurch staff (Kim et al. 2018), bank employees (Xie et al. 2017), zookeepers (Bunderson & Thompson 2009), retirees (Duffy et al. 2017b), and unemployed adults (Duffy et al. 2015).

A significant portion of the eighty-four articles in our sample (44%) were published in vocational psychology and careers journals, including the *Journal of Vocational Behavior* (22 articles), *Journal of Career Assessment* (6 articles), *Journal of Career Development* (2 articles), and *Journal of Counseling Psychology* (5 articles). Research on work as a calling has appeared less frequently in general management journals, with just one study each in the *Journal of Applied Psychology*, *Academy of Management Journal*, *Administrative Science Quarterly*, *Organization Science*, and *Personnel Psychology*. Four calling articles have appeared in the *Journal of Organizational Behavior*. Research on work as a calling has also appeared in the *Journal of Business Ethics* and *Journal of Positive Psychology* and in some health care management, hospitality management, and public administration outlets.

Calling was the independent variable in forty-three of the empirical studies in our review (60%), the dependent variable in eleven studies (15%), and a moderator or mediator in nine studies (13%). The majority (86%) of these studies were quantitative and deductive, whereas just a handful (11%) used qualitative/inductive or mixed-methods (3%) approaches.

We found no standard definition of calling across studies. In fact, across the eighty-four studies in our review, we found 14 distinct formal definition statements, most of them appearing in just one or two papers. Definitions ranged from "work that a person perceives as his purpose in life" (Hall & Chandler 2005, p. 160) to "a consuming, meaningful passion people experience toward a domain" (Dobrow & Tosti-Kharas 2011, p. 1001). Given this diversity of calling definitions, it should not be surprising that we also observed a wide range of calling measures. Although calling was typically

Table 1 Key calling measures

Instrument	Definition used	Description of the tool	Number of times used in our sample of 84 articles
Work Orientation Scale (Wrzesniewski et al. 1997)	A calling is work that is inseparable from one's life and motivated by "the fulfillment that doing the work brings to the individual" (p. 22)	Includes both a single-item response to a paragraph describing calling and a 7-item scale	9 (3 articles use the single-item tool exclusively; 6 adopt the 7-item tool)
The Brief Calling Scale (Steger & Dik, 2006)	The items reference "calling" but do not provide a definition	Composed of two subscales (presence of calling and search for calling), each based on 2 items	21 (primarily use the presence of calling scale)
The Living One's Calling Scale (Duffy et al. 2012a)	The items reference "calling" but do not provide a definition	6-item scale measuring whether respondent is engaged in work resonant with a sense of calling	9
Dobrow & Tosti-Kharas' (2011) Calling Scale	Calling is a "consuming, meaningful passion people experience toward a domain" (p. 1001)	12-item scale	8
The Calling and Vocation Questionnaire (Dik et al. 2012)	Calling is composed of 3 dimensions: transcendent summons, purposeful work, and prosocial orientation	For each dimension, 4 items measure presence of calling and 4 measure search for calling, for a total of 24 items	5 (all exclusively use presence of calling scale)
Neoclassical Calling Scale (Bunderson & Thompson 2009)	Calling is "that place in the occupational division of labor in society that one feels destined to fill by virtue of particular gifts, talents, and/or idiosyncratic life opportunities" (p. 38)	6-item scale	5
The Calling Motivation Scale (Duffy et al. 2015)	The items reference "calling" but do not provide a definition	3-item instrument that measures the intensity with which an individual feels driven to pursue a calling	2

measured using survey-based measures, we counted no fewer than twenty-three different survey instruments across the studies in our sample, with sixteen instruments used only once (i.e., in one published study). **Table 1** describes and compares the seven measurement instruments that appeared more than once in our sample.

Summary of Research Findings

In this section, we review the questions that scholars are asking in the calling literature and the answers that are being offered. In doing so, we temporarily set aside the question of whether findings across studies can be reasonably compared given the diversity of definitions and measures just described. We return to that question in a later section. For now, our goal is to understand what researchers are examining and what they are finding.

Attitudinal outcomes. We identified 66 unique dependent variables across the 84 studies in our sample. We classified 31 of these constructs as attitudinal, and found that they fell into several fairly discrete thematic categories: satisfaction (e.g., in job, life, domain, career; represented in 24 total studies), attachment (e.g., commitment, engagement, identification; 8 studies), withdrawal (e.g., turnover intentions, burnout, psychological detachment; 7 studies), efficacy (e.g., self-efficacy, career decision efficacy, service quality efficacy; 7 studies), occupational clarity (e.g., career decidedness, career choice comfort, clarity of professional identity; 7 studies), and meaning (e.g., in life, work; 5 studies).

The positive relationship between calling and various forms of satisfaction is easily the best-established finding in the calling literature. For instance, Wrzesniewski et al.'s (1997) seminal work demonstrated that calling orientations relate positively to both work and life satisfaction. Duffy and colleagues have robustly demonstrated the salutary impact of calling on work and life satisfaction (e.g., Duffy et al. 2012a,b; 2013; 2016b; 2017a,b), and have suggested that this relationship is mediated by meaningfulness (Duffy et al. 2012a,b; 2017a) and career commitment (Duffy et al. 2011a, 2012b). In other words, calling appears to enhance satisfaction by endowing work with greater meaning and fostering attachment to one's career.

Calling also appears to relate positively to attachment with one's organization (e.g., Cardador et al. 2011, Duffy et al. 2011a) and occupation (e.g., Bunderson & Thompson 2009), and to meaningfulness in both work (e.g., Bunderson & Thompson 2009, Yim & Fock 2013) and life (e.g., Praskova et al. 2014, Steger & Dik 2009). Other studies suggest that calling influences the relationship (i.e., mediating or moderating) between meaningfulness and other constructs. For example, Steger & Dik (2009) found that individuals who are seeking meaning in their lives are more likely to experience life meaning when they view their work as a calling, suggesting that meaning at work can spill over to broader measures of well-being.

Several studies indicate that people with a high calling are less likely to harbor withdrawal attitudes, such as feelings of burnout (e.g., Yoon et al. 2017) and thoughts of quitting (e.g., Cardador et al. 2011, Chen et al. 2018). Lastly, people who score high in calling also demonstrate greater efficacy in their work (e.g., Dik et al. 2008, Dobrow & Tosti-Kharas 2011) and clarity about themselves and their career choices (e.g., Dobrow & Tosti-Kharas 2011, Duffy & Sedlacek 2007, Hirschi & Herrmann 2013). In summary, there is abundant and consistent evidence that experiencing work as a calling is associated with positive perceptions about work and life.

Extra-attitudinal outcomes. The remaining thirty-five dependent variables in our sample examined the relationship between calling and extra-attitudinal outcomes. However, none of these constructs appeared more than once across the studies in our sample. Consequently, extra-attitudinal outcomes of calling are far less established in the literature than are attitudinal outcomes. We categorized these outcomes as follows: career choices (e.g., calling-related job choices, career planning strategies, career flexibility; represented in 11 total studies), health and well-being (e.g., depression, stress, emotional exhaustion; 10 studies), behaviors or behavioral intentions (e.g., organizational citizenship behaviors, work effort, willingness to sacrifice; 9 studies), and career outcomes (e.g., employability, job performance, career success; 5 studies).

In terms of career choices, the evidence suggests that individuals with a calling are more likely to pursue studies in the domain of their calling (Dobrow & Tosti-Kharas 2011) and to pursue a post-master's degree (Duffy & Sedlacek 2010). Lysova et al. (2018) suggested that calling reduces the flexibility with which employees consider potential changes in their career path because the self-defining nature of calling causes people to foreclose consideration of other alternatives. In contrast, Praskova et al.'s (2014) analysis suggests that calling increases career adaptability (note, however, that their chosen measure was more focused on resilience in the face of

challenges than on anticipating changes in one's career). Taken together, these findings support the notion that a calling propels one to career decisiveness, and resilience to challenges in one's career path.

