PERSON-WORK ARRANGEMENT FIT:

UNDERSTANDING VOLUNTARY CHOICE AND OUTCOMES OF NONSTANDARD WORK ARRANGEMENTS

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Abstract

Advances in technology and increased competition in product and labor markets have changed the world of work, creating pressures for organizations to be more flexible. Consequently, organizations have externalized parts of their workforce through use of nonstandard work arrangements (NSWAs) such as independent contracting, temporary staffing agency work, and remote work. Research is unclear regarding both antecedents (i.e., what drives some individuals to voluntarily choose NSWAs) and subjective consequences (e.g., subjective career success) of an individual's voluntary choice of a NSWA.

The purpose of this dissertation is to provide a contemporary examination of these underexplored issues within the NSWA literature through the lens of person-environment (P-E) fit theory. This theory predicts positive outcomes for the individual and organization when the individual's abilities and needs match the work environment's demands and supplies.

In Chapter 1, I conduct a thorough review of the literature and provide a novel framework for categorizing the variables relevant for achieving fit between workers and NSWAs. Using that framework, I derive propositions about the likely characteristics of voluntary nonstandard workers for various NSWAs. In doing so, I expand the scope of P-E fit to include the work arrangement as an environment, introducing the term person-work arrangement (P-WA) fit.

In Chapter 2, I investigate empirically the P-E fit theory prediction that fit is linked to positive outcomes by examining the connection between P-WA fit and subjective career success for voluntary independent contractors, on-call and direct-hire temporary workers as well as remote workers. Following guidelines in P-E fit theory, I employ three measures of P-WA fit, including a direct measure of perceived fit, an indirect measure of perceived fit, and an indirect measure of objective fit, to gain a more thorough understanding of voluntary nonstandard workers' fit perceptions and consequences thereof.

Keywords: Nonstandard work arrangements; person-environment fit; demands-abilities fit; needs-supplies fit; subjective career success

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Motivation and Purpose

In today's world of work, technology advances rapidly and competition in product and labor markets is of a global scale, pressuring organizations to be highly flexible (Ang & Slaughter, 2002; Clark et al., 1995; Spreitzer et al., 2017). As a result, organizations have externalized parts of their workforce; that is, they have expanded their use of workers who are marginally attached to the organization (Davis-Blake & Uzzi, 1993; Houseman, 2001; Katz & Krueger, 2019; Pfeffer & Baron, 1988). This has led to a higher prevalence of nonstandard work arrangements (NSWAs), compared to three decades ago (Katz & Krueger, 2019).

Pfeffer and Baron (1988) characterized work arrangements using three dimensions of attachment between the worker and the organization utilizing the worker's labor (i.e., *de Facto* employer). The dimensions are physical proximity, extent of administrative control, and duration of employment. In NSWAs, at least one of these dimensions is diminished relative to standard work arrangements, in which individuals perform work under the employer's control, at the employer's business location, and on a fixed schedule under continuous employment (Kalleberg et al., 2000). Further, Ashford et al. (2007) have extended this NSWA characterization to clarify that occupations that traditionally are attached weakly to the organization (e.g., farmers, artists) are not considered "nonstandard," because this weak attachment is the "standard" in those occupations. Thus, in line with Ashford et al. (2007), this dissertation defines NSWAs as work arrangements in which the worker is:

a) weakly attached to the de Facto employer in physical proximity, extent of administrative control, and/or duration of employment, and
b) where such weak attachment is not traditionally the occupational norm.

Commonly, NSWAs include alternative forms of employment arrangements (e.g., independent contractors, on-call workers, temporary help agency workers, workers provided by contract firms), and contingent work (i.e., relationships with no implicit or explicit agreement of ongoing employment) as described by the U.S. Bureau of Labor Statistics (U.S. BLS, 2018c). In May 2017, the U.S. workforce consisted of 10.6 million independent contractors, 2.6 million on-call workers, 1.4 million temporary help agency workers, and 933,000 workers provided by contract firms (U.S. BLS, 2018c). Based on Pfeffer and Baron's (1988) physical proximity dimension, researchers further have operationalized remote work as a common type of NSWA (Ashford et al., 2007; Spreitzer et al., 2017). This does not include the remote work performed by many groups of standard workers who could not be at their physical place of employment during the COVID-19 pandemic. In 2017, 15.4% of U.S. wage and salary employees worked at a place other than their workplace on an average day (U.S. BLS, 2018a). These statistics indicate the prevalence of remote work in the United States.

NSWAs are investigated widely, and researchers have provided ample insights into the experiences of nonstandard workers, including levels of satisfaction (e.g., Krausz et al., 1995), organizational citizenship behavior (e.g., Moorman & Harland, 2002), performance (e.g., Guillaume et al., 2018), and well-being (e.g., Kompier et al., 2009; Kossek et al., 2006). However, comparably few studies exist that examine these workers' career experiences. To advance research in this area, Marler et al. (2002) and van den Born and van Witteloostuijn (2013) have begun studying nonstandard worker careers, highlighting that individuals who are in NSWAs by choice make voluntary career choices, rather than simply job choices. Yet, the question of what drives some individuals to voluntarily choose nonstandard has received relatively little attention (Connelly & Gallagher, 2004), especially with respect to U.S. workers.

Exceptions are research conducted roughly two decades ago by Kunda et al. (2002), Morris and Vekker (2001), and von Hippel et al. (1997). Closing these knowledge gaps and providing current information relevant to today's state of jobs is important for organizations trying to attract motivated individuals in the new world of work and for improving our understanding of whether voluntary nonstandard workers perceive success in their chosen careers.

The contribution of this dissertation is to provide a contemporary examination of these underexplored issues within the NSWA literature through the lens of person-environment (P-E) fit theory. In particular, I seek to provide a better understanding of voluntary choice of NSWAs by drawing connections between individual difference factors (including personality traits and psychological needs) and the characteristics of NSWAs. In doing so, I expand the scope of P-E fit to include the work arrangement as an environment, introducing the term person-work arrangement (P-WA) fit. Additionally, I aim to investigate whether P-WA fit leads to higher-order positive outcomes, specifically subjective career success (SCS), for voluntary nonstandard workers.

When investigating NSWAs, economics and strategy scholars typically attempt to explain the prevalence of such work arrangements from the labor market perspective (e.g., Katz & Krueger, 2017) and firm perspective (e.g., Davis-Blake & Uzzi, 1993; Mangum et al., 1985). Alternatively, organizational behavior and human resources scholars focus primarily on how nonstandard work relates to personal and work-related outcomes such as job satisfaction (e.g., Wilkin, 2013), organizational citizenship behavior (e.g., Stamper & Dyne, 2001), organizational commitment (e.g., Chambel et al., 2016; Slattery et al., 2010), and performance (e.g., Ellingson et al., 1998; Guillaume et al., 2019). Ashford et al. (2007) describe this research as focused on

describing the phenomenon itself, rather than on using theoretical approaches to explain *why* particular outcomes occur.

However, many researchers acknowledge that motives for accepting and, more narrowly, choosing[1] nonstandard work are influential constructs for understanding worker behaviors, attitudes, and well-being (e.g., De Cuyper & De Witte, 2008; de Jong et al., 2009; Van Dyne & Ang, 1998). In particular, outcomes are likely to be more positive when workers voluntarily choose or prefer their NSWAs (Connelly & Gallagher, 2004). So far, scholars have accumulated a variety of reasons that workers enter into NSWAs, among which are job loss, discontent with permanent employment, the need for flexibility, the desire to obtain experience or training, and the hope that such an arrangement leads to a permanent job (Kunda et al., 2002; Morris & Vekker, 2001; Nunez & Livanos, 2015; Tan & Tan, 2002; von Hippel et al., 1997).

De Cuyper, De Witte, and colleagues categorized these reasons into three types of motives, which include free choice (voluntary motives), forced choice (involuntary motives), and instrumental choice (stepping-stone motives; De Cuyper & De Witte, 2008; de Jong et al., 2009). This dissertation focuses on voluntary motives. Considering that volition tends to lead to positive outcomes for both workers and organizations (Spreitzer et al., 2017), understanding the mechanism behind volition would be valuable to employers looking to hire nonstandard workers.

The P-E fit literature offers a theoretical framework that provides a new perspective on volition by explaining how fit between worker and work arrangement characteristics is associated with work arrangement choice and work-related outcomes. According to this

[1] While motives cover a variety of reasons, both voluntary and involuntary, for entering a NSWA (De Cuyper & De Witte, 2008), choice in this context "suggests that being in an alternative [i.e., nonstandard] work arrangement is volitional or perhaps even self-determined" (Spreitzer et al., 2017, p. 485). Therefore, the terms "volition", "voluntary", and "choice" are used in this dissertation to describe a subset of motives for entering NSWAs that pertains to the individual's unforced, deliberate self-selection into the NSWA and preference thereof.

literature, when the demands of the work environment match a worker's abilities and/or when the worker's needs match opportunities supplied by the work environment, positive personal and work-related outcomes are more likely to accrue (e.g., Assouline & Meir, 1987; Bretz & Judge, 1994; Tranberg et al., 1993). This premise has two parts yet to be understood with respect to NSWAs.

The first part of this premise is that individuals may seek different work environments because they perceive those environments to be a superior fit for them (Cable & Judge, 1996; Kristof, 1996). When considering the environment to which a person assesses fit, traditionally, P-E fit theory is used to explain individuals' choices of vocations and jobs. Type of work arrangement also represents a work environment, although distinct from the vocational and job environments. Thus, the theory may help explain volitional sorting into work arrangements. In turn, P-E fit theory offers a systematic way of understanding how characteristics of NSWAs vary and how individual differences among workers are linked to choices of different types of NSWAs. As yet, no such systematic connection between individual characteristics and work arrangements exists in the literature. This elicits the question:

RQ 1: Which individual difference factors and work arrangement characteristics are linked to:

a) voluntary choice of a non-standard work arrangement; and

b) the type of NSWA into which an individual choosing such a path self-selects?

The second part of the premise of P-E fit is that when fit with the work environment occurs, positive benefits for workers and organizations follow (e.g., Assouline & Meir, 1987; Bretz & Judge, 1994). Therefore, understanding how P-WA fit brings about positive outcomes is important for our understanding of the connection between volition and nonstandard worker outcomes. One such outcome may be subjective career success (SCS), defined as the "focal

career actor's evaluation and experience of achieving personally meaningful career outcomes" (Spurk et al., 2019, p. 36). SCS is a resource for attaining other valued outcomes, such as increased work motivation, improved self-concept, increased health and well-being, and decreased withdrawal (Spurk et al., 2019), which are relevant for the individual worker as well as for organizations seeking motivated individuals who are devoted to the work. Examining career outcome variables provides an avenue for directly connecting the NSWA literature with the boundaryless career literature.

SCS, however, is currently an understudied topic in the nonstandard worker literature. An exception is the study by van den Born and van Witteloostuijn (2013), who developed a model of determinants of career success for freelancers (i.e., independent contractors). Under the assumption that independent contractors self-selected into this NSWA[2], the authors found that those individuals could experience career success through the accumulation of personal competencies relevant for a boundaryless career (Defillippi & Arthur, 1996). I believe that SCS is likely to occur not only for independent contractors, but also for other types of nonstandard workers, especially those who have voluntarily chosen such a path. This notion is supported by Marler et al. (2002), who found that temporary staffing agency workers with a preference for temporary work arrangements tended to have increased job opportunity perceptions and satisfaction in the boundaryless career context.

Based on these existing studies and Ashford et al.'s (2018) suggestion that personal characteristics have relevance in helping individuals thrive in the new world of work, I explore whether P-WA fit leads to SCS. Therefore, the second research question to be investigated is as follows:

[2] According to the U.S. BLS (2018c), the majority of independent contractors (79.1%) stated their preference for this NSWA over a standard work arrangement.

RQ 2: Is P-WA fit associated with subjective career success for voluntary nonstandard workers?

This dissertation consists of two chapters aimed at answering both research questions. I address RQ1 conceptually in Chapter 1, where I review the literature on P-E fit theory and NSWAs. Based on the P-E fit theory constructs of demands-abilities and needs-supplies fit, I provide a systematic way of categorizing the variables relevant for achieving fit between workers and NSWAs. From that categorization, I derive propositions about characteristics likely to be found in voluntary nonstandard workers for various NSWAs.

Chapter 2 addresses RQ 2 empirically and introduces the construct of SCS through a review of why SCS is important within the NSWA context. I investigate empirically the proposed relationship between P-WA fit and SCS using a sample of professionals currently occupied in NSWAs by choice. To test both the general compatibility between individual difference factors and NSWA characteristics as well as the empirically sounder, commensurate fit between person and NSWA, I employ three measures of P-WA fit, including a direct measure of perceived fit, an indirect measure of perceived fit, and an indirect measure of objective fit.

The dissertation concludes with a discussion highlighting theoretical contributions, giving implications for practice, and noting limitations of this study as well as avenues for future research.

CHAPTER 1:

Conceptualizing Person-Work Arrangement Fit – The Match between Individual Difference Factors and Nonstandard Work Arrangement Characteristics

We are living in a new world of work (Spreitzer et al., 2017), in which a variety of alternatives to standard work arrangements are available to workers across many occupations, including service, and management, business and finance, and transportation and material moving (Katz & Krueger, 2019; U.S. Bureau of Labor Statistics [U.S. BLS], 2018c). These alternatives are nonstandard work arrangements (NSWAs), defined as work arrangements in which (a) the worker is weakly attached to the organization utilizing their labor in terms of physical proximity, extent of administrative control, and/or duration of employment (Pfeffer & Baron, 1988), and (b) the weak attachment is not traditionally the occupational norm (Ashford et al., 2007).

The rise of NSWAs in the United States largely has been attributed to long-term trends such as technological advancement and market forces, leading organizations to externalize their workforce (Davis-Blake & Uzzi, 1993; Houseman, 2001; Katz & Krueger, 2019; Pfeffer & Baron, 1988). In addition, Katz and Krueger (2017) found that unemployment spells were associated with a worker's subsequent entry into a NSWA. Overall, these factors suggest that workers can enter a NSWA involuntarily.

However, the latest Current Population Survey's (CPS) Contingent Worker Supplement (CWS) collected by the U.S. BLS (2018c) in May 2017 showed that most independent contractors (79.1%) preferred their NSWA over a standard arrangement. In addition, sizeable portions of on-call workers (43.8%) and temporary agency workers (38.5%) voiced such a

preference (U.S. BLS, 2018c)[3]. Relatedly, Katz and Krueger (2017) suggested that at least part of the surge in NSWAs in the United States since the early 2000s may have been due to workers' increasing demand for flexibility and work-life balance. Both findings indicate that volition is an important factor to consider when investigating NSWAs. Indeed, research shows that outcomes, such as job satisfaction (Krausz et al., 1995), organizational citizenship behavior (Connelly et al., 2011), and well-being (Bernhard-Oettel et al., 2008), are likely to be positive when workers choose or prefer NSWAs (Connelly & Gallagher, 2004). Yet, not much is known about the mechanism behind an individual's voluntary pursuit of a nonstandard rather than a standard work arrangement, or of one particular type of NSWA over another. Considerable research explores and attempts to explain workers' choices of particular vocations (e.g., Dawis & Lofquist, 1984; Holland, 1997) and jobs (e.g., Caplan, 1987; Chapman et al., 2005). However, no theoretically grounded explanation provides workers' reasons for choosing a particular work arrangement.

The purpose of this chapter is to deliver a conceptual framework that attempts to determine why some individuals voluntarily choose a particular NSWA. Preference and choice have been used interchangeably in the NSWA literature (e.g., Connelly & Gallagher, 2004; De Cuyper & De Witte, 2008; Ellingson et al., 1998; Marler et al., 2002), and choice "suggests that being in an alternative [i.e., nonstandard] work arrangement is volitional or perhaps even self-determined" (Spreitzer et al., 2017, p. 485). Therefore, the terms "volition," "voluntary," and "choice" will be used here to describe the individual's unforced, deliberate preference for and self-selection into a particular NSWA.

Since individuals often make career choices at points in their lives when several alternatives are available to them (e.g., when making an initial career decision or when deciding

[3] This piece of information is not collected for workers provided by contract firms, so no data on preference is available from the U.S. BLS for workers in this particular NSWA.

whether to keep or switch jobs; Kulcsár et al., 2020), the propositions presented in this chapter are applicable irrespective of the individuals' current career development stage (e.g., initial career planning, job change). Further, the propositions are based on the assumption that these individuals have information on work arrangement alternatives, their own preferences and abilities, and contextual factors such as family influences (cf., Gati & Tal, 2008).

The person-environment (P-E) fit literature will serve as a theoretical framework to provide an explanation for voluntary choice of various NSWAs. The P-E fit literature is clear that the work environment is complex, consisting of factors such as the vocation (person-vocation fit), the job (person-job fit), and the work group (person-group fit). One major contribution of this dissertation is to offer an additional and important consideration of the work environment, which is the work arrangement. Specifically, I add to P-E fit theory the construct person-work arrangement (P-WA) fit.

According to P-E fit literature, individuals seek specific work environments because they perceive the characteristics of the environment to be the best fit for their own characteristics (Cable & Judge, 1996; Kristof, 1996). When such fit is achieved, positive personal and work-related outcomes are likely to accrue (e.g., Assouline & Meir, 1987; Bretz & Judge, 1994; Tranberg et al., 1993). On that premise, I present a conceptual framework that draws connections between a variety of individual difference factors and the work arrangement characteristics of the most prevalent NSWAs in the United States. Academic research and government statistics indicate that the most prevalent NSWAs include independent contracting, on-call and direct-hire temporary work, temporary staffing agency work, remote work, and work provided by contract firms (Ashford et al., 2007; Spreitzer et al., 2017; U.S. BLS, 2018c). While P-E fit theory has been used to understand nonstandard worker outcomes (see Maynard et al., 2006 and Yu, 2012),

this is the first study to use P-E fit theory as the underlying mechanism explaining why some workers voluntarily choose NSWAs.

Person-Environment Fit Theory and Its Usefulness in the NSWA Context

Researchers have long sought to draw connections between individuals and work environments based on their respective characteristics, as is evident in the long history of P-E fit theories. This effort stems from interactionist theory, which asserts that behavioral and attitudinal outcomes are explained best through the interaction of individual and environmental characteristics, as opposed to either one of them alone (Diener et al., 1984; Muchinsky & Monahan, 1987). One of the earliest contributors to P-E fit theory in the context of work was Parsons (1909), who stated that "an occupation in harmony with the nature of the man means enthusiasm, love of work, and high economic values, superior product, efficient service, and good pay" (p. 3). That is, when person and environment (in Parsons' work, environment meant the vocation) are congruent, positive outcomes will emerge, benefiting both the worker and the organization (e.g., Assouline & Meir, 1987; Bretz, Jr. & Judge, 1994; Holland, 1997; Iliescu et al., 2015; Nye et al., 2012; Tranberg et al., 1993).

P-E fit can be defined as "the compatibility between an individual and a work environment that occurs when characteristics are well matched" (Kristof-Brown et al., 2005, p. 281). Such fit exists at different levels from choice of vocation to choice of job, organization, work group, or individual (e.g., supervisor; Kristof-Brown et al., 2005; Kristof, 1996; van Vianen, 2018). Arguably, vocational choice is the most macro-level type of P-E fit in the context of work (Kristof-Brown & Guay, 2011), where the individual chooses a vocation compatible with their interests (cf., Theory of Vocational Choice; Holland, 1997), or needs and abilities (cf., Theory of Work Adjustment; Dawis & Lofquist, 1984). Within their chosen vocation, the

individual seeks the job and organization matching their needs, abilities, goals, and/or values (Kristof, 1996). Finally, person-group and person-individual fit become relevant within the organizational or job setting. According to a comprehensive literature review by Kristof-Brown and Guay (2011), P-E fit relates positively to job satisfaction, performance, creativity, and objective and SCS; it relates negatively to intentions to quit, stress, and strain.

Missing in this hierarchy of work environments, however, is the recognition of different types of work arrangements through which a given vocation or job can be performed. Work arrangements are distinct from other types of work environments considered in P-E fit research (e.g., vocation, job). A vocation is a "particular life role that is oriented towards 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. 428), where the focus is on the occupation the individual selects in their work life. The vocation can be performed in various work arrangements and organizations and through different jobs.

A job constitutes "the tasks a person is expected to accomplish in exchange for employment, as well as the characteristics of those tasks" (Kristof, 1996, p. 8), where the focus is on the tasks. By contrast, work arrangements are focused on the type of relationship between individual and organization. Specifically, according to Pfeffer and Baron (1988), employment relationships can be described in terms of three dimensions of attachment between the employee and the organization (discussed herein). Thus, work arrangements add another layer to how an individual performs work by describing the work environment in terms of the relationship between worker and organization. As such, I add to the P-E fit paradigm the term P-WA fit. P-WA fit is situated beneath the layer of the vocational environment, providing individuals different contractual relationships with employers to perform their occupation. The layer of the

job environment, in turn, is situated within that of the work arrangement, with the contractual relationship between individual and organization dictating the tasks they perform at work.

Understanding this additional layer of environment is important, given that NSWAs are seen as relevant and distinct alternatives to standard work arrangements in this new world of work. For example, a nurse, as a healthcare professional, can carry out their work in a standard employment arrangement, where the nurse is employed at and utilized by a hospital in an implicit long-term employment agreement with that hospital. Alternatively, the nurse can be utilized by an individual hospital for a few months before traveling to the next hospital in need of short-term labor, while the nurse is not employed by those hospitals but by a staffing agency. While the former arrangement may provide the nurse with more stability and security, the latter offers a way for the nurse to experience variety in their job and the ability to take longer periods of time off between working spells (e.g., for work-life balance).