In terms of behaviors or behavioral intentions, Xie et al. (2017) demonstrated a link between calling and supervisor-reported organizational citizenship behaviors. Praskova et al. (2014) documented a relationship between calling and self-reported work effort. And Bunderson & Thompson (2009) showed that a calling orientation fosters a self-reported willingness to make sacrifices for one's work.

A handful of studies have demonstrated a relationship between the presence of a calling and job performance, although exclusively with self-reported performance measures. Scholars have shown, for example, that people with a calling report better work performance (Kim et al. 2018, Rawat & Nadavulakere 2015), more career success (Chen et al. 2018), more employability (Lysova et al. 2018), and more professional competence (Guo et al. 2014).

Lastly, a calling at work has been shown to relate positively to various indicators of employee health and well-being. For example, calling was found to lower emotional exhaustion (Rawat & Nadavulakere 2015), improve health and health satisfaction (Wrzesniewski et al. 1997), improve sleep quality and increased morning vigor (Clinton et al. 2017), improve psychological adjustment (Steger et al. 2010), accelerate personal growth (Duffy et al. 2014b), and enhance overall well-being (Conway et al. 2015).

"Dark side" outcomes. Although the preponderance of scholarship on the outcomes of calling paint a rosy picture, several studies suggest a darker side, or that calling is a double-edged sword. For example, Bunderson & Thompson (2009) found that zookeepers with a sense of calling felt a stronger sense of moral duty, which led them to accept job-related sacrifices and to be hyper-critical of organizational actions. In a study of animal care workers, Schabram & Maitlis (2017) further detailed sacrifices individuals make for their callings, and articulated three distinct paths (two of which involved leaving their organization) by which animal shelter workers respond to negative emotions that rise from challenges to their sense of calling. Dobrow & Tosti-Kharas (2012) found that music students with a sense of calling were less accurate in their perception of their own talent and less willing to heed negative career advice from others. Jo et al. (2018) found that calling strengthened the relationship between burnout and posttraumatic stress disorder (PTSD) for firefighters. And research by Berg et al. (2010) as well as Duffy et al. (2016b) suggests that people who perceive they have a calling but are unable to live it experience regret and lower life satisfaction.

Predictors of calling. Relatively few studies have examined calling as a dependent variable. Of the 84 studies we examined, only 18 looked at predictors of calling. As with research on outcomes, attitudinal/perceptual measures have dominated research on calling antecedents. For example, studies have concluded that people are more likely to experience a calling when they are satisfied with their job (Duffy et al. 2014a), when they feel attached to their career domain (Dobrow 2013), and when they experience or search for meaning in their life or their work (Duffy et al. 2011b; 2014a,b). Other research has suggested that callings are more likely among individuals with stronger zest (Peterson et al. 2009), lower burnout (Jager et al. 2017), and higher vocational self-clarity (Duffy et al. 2014b). Given that many of these variables (or variables very similar to them) have also been proposed as outcomes of calling, some researchers have suggested that the relationship between calling and work-related attitudes is reciprocal and self-reinforcing; i.e., positive attitudes foster a sense of calling, which, in turn, strengthens positive attitudes toward work.

Apart from attitudinal antecedents of calling, researchers have suggested that callings are more likely to result from behavioral involvement at work (Dobrow 2013) and applying one's signature strengths at work (Harzer & Ruch 2012). Not surprisingly, employed people are more likely than unemployed people to claim a calling (Duffy et al. 2015). Duffy & Autin (2013) have demonstrated a positive relationship between income and living a calling [although Bunderson & Thompson (2009) reported a post hoc analysis showing a negative relationship between income and calling among zookeepers]. Perceiving that one is free to make career choices (work volition) is both a predictor of living a calling (Duffy et al. 2016a) and a mediator in the relationship between income and living a calling (Duffy & Autin 2013). Finally, vocational development appears to be a predictor of calling among physicians (Duffy et al. 2011b), as does religiosity (Curlin et al. 2007).

Calling and other OP/OB constructs. We identified very few studies that carefully examined how calling explains variance above and beyond that explained by related constructs within the field of OP and OB. Although numerous studies report correlations between calling and related constructs (such as organizational commitment, meaningfulness, work engagement, satisfaction, job involvement, and self-efficacy), only a handful of studies control for these related constructs in examining the effect of work as a calling. In the few exceptions to this pattern that we found, researchers found that calling explained variance in some outcome after controlling for organizational identification (Cardador et al. 2011), work engagement (Dobrow & Tosti-Kharas 2011), objective and perceived ability (Dobrow & Tosti-Kharas 2012, Dobrow Riza & Heller 2015), and core self-evaluation (Hirschi & Herrmann 2012).

General Observations

Over the past several decades, research on calling has accelerated in the OP and OB literatures. These studies have generated a number of useful insights about the benefits of calling, as well as a number of cautions about its potential liabilities. As we reviewed the eighty-four articles in our sample, however, we recognized several important challenges that have limited and will continue to limit the impact of this research outside a relatively small set of committed scholars. We now turn to an articulation of those challenges that we consider to be most significant, and suggest a path forward that can help to realize the potential of this important domain of inquiry.

HOW TO MAKE CALLING RESEARCH MATTER

Few, if any, constructs in OP/OB can claim a longer or more distinguished history than work as a calling. And yet, as our review suggests, contemporary research on calling has struggled to gain momentum in the mainstream OP and OB literature, with just a handful of studies in the field's leading journals. We suggest that progress in research on work as a calling has been slowed by a need to resolve four important questions: (*a*) the question of definition, (*b*) the question of differentiation, (*c*) the question of generalizability, and (*d*) the question of relevance.

The Question of Definition

For researchers interested in the phenomenon of work as a calling, the question of definition is clearly the elephant sitting awkwardly in the center of the room. Put simply, there is no clear and consensual definition of calling in the literature. As a result, researchers interested in the phenomenon of calling typically begin by acknowledging the diversity of definitions in the literature and then selecting one definition for their study, or proposing their own version. For example, Bunderson & Thompson (2009, p. 32) noted that "there is little consensus around the defining

elements of a modern, secularized version of calling." Dobrow & Tosti-Kharas (2011, p. 1003) observed that "research on calling has not yet established a clear definition." Douglass & Duffy (2015, p. 59) pointed out that "myriad conceptualizations of calling have been proposed." And in a recent study, Clinton et al. (2017, p. 29) concluded, "Reviews of the calling literature…reveal little consensus about how the concept may be defined." In short, research in this domain has not yet converged on a clear definition of calling, which complicates efforts to compare and cumulate findings across studies.

Moreover, the definitions that have been proposed in the literature not only differ but also tend to fall into different camps that reflect different assumptions about the core elements of the calling experience. Several scholars have observed this balkanization of calling definitions and worked to characterize its underlying dimensions. For example, Praskova et al. (2014, p. 125) observed, "While there is no standard definition of career calling, conceptualizations can be categorized as either traditional or neoclassical (i.e., religious, or other external source of a calling, and a sense of destiny or prosocial duty) or modern (an internal drive for self-fulfillment and happiness)." Gazica & Spector (2015, p. 2), Rawat & Nadavulakere (2015, p. 501), and Xie et al. (2016, p. 71) all noted a similar bifurcation in calling conceptualizations. On one hand are traditional, classical, or neoclassical conceptualizations that emphasize destiny and duty, and on the other hand are modern or secular conceptualizations that emphasize passion and self-fulfillment. We might characterize the former as outside-in views because they anchor calling in societal obligations or an external summons, whereas the latter might be characterized as inside-out views because they anchor calling in internal preferences or passions.