The example demonstrates that different types of work arrangements provide workers with a variety of options concerning the demands of the particular arrangement and may offer individuals a better fit with their personal needs and desires. In a review of the contingent work literature, Connelly and Gallagher (2004) contend that worker attributes such as demographics, skills, and personality predict the type of contingent work (i.e., a select group of NSWAs where employment with the de facto employer is not ongoing) the individual inhabits. Thus far, empirical research has reported correlations between different types of work arrangements and observable personal background variables such as level of education and marital status (e.g., Maynard et al., 2006; Morris & Vekker, 2001). Additionally, some researchers have attempted to explain nonstandard workers' motives for entering NSWAs (e.g., De Cuyper & De Witte, 2008; Kunda et al., 2002). However, research has yet to provide a systematic framework for connecting

individual difference factors and work arrangement characteristics as a means of understanding worker choice.

The P-E fit literature suggests two ways through which congruence between the individual and their work environment can be achieved: supplementary fit and complementary fit (Kristof-Brown & Guay, 2011; Kristof, 1996). With supplementary fit, an individual selects into an environment because "he or she supplements, embellishes, or possesses characteristics which are similar to other individuals in this environment" (Muchinsky & Monahan, 1987, p. 269). Therefore, the environment is defined by the people who are in it (Muchinsky & Monahan, 1987). By contrast, complementary fit occurs when an individual's characteristics "serve to 'make whole' or complement the characteristics of an environment," such that "[t]he weakness or need of the environment is offset by the strength of the individual, and vice versa" (Muchinsky & Monahan, 1987, p. 271). Hence, the environment is defined by its demands and supplies (Kristof-Brown & Guay, 2011; Muchinsky & Monahan, 1987).

In order to build a P-E fit framework for work arrangements (i.e., P-WA fit), especially NSWAs, an essential first step is the determination of which type of fit most effectively describes the work arrangement context. Fortunately, the NSWA literature delivers a clear answer. Complementary fit is appropriate because work arrangements typically are described by the nature and characteristics of the contractual relationship between individual and organization, instead of by the individuals within those work arrangements. As discussed herein, Pfeffer and Baron (1988) distinguished work arrangements based on three dimensions of attachment between worker and organization. These are physical proximity, extent of administrative control, and duration of employment. Similarly, Spreitzer et al. (2017) characterized various work

arrangements according to flexibility in the employment relationship, flexibility in the scheduling of work, and flexibility in the location of where work is accomplished.

In another classification example, McLean Parks et al. (1998) used the perspective of psychological contracts to differentiate between work arrangements, with the relevant factors being stability, scope, tangibility, focus, time frame, particularism, multiple agency, and volition. An alternative contract-based classification is offered by Cappelli and Keller (2013), who suggest that work arrangements be distinguished based on who has directive control over the work to be completed from a legal perspective. Finally, the research on motives of contingent workers suggests that the fulfillment of various needs and goals is at the forefront of explaining pursuit of NSWAs (e.g., De Cuyper & De Witte, 2008; Tan & Tan, 2002; von Hippel et al., 1997). Together, the classifications support the view that complementary fit is the appropriate perspective to use for building a framework for P-WA fit.

Complementary fit can be approached from two standpoints: demands-abilities fit and needs-supplies fit (French et al., 1974). Demands-abilities fit describes congruence from the standpoint of the environment and asks whether the individual has the abilities required to fulfill environmental demands (Caplan, 1987; French et al., 1974). Abilities are defined broadly to include skills, knowledge, time, and energy (Edwards, 1996). Needs-supplies fit describes congruence from the individual's perspective and is concerned with whether the environment supplies conditions to fulfill the individual's needs (Caplan, 1987; Dawis & Lofquist, 1984; Murray, 1938). Needs incorporate attributes of the work environment that are attractive to the worker and include needs, preferences, interests, motives, and goals (Edwards, 1991, 1996).

P-E fit research tends to define fit from only one of those approaches instead of integrating the two (Kristof, 1996). In 2005, Kristof-Brown et al. noted the scarcity of studies

jointly examining needs-supplies and demands-abilities fit, and since that time, only few studies have examined the two together (e.g., Resick et al., 2007; Tims et al., 2016; Wang et al., 2011). Some scholars have argued that "[f]ocusing only on one type of fit or the other can leave out important elements of the exchange process" (Caplan, 1987, p. 250). Indeed, in their meta-analysis of different P-E fit constructs, Kristof-Brown et al. (2005) found that correlations with relevant fit outcomes tended to be stronger when both demands-abilities and needs-supplies fit were considered than when either one was considered alone. Therefore, demands-abilities and needs-supplies fit should not be regarded as competing approaches. Rather, a thorough analysis of complementary P-E fit must include both perspectives.

State of the Literature on Motives for Entering Nonstandard Work Arrangements

In what may be considered the first review of the NSWA literature, Connelly and Gallagher (2004) used existing research on contingent nonstandard work to note that the question of why individuals choose NSWAs was relatively under-researched. While more studies have been conducted since, the number of papers focusing on people's motives for entering NSWAs remains low, and most of that research is of European origin (e.g., De Cuyper & De Witte, 2008; Sílvia Lopes & Chambel, 2014; Nunez & Livanos, 2015). Given regulatory differences between European countries and the United States, for example with regard to what constitutes a contingent employment relationship, those European studies may not be completely applicable to the U.S. context.

On the basis of previous studies about nonstandard worker motives (e.g., Marler et al., 2002; Morris & Vekker, 2001; Tan & Tan, 2002), de Jong et al. (2009) developed a typology for accepting contingent NSWAs in the European context. The clusters emerging from their analyses suggested three types of motives. These included a voluntary motive (e.g., desire for freedom

and autonomy, pursuit of personal goals), an involuntary motive (e.g., inability to find permanent employment, avoiding unemployment), and a stepping-stone motive (e.g., gaining permanent employment, enhancing skills and work experience). In a more recent study conducted by Nunez and Livanos (2015), similar motives emerged among a large set of young European workers, with labor market frictions (i.e., inability to find a permanent job) being the main reason for entering contingent employment, followed by stepping-stone and flexibility (i.e., voluntary) reasons.

In the United States, research about NSWA motives going beyond the descriptive analysis of the Current Population Survey's (CPS) Contingent Worker Supplement (CWS) (e.g., Cohany, 1996; DiNatale, 2001; Morris & Vekker, 2001) is scarce. Three exceptions are von Hippel et al. (1997), Kunda et al. (2002), and an industry study conducted by Eden McCallum (2019). Having surveyed a sample of temporary agency workers in the Midwest, von Hippel et al. (1997) suggested grouping temporary agency workers into "temporary temporaries" and "permanent temporaries." Temporary temporaries were those (1) desiring permanent employment, but who were unable to find a permanent job, (2) seeking work experience, or (3) using temporary work as an opportunity to examine the employer without committing to a long-term engagement. Thus, the temporary temporaries group may be a combination of de Jong et al.'s (2009) clusters of workers with stepping-stone and involuntary motives. Permanent temporaries, by contrast, were those workers not seeking permanent employment, who chose temporary work for the flexibility or for skill advancement, or who did not want to commit to a permanent job either out of desire or time constraints. That group appears most equivalent to de Jong et al.'s (2009) group of workers with a voluntary motive.

The second noteworthy U.S. study, undertaken by Kunda et al. (2002), is a qualitative study among independent contractors and staffing agency contractors. Here, the authors found that workers' reasons for leaving permanent employment to be an independent contractor or staffing agency contractor included discontent with permanent employment (e.g., politics, manager incompetence), trigger events (e.g., layoffs, boring work, inability to find a permanent job), exposure to opportunities that made contracting more viable, and anticipated rewards (e.g., autonomy, job variety, money). Again, reasons emerged that are equivalent to de Jong et al.'s (2009) motive clusters (e.g., layoffs as involuntary motive; autonomy as voluntary motive).

More recently, a third study conducted among independent contractors in the consulting industry provided further evidence for the importance of voluntary motives. Surveying independent consultants in Europe and North America, Eden McCallum (2019) found that the most important reasons for consultants to become independent contractors included greater autonomy, better work-life balance, and working with clients in a different way.

Indeed, the concept of volition frequently is included in micro-level research about nonstandard workers and their personal and work-related outcomes. Such research suggests that voluntary nonstandard workers are more likely than involuntary ones to experience positive effects (Spreitzer et al., 2017) such as health (e.g., Krausz, 2000) and life satisfaction (e.g., De Cuyper & De Witte, 2008). Voluntary motives further tend to relate to greater job satisfaction (e.g., De Cuyper & De Witte, 2007; Ellingson et al., 1998; Krausz et al., 1995; Tan & Tan, 2002), work engagement (e.g., Lopes & Chambel, 2017), and organizational citizenship behavior (e.g., Moorman & Harland, 2002).

Based on the aforementioned studies, we know that workers in different types of NSWAs, especially temporary staffing agency work and independent contracting, report

different motives for entering or being in their respective NSWA. At the same time, systematic research distinguishing among various NSWAs has focused mostly on differences in outcomes (e.g., Bardasi & Francesconi, 2004; Giesecke, 2009; Wilkin, 2013), rather than antecedents such as motives. In addition, individuals' entry into NSWAs may be related to individual difference factors beyond demographic background variables (cf., Connelly & Gallagher, 2004). Ashford et al. (2018) suggest that personal characteristics play an important role in helping individuals navigate the new world of work. Thus, individuals with characteristics that are beneficial for specific NSWAs may be able to experience positive outcomes in nonstandard work environments.

In summary, a variety of factors are at play in explaining outcomes for nonstandard workers, as well as for the organizations utilizing them. Those factors include the influence of motives (specifically volition), differences between types of NSWAs, and, though thus far only suggested but not researched, personal characteristics. To develop a richer understanding of voluntary choice of different types of NSWAs, it is necessary to distinguish systematically between NSWAs and to use extant literature as a guide to map workers' personal characteristics onto characteristics of those NSWAs. The goal of this chapter is to do so through the use of P-E fit theory, which suggests that positive outcomes are likely when the characteristics of the worker match those of their work environment (e.g., Assouline & Meir, 1987; Bretz & Judge, 1994; Tranberg et al., 1993). Since P-E fit literature relies on the premise that individuals choose their environments (cf., Bandura, 1997; De Charms, 1968; Diener et al., 1984), the present research focuses exclusively on workers who voluntarily choose a NSWA.

Predicting Individual Nonstandard Work Arrangement Choices

Before discussing different types of NSWAs, understanding the elements of a typical standard work arrangement is essential. According to Kalleberg et al. (2000), a standard work arrangement is "characterized by the exchange of a worker's labor for monetary compensation from an employer […], with work done on a fixed schedule–usually full-time–at the employer's place of business, under the employer's control, and with the mutual expectation of continued employment" (p. 257-258). Considering this definition and drawing from Pfeffer and Baron (1988), work arrangements can be described by examining three dimensions of attachment between worker and *de Facto* employer, where the de Facto employer is the organization utilizing the worker's labor. The three dimensions are physical proximity, extent of administrative control, and duration of employment. Each dimension exists on a continuum from completely internalized to completely externalized. For example, completely internalized physical proximity means that the individual is performing their job at the workplace, and completely externalized physical proximity means that the individual is performing their job at a remote location at all times, and not because the job requires that externalization.

Physical proximity describes the degree of externalization of place, i.e., whether "workers are taken out of the workplace, not because the job requires it […], but rather for other reasons" (Pfeffer & Baron, 1988, p. 264). In other words, the worker performs their work in a location other than the de Facto employer's site. A well-known example of physically externalized arrangements is the remote worker, sometimes called telecommuter.

Extent of administrative control examines whether "certain tasks required by the firm are no longer done by its own employees" (Pfeffer & Baron, 1988, p. 264). In those instances, the de Facto employer and the *de Jure* (i.e., legal) employer are two different entities, such that the de

Facto employer contracts outs tasks to be performed by workers who have an employment relationship with another entity (the de Jure employer) or who are not employees at all. Examples for externalization of administrative control include independent contractors, temporary staffing agency workers, and workers provided by contract firms.

Duration of employment describes the extent to which workers are hired for a limited period of time (Pfeffer & Baron, 1988), rather than on an ongoing basis, i.e., without a set end date of employment. The U.S. BLS describes such limited-duration employment as contingent work, where workers "do not have an implicit or explicit contract for ongoing employment" (U.S. BLS, 2018c, p. 2). Thus, a work arrangement is short term or temporary "if the person holding [the job] is working only until the completion of a specific project, temporarily replacing another worker, being hired for a fixed time period, filling a seasonal job that is available only during certain times of the year, or if other business conditions dictate that the job is short term" (U.S. BLS, 2018c, p. 9). For example, independent contractors, temporary staffing agency workers, direct-hire temporary workers, and on-call workers typically work for a given de Facto employer only for a limited period at a time.

Pfeffer and Baron (1988) include in their dimension of temporal attachment the incident of ongoing part-time employment, arguing that this type of work arrangement diminishes the extent to which workers are attached to the organization. However, the concept of part-time work presents some ambiguities, as some part-time workers may have a strong attachment to their organization and expect the relationship with their employer to be ongoing (Ashford et al., 2007; Kalleberg et al., 2000). Thus, the temporal aspect would refer only to a comparable reduction in weekly hours worked (International Labour Organization, 1994).

Other part-time workers may not have an expectation of long-term employment, but their arrangement may differ in their attachment to the employing organization with respect to other factors of the Pfeffer and Baron (1988) framework (e.g., a direct-hire temporary worker on a part-time work schedule). In that case, the implications of part-time work for demands-abilities and needs-supplies fit between individual and work-arrangement, such as flexibility, can be captured by other types of NSWAs, regardless of the worker's weekly schedule. Therefore, consistent with Ashford et al. (2007), part-time work will not be included as a standalone type of NSWA in this dissertation.

In addition to determining where on the continua of each of Pfeffer and Baron's (1988) three dimensions a given work arrangement falls, Ashford et al. (2007) suggest that consideration be given to whether the focal work arrangement traditionally is considered a standard one. That is, occupations such as artists and farmers are not considered nonstandard since they traditionally have been associated with weak attachment to a given organization utilizing their labor (Ashford et al., 2007). Conversely, arrangements such as that of the agency-employed travel nurse working at a hospital short-term or a contract firm-provided computer professional implementing a new software for a client organization are alternative ways to perform occupations that traditionally are carried out with a strong attachment to the de Facto employer. That is, traditionally, both the nurse and the computer professional would be employed legally by and work for the organization for which they perform the work.

Figure 1 provides an overview of six different types of work arrangements and their degree of externalization on Pfeffer and Baron's (1988) three dimensions, administrative control, duration of employment, and physical proximity. As can be seen, compared to the standard work arrangement, each of the five common NSWAs is externalized from the de Facto employer on at

least one dimension. In addition, each NSWA is different from the other common NSWAs with respect to their combination of externalized dimensions.

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Figure 1 about here
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In the following subsections, I describe the common types of NSWAs in detail using Pfeffer and Baron's (1988) framework and seminal papers in the NSWA literature. The Pfeffer and Baron (1988) framework distinguishes NSWAs from the organizational perspective, while an alternative NSWA categorization provided by Spreitzer et al. (2017) provides a view of the three dimensions from the worker perspective instead (there, the dimensions include flexibility in the employment relationship, flexibility in the scheduling of work, and flexibility in the location of where work is accomplished). However, I consider the organizational viewpoint taken by Pfeffer and Barron (1988) to be warranted since the prevalence of NSWAs is driven largely by organizations and the economic forces governing them (Katz & Krueger, 2017). Therefore, organizations, rather than individuals, dictate the terms of the work arrangements, including their demands and supplies.

In addition, I deem Pfeffer and Baron's (1988) framework highly suitable for answering RQ1 of this dissertation because it provides information about NSWA characteristics based on a variety of dimensions. While other researchers have provided alternative ways of defining and distinguishing work arrangements, those alternatives often are based on only one characteristic. For example, Connelly and Gallagher (2004) focus on the temporal aspect of work arrangements and distinguish between contingent and noncontingent arrangements, while attaching less value to the aspects of physical location and administrative control. Another example is Cappelli and Keller (2013), who provide a categorization of NSWAs from the viewpoint of directive control,

which highlights differences in contractual arrangements but attaches less value to questions revolving around the temporal and locality aspects of work arrangements. Comparably, the categorization of NSWAs provided by Pfeffer & Baron (1988) is superior as the existence of three dimensions can provide richer information on NSWA characteristics and the differences between different NSWAs.

The following subsections are structured as follows: For each NSWA type, I first provide a definition and examples. Then, based on the documented NSWA characteristics, I review the demands of the NSWA and derive associated worker abilities, and I review the supplies of the NSWA and derive associated worker needs. Following each review, I offer propositions for P-WA fit suggesting the linkage of various individual difference factors to various NSWA characteristics. The proposed framework is summarized in Table 1. It shows demands-abilities and needs-supplies fit for each NSWA type discussed in this review. The demands and the supplies are the characteristics of the NSWA as the work environment (E); they are grounded in the extant NSWA literature and correspond to where each NSWA type falls on Pfeffer & Baron's (1988) three dimensions. The abilities and needs are the characteristics of the voluntary nonstandard worker as the person (P); they are the individual difference factors I propose to be compatible with the demands and supplies of the work environment, respectively.

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Independent Contractors

This NSWA includes independent contractors, independent consultants, and freelance workers (U.S. BLS, 2018c). As defined by the U.S. Internal Revenue Service (U.S. IRS; 2017), these workers have behavioral and financial control over the work to be performed. Thus, they

bear the responsibilities and risks associated with completing assignments and generally running a business (Cohany, 1996). Independent contractors establish direct contracts with one or more client firms (de Facto employer/s; Cappelli & Keller, 2013; Kalleberg et al., 2000), to which they provide specific skills or sell services on a fixed-term or project basis (Gallagher & McLean Parks, 2001; McLean Parks et al., 1998; U.S. IRS, 2017; Wilkin, 2013). This typically occurs at the client's place of business, but also may occur off-site (Spreitzer et al., 2017).

Independent contractors most commonly are found in the management, business, and financial occupations, professional and related occupations[4], and service occupations[5] (U.S. BLS, 2018c).

Demands-Abilities Fit. The unique characteristics of the independent contracting NSWA place several specific demands on workers. Based on these characteristics, corresponding personal characteristics or abilities may exist that are useful for predicting volitional choice to work as an independent contractor.

First, independent contractors are required to manage substantial control over the work and cope with the potential related economic risks. In independent contracting, administrative control over the task is externalized from the client and placed into the hands of the independent contractor themselves (Davis-Blake & Uzzi, 1993; Kalleberg et al., 2000; Pfeffer & Baron, 1988). This feature of administrative self-control is unique for independent contractors, compared to other work arrangements. As a result, independent contractors have substantial directive control and discretion over their activities, including how and when projects are

[4] Professional and related occupations include computer and mathematical science occupations, architecture and engineering occupations, life, physical, and social science occupations, community and social service occupations, legal occupations, education, training, and library occupations, arts, design, entertainment, sports, and media occupations, as well as healthcare practitioner and technical occupations (U.S. BLS, 2018b).
[5] Service occupations include healthcare support occupations, protective service occupations, food preparation and serving related occupations, building and grounds cleaning and maintenance occupations, as well as personal care and service occupations (U.S. BLS, 2018b).

executed (Ashford et al., 2018; U.S. IRS, 2017). In addition, they personally must manage crucial business tasks, such as financial planning and securing future business (Ashford et al., 2018).

Along with administrative self-control comes the transfer of economic risks to the independent contractor (Cohany et al., 1998; Kalleberg, 2000; van den Born & van Witteloostuijn, 2013). In other words, if the independent contractor is unable to perform the work to the client's satisfaction, to manage operations and resources successfully, and to acquire future projects, they might not survive in the market. Therefore, independent contractors may experience financial instability and job insecurity (Ashford et al., 2018; Petriglieri et al., 2019), especially between projects or as difficulties to acquire future work arise.

These demands can be met through two individual difference factors. First is occupational self-efficacy. Independent contractors should have a high level of motivation to take charge of work and act on intentions and expectations related to the work and specific projects, especially when facing difficulties and risks (McKeown & Cochrane, 2017). This type of motivation requires occupational self-efficacy, a work-related construct derived from general self-efficacy (Bandura, 1977).

Occupational self-efficacy is defined as "the competence that a person feels concerning the ability to successfully fulfill the tasks involved in his or her job" (Rigotti et al., 2008, p. 239). Research indicates that this personality trait relates positively to task demands (Schyns & von Collani, 2002) as well as performance and commitment (Rigotti et al., 2008), all of which are relevant for independent contractors choosing to enter a work arrangement where task demands are various and complex and where little or no direction is provided by a manager or organization. As a result, I posit the following:

Proposition 1a: Individuals who choose independent contracting are likely to be high in occupational self-efficacy.

Second is risk propensity, defined as "a person's cross-situational tendency to engage in behaviors with a prospect of negative consequences such as loss, harm, or failure" (Zhang et al., 2019, p. 153). Workers stepping outside of the organizational safety net are required to assume high risks related to keeping work afloat and securing one's own benefits (Cappelli & Keller, 2013). Research has shown that individuals working as independent contractors are aware of those risks (Kunda et al., 2002; Petriglieri et al., 2019); still most of them prefer the NSWA over traditional employment (U.S. BLS, 2018c). Relatedly, Caliendo et al. (2014) and Dohmen et al. (2011) found that as the willingness to take risks increases, so does the likelihood that individuals enter self-employment. A similar relationship is expected to emerge for independent contractors, considering that almost nine in ten independent contractors were self-employed in May 2017 (U.S. BLS, 2018c). Therefore, I propose the following:

Proposition 1b: Individuals who choose independent contracting are likely to be high in risk propensity.

Further, independent contracting demands that a worker has the ability and desire to keep skills current and to adjust frequently to new contexts. Since independent contracting is characterized by administrative self-control, these workers also are responsible for the resources needed to complete assignments, including skills, tools, and equipment (U.S. IRS, 2017). That is, a given de Facto employer does not provide training to its independent contractor(s) and typically does not supply the needed tools and equipment (Cohany et al., 1998; Gallagher & McLean Parks, 2001; Kalleberg, 2000). In addition, given the limited duration of a given project, independent contractors, especially in the knowledge-based professions, are exposed to market

evaluation of their skills more frequently than workers in ongoing employment relationships (Barley & Kunda, 2006). Therefore, in order to remain competitive and obtain future projects, independent contractors need to keep current their knowledge and skills related to their occupation, to doing business (e.g., communication, marketing), or to both (Ashford et al., 2018; Matusik & Hill, 1998). This, in turn, requires workers to be willing and motivated to learn.

In addition, with every project they begin, independent contractors must consider the client's individual needs, potentially travel to a new work site, and otherwise deal with client-specific circumstances. Often, they must do so quickly in order to finish the projects as specified in the contract. Thus, the limited duration of individual client projects requires independent contractors to adjust to new work environments (e.g., client demands, locations) frequently as they move from project to project (Ashford et al., 2018; Barley & Kunda, 2006).

These demands suggest that independent contractors need to be open to new experiences. The personality trait of openness to experience describes individuals who are intelligent, imaginative, broad-minded, and curious (Barrick & Mount, 1991; Norman, 1963). Openness to experience is associated with adaptability (Huang et al., 2014; Le Pine et al., 2000) and relates positively to an individual's choice to enter self-employment (Caliendo et al., 2014). However, openness to experience is a personality dimension with various distinct aspects (Christensen et al., 2019; Connelly et al., 2014), and not all aspects appear to be equally relevant for work-related outcomes. Specifically, Mussel et al. (2011) found that epistemic openness to experience, which includes openness to actions, ideas, and values, is more strongly positively related to job performance and career success than perceptual openness to experience.

Thus, by observing individual Big Five facets rather than dimensions, I expect to find a stronger relation to NSWA characteristics. The facets openness to ideas and openness to actions

(Costa & McCrae, 1992) appear to be particularly fitting with the independent contracting demands of keeping skills current and frequently adjusting to new environments. Openness to ideas is a personality facet describing an individual's intellectual curiosity and enjoyment of learning (Christensen et al., 2019; Costa & McCrae, 1992), which is what is required of individuals needing to stay current with their skills. The facet openness to actions speaks to the individual's preference of variety over routine and their willingness to experience new activities and places (Christensen et al., 2019; Costa & McCrae, 1992), which would match well with the requirement of independent contractors to adjust to new environments frequently. Hence, I offer the following propositions:

Proposition 1c: Individuals who choose independent contracting are likely to be high in openness to ideas.

Proposition 1d: Individuals who choose independent contracting are likely to be high in openness to actions.

Finally, independent contractors must obtain future work and clients themselves (Kalleberg et al., 2000; Wilkin, 2013). This demand is based on project-based assignments, such that the worker is in a contract relationship with a given client for only a limited duration. Some independent contractors may establish long-term relationships with at least some of their clients (McLean Parks et al., 1998). Nevertheless, a lucrative flow of projects and continuous success necessitate that these individuals build networks that can provide information, leads, and references (Barley & Kunda, 2006; Osnowitz & Henson, 2016) and that they communicate their brand (Ashford et al., 2018).

The personality trait extraversion, which describes assertive, talkative, sociable individuals who tend to take initiative (Barrick & Mount, 1991; Norman, 1963), seems fitting for

this networking demand. Research has shown that a high degree of extraversion relates positively to instrumental and informational social support as well as network intensity (Barańczuk, 2019; Fang et al., 2015; Wanberg et al., 2000). Indeed, Caliendo et al. (2014) found that individuals entering self-employment tended to be high in extraversion. However, Bozionelos (2017) found that the relationship between extraversion and instrumental network resources is that of an inverted U-shape and suggested that some facets of extraversion may be a hinderance in building network resources. Therefore, I take a more nuanced approach by matching extraversion facets to the networking demand of independent contracting.

In their research about independent contractors, Barley and Kunda (2006) pointed out that these individuals must be able to network, bargain, and interview, which fits with the persuasive aspect of extraversion needed for rewards-related work contexts (Wilmot et al., 2019). This persuasiveness, in turn, may be represented best by the extraversion facet of assertiveness, which describes dominant and socially ascendant individuals who speak without hesitation and tend to be leaders (Costa & McCrae, 1992). As a result, I expect the following for individuals choosing independent contracting:

Proposition 1e: Individuals who choose independent contracting are likely to be high in assertiveness.

To summarize, independent contracting demands of workers to control their own work, bear the economic risks of that work, keep their skills current, frequently adjust to new work environments, and obtain future work on their own. Therefore, successful independent contractors likely have high occupational self-efficacy, risk propensity, openness to ideas, openness to actions, and assertiveness, respectively.

Needs-Supplies Fit. The literature further indicates that certain qualities of the work environment in independent contracting uniquely can meet individuals' needs.

As discussed previously, independent contracting is characterized by the worker's administrative self-control, or self-direction. Therefore, this work arrangement provides individuals with the opportunity to make autonomous decisions over how and when work is done, which projects should be accepted, and over training and development (Cappelli & Keller, 2013; Kalleberg et al., 2000). This work environment supply may be associated with two needs.

The first need is autonomy. Autonomy describes an individual's need to defy authority or seek freedom, strive for independence, and resist others' influence (Murray, 1938) and is reflected in the degree to which an individual's activities are self-chosen and self-endorsed (Sheldon et al., 2001). In the work context, job autonomy can be provided by giving individuals the freedom, independence, and discretion in scheduling and carrying out their work (Hackman & Oldham, 1975), all of which can be found in independent contracting. Indeed, Kunda et al. (2002) found that one reason individuals enter independent contracting was the anticipation of more autonomy than in a standard work arrangement. Relatedly, self-employed individuals were found to strongly value self-direction (Warr, 2018), and individuals doing independent work reported not seeking employment with an organization because they did not want to be controlled and have their productivity constrained (Petriglieri et al., 2019). Therefore, I expect the following for independent contractors:

Proposition 2a: Individuals who choose independent contracting are likely to have a high need for autonomy.

Second, the worker's ability to direct which new projects to acquire and when, combined with the limited duration of individual projects, allows independent contractors to arrange their

schedules according to their personal preferences and other commitments, possibly distributing work hours to gain flexibility, taking time away from work between projects, or both (Osnowitz & Henson, 2016; Spreitzer et al., 2017). This suggests that independent contracting is suitable for individuals who need workplace flexibility in order to meet private life needs. Workplace flexibility is defined as "the ability of workers to make choices influencing when, where, and for how long they engage in work-related tasks" (Hill et al., 2008, p. 152). Research has shown that successful integration of work and family life is associated with positive outcomes in the work and personal spheres (Jones et al., 2008). According to Hill et al. (2008), workplace flexibility can be achieved through several means, including flexibility in time of work, place of work, benefits, and employment structures. The latter type of flexibility includes options in the employment contract and suggests that independent contracting, among other arrangements, provides flexibility through its inherent characteristics. In turn, I propose the following:

Proposition 2b: Individuals who choose independent contracting are likely to have a high need for workplace flexibility.

The self-direction offered in independent contracting also means that the worker is in charge of a high-risk business and their own professional development (Cohany et al., 1998; McLean Parks et al., 1998; van den Born & van Witteloostuijn, 2013). Doing so successfully can supply the independent contractor with a meaningful sense of accomplishment, in turn fulfilling the individual need for competence or achievement. This need reflects the attainment or exceeding of a standard, capacity, or proficiency (Sheldon et al., 2001; White, 1959). Competence encompasses an individual's desire to exercise power, to strive for successfully completing difficult tasks and to overcome obstacles (Murray, 1938). An independent contractor who decides to be their own boss despite the possible perils, who works hard to complete

projects autonomously, and who actively engages in furthering their own proficiencies should feel such competence. Indeed, related research has found that the need for achievement was a key characteristic among self-employed individuals (Lee-Ross, 2015). Thus, I expect the same for individuals choosing independent contracting, leading to the following proposition:

Proposition 2c: Individuals who choose independent contracting are likely to have a high need for competence.

Finally, given the typical limited duration of individual client contracts (Cappelli & Keller, 2013; Wilkin, 2013), independent contractors experience a great variety in projects and work environments. Therefore, with every contract completion comes a new project that may provide unique circumstances and challenges. As a result, I believe this NSWA is suitable for individuals with a high need for novelty. The need for novelty is defined as "the need to experience something not previously experienced or deviates from everyday routine" (González-Cutre et al., 2016, p. 162). Indeed, individuals valuing novelty and excitement in life were found to prefer jobs where they could use their own initiative (Başlevent & Kirmanoğlu, 2013), as is the case in independent contracting. In addition, Kunda et al. (2002) found that trigger situations like boring or routine work, as well as anticipated greater job variety are among the reasons for individuals to become independent contractors. According to Warr (2018), self-employed people tend to value novelty and excitement more strongly than organizational workers. This leads me to the following proposition for independent contractors:

Proposition 2d: Individuals who choose independent contracting are likely to have a high need for novelty.

To summarize, independent contracting supplies workers with the opportunity to take charge and direct their own work, decide which projects and clients to acquire and when, and to

engage in self-selected developmental activities. Due to frequent changes in projects and clients, the NSWA also offers large variety. All of the aforementioned supplies can be associated with the needs for autonomy, workplace flexibility, competence, and novelty.

Temporary Staffing Agency Workers

This work arrangement encompasses workers (1) who temporarily replace a permanent worker who is on leave (e.g., medical reasons, vacation), (2) who are added to an organization's permanent workforce due to increased staffing needs for a limited period of time, and (3) with specialized skills that are needed only infrequently by an organization (Cohany, 1996).

While other work arrangements are characterized as relationships between two parties (i.e., the employer and the employee), in the temporary staffing agency work arrangement, a third party, the temporary staffing agency, is added to the employment relationship. Therefore, the employment relationship is triangular. In particular, the temporary staffing agency is the de Jure employer and has major administrative control over the worker through functions such as recruiting and selection, provision of assignments, compensation and employment taxes, and sometimes training (Cohany et al., 1998; McLean Parks et al., 1998; Pfeffer & Baron, 1988; Spreitzer et al., 2017). Nevertheless, since the worker is utilized by the client at whose site the assignment takes place, the client (de Facto employer) exerts some administrative control as well, mainly through day-to-day oversight (e.g., attendance) and directing of the work (Ashford et al., 2007; Kalleberg et al., 2000; McLean Parks et al., 1998).

Temporary agency work arrangements are found most commonly in the production occupations, transportation and material moving occupations, professional and related occupations, as well as office and administrative support occupations (U.S. BLS, 2018c).

Demands-Abilities Fit. The unique characteristics of temporary staffing agency work place several specific demands on workers in this type of NSWA. Based on those NSWA characteristics, I can derive specific abilities, or individual difference factors, workers in temporary staffing agency arrangements are likely to exhibit.

First, the triangular relationship between worker, agency, and client has unique implications for the duration of employment. On the one hand, individual work assignments for temporary staffing agency workers, by nature, are of a limited duration (Cohany et al., 1998; Pfeffer & Baron, 1988), such that the worker likely switches de Facto employers frequently (Rogers, 2000). On the other hand, the worker may have an ongoing arrangement with the temporary staffing agency, in which the agency continues to provide the worker with new assignments (Kalleberg et al., 2000). Thus, temporary staffing agency workers may experience stability in their relationship with the agency while simultaneously changing clients and assignments on a regular basis. Due to the limited duration of a given client assignment, temporary staffing agency workers have to adjust to new work locations and environments as well as tasks, duties, responsibilities, and processes more often than would be the case in ongoing work arrangements. Open-minded individuals who are welcoming to new activities and places should be able to handle such frequent adjustments successfully. Thus, similar to independent contracting discussed previously, individuals who are open to actions (cf., Costa & McCrae, 1992) are expected to fare well in temporary staffing agency arrangements. This leads to the following proposition:

Proposition 3a: Individuals who choose temporary staffing agency work are likely to be high in openness to actions.

At the same time that temporary agency workers must show high openness to actions, these individuals have to comply with frequently changing narrowly defined tasks, duties, and responsibilities, following the directions given by de Facto employer-provided supervisors. The well-specified work is a result of the triangular relationship between agency, client, and worker. This relationship requires the individual to work under two parties sharing administrative control but, at times, having diverging interests (De Cuyper et al., 2009). Thus, tasks in temporary assignments often are defined carefully, narrow in scope, and well-monitored (Davis-Blake & Uzzi, 1993; McLean Parks et al., 1998). Relatedly, temporary staffing agency work has been associated with low autonomy and influence in workplace decisions, including how work is designed and implemented (Aletraris, 2010; De Cuyper et al., 2008; Kompier et al., 2009).

Aletraris (2010) found that this lack of autonomy had a negative impact on work-related outcomes for temporary agency workers in Australia. However, for other temporary work arrangements with similarly lacking autonomy, no such effect was found (De Cuyper et al., 2010; De Cuyper & De Witte, 2006). This divergence could be explained with preferences and expectations of workers entering into different work arrangements. In particular, De Cuyper et al. (2010) posited that temporary workers did not expect their work to be highly autonomous and thus did not report negative effects when they did not experience autonomy. Relatedly, research among nurses suggests that a worker's preference for autonomy impacts how the absence or presence of particular job characteristics influences work-related outcomes, such that low preference for autonomy has a negative impact on the presence of autonomy on the job and leads to negative outcomes (Landeweerd, 1994).

Individuals who value conformity may fare better in an environment offering little job autonomy, because they are more prone to complying with set principles (Roccas et al., 2002).

Conformity itself is reflected in an individual's tendency towards dutifulness, a personality facet of conscientiousness (Barrick & Mount, 1991; Roccas et al., 2002). An individual high in dutifulness will adhere to established standards (Barrick & Mount, 1991). Thus, they should be more likely to follow the orders and processes laid out by management without questioning them or performing the job differently than they were told, as they are required to do in temporary staffing agency work arrangements. Therefore, I expect individuals choosing this NSWA to demonstrate a high level of dutifulness. In turn, I propose the following:

Proposition 3b: Individuals who choose temporary staffing agency work are likely to be high in dutifulness.

Lastly, despite the ongoing relationship with the staffing agency, the duration of a given assignment may not be definitively foreseeable or a new assignment may not become available for the worker immediately after the previous one ended (McAllister, 1998; Rogers, 2000). Therefore, temporary staffing agency work requires workers to tolerate the related uncertainties, financial and otherwise. Uncertainty tolerance is defined as "the set of negative and positive psychological responses – cognitive, emotional, and behavioral – provoked by the conscious awareness of ignorance about particular aspects of the world" (Hillen et al., 2017, p. 70) Individuals with high uncertainty tolerance accept that future situations are unpredictable and may entail negative events for them (Grenier et al., 2005). Indeed, individuals high in this trait actively may seek such unpredictable situations (Otto & Dalbert, 2010), which implies that they are likely to choose temporary staffing agency work arrangements. Thus,

Proposition 3c: Individuals who choose temporary staffing agency work are likely to be high in uncertainty tolerance.

To summarize, temporary staffing agency work demands that individuals frequently adjust to new work environments, work in highly specified assignments with narrow scope, and cope with the fact that future assignments are not guaranteed. These demands can be associated with the worker's high openness to actions, high dutifulness, and high uncertainty tolerance, respectively.

Needs-Supplies Fit. Existing literature also offers suggestions for the work environment temporary staffing agency work arrangements can supply to uniquely meet individuals' needs.

Temporary staffing agency work arrangements are characterized by individual assignments that tend to be of limited duration (Cohany et al., 1998). In addition, workers are not required to enter into a new assignment immediately after the previous one ended (Ashford et al., 2018). Thus, temporary staffing agency work arrangements may offer a great degree of flexibility for workers needing to balance work and other obligations. Indeed, studies have shown that a preference for flexibility is one of the prevailing reasons mentioned for being a temporary staffing agency worker (Cohany et al., 1998; Morris & Vekker, 2001; Pfeffer & Baron, 1988; von Hippel et al., 1997). Relatedly, workers indicated that temporary arrangements allowed them to feel balance in their family and personal lives (Feldman, 2006; Tan & Tan, 2002). As discussed previously, one way to achieve workplace flexibility is through employment contracts (Hill et al., 2008). Temporary staffing agency arrangements may allow workers to take time off between individual, limited-duration assignments. Thus, I argue temporary staffing agency work arrangements supply opportunities for workers to fulfill their need for workplace flexibility. In turn, I expect the following:

Proposition 4a: Individuals who choose temporary staffing agency work are likely to have a high need for workplace flexibility.

Furthermore, the limited-duration assignments with a given client can provide individuals with the opportunity to change work settings and duties frequently. In some cases, this may even mean changing geographic locations. Such changes allow workers to immerse themselves into new contexts and alleviate the potential boredom that may arise with a lack of variety. Relatedly, as Cohany et al. (1998) stated, some temporary staffing agency workers preferred variety in work contexts over a more predictable standard job. In addition, Thomas (1989) suggested that unskilled and semi-skilled individuals could improve their constraint-ridden work experience through "tourism," described as the movement between jobs at a given skill level in search of diversity of experience, to alleviate boredom stemming from having mastered a restricted task. The concept was taken from Pape's (1964) description of nurses who used occupational mobility for the purpose of touring appealing geographic locations, an idea that may be associated with present day agency-employed travel nurses (cf., Faller et al., 2012). Thus, individuals choosing temporary staffing agency work may be motivated by their need for novelty (González-Cutre et al., 2016). This leads me to the following proposition:

Proposition 4b: Individuals who choose temporary staffing agency work are likely to have a high need for novelty.

Finally, temporary staffing agencies are known for offering workers training opportunities (Cohany et al., 1998), allowing individuals to advance their skills and to learn something new. Additionally, while temporary staffing agency work is often associated with portable (i.e., general) skills (Davis-Blake & Uzzi, 1993), workers still can accumulate valuable professional experiences by applying their skills to varying assignments over time. Agency-employed travel nurses, for example, reported that this type of temporary work offered them a way to gain experiences through the exposure to different types of hospital management,

different cultures, and new procedures (Faller et al., 2012). Thus, temporary staffing agency work may offer positive developmental challenges to workers.

Indeed, the desire to obtain useful skills and experiences, and to have the opportunity for self-improvement is another frequently cited reason for entering temporary staffing agency work arrangements (Cohany et al., 1998; Morris & Vekker, 2001; Tan & Tan, 2002; von Hippel et al., 1997). This desire to grow professionally through skill development and acquisition of experience can be associated with the need for competence or achievement. This need encapsulates the attainment of proficiency and skill (White, 1959). Since temporary staffing agency workers are provided with the opportunity to further their human capital within their profession through additional training and frequent immersion into new, related work contexts, temporary staffing agency work arrangements may fulfill the individual need for competence. Therefore, I expect the following:

Proposition 4c: Individuals who choose temporary staffing agency work are likely to have a high need for competence.

To summarize, temporary staffing agency work arrangements provide individuals with opportunities to take time away from work between limited-duration assignments, agency-provided trainings and varying work experiences, and frequent changes in work contexts. These NSWA supplies can be associated with needs for workplace flexibility, competence, and novelty, respectively.

On-Call and Direct-Hire Temporary Workers

The work arrangements in this category of NWSA differ from standard work arrangements primarily with regard to duration of employment as described by Pfeffer and Baron (1988). On-call workers are "workers who are called to work only as needed, although they can

be scheduled to work for several days or weeks in a row" (U.S. BLS, 2018c, p. 2). Relatedly, direct-hire temporary workers, including seasonal workers (McLean Parks et al., 1998), are individuals hired directly by the focal organization to work at its site "for a short time on fixed-term contracts" (Kalleberg, 2000 p. 353). The de Facto and de Jure employer for on-call and direct-hire temporary workers is the same organization, such that these workers are all recruited, selected, and otherwise administratively controlled by the same employer that utilizes their labor (Gallagher & McLean Parks, 2001; Kalleberg et al., 2000). Therefore, the hiring organization is also the one directing the work, rather than the worker him- or herself (independent contracting) or a third party (temporary staffing agency work; Kalleberg et al., 2000).

On-call workers most typically are found in the professional and related occupations and the service occupations (U.S. BLS, 2018c). The U.S. BLS CPS CWS does not track direct-hire temporary workers per se, but existing research suggests that these workers may be found in larger organizations needing temporary or seasonal help especially in the production occupations and service occupations (Connelly & Gallagher, 2004; Spreitzer et al., 2017).

Demands-Abilities Fit. The distinctive characteristics of on-call work and direct-hire temporary work place several specific demands on workers in this group of NSWAs. Based on those NSWA characteristics, we can derive specific abilities, or individual differences, workers in on-call work and direct-hire temporary work arrangements are likely to exhibit.

Employment for both on-call workers and direct-hire temporary workers is not assumed to be continuous (Kalleberg et al., 2000). Instead, on-call workers, as the name implies, only work "when they specifically are asked to do so" (Cohany et al., 1998, p. 61), based on the organization's varying scheduling needs (McLean Parks et al., 1998). Work may be required or cancelled by the employer on short notice, and work schedules may be irregular (Spreitzer et al.,

2017). Similarly, direct-hire temporary workers typically fill vacancies that are of limited duration and that may become obsolete after a short period of time (e.g., replacements for maternity leave, seasonal demand fluctuations; McLean Parks et al., 1998). Overall, while on-call arrangements may have shorter working spells than direct-hire temporary arrangements, the duration of a given assignment generally is limited and often determined on short notice for both.

This requires workers in both arrangements to be flexibly available on an as-needed basis. Presumably, such flexibility is likely to be found in individuals who are marginally attached to the labor force (Pfeffer & Baron, 1988). This may include individuals who experience or expect absenteeism due to their own or someone else's illness, who restrict their own work hours and location, or who plan to quit work (e.g., retire; Corcoran & Duncan, 1979). It also may include individuals who have low employment commitment, i.e., who have little desire to participate in the paid workforce (Gallagher & McLean Parks, 2001; Iles et al., 1990; Warr & Jackson, 1984). As a result, I expect the following:

Proposition 5a: Individuals who choose on-call and direct-hire temporary work are likely to be low in employment commitment.