In the following sections, we critically evaluate each of these two views and consider their core similarities and differences. We then propose an integrative path forward that may help to resolve this stalemate in the literature on calling, while simultaneously helping to address other key questions.

The neoclassical view. As its name suggests, the neoclassical view of calling is anchored in the classical, religious origins of the calling concept and retains the core elements of that conceptualization—a conceptualization that traces its origins to the Protestant Reformation in Christian Europe. The theological revolutionaries of the Protestant Reformation argued that every individual has a divinely appointed mandate to discover, embrace, and diligently fulfill his or her calling. Several elements of the classical conceptualization are important to highlight. First, the classical view presumes that there exists some domain of work that is right for each individual. The classical conceptualization therefore implies that each individual was destined or meant for certain work. Second, the classical view presumes that it is the duty of each individual to find and embrace their destined calling, a duty that derives from one's obligation to glorify God and to be productively engaged in service to the human family. And third, the classical view implies that finding one's calling is a process of discovery that begins with an evaluation of one's distinctive talents, passions, and life opportunities.

For some, the classical conception of calling as a mandate from a divine being is still personally relevant (e.g., Dreher et al. 2007, Gaede 2009, Kent et al. 2016, Scheitle & Adamczyk 2016, Word 2012). But as Max Weber (1930) argued, a secularized version of the classical view of calling has become broadly available throughout society (at least Western society) as a way to think about modern work. As he famously put it, "The idea of duty in one's calling prowls about in our lives like the ghost of dead religious beliefs" (p. 124). The neoclassical conceptualization of calling, then, is the secular reimagining of the classic formulation anticipated by Weber, a view of calling that retains the core elements of destiny, duty, and discovery described above but that does not presume or require an explicit belief in a divine Caller.

Bellah et al. (1985), for example, observed that every legitimate calling is perceived as "a contribution to the good of all." Bunderson & Thompson (2009) propose that certain occupational paths feel "destined" because they perfectly fit one's interests and capabilities and allow one to claim a contribution to society. Dik & Duffy (2009, p. 427) note that a calling is "a transcendent summons, experienced as originating beyond the self," which motivates effort through "other-oriented values and goals." Coulson et al. (2012, p. 84) viewed calling as a belief that one is "destined to fulfil a specific life role, regardless of sacrifice, that will make a meaningful contribution to the greater good." And Elangovan et al. (2010, p. 430) view calling as a prosocial course of action that embodies both what one would like to do and what one "should do." Although these conceptualizations vary, it is, as Weber predicted, easy to observe shades of the classical view "prowling about" in these various definitions, specifically in the form of destiny, duty, and discovery.

The modern view. In contrast to neoclassical conceptualizations of work as a calling, modern conceptualizations presume that the concept of calling has diverged quite substantially from its classical roots and is now more aligned with modern values and sensibilities. So whereas classical views of calling may have emphasized destiny, duty, and discovery, modern conceptualizations—in line with our modern emphasis on expressive individualism—reflect an emphasis on self-expression and self-fulfillment. Under this view, callings are expressions of internal passions and interests and are pursued for the enjoyment and fulfillment they can bring and not out of any sense of societal duty or obligation. A calling is therefore meaningful when and if it is significant to the individual and not necessarily because it benefits society in some way. Moreover, callings are chosen and enacted as a form of personal expression rather than something destined and awaiting discovery.

For example, Bellah et al. (1985, p. 66) viewed a calling as work that one does for the intrinsic enjoyment and fulfillment that comes from doing so. Similarly, Wrzesniewski et al. (1997, p. 22) suggested that "a person with a calling works not for financial gain or career advancement, but instead for the fulfillment that doing the work brings to the individual." Berg et al. (2010, p. 974) defined a calling as an occupation that an individual "(1) feels drawn to pursue, (2) expects to be intrinsically enjoyable and meaningful, and (3) sees as a central part of his or her identity." And Dobrow & Tosti-Kharas (2011, p. 1001) define a calling as "a consuming, meaningful passion people experience toward a domain." While Wrzesniewski et al. (1997) include one item in their scale that measures respondents' feelings that their work makes the world a better place, and Berg et al. (2010) mention a sense of social purpose, in both cases these concepts seem to be peripheral to the definition rather than central.

From competition to integration. Although the distinction between neoclassical and modern conceptualizations of work as a calling is helpful in beginning to characterize the variety of calling definitions in the literature, it is important to acknowledge that most conceptualizations are neither purely neoclassical nor purely modern. Rather, calling conceptualizations might be characterized as lying on a continuum between neoclassical and modern ideal types, with some conceptualizations leaning more toward neoclassical conceptions of duty and destiny, while others lean more toward modern conceptions of self-expression and self-fulfillment. Most neoclassical calling scholars would acknowledge, for example, that if callings are just about duty and destiny without any sense of passion and fulfillment, they are less likely to inspire a deep and sustained connection to one's work. And most modern calling scholars would acknowledge that if callings are just about finding one's bliss at work without any sense of societal contribution, they are less likely to inspire a sense of meaningfulness at work. In other words, no matter where they land on

the calling continuum, we suspect that most calling scholars would acknowledge that one view without the other is likely to miss important dimensions of the calling experience.

Abraham Maslow made a very similar point in a 1967 paper in which he analyzed the question of what continues to motivate self-actualized people. He first notes that in all cases of self-actualizing people that he studied, a sense of "devotion and dedication [was] so marked that one can fairly use the old words vocation, calling, or mission" (Maslow 1967, p. 94). In other words, having a calling may be a key element of self-actualized people. He goes on to consider the motivational priors of this sense of calling or mission and lands on two:

> One can be spoken of as the responses within the person, e.g., "I love babies (or painting, or research, or political power) more than anything in the world. I am fascinated with it…I am inexorably drawn to…I need to…". This we may call "inner requiredness" and it is felt as a kind of self-indulgence rather than as a duty. It is different from and separable from "external requiredness," which is rather felt as a response to what the environment, the situation, the problem, the external world calls for or requires of the person, as a fire "calls for" putting out… Here one feels more the element of duty, or obligation, or responsibility, of being compelled helplessly to respond no matter what one was planning to do or wished to do. (pp. 95–96)

In this quote, Maslow succinctly captures the core distinction between neoclassical and modern views of work as a calling. The modern view emphasizes "inner requiredness"—fascination, need, obsession, self-indulgence rather than duty. So, a passion for music leads inexorably to a career in the symphony, or a fascination with animals compels one to a career in zookeeping. The neoclassical view, in contrast, emphasizes "external requiredness"—duty, obligation, responsibility, a fire in need of putting out. So, a recognition that habitats are being destroyed obliges one to pursue a career in wildlife conservation, or the fact that inner-city children lack quality education compels one to pursue a career in education.