In addition, and similar to temporary staffing agency arrangements, the unpredictability of future assignments with the employer and timing of such requires workers to manage high levels of uncertainty. Therefore, individuals with high uncertainty tolerance (as discussed previously), may be fitting for on-call and direct-hire temporary work. In turn, I propose the following:

Proposition 5b: Individuals who choose on-call and direct-hire temporary work are likely to be high in uncertainty tolerance.

Despite the limited duration of individual assignments, on-call and direct-hire temporary workers may have an implicit or explicit understanding with the employer that they be considered for future short-term assignments (Connelly & Gallagher, 2004). For example, organizations may have established registries of workers to contact for temporary needs (McLean Parks et al., 1998), and organizations using seasonal work arrangements may find benefit in rehiring those temporary workers in future seasons (McDonald & Makin, 2000; Newman & Drost, 2008).

The possible recurrence(s) of an assignment with the same organization, together with the short-term nature of a given assignment, implies that workers have to be able to perform the same work fairly quickly after being called or (re)hired. Therefore, one reasonably may assume that these types of assignments incorporate mainly narrowly defined and standardized tasks (Guillaume et al., 2019) that provide little autonomy, similar to jobs in temporary staffing agency work arrangements. Workers in these arrangements must accept that they will not have much job autonomy and instead will perform tasks that are to be completed using clearly laid out standards. In other words, those workers must be highly conforming. Consequently, I expect individuals who are characterized by high dutifulness (as discussed previously) to be more fitting for this NSWA type. This leads to the following proposition:

Proposition 5c: Individuals who choose on-call and direct-hire temporary work are likely to be high in dutifulness.

In summary, on-call and direct-hire temporary work arrangements demand the worker be available on short notice, cope with the unpredictability of future assignments, and work in highly specified assignments with narrow scope. Those requirements may be met best by

individuals who have low employment commitment, high uncertainty tolerance, and high dutifulness, respectively.

Needs-Supplies Fit. Existing literature offers indications for the work environment on-call and direct-hire temporary work can supply, from which I derive the needs individuals choosing this group of NSWAs may have.

On-call and direct-hire temporary work arrangements offer individuals substantial flexibility through the contingent nature of individual assignments, i.e., the structure of the employment contract (Hill et al., 2008). That is, these workers may be able to enjoy prolonged periods of downtime between working spells and use that time according to their personal preferences, which would not be possible in ongoing work arrangements. Therefore, I expect that individuals who have a need for workplace flexibility to have an affinity for this type of work arrangement, may it be to balance family and work (Feldman, 2006; Morris & Vekker, 2001), an inherent desire for flexible scheduling (Feldman, 2006), or because they are less attached to the labor market (as discussed previously). This leads to the following proposition:

Proposition 6a: Individuals who choose on-call and direct-hire temporary work are likely to have a high need for workplace flexibility.

At the same time, on-call and direct-hire temporary work arrangements often include an explicit or implicit understanding that the worker may be asked to return for limited-duration assignments at the same organization (Connelly & Gallagher, 2004). This gives individuals the opportunity to continue an engagement with one particular employer while maintaining a high degree of workplace flexibility. Thus, despite the limited duration of individual assignments, on-call and direct-hire temporary work arrangements can provide opportunities to develop interpersonal relationships and a sense of belonging to the organization and its members.

Given this supply, I expected that individuals in this group of NSWAs tend to have a relatively greater need for relatedness than individuals in other NSWAs. The need for relatedness, or affiliation, refers to the desire to form associations and to frequent, repeating, affectively pleasant interactions with others (Ryan & Deci, 2000). As individuals in on-call and direct-hire temporary work arrangements have the opportunity to develop a sense of belonging with that organization, even if individual working spells are only of a limited duration, I expect the following:

Proposition 6b: Individuals who choose on-call and direct-hire temporary work are likely to have a high need for relatedness.

In summary, on-call and direct-hire temporary work arrangements can supply workers with limited-duration assignments and the opportunity for off-time between assignments, while also including an implicit or explicit understanding of providing future assignments with the organization. The work environment elements that this NSWA supplies may be fitting for individuals who have a high need for workplace flexibility and relatedness, respectively.

Remote Workers

Remote workers are individuals who have a direct employment relationship with the organization utilizing their labor, such that de Facto and de Jure employer are the same entity (Spreitzer et al., 2017). However, instead of performing their jobs at the employer's facility as they normally would, these individuals work at dispersed sites (Ashford et al., 2007; Pfeffer & Baron, 1988). Thus, while administrative control rests with the de Facto employer, with whom these workers typically have an ongoing employment relationship, they physically are detached from that employer. Rather, they may work at home, a coffee shop, a co-working space, or any other remote location (Gajendran & Harrison, 2007; Spreitzer et al., 2017).

Remote work often is associated with telecommuting or telework, a workplace flexibility solution aimed at giving workers the opportunity to achieve work-life balance such that individuals may perform part or all of their work tasks off-site (Gajendran & Harrison, 2007; Hill et al., 2008). Hence, telecommuting may be performed for only one or two days during the work week (low-intensity remote work), or on a full-time basis where the employee works remotely exclusively (high-intensity remote work; Gajendran & Harrison, 2007). In the context of this dissertation, the focus will be on high-intensity remote work to highlight differences between this NSWA as defined by Pfeffer and Baron (1988) and work arrangements without physical externalization from the (de Facto) employer.

Remote work appears to be most common in management, business, and financial occupations as well as professional and related occupations (U.S. BLS, 2018a).

Demands-Abilities Fit. The unique characteristics of remote work place several specific demands on workers. Based on remote work's characteristics, I derive specific abilities, or individual difference factors, workers choosing remote work arrangements are likely to exhibit.

Overall, the physical detachment from the employer has three implications for demands set forth by remote work. First, direct oversight by the employer is limited (Squires, 2009) and supervisors and coworkers are not easily accessible (Daniels et al., 2001) compared to work arrangements carried out at the employer site. Therefore, the remote work arrangement requires the worker to be confident in their competence to perform the work without managers, administrative staff, and coworkers present to provide direction and advice, or to monitor the worker (Pearlson & Saunders, 2001; Sikes et al., 2011).

For workers to successfully perform their work in this environment, they should have confidence in their ability to perform the work independently. Therefore, I expect remote

workers to have a high degree of occupational self-efficacy. Indeed, research found that self-efficacy in remote workers relates positively with various work-related outcomes, such as performance and productivity (Staples et al., 1999) as well as adjustment (Raghuram et al., 2003). These findings indicate the importance of occupational self-efficacy for meeting the demands of remote work arrangements. In turn, I propose the following:

Proposition 7a: Individuals who choose remote work are likely to be high in occupational self-efficacy.

Relatedly, working away from the employer site and without direct managerial control implies that the work environment is more unstructured compared to standard, temporary staffing, on-call and direct-hire temporary work arrangements. That is, work times may not be defined clearly, pressures to organize the work space and times largely may be absent, and the need to respond to office cues such as calls and emails may not be perceived as urgent as are direct conversations (Raghuram et al., 2003).

Therefore, to complete tasks and perform in accordance with the employer's expectations, remote workers must follow through on their tasks and resist inner urges to postpone work. This ability is reflected in self-discipline, a facet of the personality trait conscientiousness (Barrick & Mount, 1991). Lacking a high degree of self-discipline may lead to procrastination and other unproductive behaviors (Costa & McCrae, 1992), especially when individuals work from home (Ammons & Markham, 2004; Pearlson & Saunders, 2001), as non-work distractions are more likely to occur than in the workplace and oversight is low. High self-discipline, however, enables individuals to "begin tasks and carry them through to completion despite boredom and other distractions" (Costa & McCrae, 1992, p. 18). Thus, self-discipline appears to be crucial for meeting remote work arrangement demands, and I expect the following:

Proposition 7b: Individuals who choose remote work are likely to be high in self-discipline.

Finally, working remotely also means that those employees are likely to work in isolation; that is, they have noticeably fewer opportunities for in-person interactions with their coworkers and managers (Daniels et al., 2001; Spreitzer et al., 2017). Indeed, a telecommuting meta-analysis showed that relationships with coworkers were significantly negatively affected for individuals in high-intensity remote work arrangements (Gajendran & Harrison, 2007). In addition, Sikes et al. (2011) found that remote workers may tend to fall "out-of-sight, out-of-mind" (p. 22) and keep in the background even when phone or video conferences with others from the organization take place. As a result of this reduced social interaction, I expect that individuals who generally are less sociable to fit into remote work arrangements.

The personality trait describing a person's level of sociability is described well by the extraversion facet, gregariousness (Wilmot et al., 2019). Highly gregarious individuals like to be around others and find it difficult to work alone (Costa et al., 1995; Costa & McCrae, 1992). Individuals low in gregariousness, however, are characterized as "loners who do not seek–or who even actively avoid–social stimulation" (Costa & McCrae, 1992, p. 17). It is the latter type of individual that likely fares better in a work arrangement in which the level of social interaction is diminished due to physical absence from the workplace. Therefore, I propose the following:

Proposition 7c: Individuals who choose remote work are likely to be low in gregariousness.

To summarize, remote work arrangements require individuals to work without direct oversight and in isolation. These demands should be met well by individuals who have high occupational self-efficacy and self-discipline, and who are low in gregariousness.

Needs-Supplies Fit. Existing literature further offers indications for the work environment remote work can supply, from which we can derive the needs individuals choosing this NSWA may have.

First, working without direct oversight and managerial direction, remote work arrangements offer their incumbents the opportunity to take charge of structuring their schedules and otherwise self-managing their work (Spreitzer et al., 2017). In turn, remote workers can self-manage their workspaces and develop their own work routines and schedules (Sikes et al., 2011), rather than having to comply with an office schedule and other restrictions set forth by a central worksite. This NSWA supply suggests that remote workers are provided with greater autonomy (Ammons & Markham, 2004; Daniels et al., 2001), relative to work arrangements where the employee is on site. Indeed, Gajendran and Harrison (2007) found in their meta-analysis of telecommuting studies that individuals in remote work arrangements tend to perceive high levels of autonomy. Therefore, I deem remote work fitting for individuals with a high need for autonomy, as expressed in the following proposition:

Proposition 8a: Individuals who choose remote work are likely to have a high need for autonomy.

Second, in remote work, the boundaries of time and space are relaxed, allowing individuals to work whenever and wherever they prefer (Kossek & Lautsch, 2018; Pearlson & Saunders, 2001). As a result, remote workers have the opportunity to balance their personal and work lives (Ammons & Markham, 2004; Daniels et al., 2001; Hill et al., 2008). This also may be why high-intensity telecommuting was found to negatively relate to work-family conflict (Gajendran & Harrison, 2007). Indeed, research suggests that individuals with caregiving responsibilities for children, elderly, or disabled family members may benefit highly from

telecommuting opportunities (Bainbridge & Townsend, 2020; Harpaz, 2002). It should be noted, however, that successfully managing remote work and family demands to reduce work-family conflict necessitates that the workers is able to set clear boundaries between work and family even when working at home (Kossek et al., 2006), an idea reflected in this NSWA's demand for the worker to have high self-control. Given that the worker has this ability, I propose that remote work is likely to be voluntarily chosen by individuals who have a high need for workplace flexibility, as expressed in the following proposition:

Proposition 8b: Individuals who choose remote work are likely to have a high need for workplace flexibility.

Lastly, remote work is not considered a contingent arrangement, since the relationship with the employer in remote work arrangements is typically ongoing (Kalleberg et al., 2000). In ongoing relationships, employment is ensured as long as the organization has no reason to terminate the worker (e.g., due to low job performance or downsizing; Stanford, 2017). Therefore, remote workers should feel more secure in their job (Parker et al., 2002) than would be the case in contingent arrangements.

Job security describes an individual's perception of having power to "maintain desired continuity in a threatened job situation" (Greenhalgh & Rosenblatt, 1984, p. 438) and has been related to an individual's general need for security. This need for security may be associated with an individual's economic and social standing as well as their desire for conservation and retention (Başlevent & Kirmanoğlu, 2013; Murray, 1938). In fact, Blum (1975) found that the need for job security is related to individuals' choices of occupations and jobs. Thus, individuals choosing remote work arrangements may display a high need for security, as stated in the following proposition:

Proposition 8c: Individuals who choose remote work are likely to have a high need for job security.

To summarize, remote work arrangements provide individuals with the opportunity to work without direct oversight from a convenient location, to determine their own schedules, and to simultaneously maintain an ongoing employment relationship. The work environment elements that this NSWA supplies can be associated with individual needs related to autonomy, workplace flexibility, and security.

Workers Provided by Contract Firms

Workers provided by contract firms, sometimes called subcontracted workers (McLean Parks et al., 1998) or vendors-on-site (Cappelli & Keller, 2013), are "workers who are employed by a company that provides them or their services to others under contract, are usually assigned to only one customer, and usually work at the customer's worksite" (U.S. BLS, 2018c, p. 2). These typically include services that are entirely outsourced by the customer, or client company, such as security, janitorial, landscaping, and computer programming (Cohany, 1996; U.S. Equal Employment Opportunity Commission [EEOC], 1997). Similar to temporary staffing agency workers, contract firm workers are in a triangular employment relationship with two different parties. However, while temporary staffing agencies and client firms operate under co-employment and share administrative control over workers (Cappelli & Keller, 2013), contract firms (i.e., de Jure employers) also assume operational responsibility over the provided service (U.S. EEOC, 1997). In addition, while temporary staffing agency workers typically are considered contingent, even if they may work with the agency over the span of multiple assignments, workers provided by contract firms typically are employed by the contract firm on an ongoing basis (Bernhardt et al., 2016; McLean Parks et al., 1998). At the same time, the

engagement with a given client (i.e., de Facto employer) lasts only a limited period of time, so long as the written agreement with the contract firm specifies (McLean Parks et al., 1998).

Contract firm work arrangements occur most commonly in professional and related occupations and service occupations (U.S. BLS, 2018c).

Demands-Abilities Fit. The unique characteristics of work provided by contract firms place several demands on workers. From the characteristics of contract firm work arrangements, we can derive specific abilities, or individual differences, workers choosing contract work arrangements are likely to exhibit.

Overall, it is typical for the contract firm to maintain full administrative control over its workers, including hiring and placement, payroll, and training (Pfeffer & Baron, 1988; U.S. EEOC, 1997), as well as day-to-day direction and supervision (Kalleberg et al., 2000; McLean Parks et al., 1998). However, workers in this arrangement are placed at the client site and thus physically detached from the de Jure employer (Cohany et al., 1998). As a result, workers provided by contract firms are required to complete assigned tasks with limited direct oversight, especially if the contract firm assigns no supervisor to the client site. As a result, individuals in this NSWA need to be confident in their ability to perform their jobs. Thus, similar to remote workers, workers provided by contract firms are expected to have a high degree of occupational self-efficacy, and I expect the following:

Proposition 9a: Individuals who choose contract firm work are likely to be high in occupational self-efficacy.

Furthermore, working at a site other than the de Jure employer's premises and completing a service that was outsourced by the client implies that those individuals likely work in isolation. That is, workers have noticeably fewer opportunities for in-person interactions with coworkers

and managers as they are physically detached from their employer. Contact with individuals associated with the client also may be limited, especially if the outsourced service completed at the client site is kept separate from the client's core operations with regard to time and/or place (e.g., performance of services during non-business hours or in separate spaces on the client premises). Yet, even if workers provided by contract firms interact with the de Facto employer's staff frequently, it is possible that these workers identify less with and commit less to the staff, especially given that subcontracting time frames are finite (McLean Parks et al., 1998). In turn, these individuals either may not be able to or may not desire to socialize with other organizational members of either the contract firm or the client. Therefore, I suggest that individuals low in gregariousness may be more fitting for contract firm work arrangements, as expressed in the following proposition:

Proposition 9b: Individuals who choose contract firm work are likely to be low in gregariousness.

Finally, similar to temporary staffing agency work arrangements, workers in contract firm work arrangements engage in a particular client assignment for a limited period of time, as dictated by the vendor contract (Beard & Edwards, 1995; Cohany, 1996). While the length of vendor contracts can vary from month-to-month arrangements to many years, the typical contract duration is about five years (Deloitte, 2013). After that, contract renewal with the same client is not guaranteed, especially when the contract firm is small and has little bargaining power (Bernhardt et al., 2016). As a result, workers provided by contract firms may have to move to a different client, which provides them with a new work environment. Therefore, the contract firm work arrangement requires individuals to be open to such changes, which is reflected in the personality trait openness to actions (discussed previously). In turn, I expect that voluntary

workers provided by contract firms exhibit a high degree of openness to actions. This expectation is reflected in the following proposition:

Proposition 9c: Individuals who choose contract firm work are likely to be high in openness to actions.

To summarize, contract firm work arrangements require individuals to complete outsourced services at the client site with limited oversight from the employer, little contact with the client, and for a limited time with a given client. Based on these demands, individuals with high occupational self-efficacy, low gregariousness, and high openness to actions may be more fitting for this type of NSWA.

Needs-Supplies Fit. Existing literature also offers insights into the supplies the work environment may provide to uniquely meet contract firm works' needs.

First, workers provided by contract firms are responsible for delivering the good or service that is the subject of the contract between contract firm and client firm (Cappelli & Keller, 2013). That is, the contract firm controls how the good or service is produced (Cappelli & Keller, 2013). Yet, contract firm workers typically complete their job at the client site while being fully administratively controlled by the contract firm (as discussed previously). Therefore, these workers may not receive on-site supervision and direction, which gives them discretion and independence when performing their jobs. This means that contract firm work arrangements offer individuals the opportunity to fulfill their need for autonomy. As a result, I expect that individuals who select into contract firm work arrangements make this choice to fulfill their high need for autonomy, which leads to the following proposition:

Proposition 10a: Individuals who choose contract firm work are likely to have a high need for autonomy.

Second, as discussed previously, individual assignments with a client firm typically are of a pre-specified, limited duration. Once the contract between contract firm and client firm ends, the workers assigned to that client may have the opportunity to move to a new client site, thus changing their work environment. Individuals with a pronounced need for novelty (i.e., the desire to experience new situations) may thus feel that need met well by contract firm work arrangements. In turn, I expect that the need for novelty is high among individuals choosing contract firm work arrangements. This leads to the following proposition:

Proposition 10b: Individuals who choose contract firm work are likely to have a high need for novelty.

Finally, while assignments with individual clients are of a limited duration, the duration of employment with the contract firm typically is ongoing (Bernhardt et al., 2016; Kalleberg et al., 2000). The most recent CPS CWS data provide further evidence for this distinction by showing that the vast majority (85%) of contract firm arrangements are considered noncontingent (U.S. BLS, 2018c). That is, even if an individual client assignment ends, contract firm workers likely will be assigned to a subsequent, new assignment since they are considered part of the contract firm's permanent staff. This characteristic of an ongoing, long-term relationship with the contract firm suggests that workers provided by contract firms may feel more secure in their jobs than would be the case in contingent work arrangements such as the temporary staffing agency work arrangement. Therefore, workers choosing contract firm work arrangements likely have a high need for job security, which leads to the following proposition:

Proposition 10c: Individuals who choose contract firm work are likely to have a high need for job security.

In summary, contract firm work arrangements provide workers with the opportunity to work in an ongoing relationship with the contract firm, while receiving opportunities to exercise discretion and to change work environments after individual limited-duration assignments end. These job elements supplied by this NSWA are likely to meet individuals' needs for autonomy, novelty, and security.

Discussion

As the in-depth discussion of the NSWA literature has shown, different types of NSWAs vary with regard to physical proximity to the employer, duration of the relationship, and which entity has administrative control over the worker (Pfeffer & Baron, 1988). Based on the unique set of demands and supplies for each type of NSWA, I was able to derive specific abilities and needs likely to be found in workers who choose the given NSWA.

Implications for Research and Practice

This study offers insights into the motives of voluntary nonstandard workers by indicating how those workers' abilities and needs relate to NSWA demands and abilities, and in turn, choice of particular work arrangements. Thus, one important contribution of the present chapter is the addition of a new paradigm to the P-E fit literature. As work changes and work arrangements expand, considering work arrangements as an important work environment element is critical for the advancement of P-E fit theory. Further, the P-WA framework indicates that addressing demands-abilities fit and needs-supplies fit together provides a more well-rounded picture of the choices individuals make with regard to their work environment, above and beyond the vocation and job as well as demands-abilities (or needs-supplies) alone.

In addition, having a more detailed understanding of the mechanism underlying NSWA choice provides the opportunity for future research about personal and work-related outcomes of

professionals in NSWAs. As such, this framework provides researchers with guidelines for understanding possible antecedents to voluntary choice of particular NSWA types.

The propositions presented in this chapter point to a distinct combination of characteristics with regard to demands-abilities and needs-supplies fit for each type of NSWA. At the same time, some overlaps emerged for some of the NSWAs, such that several NSWA types may place similar demands on workers and supply comparable need-fulfilling environments. For example, I argued that independent contracting, temporary staffing agency work, on-call and direct-hire temporary work, and remote work all are suitable for individuals with a high need for workplace flexibility. At the same time, independent contracting and remote work have the potential to fulfill the individual's need for autonomy, while temporary staffing agency work and on-call and direct-hire temporary work do not. To provide another example, both independent contracting and temporary staffing agency work require workers to be open to experiences, while this is not the case for remote workers and workers provided by contract firms. Yet, remote workers and workers provided by contract firms require workers to have occupational self-efficacy, just as is the case in independent contracting.

As the examples show, it appears that each NSWA type, based on its combination of characteristics, may imply that workers voluntarily choosing one over another would fit a specific profile of abilities and needs. However, determining whether these workers can, indeed, be distinguished from each other based on their profiles is beyond the scope of this review. Future research should test combinations of characteristics empirically to determine whether such distinct profiling is possible.

One primary tenet of P-E fit is that positive outcomes accrue when the person's characteristics are congruent with those of the environment (e.g., Assouline & Meir, 1987).

Consequently, one important contribution of this chapter is to provide a guide for researchers examining P-WA fit to explore potential positive outcomes of voluntary choice of NSWAs. Toward that end, in Chapter 2, I will test whether P-WA fit leads to one possible positive outcome, namely SCS. With the specific characteristics suggested here, researchers also may explore which characteristics or individual P-WA relationships are more important and more likely to produce positive outcomes. Having an understanding of when P-WA fit occurs even may provide indications for P-WA misfit. That is, if we know which characteristics voluntary nonstandard workers have, we may derive from that which characteristics involuntary nonstandard workers do not have and how such lack of characteristics may affect those workers' outcomes.

Finally, this conceptual study provides organizations with a better understanding of the inherent characteristics found in workers willing to work in given NSWAs. Considering the prevalence of NSWAs in today's world of work, understanding why workers choose specific work arrangements appears highly relevant, especially for organizations wanting to remain flexible. Equipped with the knowledge conveyed here, organizations can target those individuals more effectively in their recruiting and selection efforts. Researchers should feel encouraged to support organizations in this endeavor by taking into account the theoretically important factors identified in the conceptual framework presented in this chapter when studying recruiting and selection methods for nonstandard workers.

Limitations

While some literature exists about the various NSWAs discussed here, especially independent contracting, temporary staffing agency work, and remote work, we still are lacking in-depth knowledge about the greater range of characteristics especially for on-call work, direct-

hire temporary work, and contract firm work. As a result, there may be additional work arrangement characteristics and individual difference factors not considered here. Thus, further research is required to help advance the NSWA literature and gain a deeper understanding of what working in various NSWAs entails.

Depending on the occupational context, there may exist general differences in work characteristics within each NSWA category (e.g., the independent contracting arrangement for an IT professional may call for different worker characteristics than the independent contracting arrangement for a carpenter). Looking at such finer specifications of work arrangements is beyond the scope of this dissertation. Therefore, future research should take into account that differences across professions may impact the demands and supplies put forth by various NSWAs, thus possibly altering the propositions provided in this study.

In sum, as work environments continue to change and the availability of various work arrangements continues to expand, a greater understanding of P-WA fit is required. I provide an initial step toward understanding voluntary choice by workers of the most prevalent NSWAs in the United States and a framework for continued expansion. In the next chapter, I empirically test whether the characteristics discussed here, indeed, can be observed among voluntary nonstandard workers, and whether P-WA fit among voluntary nonstandard workers leads to subjective career success.

CHAPTER 2:

Predicting Subjective Career Success of Voluntary Nonstandard Workers – A Person-Environment Fit Perspective

In the conceptual framework established in Chapter 1, I used P-E fit theory to argue that individuals voluntarily choose nonstandard work arrangements (NSWAs) with work arrangement characteristics that match their own personal characteristics. In particular, I used existing research on five common NSWA types to identify specific NSWA characteristics (demands and supplies) for each type. For each of those characteristics, I proposed matching individual difference factors (abilities and needs) I expected individuals voluntarily choosing those NSWA types to exhibit. P-E fit theory further suggests that such a match (i.e., person-work arrangement [P-WA] fit), can be associated with positive outcomes (e.g., Assouline & Meir, 1987; Bretz & Judge, 1994; Tranberg et al., 1993). Building on those propositions, the purpose of the current chapter is to investigate empirically whether individuals voluntarily choosing a NSWA experience P-WA fit and whether this P-WA fit relates to positive outcomes.

The Importance of Studying Subjective Career Success among Nonstandard Workers

A variety of individual or work-related outcomes can be considered when testing whether P-WA fit influences worker experiences. For example, P-E fit researchers have explored how fit relates to job satisfaction, organizational commitment, turnover intentions, strain, performance, and career success (see Kristof-Brown and Guay, 2011 and Kristof-Brown et al., 2005 for reviews). In this study, I empirically explore the connection between P-WA fit and one of those relevant outcomes, namely subjective career success (SCS). SCS is defined as the "focal career actor's evaluation and experience of achieving personally meaningful career outcomes" (Spurk et al., 2019, p. 36). I selected this outcome variable because it assesses the individual's work

experience more broadly (i.e., across individual assignments) than the job and organizational outcomes having been studied in existing NSWA research using P-E fit theory.

Previously, Maynard et al., (2006) investigated whether perceived P-E misfit among temporary workers had consequences for those workers' levels of job satisfaction and affective commitment. Similarly, Yu (2012) provided empirical evidence for the connection between P-E fit (operationalized as fit with respect to relationships and autonomy provided by the job, values shared with the organizations, and abilities required by the job) and job satisfaction and affective organizational commitment for temporary workers. However, since many NSWA types are characterized by limited-duration assignments (as discussed in Chapter 1), including the populations targeted in the above-mentioned studies, assessing job and organization-level outcomes for nonstandard workers limits our understanding of those workers' experiences to the specific assignment inhabited at the time of investigation. In other words, the available studies connecting NSWAs with P-E fit theory do not provide information on whether nonstandard workers are satisfied with or see positive outcomes from the NSWA more generally, above and beyond particular assignment experiences. Thus, the empirical investigation of whether P-WA fit brings about positive career outcomes can advance our understanding of the connection between volition and nonstandard worker outcomes on a broader, less temporal level.

In addition, SCS has been understood as an important resource for attaining other valued outcomes, including increased work motivation, improved self-concept, increased health and well-being, and decreased withdrawal (Spurk et al., 2019). All these are relevant for individual workers and their general well-being in their careers and lives, as well as for organizations seeking motivated individuals who are devoted to their work, even in work arrangements that often are portrayed as negative (e.g., Kalleberg et al., 2000).

Indeed, there exists the first empirical evidence that nonstandard workers can experience SCS. Van den Born and van Witteloostuijn (2013) studied freelancers (i.e., independent contractors) and were able to show that various individual characteristics were related to career success as measured both objectively (e.g., revenue generated) and subjectively (i.e., career satisfaction). I believe that SCS can occur not only for independent contractors, but also for other types of nonstandard workers, especially those who have voluntarily chosen such a path. This notion is supported by Marler et al. (2002), who found that temporary staffing agency workers with a preference for temporary work arrangements tended to have increased job opportunity perceptions and work satisfaction. With this study, I will expand our understanding of SCS among nonstandard workers further by exploring P-WA fit and its relationship with SCS.

Getting the Full Picture about Person-Work Arrangement Fit

The strength of the relationship between P-WA fit and SCS may differ depending on how P-WA fit is assessed. In their comprehensive review of the P-E fit literature across all types of environments, Kristof-Brown and Guay (2011) identified three common ways to measure P-E fit, ultimately concluding that a more robust understanding of fit is achieved when all forms of measurement are considered rather than when researchers focus on only one or two. Those common ways to measure P-E fit include (1) measuring perceived P-E fit directly, (2) measuring perceived P-E fit indirectly, and (3) measuring objective P-E fit indirectly.

Direct Measurement of Perceived Fit

When perceived fit is measured directly, the individual typically answers items asking how well they believe they fit with the environment (Kristof-Brown & Guay, 2011). Thus, measuring perceived P-E fit directly provides for a holistic assessment of fit and operationalizes what is in the individual's mind (van Vianen, 2018). Kristof-Brown and Guay (2011) found that

direct measures of P-E fit typically are used in studies assessing the general compatibility between person and environment and that perceived fit correlates strongly with behavioral and attitudinal outcomes. General compatibility reflects the least restrictive view of P-E fit, in which the characteristics of the environment are conceptually related to the characteristics of the person; yet, they are not metrically commensurate (Kristof-Brown & Guay, 2011). I established such general compatibility in my conceptual framework presented in Chapter 1. Thus, using a direct measure of perceived P-WA fit in this empirical study will allow for a simple test of the relationship between P-WA fit and SCS within each NSWA type assessed, as expressed in the following hypotheses:

Hypothesis 1a: *Perceived P-WA fit with respect to demands-abilities, measured directly, is associated positively with SCS.*

Hypothesis 1b: *Perceived P-WA fit with respect to needs-supplies, measured directly, is associated positively with SCS.*

Such direct measurement tends to be correlated positively with attitudinal outcomes (Kristof-Brown & Guay, 2011), making it an important instrument for gauging the relationship between P-WA fit and SCS. However, researchers have expressed concerns with this type of measure. One of the main reasons for concern is that the direct measure of perceived P-E fit essentially is a black box measure. That is, it remains unclear what exactly is assessed, which personal and environmental characteristics the individual processes, and how beliefs about perceived fit come about (Edwards, 1991; van Vianen, 2018). In addition, general compatibility does not allow for clearly establishing fit and its definitive boundaries (Kristof-Brown & Guay, 2011).

Indirect Measurement of Perceived Fit

To overcome the difficulties with a direct assessment of fit, environmental and personal characteristics should be assessed along commensurate dimensions (Caplan, 1987; Edwards, 1991). Dimensions are commensurate when the measurement of the demand of the job (e.g., requirement to lift heavy weight) is connected explicitly to the ability required to meet that demand (e.g., strength to lift heavy weight). Equivalently, the measurement of an individual's need (e.g., the need to have a flexible work schedule) should be connected explicitly to the work environment's supply to meet that need (e.g., flexible work scheduling). One method for establishing commensurate compatibility of environment and person is to measure perceived fit indirectly (Kristof-Brown & Guay, 2011).

When an indirect measure of perceived fit is used, the focal individual reports their personal characteristics and the same person separately reports the perceived environmental characteristics (Kristof-Brown & Guay, 2011). In such a measure, the characteristics of the environment or the person must be presented as commensurate dimensions. For example, I may ask a temporary staffing agency worker how much workplace flexibility they require (need), and how much workplace flexibility the work arrangement provides them (supply).[6] Establishing commensurate compatibility then allows for a meaningful testing of relevant outcomes resulting from P-E fit (Caplan, 1987). Measuring P-WA fit in this way appears reasonable, as it presupposes that the individual made similar evaluations about themselves and the NSWA when choosing a work arrangement for themselves. Thus, under the assumptions that (1) the nonstandard worker was able to make an accurate self-assessment and is conscious of the critical

[6] By contrast, fit in terms of general compatibility would be established, for example, by asking the temporary staffing agency worker how much workplace flexibility they require (need), and how much opportunity for time off between short-duration assignments they receive (supply). In this case, the conceptual connection between person and environment is not explicit, thus leaving more room for interpretation.

elements of various work arrangements when first choosing an NSWA (Edwards, 2008; French et al., 1974), and (2) those initial assessments at the time of choice hold true once the individual is in the NSWA, I expect the following for each NSWA type:

Hypothesis 2a: Perceived P-WA fit with respect to demands-abilities, measured indirectly, is associated positively with SCS.

Hypothesis 2b: Perceived P-WA fit with respect to needs-supplies, measured indirectly, is associated positively with SCS.

Nevertheless, it is possible that the focal individual is not completely aware of the objective reality and/or that the individual's self-assessment at the time of choice was not accurate (Edwards, 2008; French et al., 1974). Indeed, perceptions of individuals may be biased or represent socially desirable responses, or individuals may have used adaptation mechanisms to make an initially misfitting NSWA appear fitting (Edwards, 2008; Judge & Cable, 1997; Kristof-Brown & Guay, 2011).

Indirect Measurement of Objective Fit

Another method for establishing commensurate compatibility of environment and person can be established by measuring objective fit indirectly (Kristof-Brown & Guay, 2011). Objective fit measures assess the environment independently of the focal person; either other incumbents or experts (e.g., managers) provide scores for environmental characteristics (Kristof-Brown & Guay, 2011). They rest on the theoretical notion that the individuals within a specific unit exhibit some degree of homogeneity (Ostroff & Schulte, 2007). By adding an objective assessment of the environment to my empirical investigation, I can obtain a clean, bias-free empirical assessment of P-WA fit and its outcomes (Kristof-Brown et al., 2005; Kristof, 1996). Nevertheless, I expect the relationship between P-WA fit and SCS to be weaker than when

measuring perceived fit (directly or indirectly). This is because research has shown that attitudes and behaviors tend to correlate more strongly with perceived fit (Kristof-Brown & Guay, 2011), and SCS can be considered an attitudinal outcome (Seibert et al., 1999; Spurk et al., 2019). Therefore, I hypothesize the following for each NSWA type:

Hypothesis 3a: *Objective P-WA fit with respect to demands-abilities, measured indirectly, is associated positively with SCS. This relationship will be weaker than the relationship between perceived P-WA fit and SCS.*

Hypothesis 3b: *Objective P-WA fit with respect to needs-supplies, measured indirectly, is associated positively with SCS. This relationship will be weaker than the relationship between perceived P-WA fit and SCS.*

The foregoing hypotheses are summarized in the research model depicted in Figure 2.

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Figure 2 about here
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Methodology

Sample and Procedure

Data were collected in two steps on Amazon Mechanical Turk (MTurk). MTurk is a crowdsourcing platform where individuals complete small, virtual tasks for pay (Amazon Mechanical Turk Inc., 2021). It gives researchers easy access to samples of high-quality data from a diverse set of working individuals (Castille et al., 2019; Walter et al., 2019). In the context of this study, MTurk was an especially appealing source for recruiting participants because individuals engaging in nonstandard work have been found to be overrepresented on MTurk, compared to the general working population in the United States (Michel et al., 2018). To aid in handling the large sets of participants who needed to be contacted for the second step

of data collection, I further used CloudResearch (formerly TurkPrime), which provides a user-friendly MTurk Toolkit free to academics (Litman et al., 2017).

The first step of data collection consisted of a screener survey used to identify nonstandard workers. Participants were asked a small number of questions related to their demographic and professional backgrounds, including the work arrangement for their primary job (see Appendix A for questions used to determine the participants' work arrangements). Each participant was paid $0.05 for completing the screener survey. The screener survey was available on MTurk between June 2 and October 27, 2020 and resulted in 17,729 completed responses. Of those participants, 7,694 individuals (43.4%) were nonstandard workers who expressed interest in completing the main survey.

The second step of data collection consisted of the main survey. A total of 2,887 screener survey participants[7] identifying as nonstandard workers were invited to complete the main survey via MTurk. The questionnaire began by asking participants to reaffirm the work arrangement of their primary job. Based on their responses, participants were presented with a definition of their work arrangement and were asked how closely that definition was representative of their work arrangement (scale of 1 = "not at all" to 5 = "completely"). They further were asked about their preference and motives for having chosen their work arrangement. Subsequently, participants completed measures assessing their direct fit perceptions, individual difference factors, perceptions of NSWA characteristics, and SCS (all described hereafter). The questionnaire concluded with a set of items assessing participants' demographic, social, and professional backgrounds. Each participant was paid $2.47 for completing the main survey.

[7] Invitations were extended to all screener survey participants who identified as temporary staffing agency workers, direct-hire temporary and on-call workers, as well as workers provided by contract firms in order to try and achieve the desired sample size for each group. However, invitations to independent contractors and remote workers were discontinued in late June and July, respectively, as the desired samples size for these two groups were reached.

The main survey was available from June 8 to December 9, 2020 and resulted in 2,453 completed responses (response rate = 85.0%). Of these responses, 317 participants did not reaffirm being in any of the included NSWAs, and 129 participants did not feel that the NSWA definition presented to them fit with the work arrangement of their primary job (i.e., they selected "not at all" or "slightly" for the item). In addition, the responses included 33 voluntary and involuntary temporary staffing agency workers and 103 voluntary and involuntary workers provided by contract firms. These responses were not included in subsequent data analyses due to insufficient sample sizes for those particular NSWAs.

The remaining responses from 991 independent contractors, 314 direct-hire temporary and on-call workers as well as 566 remote workers were investigated further for participants' motives to enter their NSWAs. Motives were assessed by presenting participants with 15 possible reasons for entering a NSWA based on studies performed by de Jong et al. (2009), Ellingson et al. (1998), Tan and Tan (2002), and the U.S. BLS (2018b), and by asking them whether each reason played a major, minor, or no role in their choice. Subsequently, these motives were categorized into voluntary, involuntary, and stepping-stone motives based on theoretical classification (de Jong et al., 2009; Tan & Tan, 2002). Appendix B includes a list of presented motives and their respective categorization as voluntary, involuntary, or stepping-stone motive. Individuals who indicated mostly voluntary motives (compared to stepping-stone and involuntary motives) as playing a major role in their choice of the NSWA were classified as voluntary nonstandard workers. The resulting samples for each retained NSWA are described in the following subsections and summarized in Table 2.

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Table 2 about here
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Independent Contractors. The main survey was completed by 499 voluntary independent contractors. Of those, 64 participants failed at least one attention check and four additional cases had missing data on the criterion variable. Upon exclusion of those cases, 431 participants remained in the sample used for statistical analyses. Of all participants in the sample, 54.8% identified as women, 42.7% identified as men, 1.6% identified as non-binary. With respect to race and ethnicity, the sample was diverse: 79.1% identified as White, 12.8% as Black, 6.7% as Asian, 3.0% as American Indian or Alaskan Native, and 0.7% as Native Hawaiian or other Pacific Islander. In addition, 15.9% of participants were of Hispanic, Latino, or Spanish origin. Age of participants varied, with the youngest participant being 18 and the oldest 75 years old; the mean age was 38.7. In addition, participants represented 49 states and the District of Columbia with respect to residence. The majority of participants (52.7%) were married, and many participants indicated that they regularly attended to personal or family obligations, including maintaining households (64.3%), raising children (26.7%), and caring for elderly parents (13.5%).

With respect to educational background, most participants (65.2%) completed a Bachelor's degree or higher, while 7.9% completed an Associate's degree, 17.4% completed some college, 9.3% had a high school diploma or GED, and 0.2% had not completed high school. Participants further represented a wide variety of occupations, with business and financial operations (14.0%), arts, design, entertainment, sports and media (13.3%), sales and related (10.9%), and computer and mathematical science (10.2%) occupations represented most frequently. Similarly, industry varied across participants, with the highest representations found among other services (13.5%), arts, entertainment and recreation (13.3%), and information

(10.0%) industries. Finally, participants' tenure in independent contracting spanned 1 month to 41 years and 7 months, with mean tenure being about 6 years and 4 months.

On-Call and Direct-Hire Temporary Workers. The main survey was completed by 118 voluntary on-call and direct-hire temporary workers. Of those, five participants failed at least one attention check and one case was a duplicate. Upon exclusion of those cases, 112 participants remained in the sample used for statistical analyses. Of all participants in the sample, 60.7% identified as women, 35.7% identified as men, and 1.8% identified as non-binary. With respect to race and ethnicity, the sample was diverse: 79.5% identified as White, 10.7% as Asian, 8.9% as Black, and 2.7% as American Indian or Alaskan Native. In addition, 11.6% of participants were of Hispanic, Latino, or Spanish origin. Age of participants varied, with the youngest participant being 18 and the oldest 77 years old; the mean age was 36.5. In addition, participants represented 30 states with respect to residence. 44.6% of participants were married, and many participants indicated that they regularly attended to personal or family obligations, including maintaining households (53.6%), raising children (25.9%), and caring for elderly parents (12.5%).

With respect to educational background, most participants (55.4%) completed a Bachelor's degree or higher, while 8.9% completed an Associate's degree, 29.5% completed some college and 6.3% had a high school diploma or GED. Participants further represented a wide variety of occupations, with education, training and library (23.2%), office and administrative support (8.9%), healthcare practitioner and technical (8.9%), and computer and mathematical science (8.9%) occupations represented most frequently. Similarly, industry varied across participants, with the highest representations found among educational services (24.1%), health care and social assistance (17.9%), and professional, scientific and technical services

(9.8%) industries. Finally, participants' tenure in direct-hire temporary and on-call work spanned 1 month to 32 years, with mean tenure being about 2 years and 10 months.

Remote Workers. The main survey was completed by 391 voluntary remote workers. Of those, 17 participants failed at least one attention check. Upon exclusion of those cases, 374 participants remained in the sample used for statistical analyses. Of all participants in the sample, 56.1% identified as women, 43.6% identified as men, and 0.3% identified as non-binary. With respect to race and ethnicity, the sample was diverse: 83.4% identified as White, 10.4% as Asian, 7.5% as Black, and 0.8% as American Indian or Alaskan Native. In addition, 7.5% of participants were of Hispanic, Latino, or Spanish origin. Age of participants varied, with the youngest participant being 20 and the oldest 77 years old; the mean age was 38.5. In addition, participants represented 42 states, the District of Columbia, and Puerto Rico with respect to residence. The majority of participants, 53.5%, were married, and many participants indicated that they regularly attended to personal or family obligations, including maintaining households (65.2%), raising children (30.2%), and caring for elderly parents (9.1%).

With respect to educational background, most participants (69.5%) completed a Bachelor's degree or higher, while 11.8% completed an Associate's degree, 15.0% completed some college, 3.5% had a high school diploma or GED, and 0.3% had not completed high school. Participants further represented a wide variety of occupations, with computer and mathematical science (19.8%), business and financial operations (15.8%), office and administrative support (11.0%), and education, training and library (9.9%) occupations represented most frequently. Similarly, industry varied across participants, with the highest representations found among information (16.0%), professional, scientific and technical services (15.0%), and finance and insurance (11.5%) industries. Finally, participants' tenure in remote

work spanned 1 month to 32 years and 6 months, with mean tenure being about 3 years and 1 month.

Addressing Possible Threats to Validity

Being modeled after common practices in the P-E fit literature, this study heavily relied on self-reports. In turn, careless responding and common method bias could have influenced the validity of my empirical results. To account for careless responding, I followed Meade and Craig's (2012) recommendation and incorporated three instructed response items (e.g., "Please respond with 'not at all' for this item") in the questionnaire. Cases were excluded from data analysis if the participant did not select the required response for at least one of these items.

To reduce validity threats stemming from common method bias, I further followed Podsakoff et al. (2003)'s recommendations. In particular, I separated psychologically the measurement of the predictors from the measurement of the criterion variable using a cover story (see Appendix C). Furthermore, I ensured confidentiality to all participants and emphasized that there were no right or wrong answers to the survey.