But Maslow goes on to argue that the calling experience for self-actualized people is not about either inner or outer requiredness independently but about the matching of the one with the other. And when that matching happens, an individual perceives a sense of harmony, inevitability, or destiny—the fit just feels right:

> In the ideal instance, which fortunately also happens in fact in many of my instances, "I want to" coincides with "I must." There is a good matching of inner with outer requiredness. And the observer is then overawed by the degree of compellingness, of inexorability, of preordained destiny, necessity, and harmony that he perceives. (p. 96)

In other words, a conviction that one's work is more than just a job or career may result not solely from a sense of inner requiredness (as suggested by the modern view) or from a sense of outer requiredness (as suggested by the neoclassical view) but from a compelling personal narrative that sensibly marries the two. And the discovery of that narrative results in the sense of rightness, harmony, or destiny that we see in many formulations of work as a calling. Maslow further described this sense of "destiny or fate [as] a way of putting into inadequate words the feeling…of a beloved job, and furthermore, of something for which the person is a 'natural,' something that he is suited for, something that is right for him, even something that he was born for" (p. 95).[2]

Rather than conclude, therefore, that calling conceptualizations should be arrayed on a continuum ranging from neoclassical to modern, it may be more useful to view inner and outer requiredness as two orthogonal dimensions along which calling conceptualizations vary. So whereas jobs or careers are low on both inner and outer requiredness, neoclassical callings are high on outer

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[2] See Bargdill (2006) for a discussion of fate and destiny as psychological concepts.
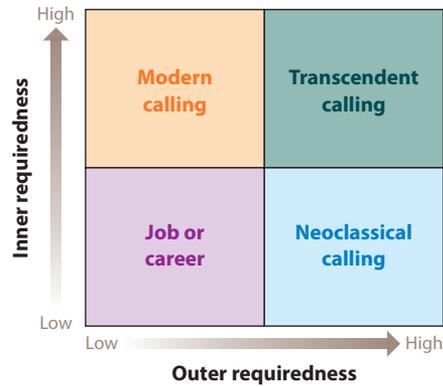
Figure 3

A framework for calling definitions.

but low on inner requiredness, and modern callings are low on outer but high on inner required-ness. The most powerful experience of personal calling—often marked by a sense of harmony or destiny—is observed when both inner and outer requiredness are high. Following Maslow, who characterized this state as one of self-transcendence that goes beyond self-actualization (see Koltko-Rivera 2006), we refer to this as a "transcendent calling" to distinguish it from the other conceptualizations we have identified in this review. This framework is summarized in **Figure 3**.

Table 2 summarizes fourteen distinct definitions of calling that appear in our sample of eighty-four articles and reports our classifications of those definitions in terms of inner and outer re-quiredness and whether the definition explicitly includes a sense of destiny, fate, inevitability, or inexorability. **Table 2** also notes our assessment of whether a given element (inner/outer required-ness, destiny) is a primary emphasis of the definition or a secondary or implicit part of the defi-nition. Of the fourteen definitions examined in **Table 2**, six are primarily concerned with inner requiredness and seven are primarily concerned with outer requiredness. Five of the fourteen def-initions explicitly incorporate a sense of destiny or fate. In short, calling conceptualizations that emphasize both inner and outer requiredness in a balanced way, and that explicitly acknowledge the sense of destiny or fate that results from marrying the two, are notably missing in the calling literature.

It is beyond the scope of this review to fully explore the nature, antecedents, and consequences of a transcendent calling. Rather, our purpose here is simply to suggest that a definition of calling that integrates outer requiredness (as per neoclassical definitions) with inner requiredness (as per modern definitions) may promise a solution to the definitional stalemate in the calling literature. As a starting point, we propose the following definition of transcendent calling: A transcendent calling is a conviction—often felt as a sense of destiny or fit—that a particular domain of work leverages one's particular gifts and consuming passions in service of a cause or purpose beyond self-interest. We believe that this transcendent view of calling will make it easier to resolve the remaining three questions, identified earlier, that have plagued the calling literature: questions of differentiation, generalizability, and relevance. We turn now to a discussion of those questions.

The Question of Differentiation

A second question that has stalled the impact of research on calling in the OP/OB literatures is the question of differentiation, or the question of how and whether the concept of calling is

Table 2 Definitions of calling and their key elements[a]

Definition	Number of times adopted in 84 key articles	Inner requiredness (intrinsic interest, passion, personal meaning, enjoyment)	Outer requiredness (duty, obligation, a need in the world)	Sense of destiny
Wrzesniewski et al. (1997, p. 22): "People with Callings find that their work is inseparable from their life. A person with a Calling works not for financial gain or Career advancement, but instead for the fulfillment that doing the work brings to the individual."	9	X		
Hall & Chandler (2005, p. 160): "work that a person perceives as his purpose in life."	1			X
Oates et al. (2005, p. 212): "a compelling summons by God that leads to the expression of oneself in a particular profession."	1		X	
Dik & Duffy (2009, p. 427): "A calling is 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."	25	*	X	X
Bunderson & Thompson (2009, p. 38): "that place in the occupational division of labor in society that one feels destined to fill by virtue of particular gifts, talents, and/or idiosyncratic life opportunities."	5		X	X
Berg et al. (2010): an occupation that an individual (1) feels drawn to pursue, (2) expects to be intrinsically enjoyable and meaningful, and (3) sees as a central part of his or her identity.	1	X		
Elangovan et al. (2010, p. 430): "a course of action in pursuit of prosocial intentions embodying the convergence of an individual's sense of what he or she would like to do, should do, and actually does."	1	X	*	

(*Continued*)

Table 2 (*Continued*)

Definition	Number of times adopted in 84 key articles	Inner requiredness (intrinsic interest, passion, personal meaning, enjoyment)	Outer requiredness (duty, obligation, a need in the world)	Sense of destiny
Hunter et al. (2010): "originating from guiding forces, co-occurring with unique fit and well-being, having altruistic features, and extending to multiple life roles."	1	*	X	X
Dobrow & Tosti-Kharas (2011): "a consuming, meaningful passion people experience toward a domain."	7	X		
Cardador & Caza (2012): "a view toward work in which one expects the work to be intrinsically meaningful and sees the work as making a difference in some way."	2	X	*	
Coulson et al. (2012, p. 84): "a strongly held belief that one is destined to fulfil a specific life role, regardless of sacrifice, that will make a meaningful contribution to the greater good."	1		X	X
Duffy & Dik (2013, p. 4290): "a belief that one's career is a central part of a broader sense of purpose and meaning in life and is used to help others or advance the greater good in some fashion."	9		X	
Praskova et al. (2015, p. 93): "a mostly self-set, salient, higher order career goal, which generates meaning and purpose for the individual, and which has the potential to be strengthened (or weakened) by engaging in goal-directed, career-preparatory actions and adaptive processes aimed at meeting this goal."	2	X		
Neubert & Halbesleben (2015, p. 860): "a summons from God to approach with a sense of purpose and a pursuit of excellence in work practices."	1		X	

[a]Xs indicate the primary focus of the definition, and asterisks indicate the secondary or implicit focus of the definition.

different from and adds unique value to the wide range of related constructs in the broader literature. The field of OP/OB has been criticized for construct redundancy, i.e., for admitting multiple constructs that get at closely related aspects of the same underlying phenomenon (e.g., Highhouse et al. 2017, Morrow 1983). Construct redundancy is avoided, first, by clearly identifying

conceptually related constructs and making it clear how they differ on a conceptual or theoretical level and, second, through formal analyses of discriminant validity and incremental predictive validity. Unfortunately, research on work as a calling has not grappled with these two issues in a careful and compelling way, which limits our ability to claim that research on work as a calling is getting at something new and different.

Some scholars have made a start at addressing construct redundancy. Dik & Duffy (2009) explicitly addressed the conceptual distinctiveness of the calling construct in their paper on the relevance of calling and vocation in counseling psychology. They argued that the concept of calling is distinct from concepts like personal engagement (Kahn 1990), flow (Csikszentmihalyi 1990), psychological participation (Vroom 1959), and intrinsic work motivation (Amabile et al. 1994) and from research on work values and workplace spirituality. Although their analysis was useful, we are concerned that it did not go far enough in identifying constructs with clear theoretical relationships to calling.