Finally, I controlled directly for common method variance by incorporating a short version of the Perceived Stress Scale (Cohen et al., 1983; Cohen & Williamson, 1988) as a marker variable in my analyses (Podsakoff et al., 2003). I used this stress scale as a proxy for negative affectivity, which has been found to be an underlying construct of stress (Watson & Pennebaker, 1989; Watson, Pennebaker, & Folger, 1987). The stress scale used had low, partly significant correlations with the constructs and, therefore, constitutes a non-ideal marker variable. However, Williams and O'Boyle (2015) recommended including a non-ideal marker variable over not controlling for common method bias. Furthermore, Podsakoff et al. (2003) described a model including a marker variable as superior to a model including an unmeasured

latent factor, since method bias would be accounted for at the measurement level, measurement error would be controlled for, and multiple sources of common method bias would be incorporated through use of the marker variable.

Measures

Direct Measure of Perceived Fit. To directly measure perceived P-WA fit, I adapted the well-cited and highly reliable perceived fit scales by Cable and DeRue (2002). Demands-abilities fit and needs-supplies fit were measured separately with three items each, to distinguish empirically between those theoretically distinct concepts. The items for demands-abilities fit included: (1) "The match is very good between the demands of my work arrangement and my personal characteristics," (2) "My personal characteristics are a good fit with the requirements of my work arrangement," and (3) "My personal characteristics provide a good match with the demands that my work arrangement places on me." The items for needs-supplies fit included: (1) "There is a good fit between what my work arrangement offers me and what I am looking for in a work arrangement," (2) "The attributes that I look for in a work arrangement are fulfilled very well by my present work," and (3) "The work arrangement that I currently hold gives me just about everything that I want from a work arrangement." All were measured on a five-point scale from 1 = "strongly disagree" to 5 = "strongly agree."

Indirect Measure of Perceived Fit. To measure perceived fit indirectly, I followed the examples of Hecht and Allen (2005) and van Vuuren et al. (2007) to assess participants' own characteristics as well as their perceptions of NSWA characteristics. As such, participants' characteristics were assessed using established, validated scales for the personality traits and psychological needs proposed to be found among voluntary nonstandard workers (i.e., "how well does each statement describe you?"; Bretz & Judge, 1994). In addition, to ensure that the

measures of person and work arrangement would be commensurate, I modified those same scales to express work arrangement characteristics in terms of the individual difference factors (Hecht & Allen, 2005). Respondents were asked to report the levels of those factors they perceived to be required for or supplied by the NSWA (i.e., "how well does each statement describe the environment?"; Bretz & Judge, 1994). Appendix D contains a detailed list of all constructs with their items assessing the person-level and the NSWA-level, as well as their scales.

Indirect Measure of Objective Fit. As stated previously, objective measures of environment can come from managers or other incumbents. My focus was on incumbents. To measure objective fit indirectly, I followed Judge and Cable's (1997) approach of aggregating other study participants' reports of perceived NSWA characteristics to gain "other" scores. Overall, all measures in this approach were the same as those for the indirect measure of perceived fit as described previously and detailed in Appendix D. The focal participant's self-reports of their own characteristics were used in the statistical analyses "as is," while the NSWA characteristics needed to be entered as objective scores. These objective scores were obtained by taking into account all NSWA characteristics scores received from participants while excluding the focal participant's own perception of the NSWA (i.e., leave-one-out). As such, for each focal participant, the objective score of a given NSWA item represented the sum of all participants' scores on the item minus the focal participant's score on that same item, divided by the number of participants minus one.

Subjective Career Success. A variety of conceptualizations of SCS exists in the literature, ranging from perceived employability (Wille et al., 2013) to career satisfaction (Greenhaus et al., 1990). More recently, Shockley et al. (2016) developed a multidimensional measure of subjective career success aimed at capturing meaningful aspects of career success in

today's career landscape. The Subjective Career Success Inventory (Shockley et al., 2016) includes the following eight dimensions, each assessed with three items: recognition (REC), quality work (QUAL), meaningful work (MEAN), influence (INFL), authenticity (AUTH), personal life (LIFE), growth and development (GROW), and satisfaction (SAT). I deemed this measure fitting for my study because it allows for nonstandard workers to consider personal accomplishments that go above and beyond factors traditionally considered important for career success (e.g., financial success, hierarchical success). Appendix E provides the list of items included in this measure.

Control Variables. In their meta-analysis, Ng et al. (2005) found that SCS was influenced significantly by the individual's race, gender, marital status, and educational attainment. Other studies of SCS have included age, spouse employment status, number of hours worked per week, and tenure (Eby et al., 2003; Seibert et al., 1999; van den Born & van Witteloostuijn, 2013). Finally, a recent review by Guan et al. (2019) suggested that social factors such as family roles should be included in studies of SCS as well. Thus, my control variables included race, gender, marital status, educational attainment, age, spouse's employment status, weekly hours worked, tenure, and family/personal obligations of the participant.

Data Analyses

Analyses are performed separately for each NSWA type, since each NSWA type is associated with different factors of demands-abilities fit and needs-supplies fit, as outlined in Chapter 1 of this dissertation. The hypotheses apply to each NSWA type; therefore, for each NSWA, I assessed directly measured perceived fit (H1a and H1b), indirectly measured perceived fit (H2a and H2b), and indirectly measured objective fit (H3a and H3b). The analysis plan for each NSWA is similar, with the exception of the on-call and direct-hire temporary worker

sample, which were not of sufficient size to perform structural equation modeling (SEM). The analysis plan for each hypothesis differs according to recommendations in the literature that accommodate different types of data gathered (e.g., directly versus indirectly measured fit). The following subsections describe how results are presented for each NSWA.

Data Preparation. Data were screened for missing values, multivariate collinearity, and normality. For limited numbers of missing data on the predictor variables, I followed Roth et al.'s (1999) recommendation to use mean-substitution, replacing missing scores with the overall mean score of the construct. Multivariate outliers were identified by calculating Mahalanobis distance in SPSS and identifying cases with p-values < 0.001, as suggested by Kline (2011). Identified cases were excluded from subsequent analyses. To review collinearity, I observed whether any Pearson pairwise correlations among the items were > 0.7, the threshold suggested by Tabachnick and Fidell (1996). If that was the case, I followed Kline (2011) and excluded those sets of items from subsequent analyses. Finally, I confirmed normal distribution of the variables by observing values for skewness and kurtosis and ensuring that all were below Kline's (2011) proposed thresholds of 3.0 and 10.0, respectively.

Assessing Directly Measured Perceived Fit (H1a and H1b). Hypotheses H1a and H1b predicted that directly measured perceived P-WA fit (both demands-abilities fit and needs-supplies fit) were associated positively with SCS. The direct measures of perceived P-WA fit reflect the participant’s explicit self-report of whether they believe they fit with the chosen NSWA.

Data analysis was conducted using SEM in Mplus. SEM allows for the simultaneous estimation of path coefficients between variables and for testing whether the operationalization of the theory used is supported by the data (Hair et al., 2010). Following Cable and DeRue

(2002), who provided the seminal and prominent guide for assessing directly measured fit, I entered both direct demands-abilities and needs-supplies fit measures into the model together. This allowed for observing the effect of complementary fit as a whole. The analysis began with a measurement model (i.e., confirmatory factor analysis [CFA]) to establish the validity and reliability of the latent constructs, demands-abilities fit, needs-supplies fit, and SCS. SCS was included as a second-order construct based on eight first-order constructs reflecting its subdimensions. To assess model fit, I relied on Hair et al.'s (2010) recommended thresholds, as follows: CFI $\geq$ 0.9, RMSEA $\leq$ 0.08, and SRMR $\leq$ 0.08. To assess all constructs' reliability and validity, I followed Kline's (2011) suggested thresholds of composite reliability $\geq$ 0.7 and average variance explained (AVE) $\geq$ 0.5, and I observed whether the square-rooted AVE for each construct was greater than the respective construct's pairwise correlations with the other constructs in the measurement model.

When reliability or validity thresholds were not met, I removed problematic items due to their low factor loadings in an iterative process, beginning with items that had standardized loadings < 0.5 (Hair et al., 2010). In acknowledging the principle of commensurate measurement of person and environment, when an item on the person measure was removed due to low factor loading, the corresponding item on the NSWA measure also was removed, and vice versa. In cases where AVE remained below 0.5, I followed Fornell and Larcker (1981) and regarded the construct's convergent validity as adequate as long as its composite reliability was high. In turn, if either discriminant validity or composite reliability was not established for a construct with AVE < 0.5, I excluded the construct from subsequent analyses. Finally, in cases where measures were highly correlated, such as the person measure and the NSWA measure of one demands-abilities or needs-supplies fit dimension for my data, one possible remedy is to allow residuals of

items within the same latent factor to correlate when the items are conceptually related (cf., MacCallum, 1986). When this remedy is not effective, highly correlated items still may be retained with the acknowledgement that the resulting coefficients may be biased (Grewal et al., 2004). Therefore, when measures were highly correlated, I allowed residuals of items within the construct to covary, and if this did not alleviate the issue, then I retained the item and acknowledged possible bias. To provide support that the overall conclusions drawn from the SEM with highly correlated constructs are trustworthy, I conducted regression analyses as a robustness check (discussed hereafter).

Upon determining the measurement model as adequate, I re-estimated the CFA by including the Stress marker variable to account for common method bias. Then, the two measurement models were compared using a χ^2 difference test. If the p-value for that test was < 0.05, I deemed the models to be significantly different and retain the marker variable in the model for subsequent analyses to account for common method bias and to improve overall accuracy of the results. If the p-value for that test was > 0.05, I deemed the models to be the same and excluded the marker variable from subsequent analyses for reason of parsimony.

The next step was to perform the structural model estimation to assess the predicted relationships among the constructs. For directly measured perceived fit, the model is such that the person characteristics and environment characteristics are subsumed in a single latent construct per fit type (i.e., demands-abilities fit and needs-supplies fit). Therefore, I used a classic recursive model. In a classic recursive model, disturbances are uncorrelated and relationships are predicted to occur in one direction (i.e., they are not reciprocal; Kline, 2011). For my model, that meant that directly measured fit, as indicated by self-reports of the participants' NSWA-related fit perceptions, predicted SCS. Interpretation of the path coefficients

between both directly measured perceived fit constructs and SCS provided answers to H1a and H1b. Path coefficients with p-values < 0.05 were deemed statistically significant.

The SEM steps discussed previously could not be completed for the on-call and direct-hire temporary worker sample, as the number of variables included in the model exceeded the number of observations. This led to convergence issues, meaning that Mplus was unable to find a solution for the specified model. This occurs because a model where the number of parameters exceed the number of observations cannot be identified (Kline, 2011). Therefore, I tested H1a and H1b for the on-call and direct-hire temporary worker sample via regressions in SPSS. In the regressions, the constructs were represented by composite variables calculated as the average scores across items within their respective constructs. The regression model consisted of composite variables for demands-abilities fit, needs-supplies fit, and SCS, as well as all control variables, including the Stress variable. Path coefficients with p-values < 0.05 were deemed statistically significant.

Robustness Checks of SEM Results Using Regressions. For the independent contractor and remote worker samples, H1a and H1b also were tested using regressions equivalent to those performed for the on-call and direct-hire temporary worker sample. By demonstrating that the regression results led to the same conclusions as the SEM results for the independent contractor and remote worker samples, I was assured that the regressions conducted for the on-call and direct-hire temporary worker sample provided useful information about P-E fit and its relationship to SCS for these workers, even though the sample was too small to conduct the desired SEM analyses.

Assessing Indirectly Measured Perceived Fit (H2a and H2b). Hypotheses H2a and H2b predicted that indirectly measured perceived P-WA fit (demands-abilities fit and needs-

supplies fit, respectively) were associated positively with SCS. The indirect measures of perceived P-WA fit reflected the participant's self-reports of their abilities and needs as well as of their NSWA's demands and supplies.

Directly measured perceived fit has long been the norm in the P-E fit literature. Edwards (1994) advocated decades ago that using indirect fit measures and modeling them explicitly as direct and indirect interactions could be a way of noticeably improving the interpretation and conclusiveness of P-E fit results. Yet, investigations of indirectly measured fit and the related variables' operationalization as direct effects and interaction terms only have been conducted recently (van Vianen, 2018). Following Edwards' (1994) guidelines, a model testing P-E fit hypotheses with indirect fit measures includes the person variables (P), the environment variables (E), as well as a P*E term to account for the effect of interactions between person and environment on the outcome variable (i.e., the P-E fit component).[8] Comparatively, in direct fit measures, interactions are not needed as the direct measure itself captures fit.

Data analyses to assess indirect perceived fit were conducted using SEM and, as recommended by Cheung et al. (2021), with maximum likelihood estimation with robust standard errors (MLR) in Mplus. This ensured robustness of the results to non-normality that may have occurred as a result of modeling interaction terms. Although the norm in the literature when assessing direct measures of fit is to analyze data simultaneously through one model, as yet, there is no norm for analyzing data from indirect measures of fit. However, Edwards (1994) made clear that when assessing indirect fit, integrating multiple constructs into one analysis, as is

[8] The P-E fit literature further suggests adding squared terms, P^2 and E^2, to account for the possibility that the person and/or environment factors have nonlinear relationships with outcome variables (e.g., Edwards, 1994). However, Su et al. (2019) emphasized that inclusion of quadratic terms must be theoretically justified. Since my hypothesized relationships are of linear nature only, I refrained from incorporating squared terms for person and environment in my analyses.

the norm for directly measured fit, raises issues of collinearity. Therefore, I followed the practice of others (e.g., van Vuuren et al., 2007, who analyzed separate models for distinct indicators of person and environment characteristics) and separately analyzed each demands-abilities/needs-supplies fit dimension measured in this study. In doing so, I treated all P-WA fit aspects I derived theoretically in Chapter 1 as distinct aspects of demands-abilities/needs-supplies fit. Analyses for each P-WA fit pair followed the same plan outlined here.

Similar to the analysis for directly measured perceived fit in H1a and H1b, the analysis for indirectly measured perceived fit began with a CFA to establish the validity and reliability of the latent constructs, including the person measure and the NSWA measure, as well as SCS, with SCS being modeled as a second-order construct based on eight first-order constructs for its subdimensions. I applied the same model fit, reliability, and validity guidelines, including decisions related to model adjustments, that I used for the analyses related to H1a and H1b.

Upon determining the measurement model as adequate, I re-estimated the CFA by including the Stress marker variable to account for common method bias. Then, the two measurement models were compared using a Satorra-Bentler scaled χ^2 difference test. This χ^2 difference test was used because it compares nested models based on loglikelihood values and MLR estimation (Asparouhov & Muthén, 2013; Cheung et al., 2021; Satorra & Bentler, 2010). If the p-value for that test was < 0.05, I deemed the models to be significantly different and retained the marker variable in the model for subsequent analyses to account for common method bias and to improve overall accuracy of the results. If the p-value for that test was > 0.05, I deemed the models to be the same and excluded the marker variable from subsequent analyses for reason of parsimony.

For the structural model estimation, I followed Su et al. (2019) and Cheung et al. (2021), who advocated using latent moderated structural equations (LMS) in P-E fit theory, after the approach had been introduced by Klein and Moosbrugger (2000). In LMS, the interaction term is modeled with latent factors rather than observed variables to produce unbiased and more accurate estimates (Su et al., 2019). Taken together with the original modeling of indirect fit measures proposed by Edwards (1994), an LMS model in my study included latent factors for the person measure, for the NSWA measure, and for the person-NSWA interaction (P-WA fit).

More precisely, following guidance from Cheung et al. (2021), I estimated two structural models. One structural model was a classic recursive model (hereafter called SEM) with direct effects only, and the other structural model was a LMS that also incorporated the person-NSWA interaction term. Then, I compared the SEM and LMS using the Satorra-Bentler scaled χ^2 difference test. When the models were not significantly different (i.e., the p-value for the test was > 0.05), the interaction term had no statistically significant influence on SCS, meaning that H2a or H2b were not supported. When the models were significantly different (i.e., the p-value for the test was < 0.05), I reported LMS results and interpreted the path coefficient between the interaction term and SCS to answer H2a or H2b. Path coefficients with p-values < 0.05 were deemed statistically significant.

Again, the SEM steps discussed previously could not be completed for the on-call and direct-hire temporary worker sample, as the number of variables included in the model exceeded the number of observations, which led to convergence issues. Therefore, I tested H2a and H2b for the on-call and direct-hire temporary worker sample via regressions in SPSS, with individual regressions being performed for each demands-abilities/needs-supplies fit dimension.

For the regressions, the constructs were represented by composite variables calculated as the average scores across items within their respective constructs. In addition, as suggested by Aiken et al. (1991) to overcome potential multicollinearity issues arising from multiplying variables with each other that are themselves part of the model, I mean-centered all person and NSWA variables and calculated interaction terms based on those mean-centered variables. Thus, a given regression model consisted of mean-centered composite variables for the person measure, the NSWA measure, and the interaction between the two measures, as well as all control variables, including the Stress variable. Interpretation of the path coefficient for the interaction term provided an answer to H2a or H2b. Path coefficients with p-values < 0.05 were deemed statistically significant. The interaction of the person and the NSWA variable is a reflection of fit; therefore, the path coefficient for the interaction term to SCS was the indication of whether fit predicts SCS, which means that only interaction terms were reported.

Robustness Checks of SEM Results Using Regressions. For the independent contractor and remote worker samples, H2a, and H2b also were tested using regressions equivalent to those performed for the on-call and direct-hire temporary worker sample. The reasons for this were twofold. First, the regressions acted as a robustness check for the SEM results, which was important in the cases where a given demands-abilities/needs-supplies fit dimension had a person measure and a NSWA measure that were highly correlated with each other. For regression analyses, procedures to detect and relieve multicollinearity have been developed (e.g., variance inflation factors), while such procedures are still limited in SEM (Tarka, 2018). Thus, by showing that the regression results, where multicollinearity was relieved, led to the same conclusions as the SEM results, my belief that the SEM results were trustworthy despite the existing multicollinearity issues was strengthened.

Second, as shown by Su et al. (2019), SEM/LMS results tend to be more accurate and less biased than regression results when interactions between variables are involved. Thus, by demonstrating that the regression results led to the same conclusions as the SEM results for the independent contractor and remote worker samples, I also was assured that the regressions conducted for the on-call and direct-hire temporary worker sample provided useful information about P-E fit and its relationship to SCS for these workers, even though the sample was too small to conduct the desired SEM/LMS analyses.

Assessing Indirectly Measured Objective Fit (H3a and H3b). Hypotheses H3a and H3b predicted that indirectly measured objective P-WA fit (both demands-abilities fit and needs-supplies fit) would be associated positively with SCS. The indirect measures of objective P-WA fit reflected the participant's self-reports of their abilities and needs as well as calculated leave-one-out scores that reflected all voluntary independent contractors' evaluations of the NSWA's demands and supplies.

The analysis plan for assessing H3a and H3b was equivalent to the analysis plan for assessing H2a and H2b, since both hypothesis groups focused on indirectly measured fit, which is modeled using interaction terms (Edwards, 1994). The only difference between H2a/H2b and H3a/H3b was the way each NSWA measure was entered into the models (i.e., self-report versus calculated objective score). However, the described computations of the objective NSWA measures led to insufficient variances in all these variables (i.e., all variances were 0). Since literature using indirect measures of objective fit and modeling those measures as proposed by Edwards (1994) is scarce, I was unaware of this being a potential problem. The only study I was able to find using indirectly measured objective fit variables and Edwards' approach was focused on person-group fit, where the researchers calculated the leave-one-out score on the group level

and then included all groups in their analyses (i.e., variance on the objective measures stemmed from the group differences). This approach did not apply to my study, as I did not hypothesize group differences within a given NSWA type.

As a result, I was unable to conduct the desired analyses to test H3a and H3b, as both SEM and regressions rely on variances and covariances to determine associations among constructs/variables. I provide potential remedies for the issues arising with respect to objective NSWA measures and future steps for testing hypotheses involving objective fit in the discussion section. No analyses steps and outcomes are reported in the Results section.

Results

Independent Contractors

Descriptive statistics for all retained items related to demands-abilities fit, needs-supplies fit, and SCS are presented in Table 3. On the construct level (i.e., the combined measurement of either demands-abilities fit or needs-supplies fit), all means equaled 0.0 and all standard deviations equaled 1.0. An observation of the item means suggests that the voluntary independent contractors included in the sample tended to believe that there was high demands-abilities and needs-supplies fit between their characteristics and the characteristics of their NSWA. In addition, the means for some of the indirect perceived fit constructs indicate that voluntary independent contractors tended to have particularly high occupational self-efficacy and openness to ideas, as well as high needs for autonomy, workplace flexibility, and competence. Additionally, the average voluntary independent contractor observed moderate levels of risk propensity and assertiveness, as well as a moderately high need for novelty. Those statistics are in line with the theoretical predictions I made in Chapter 1.

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Data Preparation. Data screening for missing values led to imputation by mean-substitution for one participant's response on one item assessing the NSWA for Openness to Actions. Mahalanobis distance analysis resulted in the exclusion of 37 cases. Pearson pairwise correlations among items were generally below 0.7, indicating a lack of multicollinearity. One exception was Need for Novelty, where two items of the person measure correlated highly with the equivalent items on the NSWA measure (r = 0.734 and 0.702). These items were excluded from subsequent analyses. Skew and kurtosis values indicated normal distribution for all variables.

Assessing Directly Measured Perceived Fit (H1a and H1b). The CFA included Demands-Abilities Fit, Needs-Supplies Fit, and SCS with its eight subdimensions. The model had good fit (χ^2 = 1054.708, df = 394, $p < 0.001$). The model fit indices were as follows: CFI = 0.913, RMSEA = 0.065, and SRMR = 0.069. Composite reliability and validity were fulfilled for all constructs. The CFA including the marker variable (χ^2 = 1273.793, df = 553, $p < 0.001$) provided improved fit (CFI = 0.921, RMSEA = 0.058, SRMR = 0.059). A χ^2 difference test between these two measurement models returned a p-value of 0.001, leading me to retain the marker variable in subsequent analyses. Table 4 shows statistics for reliability, validity, and pairwise correlations among the constructs.