For example, several constructs in the OP/OB literature are concerned with the sense of inner requiredness (i.e., passion, intrinsic interest, personal connection) that is central to modern conceptions of work as a calling. Examples include work importance (Dubin 1956), job involvement (Lodahl & Kejner 1965), and occupational or job identification (Ashforth et al. 2013). Other constructs in the OP/OB literature are centrally concerned with the sense of outer requiredness (i.e., duty, obligation) that is central to neoclassical conceptions of work as a calling. Examples include the Protestant work ethic (Mirels & Garrett 1971), duty orientation (Moon 2001), and research on work values (Blood 1969). Careful theoretical comparisons of calling with these constructs—comparisons that go beyond the mere analysis of semantic and surface differences—are needed to clarify where calling fits in the broader literature.

Importantly, the conceptual novelty of the calling construct becomes more apparent when it is conceptualized as a perceived match between inner and outer requiredness, and the sense of destiny that results from that perception (i.e., what we called transcendent callings above). Calling thus conceptualized might be viewed as a form—perhaps a strong form—of person–job fit. But whereas person–job fit is typically conceptualized as the perception that one's job requirements fit with one's competencies and expectations (e.g., Cable & DeRue 2002), calling is concerned with a deep conviction that one's job or work matches core passions (inner requiredness) with needs in the world (outer requiredness). Conceptualizing calling as fit or congruence underscores the unique contribution of calling to the literature on OP/OB while connecting calling research to existing streams of work.

In addition to careful theoretical work comparing and contrasting calling with related constructs in the literature, research on work as a calling would benefit greatly from more studies that formally examine the discriminant validity of the calling construct. With just a few exceptions (e.g., Dik et al. 2012, Dobrow & Tosti-Kharas 2011), calling research has tended to sidestep the discriminant validity question. As a result, beyond just a few construct comparisons (e.g., intrinsic motivation, optimism, religiosity, career decision self-efficacy), we know very little about the extent to which calling is empirically distinct from theoretically related constructs like those identified above. Systematic analyses of the discriminant validity of calling relative to these and other constructs, using exploratory and confirmatory factor analyses, will help provide greater confidence that measures of calling are getting at something different than what we have been measuring with established constructs.

Moreover, as noted in our review, only a handful of calling studies have controlled for the effect of theoretically related variables in examining the effects of calling on work outcomes. Dobrow & Tosti-Kharas (2011) controlled for work engagement and job involvement in examining the effect of calling on domain satisfaction, career-related self-efficacy, career insight, and professional

association involvement. Cardador et al. (2011) controlled for job satisfaction in considering the effect of calling on turnover intentions. Dobrow and colleagues (Dobrow & Tosti-Kharas 2012, Dobrow Riza & Heller 2015) controlled for ability in examining the effect of calling on career decisions. And Hirschi & Herrmann (2012) controlled for core self-evaluation in studying the effect of calling on life satisfaction. In all of these studies, the effect of calling remained after controlling for these different variables. This is an encouraging start, but more work is needed to establish robustly that calling is not just conceptually and psychometrically distinct but also helps us to better explain variance in constructs of central interest in the field, some of which we discuss when we address the question of relevance.

The Question of Generalizability

A third question that has limited the impact of research on work as a calling is the question of generalizability, or the question of whether calling is a construct with relevance for workers in any setting. Concerns about the generalizability of the calling construct are based on three important insights. First, as noted earlier, Weber and others have argued that the concept of work as a calling is a legacy of the Protestant Reformation. But because the Protestant Reformation took place in sixteenth-century Europe and its effects on beliefs and worldviews were largely felt within Western societies with heavily Christian populations, it is fair to question whether calling will have the same resonance in non-Western societies and in societies dominated by other religions. Second, it is significant that research on callings has frequently been conducted in work settings that Bellah et al. (1985, p. 66) called "economically marginal but symbolically significant"—settings like zookeeping, animal shelters, firefighting, the clergy, education, and music. Bellah et al. and others have questioned whether callings will be observed only in settings such as these and will be difficult to sustain in settings where economic pressures and rewards dominate other considerations. And third, for much of the world's population, work is not about meaning and transcendent purpose but about survival. One might argue that the notion of work as a higher calling is an elitist concept with limited relevance outside economically privileged settings. In short, there are still questions about the extent to which the concept of work as a calling is able to travel seamlessly across cultural, occupational, and socioeconomic boundaries. The following sections examine the case for (lack of) generalizability across each of these boundaries.

Cultural boundaries. To the question of cultural boundaries, six recent studies conducted in Asian work settings (specifically, China and Korea) have found significant effects of work as a calling. Lan et al. (2013) found that calling predicted job satisfaction among Chinese accountants. Guo et al. (2014) found that calling predicted learning environments among Chinese undergraduate students. In two studies using Korean samples, Lee found that calling predicted (*a*) service quality efficacy among waiters and bartenders (Lee 2014) and (*b*) career satisfaction among hotel employees (Lee 2016). Xie et al. (2016) found that calling predicted work engagement and career satisfaction among employed adults in China. And Jo et al. (2018) found that calling exacerbated the effect of burnout on PTSD symptoms among Korean firefighters. These studies used both modern and neoclassical conceptualizations of calling.

In other words, participants in these six studies, and the researchers who designed them, clearly found the concept of calling to be relevant in their (non-Western) work settings. This raises an interesting possibility. Although it may be true that the idea of work as a calling from God was expressed by Protestant reformers in largely Christian Europe, perhaps the experience of calling as a match between inner and outer requiredness is a more universal human experience—available to anyone who grapples with her or his place within a complex division of labor. In short, it may

be that we as calling researchers, following the lead of Max Weber, have overstated the extent to which the concept of calling is a legacy of the Protestant Reformation instead of a common—and culturally independent—human experience.

Occupational boundaries. Although it is certainly true that the calling literature includes several prominent studies conducted in "economically marginal" occupations (Bellah et al. 1985), it is also the case that the concept of calling has increasingly been used to explain work attitudes and behaviors in more mainstream occupations. So, for example, calling has been studied among IT managers in Ireland (McKevitt et al. 2017), salespeople (Yim & Fock 2013), hotel employees (Lee 2014, 2016), health care workers (Cardador et al. 2011, Rasinski et al. 2012, Wrzesniewski et al. 1997), accountants (Lan et al. 2013), bank employees (Xie et al. 2017), and working managers (Dobrow & Tosti-Kharas 2011). These studies report significant effects of calling in these economically mainstream settings using both neoclassical and modern calling conceptualizations.

Perhaps the question, then, is not whether calling is relevant across different occupations but whether the strength, intensity, or even character of the calling experience differs across occupations and, if so, why. It may be that some occupations lend themselves to the emergence of callings, perhaps because they "require unique skills and economic sacrifices for a perceived public benefit" (Bunderson & Thompson 2009, p. 54). In other words, callings may be more common in settings where a clear societal benefit lends itself to a sense of outer requiredness (i.e., there is a clear need to be filled) and where the need for distinct skills lends itself to a sense of inner requiredness (i.e., I can express my particular passions and talents). Callings may be rarer in settings where the societal contributions of the work are less obvious or where the skills required to perform the work are less distinctive. At the same time, we expect that the more interesting and potentially informative research will emerge from cases that present exceptions to this pattern, e.g., when individuals are able to carve out a strong sense of inner and outer requiredness in settings where doing so requires unique framing of the work experience and its meaning (e.g., a university custodian who views her cleaning skills and love for orderliness—inner requiredness—as contributing to the strength of her institution by creating an environment conducive to scholarship and learning—outer requiredness).