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Table 4 about here
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The structural model (χ^2 = 1708.911, df = 868, $p < 0.001$) including the direct measures for Demands-Abilities Fit, Needs-Supplies Fit, and SCS with its eight subdimensions, as well as

all control variables had good model fit (CFI = 0.907, RMSEA = 0.050, SRMR = 0.062). The included variables and latent constructs explained 28.0% of the variance in SCS. Standardized path coefficients and their p-values are presented in Table 5.

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The SEM yielded a non-significant coefficient for the association between Demands-Abilities Fit and SCS (b = -0.056, p = 0.499). This result failed to support H1a. The coefficient for the association between Needs-Supplies Fit and SCS was significant, (b = 0.505, p < 0.001), lending support to H1b for the sample of voluntary independent contractors. Thus, the higher needs-supplies fit a voluntary independent contractor perceives, the more likely they are to experience SCS.

Results of Regressions to Assess Robustness of SEM. Regression results related to H1a, and H1b are presented in Appendix F. Overall, the regression returned results similar to the SEM, such that the conclusions related to the hypotheses remained the same. In particular, the regression results supported H1b.

Assessing Indirectly Measured Perceived Fit. ***Demands-Abilities Fit (H2a).*** A separate measurement model and structural model were created for each dimension of demands-abilities fit (i.e., Occupational Self-Efficacy, Risk Propensity, Openness to Ideas, Openness to Actions, and Assertiveness). Each CFA contained one demands-abilities dimension (represented by one latent factor for the person and one latent factor for the NSWA) as well as SCS with its eight subdimension. Each structural model incorporated the relationships among the latent constructs from the CFA, with each SEM incorporating only direct effects between demands-abilities fit dimension and SCS, and each LMS adding the person-NSWA interaction term and its path to

SCS. Table 6 summarizes statistics for reliability, validity, and pairwise correlations for all constructs; structural model results, specifically standardized path coefficients and their p-values, are presented in Table 7.

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Table 6 about here
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For *Occupational Self-Efficacy*, the initial CFA had suboptimal model fit (χ^2 = 1335.820, df = 583, $p < 0.001$; CFI = 0.890, RMSEA = 0.057, SRMR = 0.065). Due to insufficient AVE on the person measure, I iteratively removed two problematic items (b = 0.582 and 0.603). This left the Occupational Self-Efficacy dimension with four items per measure. The resulting CFA had good model fit (χ^2 = 1015.819, df = 453, $p < 0.001$; CFI = 0.908, RMSEA = 0.056, SRMR = 0.064), and reliability and validity were fulfilled.

The final CFA including the marker variable (χ^2 = 1235.548, df = 622, $p < 0.001$) provided good fit (CFI = 0.920, RMSEA = 0.050, SRMR = 0.056). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value of < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.713, indicating that the models were the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2a. As such, fit between the person and the NSWA with respect to the level of occupational self-efficacy is not linked to SCS.

For *Risk Propensity*, the initial CFA had good model fit (χ^2 = 1397.208, df = 583, $p < 0.001$; CFI = 0.914, RMSEA = 0.060, SRMR = 0.077). Reliability and validity were fulfilled, such that the Risk Propensity dimension was left with its original six items per measure. The CFA including the marker variable (χ^2 = 1619.668, df = 772, $p < 0.001$) provided improved fit (CFI = 0.923, RMSEA = 0.053, SRMR = 0.060). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value of < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value < 0.001, indicating that the models were different. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term significantly improved model fit. LMS results showed that the person-NSWA interaction term (b = 0.176, p = 0.001) was statistically significant and positively associated with SCS, lending support to H2a with respect to Risk Propensity. The model explained 31.4% of the variance in SCS. The interaction term accounted for 6.4% of this variance in SCS, with an effect size of f^2 = 0.093. Thus, as shown Figure 3, given that the NSWA demands high levels of risk propensity, for voluntary independent contractors, having high risk propensity is linked to SCS.

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Figure 3 about here
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For *Openness to Ideas*, the initial CFA had suboptimal model fit (χ^2 = 1607.518, df = 583, $p < 0.001$; CFI = 0.861, RMSEA = 0.067, SRMR = 0.085). Due to insufficient AVE on the person measure, I removed two problematic items (b = 0.480 and 0.480). This left the Openness to Ideas dimension with four items per measure. The resulting CFA had improved

model fit (χ^2 = 1086.699, df = 453, $p < 0.001$; CFI = 0.897, RMSEA = 0.060, SRMR = 0.072), and reliability and validity were fulfilled.

The final CFA including the marker variable (χ^2 = 1301.868, df = 622, $p < 0.001$) provided good fit (CFI = 0.911, RMSEA = 0.053, SRMR = 0.062). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value of < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.565, indicating that the models were the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2a. As such, fit between the person and the NSWA with respect to the level of openness to ideas is not linked to SCS.

For *Openness to Actions*, the initial CFA had suboptimal model fit (χ^2 = 1874.085, df = 654, $p < 0.001$; CFI = 0.819, RMSEA = 0.069, SRMR = 0.116). Due to insufficient composite reliability and AVE on the NSWA measure, I iteratively removed four problematic items (b = 0.066, 0.132, 0.458, and 0.449). This left the Openness to Actions dimension with three items per measure. The resulting CFA had improved model fit (χ^2 = 925.429, df = 394, $p < 0.001$; CFI = 0.903, RMSEA = 0.059, SRMR = 0.067), but AVE remained below 0.5 for both the person and the NSWA measure. In addition, once the marker variable was added to the measurement model, the person measure no longer had sufficient composite reliability, and discriminant validity was not established. Therefore, Openness to Actions was not analyzed further.

For *Assertiveness*, the initial CFA had suboptimal model fit (χ^2 = 1947.340, df = 654, $p < 0.001$; CFI = 0.830, RMSEA = 0.071, SRMR = 0.087). Due to insufficient AVE on the person measure, I removed four problematic items (*b* = 0.248, 0.312, 0.302 and 0.372). This left the Assertiveness dimension with three items per measure. The resulting CFA had slightly improved model fit (χ^2 = 1078.606, df = 394, $p < 0.001$; CFI = 0.887, RMSEA = 0.066, SRMR = 0.081), and reliability and convergent validity were established. While the person and NSWA measures for Assertiveness were highly correlated, the dimension was retained for subsequent analyses under acknowledgement that the path coefficients may be biased.

The final CFA including the marker variable (χ^2 = 1268.227, df = 553, $p < 0.001$) provided good fit (CFI = 0.906, RMSEA = 0.057, SRMR = 0.063). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value of < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.592, indicating that the models were the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2a. As such, fit between the person and the NSWA with respect to the level of assertiveness is not linked to SCS.

Needs-Supplies Fit (H2b). A separate measurement model and structural model were created for each dimension of needs-supplies fit (i.e., Need for Autonomy, Need for Workplace Flexibility, Need for Competence, and Need for Novelty). Each CFA contained one demands-abilities dimension (represented by one latent factor for the person and one latent factor for the NSWA) as well as SCS with its eight subdimension. Each structural model incorporated the

relationships among the latent constructs from the CFA, with each SEM incorporating only direct effects between needs-supplies fit dimension and SCS, and each LMS adding the person-NSWA interaction term and its path to SCS. Table 8 summarizes statistics for reliability, validity, and pairwise correlations for all constructs; structural model results, specifically standardized path coefficients and their p-values, are presented in Table 9.

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Table 9 about here
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For *Need for Autonomy*, the initial had suboptimal model fit (χ^2 = 1455.796, df = 583, $p < 0.001$; CFI = 0.871, RMSEA = 0.062, SRMR = 0.071). Due to insufficient AVE on the NSWA measure, I iteratively removed three problematic items (b = 0.063, 0.509, and 0.619). This left the Need for Autonomy dimension with three items per measure. The resulting CFA had improved model fit (χ^2 = 980.153, df = 394, $p < 0.001$; CFI = 0.897, RMSEA = 0.061, SRMR = 0.066). However, AVE remained below 0.5 for the person measure, and discriminant validity was not established. Therefore, Need for Autonomy was not analyzed further.

For *Need for Workplace Flexibility*, the initial CFA had acceptable model fit (χ^2 = 1033.357, df = 394, $p < 0.001$; CFI = 0.893, RMSEA = 0.064, SRMR = 0.072). Reliability and convergent validity were fulfilled, such that the Need for Workplace Flexibility dimension was left with its original three items per measure. While the person and NSWA measures for Need for Workplace Flexibility were highly correlated, the dimension was retained for subsequent analyses under acknowledgement that the path coefficients may be biased.

The CFA including the marker variable (χ^2 = 1244.970, df = 553, p < 0.001) provided good fit (CFI = 0.908, RMSEA = 0.056, SRMR = 0.063). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value of < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.595, indicating that the models were the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2b. As such, fit between the person and the NSWA with respect to the level of workplace flexibility is not linked to SCS.

For *Need for Competence*, the initial CFA had good model fit (χ^2 = 1096.168, df = 453, p < 0.001; CFI = 0.901, RMSEA = 0.060, SRMR = 0.068). Reliability and validity were fulfilled, such that the Need for Workplace Flexibility dimension was left with its original four items per measure. The CFA including the marker variable (χ^2 = 1334.903, df = 622, p < 0.001) provided good fit (CFI = 0.912, RMSEA = 0.054, SRMR = 0.061). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value of < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.292, indicating that the models were the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2b. As such, fit between the person and the NSWA with respect to the level of competence is not linked to SCS.

For *Need for Novelty*, the initial CFA had good model fit (χ^2 = 1130.463, df = 453, $p < 0.001$; CFI = 0.905, RMSEA = 0.062, SRMR = 0.072). Reliability and convergent validity were fulfilled, such that the Need for Novelty dimension was left with its original four items per measure. While the person and NSWA measures for Need for Novelty were highly correlated, the construct was retained for subsequent analyses under acknowledgement that the path coefficients may be biased.

The CFA including the marker variable (χ^2 = 1368.222, df = 622, $p < 0.001$) provided good fit (CFI = 0.914, RMSEA = 0.055, SRMR = 0.060). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value of < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.334, indicating that the models are the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2b. As such, fit between the person and the NSWA with respect to the level of novelty is not linked to SCS.

Results of Regressions to Assess Robustness of SEM. Regression results related to H2a and H2b are presented in Appendix F. Overall, the regressions returned results similar to the SEMs/LMSs, such that the conclusions related to the hypotheses remained the same. In particular, the regression results supported H2a for Risk Propensity. All other person-NSWA interactions indicating P-WA fit were not significantly related to SCS.

On-Call and Direct-Hire Temporary Workers

Descriptive statistics for all calculated variables related to demands-abilities fit, needs-supplies fit, and SCS are presented in Tables 10 and 11. An observation of the means suggests that the voluntary on-call and direct-hire temporary workers included in the sample tended to believe that there was high demands-abilities and needs-supplies fit between their characteristics and the characteristics of their NSWA. In addition, the means for some of the indirect perceived fit constructs indicate that voluntary independent contractors tended to have high dutifulness as well as high need for workplace flexibility. Additionally, the average voluntary on-call or direct-hire temporary worker observed low levels of employment commitment. Those statistics are in line with the theoretical predictions I made in Chapter 1.

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Table 10 about here
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Table 11 about here
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Data Preparation. Data screening indicated no missing values on the predictor variables. Mahalanobis distance analysis resulted no case exclusions. Pearson pairwise correlations among items were below 0.7, meaning that there were no multicollinearity issues present. Skew and kurtosis values indicated normal distribution for all variables.

Assessing Directly Measured Perceived Fit (H1a and H1b). I conducted a multiple regression entering into the model the composite variables thar represented the direct measures for Demands-Abilities Fit and Needs-Supplies Fit, and SCS, as well as all control variables, including the Stress variable. The model had an $R^2 = 0.402$ and adjusted $R^2 = 0.322$, and the F-test returned a significant p-value of < 0.001 ($F = 5.046$). These results indicated that not all

regression coefficients entered were equal to 0. Standardized coefficients and their p-values are reported in Table 12.

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Table 12 about here
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The path model yielded a non-significant effect for the association between Demands-Abilities Fit and SCS (b = 0.093, p = 0.326). Thus, H1a was not supported. The effect for the association between Needs-Supplies Fit and SCS was positive and significant (b = 0.403, p < 0.001), lending support for H1b for the sample of voluntary on-call and direct-hire temporary workers. Thus, the greater needs-supplies fit a voluntary on-call and direct-hire temporary worker perceives, the more likely they are to experience SCS.

Assessing Indirectly Measured Perceived Fit. ***Demands-Abilities Fit (H2a).*** I conducted individual multiple regressions for each demands-abilities fit dimension; that is, each regression included one of the dimensions (i.e., Uncertainty Tolerance, Employment Commitment, and Dutifulness), where each dimension was represented by composite variables for the person measure, the NSWA measure and the person-NSWA interaction term. All variables were mean-centered to reduce multicollinearity. Each regression further included SCS as a composite variable as well as all control variables, including the Stress variable. For each model/demands-abilities fit dimension, standardized path coefficients and their p-values are presented in Table 13.

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Table 13 about here
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For *Uncertainty Tolerance*, the model had an R^2 = 0.260 and adjusted R^2 = 0.152, and the F-test returned a significant p-value of 0.008 (F = 2.405). These results indicated that not all

regression coefficients entered were equal to 0. The person-NSWA interaction term (*b* = -0.088, p = 0.372) was not statistically significant. Thus, H2a was not supported for Uncertainty Tolerance.

For *Employment Commitment*, the model had an $R^2 = 0.280$ and adjusted $R^2 = 0.175$, and the F-test returned a significant p-value of 0.003 (F = 2.662). These results indicated that not all regression coefficients entered were equal to 0. The person-NSWA interaction term (*b* = 0.163, p = 0.099) approached statistical significance; however, the coefficient was positive, rather than negative, in turn failing to support H2a for Employment Commitment.

For *Dutifulness*, the model had an $R^2 = 0.409$ and adjusted $R^2 = 0.323$, and the F-test returned a significant p-value < 0.001 (F = 4.736). These results indicated that not all regression coefficients entered were equal to 0. The person-NSWA interaction term (*b* = -0.015, p = 0.873) was not statistically significant. Thus, H2a was not supported for Dutifulness.

Needs-Supplies Fit (H2b). I conducted individual multiple regressions for each needs-supplies fit dimension; that is, each regression included one of the dimensions (i.e., Need for Workplace Flexibility and Need for Relatedness), where each dimension was represented by composite variables for the person measure, the NSWA measure, and an interaction term between the person and NSWA measure. All variables were mean-centered to reduce multicollinearity. Each regression further included SCS as a composite variable as well as all control variables, including the Stress variable. For each model/needs-supplies fit dimension, standardized path coefficients and their p-values are presented in Table 14.

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Table 14 about here
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For *Need for Workplace Flexibility*, the model had an $R^2 = 0.281$ and adjusted $R^2 = 0.177$, and the F-test returned a significant p-value of 0.003 (F = 2.682). These results indicated that not all regression coefficients entered were equal to 0. The person-NSWA interaction term (*b* = 0.066, p = 0.538) was not statistically significant. Thus, H2b was not supported for Need for Workplace Flexibility.

For *Need for Relatedness*, the model had an $R^2 = 0.399$ and adjusted $R^2 = 0.311$, and the F-test returned a significant p-value < 0.001 (F = 4.542). These results indicated that not all regression coefficients entered were equal to 0. The person-NSWA interaction term (*b* = 0.240, p < 0.001) was statistically significant and positively associated with SCS, lending support to H2b with respect to Need for Relatedness. Inclusion of the interaction term accounted for an additional 5.0% of the variance in SCS, with an effect size of $f^2 = 0.083$. Thus, as shown in Figure 4, given that the NSWA supplies high levels of relatedness, for voluntary on-call and direct-hire temporary workers high need for relatedness is linked to SCS.

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Figure 4 about here
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Remote Workers

Descriptive statistics for all retained items related to demands-abilities fit, needs-supplies fit, and SCS are presented in Table 15. On the construct level, all means equaled 0 and all standard deviations equaled 1. An observation of the item means suggests that the voluntary remote workers included in the sample tended to believe that there was high demands-abilities and needs-supplies fit between their characteristics and the characteristics of their NSWA. In addition, the means for some of the indirect perceived fit constructs indicate that voluntary remote workers tended to have particularly high occupational self-efficacy and self-discipline,

low gregariousness, as well as a high needs for workplace flexibility and competence. Additionally, the average voluntary remote worker observed moderately high levels of needs for autonomy and job security. Those statistics are in line with the theoretical predictions I made in Chapter 1.

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Data Preparation. Data screening indicated no missing values on the predictor variables. Mahalanobis distance analysis resulted in the exclusion of 23 cases. Pearson pairwise correlations among items were generally below 0.7, meaning that there generally were no multicollinearity issues present. Skew and kurtosis values indicated normal distribution for all variables.

Assessing Directly Measured Perceived Fit (H1a and H1b). The CFA included Demands-Abilities Fit, Needs-Supplies Fit, and SCS with its eight subdimensions. The model had adequate fit ($\chi^2 = 831.954$, df = 394, $p < 0.001$). The model fit indices were as follows: CFI = 0.942, RMSEA = 0.056, and SRMR = 0.070). Composite reliability and validity were fulfilled for all constructs. An exception was SCS, for which AVE was below 0.5; however, since composite reliability for the construct was high, convergent validity was regarded as adequate and the construct was retained "as is."

The CFA including the marker variable ($\chi^2 = 1366.921$, df = 699, $p < 0.001$) provided good fit (CFI = 0.931, RMSEA = 0.052, SRMR = 0.065). A χ^2 difference test between these two measurement models returned a p-value of 0.001, leading me to retain the marker variable in subsequent analyses. Table 16 shows statistics for reliability, validity, and pairwise correlations among the constructs.

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The structural model (χ^2 = 1911.232, df = 1050, p < 0.001) including the direct measures for Demands-Abilities Fit, Needs-Supplies Fit, and SCS, as well as all control variables had acceptable model fit (CFI = 0.912, RMSEA = 0.049, SRMR = 0.074). The model explained 16.1% of the variance in SCS. Standardized path coefficients between variables and their p-values are presented in Table 17.

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The SEM yielded a positive effect that approached significance for the association between Demands-Abilities Fit and SCS (*b* = 0.139, p = 0.097). In addition, the effect for the association between Needs-Supplies Fit and SCS was significant and positive (*b* = 0.246, p = 0.004). These results partially support the hypotheses for the sample of voluntary remote workers. Thus, the greater P-WA fit a voluntary remote worker perceives, the more likely they are to experience SCS.

Results of Regressions to Assess Robustness of SEM. Regression results related to H1a and H1b are presented in Appendix G. Overall, the regression returned results similar to the SEM, such that the conclusions related to the hypotheses remained the same. In particular, the regression results supported H1a and H1b.

Assessing Indirectly Measured Perceived Fit. ***Demands-Abilities Fit (H2a).*** A separate measurement model and structural model were created for each dimension of demands-abilities fit (i.e., Occupational Self-Efficacy, Self-Discipline, and Gregariousness). Each CFA contained one demands-abilities dimension (represented by one latent factor for the person and one latent

factor for the NSWA) as well as SCS with its eight subdimension. Each structural model incorporated the relationships among the latent constructs from the CFA, with each SEM incorporating only direct effects between demands-abilities fit dimension and SCS, and each LMS adding the person-NSWA interaction term and its path to SCS. Table 18 summarizes statistics for reliability, validity, and pairwise correlations for all constructs; structural model results, specifically standardized path coefficients and their p-values, are presented in Table 19.

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Table 18 about here
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Table 19 about here
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For *Occupational Self-Efficacy*, the initial CFA had good model fit (χ^2 = 1171.795, df = 583, $p < 0.001$; CFI = 0.914, RMSEA = 0.054, SRMR = 0.079). Reliability and discriminant validity were established for all constructs. While AVE was below 0.5 for the NSWA measure of Occupational Self-Efficacy as well as for SCS, both constructs were regarded as having adequate convergent validity due to their high composite reliability scores.

The CFA including the marker variable (χ^2 = 1751.260, df = 942, $p < 0.001$) provided good fit (CFI = 0.911, RMSEA = 0.049, SRMR = 0.072). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value < 0.001, leading me to retain the marker variable for subsequent analyses. However, inclusion of the marker variable negatively influenced the validity of Occupational Self-Efficacy. Therefore, I iteratively removed two problematic items (b = 0.524 and 0.564) based on insufficient AVE on the person measure. This left the Occupational Self-Efficacy dimension with four items per measure. The resulting

CFA with marker variable had good model fit (χ^2 = 1419.676, df = 776, p < 0.001; CFI = 0.923, RMSEA = 0.049, SRMR = 0.071).

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.216, indicating that the models were the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2a. As such, fit between the person and the NSWA with respect to the level of occupational self-efficacy is not linked to SCS.

For *Self-Discipline*, the initial CFA had acceptable model fit (χ^2 = 1399.535, df = 729, p < 0.001; CFI = 0.900, RMSEA = 0.051, SRMR = 0.077). However, reliability and validity did not meet the desired thresholds especially for the NSWA measure of Self-Discipline. Iteratively removing problematic items did not resolve those issues without compromising the reliability and validity of the person measure. Therefore, Self-Discipline was not analyzed further.

For *Gregariousness*, the initial CFA had acceptable model fit (χ^2 = 1087.739, df = 516, p < 0.001; CFI = 0.912, RMSEA = 0.056, SRMR = 0.074). Due to insufficient AVE on the NSWA measure, I removed one problematic items (*b* = 0.327). This left the Gregariousness dimension with four items per measure. The resulting CFA had improved model fit (χ^2 = 832.176, df = 453, p < 0.001; CFI = 0. 938, RMSEA = 0.049, SRMR = 0.069). Reliability and validity were fulfilled for Gregariousness; while the AVE of SCS was below 0.5, it was regarded as having adequate convergent validity due to its high composite reliability.