Socioeconomic boundaries. Whereas there are studies within the calling literature that help to mitigate concerns about cultural and occupational generalizability, we found few studies that examine the concept of work as a calling across socioeconomic boundaries (see Duffy et al. 2016a for an exception) or, specifically, samples that focus on the working poor. This trend is certainly not unique to research on work as a calling. Research within OP/OB more broadly has tended to overlook the working poor (Leana et al. 2012). As a result, the question of whether calling generalizes to the working poor could also be asked of several other OP/OB constructs. But in the case of calling, the question seems particularly germane given a long-standing presumption within psychology that a concern with things like self-actualization and self-transcendence (i.e., calling) emerges only after other needs have been met (Maslow 1943). Put simply, it is easy to imagine how the daily stress of making ends meet could dominate any concern for expressing inner passions (inner requiredness) and helping to solve broader societal problems (outer requiredness).

However, in the same way that people seem able to creatively carve out a calling in occupations that appear less amenable to callings, it may be that inner and outer requiredness simply take different forms as the working poor craft their own sense of calling. For example, outer requiredness for the working poor may have less to do with serving society and more to do with serving one's family and dependents. And inner requiredness may be less about whether the task at hand allows one to express inner passions (e.g., I love to clean streets) and more about whether that task

requires one to express inner values and virtues (i.e., I am responsible and hardworking). Clearly, more research is needed to address the nature of calling across socioeconomic boundaries.

The Question of Relevance

The final question that has limited the impact of research on work as a calling is the question of relevance, or the question of whether viewing work as a calling has implications for behavioral outcomes that ultimately matter to managers and practitioners. So, for example, does viewing work as a calling increase (or decrease) work performance, enhance (or dampen) creativity and innovation, strengthen (or weaken) decision quality, decrease (or increase) worker turnover, and accelerate (or decelerate) career advancement? Unfortunately, the extant literature on work as a calling provides limited answers to these "so what" questions. As noted in our above review, the clear majority of empirical studies on work as a calling focus (often exclusively) on attitudinal outcomes—things like satisfaction, commitment, meaning, and turnover intentions. A much smaller set of calling studies consider behaviors/behavioral intentions and career choices—things like organizational citizenship behavior, willingness to sacrifice, work effort, career flexibility, and specific career decisions. And an equally small set of studies consider outcomes that we might consider performance related—job performance, career success, employability, health, and well-being. Unfortunately, because these performance-related outcomes were all measured using self-report, it would be more accurate to say that this small set of calling studies looked at perceived performance. We found no studies that looked at the relationship between calling and objective measures of work performance.

The implication for those interested in advancing the study of work as a calling is clear: We need more research that looks at outcomes that are of ultimate interest to managers and practitioners, and we need to go beyond self-report methods in measuring those constructs. We need to show that calling matters. But we would add one additional recommendation to this appeal. We suggest that in identifying dependent variables for studies of work as a calling, scholars should be more thoughtful about the specific dependent variables that they believe will be especially and perhaps uniquely sensitive to differences in an individual's sense of calling. For example, a conviction that one's work is both an expression of inner passions and a contribution to the world provides a compelling rationale (in the form of an obligation to self and society) to stay the course when things get hard. We might therefore expect that a sense of transcendent calling will be particularly useful in predicting outcomes related to resilience (e.g., resilience in the face of adversity, creative effort in overcoming work challenges, and a willingness to sacrifice for one's work). For the same reasons, we might expect that individuals with a sense of transcendent calling will express more rigidity (e.g., rigidness in how they conceptualize their work and career, less openness to alternative career paths, and more criticism of coworkers and management than those without a sense of calling). Our literature review provided at least preliminary support for these predictions, with evidence that calling is associated with an increased willingness to make work-related sacrifices (Bunderson & Thompson 2009), creative responses to calling-related challenges (Schabram & Maitlis 2017), greater certainty about one's career direction along with a greater tendency to ignore unwelcome career advice (Dobrow & Tosti-Kharas 2012, Duffy & Sedlacek 2007, Hirschi & Herrmann 2013), and a more critical stance toward management (Bunderson & Thompson 2009). In short, we encourage calling researchers to focus more attention on the relationship between calling and both resilience and rigidity because a focus on calling promises to yield important new insights and account for previously unexplained variance in these key dependent variables.

Finally, the relevance of calling research has also been limited by a focus on outcomes rather than antecedents, on the benefits (or costs) of a calling rather than on how (i.e., the process through

which) a calling emerges and is discovered. As we have noted, very little research has focused on antecedents of calling, and when it does, it tends to be overwhelmingly perceptual rather than behavioral. Absent a clear scholarly demonstration of the behaviors and decisions that tend to foster a sense of calling, those interested in developing a sense of calling among their workers are left with little guidance. Achieving the goal of elaborating the predictors of calling will require longitudinal analyses that track experiences with callings over time. Dobrow Riza & Heller (2015) provide an excellent example in their 11-year, 5-wave study of developing musicians. Other examples of longitudinal research on work as a calling are Duffy et al. (2011b, 2014a) and Praskova et al. (2014).

CONCLUSION

Research on work as a calling should be one of the most robust and generative streams of research within the study of work and organizations. After all, the quest to find meaning in our lives "is a key part of what makes us human, and uniquely so" (Baumeister et al. 2013). We are encouraged to see so many scholars turning their attention to this important phenomenon and are eager to see this field of inquiry reach its potential. For this to happen, though, we believe that calling scholars need to strive for greater coherence and rigor in the way they conceptualize and measure calling. We advocate for a transcendent version of calling that puts dual emphasis on the inner requiredness of passion and enjoyment and the outer requiredness of duty and destiny. We also call for greater attention to the fundamentals of construct development, including robust demonstrations of the distinctness, generalizability, and relevance of the calling construct.

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LITERATURE CITED

Ahn J, Dik BJ, Hornback R. 2017. The experience of career change driven by a sense of calling: an Interpretative Phenomenological Analysis approach. *J. Vocat. Behav.* 102:48–62

Amabile TM, Hill KG, Hennessey BA, Tighe EM. 1994. The Work Preference Inventory: assessing intrinsic and extrinsic motivational orientations. *J. Personal. Soc. Psychol.* 66(5):950–67

Ashforth BE, Joshi M, Anand V, O'Leary-Kelly AM. 2013. Extending the expanded model of organizational identification to occupations. *J. Appl. Soc. Psychol.* 43(12):2426–48

Bargdill RW. 2006. Fate and destiny: some historical distinctions between the concepts. *J. Theor. Philos. Psychol.* 26(1–2):205

Baumeister RF, Vohs KD, Aaker JL, Garbinsky EN. 2013. Some key differences between a happy life and a meaningful life. *J. Pos. Psychol.* 8:505–16

Bellah RN, Madsen R, Sullivan MW, Swidler A, Tipton SM. 1985. *Habits of the Heart: Individualism and Commitment in American Life*. New York: Harper & Row

Berg JM, Grant AM, Johnson V. 2010. When callings are calling: crafting work and leisure in pursuit of unanswered occupational callings. *Organ. Sci.* 21(5):973–94

Blood MR. 1969. Work values and job satisfaction. *J. Appl. Psychol.* 53(6):456–59

Bunderson JS, Thompson JA. 2009. The call of the wild: zookeepers, callings, and the double-edged sword of deeply meaningful work. *Adm. Sci. Q.* 54(1):32–57

Cable DM, DeRue DS. 2002. The convergent and discriminant validity of subjective fit perceptions. *J. Appl. Psychol.* 87(5):875–84

Calvin J. 1574. *Sermons of M. John Calvin upon the epistle of St. Paul to the Galatians*. London: Lucas Harison and George Bishop

Cardador MT, Caza BB. 2012. Relational and identity perspectives on healthy versus unhealthy pursuit of callings. *J. Career Assess.* 20(3):338–53

Cardador MT, Dane E, Pratt MG. 2011. Linking calling orientations to organizational attachment via organizational instrumentality. *J. Vocat. Behav.* 79(2):367–78

Chen J, May DR, Schwoerer CE, Augelli B. 2018. Exploring the boundaries of career calling: the moderating roles of procedural justice and psychological safety. *J. Career Dev.* 45(2):103–16

Clinton ME, Conway N, Sturges J. 2017. "It's tough hanging-up a call": the relationships between calling and work hours, psychological detachment, sleep quality, and morning vigor. *J. Occup. Health Psychol.* 22(1):28–39

Conway N, Clinton M, Sturges J, Budjanovcanin A. 2015. Using self-determination theory to understand the relationship between calling enactment and daily well-being. *J. Organ. Behav.* 36(8):1114–31

Coulson JC, Oades LG, Stoyles GJ. 2012. Parents' subjective sense of calling in childrearing: measurement, development and initial findings. *J. Posit. Psychol.* 7(2):83–94

Csikszentmihalyi M. 1990. *Flow: The Psychology of Optimal Performance*. New York: Harper & Row

Curlin FA, Dugdale LS, Lantos JD, Chin MH. 2007. Do religious physicians disproportionately care for the underserved? *Ann. Fam. Med.* 5(4):353–60

Dik BJ, Duffy RD. 2009. Calling and vocation at work: definitions and prospects for research and practice. *Couns. Psychol.* 37(3):424–50

Dik BJ, Eldridge BM, Steger MF, Duffy RD. 2012. Development and validation of the calling and vocation questionnaire (CVQ) and brief calling scale (BCS). *J. Career Assess.* 20(3):242–63

Dik BJ, Sargent AM, Steger MF. 2008. Career development strivings: assessing goals and motivation in career decision-making and planning. *J. Career Dev.* 35(1):23–41

Dobrow SR. 2013. Dynamics of calling: a longitudinal study of musicians. *J. Organ. Behav.* 34(4):431–52

Dobrow SR, Tosti-Kharas J. 2011. Calling: the development of a scale measure. *Pers. Psychol.* 64(4):1001–49

Dobrow SR, Tosti-Kharas J. 2012. Listen to your heart? Calling and receptivity to career advice. *J. Career Assess.* 20(3):264–80

Dobrow Riza S, Heller D. 2015. Follow your heart or your head? A longitudinal study of the facilitating role of calling and ability in the pursuit of a challenging career. *J. Appl. Psychol.* 100(3):695–712

Douglass RP, Duffy RD. 2015. Calling and career adaptability among undergraduate students. *J. Vocat. Behav.* 86:58–65

Dreher DE, Holloway KA, Schoenfelder E. 2007. The vocation identity questionnaire: measuring the sense of calling. In *Research in the Social Scientific Study of Religion*, Vol. 18, ed. RL Piedmont, pp. 99–120. Leiden, Neth.: Brill

Dubin R. 1956. Industrial workers' worlds: a study in the central life interests of industrial workers. *Soc. Probl.* 3:221–43

Duffy RD, Allan BA, Autin KL, Bott EM. 2013. Calling and life satisfaction: It's not about having it, it's about living it. *J. Couns. Psychol.* 60(1):42–52

Duffy RD, Allan BA, Autin KL, Douglass RP. 2014a. Living a calling and work well-being: a longitudinal study. *J. Couns. Psychol.* 61(4):605–15

Duffy RD, Allan BA, Bott EM. 2012a. Calling and life satisfaction among undergraduate students: investigating mediators and moderators. *J. Happiness Stud.* 13(3):469–79

Duffy RD, Autin KL. 2013. Disentangling the link between perceiving a calling and living a calling. *J. Couns. Psychol.* 60(2):219–27

Duffy RD, Autin KL, Douglass RP. 2016a. Examining how aspects of vocational privilege relate to living a calling. *J. Positive Psychol.* 11(4):416–27

Duffy RD, Bott EM, Allan BA, Autin KL. 2015. Calling among the unemployed: Examining prevalence and links to coping with job loss. *J. Posit. Psychol.* 10(4):332–45

Duffy RD, Bott EM, Allan BA, Torrey CL, Dik BJ. 2012b. Perceiving a calling, living a calling, and job satisfaction: testing a moderated, multiple mediator model. *J. Couns. Psychol.* 59(1):50–59

Duffy RD, Dik BJ. 2013. Research on calling: What have we learned and where are we going? *J. Vocat. Behav.* 83(3):428–36

Duffy RD, Dik BJ, Steger MF. 2011a. Calling and work-related outcomes: career commitment as a mediator. *J. Vocat. Behav.* 78(2):210–18

Duffy RD, Douglass RP, Autin KL, Allan BA. 2014b. Examining predictors and outcomes of a career calling among undergraduate students. *J. Vocat. Behav.* 85(3):309–18

Duffy RD, Douglass RP, Autin KL, England J, Dik BJ. 2016b. Does the dark side of a calling exist? Examining potential negative effects. *J. Posit. Psychol.* 11(6):634–46

Duffy RD, England JW, Douglass RP, Autin KL, Allan BA. 2017a. Perceiving a calling and well-being: motivation and access to opportunity as moderators. *J. Vocat. Behav.* 98:127–37

Duffy RD, Manuel RS, Borges NJ, Bott EM. 2011b. Calling, vocational development, and well being: a longitudinal study of medical students. *J. Vocat. Behav.* 79(2):361–66

Duffy RD, Sedlacek WE. 2007. The presence of and search for a calling: connections to career development. *J. Vocat. Behav.* 70(3):590–601

Duffy RD, Sedlacek WE. 2010. The salience of a career calling among college students: exploring group differences and links to religiousness, life meaning, and life satisfaction. *Career Dev. Q.* 59(1):27–41

Duffy RD, Torrey CL, England J, Tebbe EA. 2017b. Calling in retirement: a mixed methods study. *J. Posit. Psychol.* 12(4):399–413

Elangovan AR, Pinder CC, McLean M. 2010. Callings and organizational behavior. *J. Vocat. Behav.* 76(3):428–40

Gaede BA. 2009. What will I do next? Discerning God's callings for retirement. *J. Relig. Spiritual. Aging* 22(1–2):27–40

Gazica MW, Spector PE. 2015. A comparison of individuals with unanswered callings to those with no calling at all. *J. Vocat. Behav.* 91:1–10

Guo Y, Guan Y, Yang X, Xu J, Zhou X, et al. 2014. Career adaptability, calling and the professional competence of social work students in China: a career construction perspective. *J. Vocat. Behav.* 85(3):394–402

Hall DT, Chandler DE. 2005. Psychological success: when the career is a calling. *J. Organ. Behav.* 26(2):155–76

Hardy L. 1990. *The Fabric of this World: Inquiries into Calling, Career Choice, and the Design of Human Work*. Grand Rapids, MI: William B. Eerdmans

Harzer C, Ruch W. 2012. When the job is a calling: the role of applying one's signature strengths at work. *J. Posit. Psychol.* 7(5):362–71

Highhouse S, Nye CD, Matthews RA. 2017. Finding meaning in the struggle of work. *J. Pers. Psychol.* 16:137–49

Hirschi A, Herrmann A. 2012. Vocational identity achievement as a mediator of presence of calling and life satisfaction. *J. Career Assess.* 20(3):309–21

Hirschi A, Herrmann A. 2013. Calling and career preparation: investigating developmental patterns and temporal precedence. *J. Vocat. Behav.* 83(1):51–60

Hunter I, Dik BJ, Banning JH. 2010. College students' perceptions of calling in work and life: a qualitative analysis. *J. Vocat. Behav.* 76(2):178–86

Jager AJ, Tutty MA, Kao AC. 2017. Association between physician burnout and identification with medicine as a calling. *Mayo Clin. Proc.* 92(3):415–22

Jo I, Lee S, Sung G, Kim M, Lee S, et al. 2018. Relationship between burnout and PTSD symptoms in firefighters: the moderating effects of a sense of calling to firefighting. *Int. Arch. Occup. Environ. Health* 91(1):117–23

Kahn WA. 1990. Psychological conditions of personal engagement and disengagement at work. *Acad. Manag. J.* 33(4):692–724

Kent BV, Bradshaw M, Dougherty KD. 2016. Attachment to God, vocational calling, and worker contentment. *Rev. Relig. Res.* 58(3):343–64

Kim SS, Shin D, Vough HC, Hewlin PF, Vandenberghe C. 2018. How do callings relate to job performance? The role of organizational commitment and ideological contract fulfillment. *Hum. Relat.* 71:1319–47

Koltko-Rivera ME. 2006. Rediscovering the later version of Maslow's hierarchy of needs: self-transcendence and opportunities for theory, research, and unification. *Rev. Gen. Psychol.* 10(4):302–17

Lan G, Okechuku C, Zhang H, Cao J. 2013. Impact of job satisfaction and personal values on the work orientation of Chinese accounting practitioners. *J. Bus. Ethics* 112(4):627–40

Leana CR, Mittal V, Stiehl E. 2012. Perspective: organizational behavior and the working poor. *Organ. Sci.* 23(3):888–906

Lee KJ. 2014. Attitudinal dimensions of professionalism and service quality efficacy of frontline employees in hotels. *Int. J. Hosp. Manag.* 41:140–48

Lee KJ. 2016. Sense of calling and career satisfaction of hotel frontline employees: mediation through knowledge sharing with organizational members. *Int. J. Contemp. Hosp. Manag.* 28(2):346–65

Lodahl TM, Kejner M. 1965. The definition and measurement of job involvement. *J. Appl. Psychol.* 49(2):24–33

Luther M. 1883. *Werke Kritische Gesamtausgabe*, Vol. 44, 10I, 1: 317. Weimar, Ger.: Hermann Bohlaus

Lysova EI, Jansen PG, Khapova SN, Plomp J, Tims M. 2018. Examining calling as a double-edged sword for employability. *J. Vocat. Behav.* 104:261–72

Maslow AH. 1943. A theory of motivation. *Psychol. Rev.* 50:370–96

Maslow AH. 1967. A theory of metamotivation: the biological rooting of the value-life. *J. Humanistic Psychol.* 7(2):93–127

McKevitt D, Carbery R, Lyons A. 2017. A profession but not a career? Work identity and career satisfaction in project management. *Int. J. Project Manag.* 35(8):1673–82

Michel JB, Shen YK, Aiden AP, Veres A, Gray MK, et al. 2011. Quantitative analysis of culture using millions of digitized books. *Science* 331(6014):176–82

Mirels HL, Garrett JB. 1971. The Protestant ethic as a personality variable. *J. Consult. Clin. Psychol.* 36(1):40–44

Moon H. 2001. The two faces of conscientiousness: duty and achievement striving in escalation of commitment dilemmas. *J. Appl. Psychol.* 86(3):533–40

Morrow PC. 1983. Concept redundancy in organizational research: the case of work commitment. *Acad. Manag. Rev.* 8(3):486–500

Neubert MJ, Halbesleben K. 2015. Called to commitment: an examination of relationships between spiritual calling, job satisfaction, and organizational commitment. *J. Bus. Ethics* 132(4):859–72

Ng ES, Schweitzer L, Lyons ST. 2010. New generation, great expectations: a field study of the millennial generation. *J. Bus. Psychol.* 25(2):281–92

Oates KL, Lewis Hall ME, Anderson TL. 2005. Calling and conflict: a qualitative exploration of interrole conflict and the sanctification of work in Christian mothers in academia. *J. Psychol. Theol.* 33(3):210–23

Pechenick EA, Danforth CM, Dodds PS. 2015. Characterizing the Google Books Corpus: Strong Limits to Inferences of Socio-Cultural and Linguistic Evolution. *PLOS ONE* 10(10):e0137041. **https://doi.org/10.1371/journal.pone.0137041**

Peterson C, Park N, Hall N, Seligman MEP. 2009. Zest and work. *J. Organ. Behav.* 30:161–72

Praskova A, Creed PA, Hood M. 2015. The development and initial validation of a career calling scale for emerging adults. *J. Career Assess.* 23(1):91–106

Praskova A, Hood M, Creed PA. 2014. Testing a calling model of psychological career success in Australian young adults: a longitudinal study. *J. Vocat. Behav.* 85(1):125–35

Rasinski KA, Lawrence RE, Yoon JD, Curlin FA. 2012. A sense of calling and primary care physicians' satisfaction in treating smoking, alcoholism, and obesity. *Arch. Intern. Med.* 172(18):1423–24

Rawat A, Nadavulakere S. 2015. Examining the outcomes of having a calling: Does context matter? *J. Bus. Psychol.* 30(3):499–512

Schabram K, Maitlis S. 2017. Negotiating the challenges of a calling: emotion and enacted sensemaking in animal shelter work. *Acad. Manag. J.* 60(2):584–609

Scheitle CP, Adamczyk A. 2016. Divine callings: religious sensemaking in the organizational founding process. *J. Manag. Spirit. Relig.* 13(2):94–116

Steger MF, Dik BJ. 2006. *Advances in spirituality research: The role of meaning in work*. Paper presented at American Psychological Association, Baltimore, MD

Steger MF, Dik BJ. 2009. If one is looking for meaning in life, does it help to find meaning in work? *Appl. Psychol.* 1(3):303–20

Steger MF, Pickering NK, Shin JY, Dik BJ. 2010. Calling in work: Secular or sacred? *J. Career Assess.* 18(1):82–96

Twenge JM. 2014. *Generation Me—Revised and Updated: Why Today's Young Americans Are More Confident, Assertive, Entitled—and More Miserable than Ever Before*. New York: Simon and Schuster

Twenge JM, Campbell SM, Hoffman BJ, Lance CE. 2010. Generational differences in work values: leisure and extrinsic values increasing, social and intrinsic values decreasing. *J. Manag.* 36(5):1117–42

Vroom VH. 1959. Some personality determinants of the effects of participation. *J. Abnorm. Soc. Psychol.* 59(3):322–27

Weber M. 1930. *The Protestant Ethic and the Spirit of Capitalism*, trans. T. Parsons. New York: Routledge Classics

Word J. 2012. Engaging work as a calling: examining the link between spirituality and job involvement. *J. Manag. Spirit. Relig.* 9(2):147–66

Wrzesniewski A, McCauley C, Rozin P, Schwartz B. 1997. Jobs, careers, and callings: people's relations to their work. *J. Res. Personal.* 31(1):21–33

Xie B, Xia M, Xin X, Zhou W. 2016. Linking calling to work engagement and subjective career success: the perspective of career construction theory. *J. Vocat. Behav.* 94:70–78

Xie B, Zhou W, Huang JL, Xia M. 2017. Using goal facilitation theory to explain the relationships between calling and organization-directed citizenship behavior and job satisfaction. *J. Vocat. Behav.* 100:78–87

Yim F, Fock H. 2013. Social responsibility climate as a double-edged sword: How employee-perceived social responsibility climate shapes the meaning of their voluntary work? *J. Bus. Ethics* 114(4):665–74

Yoon JD, Daley BM, Curlin FA. 2017. The association between a sense of calling and physician well-being: a national study of primary care physicians and psychiatrists. *Acad. Psychiatry* 41(2):167–73