The final CFA including the marker variable (χ^2 = 1396.072, df = 776, p < 0.001) provided good fit (CFI = 0.925, RMSEA = 0.048, SRMR = 0.066). The Satorra-Bentler scaled χ^2

difference test between these two measurement models returned a p-value of < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.701, indicating that the models are the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2a. As such, fit between the person and the NSWA with respect to the level of gregariousness is not linked to SCS.

Needs-Supplies Fit (H2b). A separate measurement model and structural model were created for each dimension of needs-supplies fit (i.e., Need for Workplace Flexibility, Need for Autonomy, and Need for Job Security). Each CFA contained one demands-abilities dimension (represented by one latent factor for the person and one latent factor for the NSWA) as well as SCS with its eight subdimension. Each structural model incorporated the relationships among the latent constructs from the CFA, with each SEM incorporating only direct effects between needs-supplies fit dimension and SCS, and each LMS adding the person-NSWA interaction term and its path to SCS. Table 20 summarizes statistics for reliability, validity, and pairwise correlations for all constructs; structural model results, specifically standardized path coefficients and their p-values, are presented in Table 21.

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Table 20 about here
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Table 21 about here
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For *Need for Workplace Flexibility*, the initial CFA had good model fit (χ^2 = 761.106, df = 394, p < 0.001; CFI = 0.941, RMSEA = 0.052, SRMR = 0.071). Reliability and validity were fulfilled, such that the Need for Workplace Flexibility dimension was left with its original three items per measure. While AVE was below 0.5 for SCS, the construct's convergent validity was regarded adequate due to its high composite reliability. The CFA including the marker variable (χ^2 = 1287.638, df = 699, p < 0.001) provided good fit (CFI = 0.930, RMSEA = 0.049, SRMR = 0.066). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.202, indicating that the models were the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2b. As such, fit between the person and the NSWA with respect to the level of workplace flexibility is not linked to SCS.

For *Need for Autonomy*, the initial CFA had suboptimal model fit (χ^2 = 1352.040, df = 583, p < 0.001; CFI = 0.882, RMSEA = 0.061, SRMR = 0.087). Due to insufficient AVE on the NSWA measure, I removed three problematic items (*b* = 0.212, 0.428 and 0.572). This left the Need for Autonomy dimension with three items per measure. The resulting CFA had improved model fit (χ^2 = 905.144, df = 394, p < 0.001; CFI = 0.909, RMSEA = 0.061, SRMR = 0.080), and reliability and convergent validity were established. While the person and NSWA measures for Need for Autonomy were highly correlated, the dimension was retained for subsequent analyses under acknowledgement that the path coefficients may be biased.

The final CFA including the marker variable (χ^2 = 1449.252, df = 699, p < 0.001) provided good fit (CFI = 0.904, RMSEA = 0.055, SRMR = 0.072). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.675, indicating that the models are the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2b. As such, fit between the person and the NSWA with respect to the level of autonomy is not linked to SCS.

For *Need for Job Security*, the initial CFA had good model fit (χ^2 = 889.006, df = 453, p < 0.001; CFI = 0.932, RMSEA = 0.052, SRMR = 0.069). Reliability and validity were fulfilled, such that the Need for Job Security dimension was left with its original four items per measure. The CFA including the marker variable (χ^2 = 1429.978, df = 776, p < 0.001) provided good fit (CFI = 0.924, RMSEA = 0.049, SRMR = 0.065). The Satorra-Bentler scaled χ^2 difference test between these two measurement models returned a p-value < 0.001, leading me to retain the marker variable for subsequent analyses.

Next was the analysis of the structural model. The Satorra-Bentler scaled χ^2 difference test comparing the SEM with the LMS returned a p-value of 0.245, indicating that the models are the same. Following Cheung et al. (2021), this means that inclusion of the person-NSWA interaction term did not significantly improve model fit and the interaction effect was not significant, failing to support H2b. As such, fit between the person and the NSWA with respect to the level of job security is not linked to SCS.

Results of Regressions to Assess Robustness of SEM. Regression results related to H2a and H2b are presented in Appendix G. Overall, the regressions returned results similar to the SEMs, such that the conclusions related to the hypotheses remained the same. All person-NSWA interactions indicating P-WA fit were not significantly related to SCS.

Discussion

The goal of this empirical study was to demonstrate that voluntary nonstandard workers may experience P-WA fit and that such fit leads them to experience positive outcomes in their careers (i.e., SCS). Planning for the study began in 2019, using guidelines offered through P-E fit theory. In spring 2020, just prior to the beginning of data collection, the COVID-19 pandemic struck, impacting both individuals' experiences with and perceptions of work. Since this has been a once-in-a-lifetime pandemic, there was no way to predict how it would impact my data. However, now that we are more than a year into this pandemic, research is beginning to provide an indication. In fact, recent research has shown that even well-established and highly reproduced effects of work-related perceptions were unable to be reproduced during the pandemic, with the authors offering suggestions for what to do when data are impacted by COVID-19 (Prommegger et al., 2021). My results did not consistently conform to predictions of P-E fit theory. Some explanations may be attributable to the pandemic, while other explanations may be found within the theory itself. Attempting the seminal investigation of a newly proposed paradigm within a long-standing theory is challenging under any circumstances and is especially challenging during a pandemic. However, my results provide useful information.

Following previous research into P-E fit theory and to provide a more robust understanding of P-WA fit, I measured fit in three different ways – as direct perceived fit, as indirect perceived fit, and as indirect objective fit. The samples I obtained from workers in the

various NSWAs differed in size. Thus, I was able to test hypotheses about direct perceived fit and indirect perceived fit on only three samples: voluntary independent contractors, voluntary on-call and direct-hire temporary workers, and voluntary remote workers. The empirical findings are summarized in Table 22. My discussion of those findings is organized in terms of expected and unexpected results.

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Expected Results

Hypotheses 1a and 1b predicted that when the worker's perceptions of P-WA fit were measured directly, demands-abilities fit and needs-supplies fit would be linked to SCS. Across all three samples I was able to analyze, there was strong support for H1b. Participants indicated their experience of overall fit between their own needs and what was supplied by their chosen NSWA was positively related to their SCS.

Hypotheses 2a and 2b suggested that when perceptions of P-WA fit were measured indirectly, demands-abilities fit and needs-supplies fit would be linked to SCS. Consistent with H2a, the results of the sample of voluntary independent contractors indicated a link between the demands-abilities fit dimension of risk propensity with SCS. Independent contractors with high levels of risk propensity, which is demanded by this NSWA, are likely to perceive their career success to be positive. In addition, consistent with H2b, the results of the sample of voluntary on-call and direct-hire temporary workers indicated a positive association between needs-supplies fit dimension of need for relatedness with SCS. On-call and direct-hire temporary workers with a high need for relatedness, which is provided by this NSWA, are likely to perceive their career success to be positive.

As such, these expected results contribute to P-E fit theory by providing some initial empirical evidence for a newly introduced type of fit, the fit between the person and the work arrangement. My goal was to support the general claim of P-E fit theory that positive work outcomes arise through fit of person with environment, and my results provide some limited support for that claim in the realm of P-WA fit. In particular, despite the unexpected results (discussed hereafter), the expected results offer the first indication that the positive outcome of SCS occurs among voluntary nonstandard workers when certain specific types of P-WA fit exist. Thus, my research adds to the growing body of literature (e.g., Maynard et al., 2006; Yu, 2012) examining fit among workers with different types of work relationships, and it extends that same research by presenting fit within different types of work relationships as P-WA fit. Research should continue exploring P-WA fit and its relevance in various work arrangements to better understand the experiences of nonstandard workers. Given that this study focused on select groups of voluntary nonstandard workers and their P-WA fit, future research should investigate to what extent involuntary nonstandard workers could experience a match (or mismatch) with their NSWA, or how relevant outcomes compare across nonstandard workers, based on the extent of their P-WA fit.

One interesting outcome of these expected results is that the predicted link between P-WA fit and SCS was found for needs-supplies fit but not demands-abilities fit when perceived fit was measured directly, while it was also found in certain types of both demands-abilities fit and needs-supplies fit when fit was measured indirectly. In Chapter 1, I suggested that voluntary nonstandard workers in particular NSWAs would have various personal characteristics required by or met by the various NSWAs. Descriptive statistics supported these predictions, showing that the workers in the various NSWAs had high levels of these personal characteristics. Yet, the

match between fit of the given characteristic with the work arrangement was not always linked to SCS. As P-WA fit is incorporated into P-E fit theory, it is important for research to discern a reason for this outcome.

One reason may be the predictor variables chosen. Previous studies in P-E fit theory have demonstrated that different conceptualizations of fit do not equally predict a given outcome. For example, Kristof-Brown et al.'s (2005) meta-analysis shows that demands-abilities fit and needs-supplies fit were similarly strongly associated with organizational commitment. That same study also showed that an individual's intention to quit was significantly associated with needs-supplies fit, but not with demands-abilities fit. Those differential results of the effects of needs-supplies fit and demands-abilities fit are similar to my study's findings with respect to directly measured fit and may indicate that psychological need fulfillment relates differently to attitudinal outcomes than does meeting demands placed by the environment.

Another reason may be the criterion variable. I chose the outcome of SCS because it is an outcome not specific to any particular job or organization. However, in Shockley et al.'s (2016) operationalization of SCS as used in this dissertation, the outcome variable has eight subdimensions. In their validation study of the SCS scale, Shockley et al. (2016) demonstrated that SCS, overall, was related to other outcomes, such as career commitment, life satisfaction, and career self-efficacy. Simultaneously, not all outcomes were equally strongly related to the subdimensions of SCS. This implies the possibility that some of the P-WA fit dimensions assessed in this study may strongly relate to only some of the SCS subdimensions and not relate significantly to others. This is an avenue I seek to explore in future research.

Moreover, the inconsistency in my expected results may come from a combination of the predictor and criterion variables I chose. Some researchers have suggested that the various

dimensions of P-E fit may relate differentially to a given outcome (Chuang et al., 2016), may relate to each other (Vogel & Feldman, 2009), and should be combined with one another to explain outcomes more fully (Badger Darrow & Behrend, 2017). Thus, future research should build on the findings presented in this study and explore empirically how P-WA relates to other types of P-E fit, and to what extent P-WA fit can uniquely explain personal and work-related outcomes, in comparison to other types of P-E fit. Doing so also will enhance the P-E fit paradigm and help establish the place P-WA fit takes within it.

The expected results further contribute to P-E fit theory by providing some indication that the use of LMS to model congruence between the person and the environment is, indeed, fruitful. Thus far, the recommended and highly accepted way of empirically studying P-E fit and its outcomes has been through use of polynomial regression analysis, where commensurate measures of the person and the environment are entered into the model independently of each other (including, if applicable, as higher-order terms) as well as through a calculated interaction term between the two (Edwards, 1994). Recently, however, researchers have highlighted the applicability of structural equation modeling, in particular LMS, to P-E fit research (Cheung et al., 2021; Su et al., 2019). To my knowledge, thus far, no research using LMS to test P-E fit theory has been published, making this dissertation the first to apply LMS in P-E fit theory. As such, the expected results related to H2a indicate that commensurate measures of the person and the environment as well as their interaction with each other can be modeled as latent constructs and related to specific outcome variables/constructs. Su et al. (2019) suggest that LMS has advantages over polynomial regression with respect to unbiased, more accurate estimates and reduced occurrence of Type I errors. Thus, the expected results I found in the indirectly

measured perceived fit data, although limited, lend support to Su et al.'s claim that LMS should be used in examining indirectly measured perceived fit.

Unexpected Results

My hypotheses were not supported for several of the demands-abilities fit and needs-supplies fit dimensions assessed in this study. As previously noted, this may be due to the timing of data collection during the COVID-19 pandemic, or it may be due to issues others have noted as limitations in the theory. I discuss these in terms of issues related to data collection and issues related to theoretical limitations.

Issues Related to Data Collection. First, data collection issues may have arisen due to the data representing a convenience sample recruited via MTurk. I chose this path because MTurk provides an opportunity to easily reach samples of individuals that are relatively more representative of the general population, compared to student samples or organizational samples (Landers & Behrend, 2015). Given that the target population of my study was nonstandard workers, MTurk appeared especially fruitful because individuals engaging in NSWAs tend to be overrepresented on the platform, relative to the general population (Michel et al., 2018). Some research shows that data collected via online panels such as MTurk is similarly reliable and valid as conventional sample sources in applied psychology (Walter et al., 2019). Yet, others, such as Cheung et al. (2017), highlight that MTurk samples still are prone to validity threats stemming from careless responding, selection biases, demand characteristics, and other methodological concerns. In planning my study, I attempted to account for such concerns and implemented safety features, such as avoiding cues that may signal the study's eligibility criteria and purpose, screening out inattentive participants, and controlling for common method bias.

Despite these measures, there was no way to screen or account for threats to validity that may have been posed by the pandemic. Specifically, internal validity of the study may have been threatened by history, according to which a study may be affected by events that occur in the participant's environment outside of the study context (Singleton & Straits, 2010). Thus, the results in my study may have been confounded by the pandemic and how it affected participants' views of their work and careers, despite my attempt to mitigate potential direct effects of the pandemic on participants' perceptions by asking them to think about their work in the last 6 months, rather than at the time of evaluation.

A second data collection issue I encountered was related to sample sizes. I planned to collect data from five of the most common NSWAs, including independent contracting, temporary staffing agency work, on-call and direct-hire temporary work, remote work, and contract firm work. Unfortunately, data collection via MTurk did not result in sufficiently large sample sizes for voluntary temporary staffing agency workers (N = 8) and voluntary workers provided by contract firms (N = 31) to conduct meaningful analyses. While I attempted to connect directly and indirectly (via the university's career services unit) to representatives of staffing agencies to seek collaboration in data collection, these attempts remained unsuccessful. Thus, there still is no empirical evidence available for the hypothesized positive relationship between P-WA fit and SCS for voluntary temporary staffing agency workers and voluntary workers provided by contract firms. Considering that these two NSWAs are distinct from the NSWAs I was able to analyze due to the involvement of a third, administratively controlling party in the employment relationship, future research should develop empirical studies that investigate the existence and outcomes of P-WA fit for workers belonging to the two groups.

Third, data issues arose especially with respect to multicollinearity and, in turn, questionable discriminant validity among the person measure and the NSWA measure within a given fit dimension. This was the case for assertiveness (independent contractors), need for workplace flexibility (independent contractors), need for novelty (independent contractors), and need for autonomy (remote workers). Conceptually, it seems reasonable that the person and NSWA measures of a fit dimension are highly related, given that P-E fit theory dictates the measures to be commensurate and matching with each other in magnitude when fit is expected to exist (Kristof-Brown et al., 2005). Yet, from an analytical standpoint, excessive multicollinearity should be avoided as it may lead to biased results and errors in the conclusions drawn from them (Grewal et al., 2004; Su et al., 2019). One method to avoid multicollinearity among the measures of person and environment is to include a temporal separation in assessing each construct. Through such a separation, biases such as consistency motifs and priming effects leading to person and NSWA measures being answered similarly could be minimized (Podsakoff et al., 2003).

Finally, the COVID-19 pandemic may have impacted the context of data collection and, in turn, contaminated the data. As newly published research suggests, the pandemic has negatively affected individuals' well-being and perceptions by inducing health anxiety (Trougakos et al., 2020) and economic anxiety (Mann et al., 2020) as well as depressive symptoms (Wanberg et al., 2020). Thus, it is possible that the unique context created by the COVID-19 pandemic may have influenced at least some of the constructs assessed in this study as nonstandard workers' perceptions of their work environment changed (Prommegger et al., 2021). Changing perceptions of work create new narratives for employees about their work and career situation (Ashford et al., 2007). Certainly, some of the pandemic's influence on the data

may have been captured by the perceived stress measure I included as a marker/control variable in all my analyses (cf., Prommegger et al., 2021). Nevertheless, researchers are advised to consider the context within which the study results presented in this chapter were obtained, and to continue the empirical investigation of nonstandard workers, their P-WA fit and career experiences under strict consideration of the COVID-19 pandemic's ongoing influence. Further investigation should also occur once some normalcy is restored as vaccination efforts continue and herd immunity is reached.

Issues Related to Theoretical Limitations. A major setback in this study was my inability to perform the desired analyses related to indirectly measured objective fit. My goal was to provide a full picture of P-WA fit by assessing it in three different ways, as suggested by Kristof-Brown and Guay (2011). For all three operationalizations of fit, I followed established research. For objective fit in particular, I calculated the NSWA measures by averaging all participants' scores on the given item while excluding the focal participant's score on that item in order to receive a less biased assessment of NSWA characteristics. These calculations were consistent with previous research conducted, for example, by Judge and Cable (1997). However, the calculated variables had variances of 0.000, rendering multivariate analyses relying on variances and covariances (e.g., SEM, regression) to assess relationships between variables impossible. This issue did not arise in Judge and Cable's (1997) study, because the researchers calculated fit scores from the focal person's own assessment and their peers' assessment of the environment to use in their hypothesis testing, rather than entering the person and environment scores separately as is done in Edwards' (1994) suggested approach for analyzing fit based on indirect measures.

One potential remedy for the issue I experienced with objective fit could be to increase the scale sensitivity by increasing the scale range (e.g., from five to seven points). Research suggests that when given more response options, greater variability in responses occurs (Preston & Colman, 2000). Thus, although the instruments I used were drawn from existing instruments with five-point response scales, offering more response options in future examinations may bring the required variability in responses.

Another option would be to develop meaningful subgroups within a given NSWA and calculate objective fit scores within those subgroups, similar to what has been done in Jansen and Kristof-Brown's (2005) study related to person-group fit. Meaningful subgroups within one NSWA could be based on participants' occupation, under the assumption that some P-WA fit aspects may vary to some degree across occupations, or extent of volition (i.e., when the study includes nonstandard workers with various types of motives, rather than only volitional motives as is the case in the present study). Finally, instead of calculating objective fit variables based on the premise that individuals within a given entity tend to be homogeneous (Ostroff & Schulte, 2007), objective evaluations of a given NSWA could be obtained, for example, from those who manage the participating nonstandard workers.

A second data-related issue that has implications was linked to the reliability and validity of some of the constructs, in particular for openness to actions (independent contractors), need for autonomy (independent contractors), and self-discipline (remote workers). Notably, the items on these constructs did not load together strongly, such that they either had insufficient composite reliability, convergent validity (i.e., AVE), or both. One potential reason for this problem could have been that the NSWA measures for those constructs were modified, rather than original, scales. That is, for all NSWA measures, I used scales assessing individual

difference factors for the person and modified the wording of the items to assess the requirements or provisions of the work environment, as had been done successfully by Hecht and Allen (2005). Given those modifications, a variety of NSWA measures were included in a pilot study that had the purpose of testing the modified measures. However, to keep the completion time of the questionnaire reasonable for participants and in line with how long the full survey likely would be, not all constructs were included in that pilot study.

The reason for using these modified constructs lies in the operationalization of P-E fit theory. P-E fit researchers emphasize the importance of using commensurate measures to assess the person and the environment dimension (e.g., Caplan, 1987; Edwards, 1991); yet, to my knowledge, few studies are available that specify the commensurate measures used. Therefore, it is a crucial avenue for future research in P-E fit theory to develop a sophisticated approach to creating commensurate measures. Researchers should test different ways through which existing scales for assessing the person's characteristics could be modified in a reliable and valid way to assess the environment's characteristics as well, and vice versa.

Finally, a major limitation of this study is the fact that this is the seminal work empirically examining a new construct added to the P-E fit literature. P-E fit theory originated more than a century ago, with Parsons' (1909) work on vocational choice being widely understood as the pioneer contribution to what later would develop into person-vocation fit conducted by researchers such as Holland (1997). Other streams of P-E fit came about in the 1980s through Chatman (1989) and Schneider (1987) with person-organization fit and in the 1990s through Edwards (1991) with person-job fit. To this day, P-E fit theory continues to be refined and advanced, as researchers seek new and improved ways to measure and analyze fit, to

understand its dimensions, and to advance it as the world of work continues to change (Su et al., 2015; van Vianen, 2018).

In Chapter 1, I established the importance of expanding the P-E fit literature by adding P-WA fit to capture the co-existence of various work arrangements within a given occupation, where work arrangements have implications for how work is performed that are different from other P-E fit constructs such as the vocation and the job. Expanding theory in such a way takes time as is exemplified by the long history of P-E fit research thus far. To make meaningful contributions, researchers must incrementally generate predictions from theory and test them rigorously, only to return to theory to refine it and test it anew (Singleton & Straits, 2010). Thus, my contribution through this dissertation is a small one in the grand scheme of P-E fit theory and its history thus far; yet, the introduction of P-WA fit under conceptual rigor as well as the provision of first empirical evidence to support the notion of P-WA fit are important steps in theory building and refinement.

It further should be noted that any investigations of work environments must consider the context. In my study, the context included the COVID-19 pandemic. Thus, while my initial intent was to add a new dimension of the work environment by including P-WA fit, my study also makes an argument for including other aspects of the context as part of P-E fit theory. Those aspects are separate from the work environments thus far included in P-E fit theory, but they impact those work environments nonetheless. As such, future research in P-E fit theory should consider longitudinal designs and qualitative studies to capture context and its effects on worker outcomes more explicitly. In doing so, further refinement of P-E fit theory is bound to occur.

Conclusion

Nonstandard work arrangements (NSWAs) have become commonplace, in the United States as well as other regions of the world, as organizations continue to adapt in order to remain competitive. This prevalence of NSWAs makes it necessary for researchers and practitioners to increase their understanding of various work arrangements and their consequences. This dissertation sheds light on the antecedents and subjective consequences of individuals' voluntary choice of a NSWA. Through utilization of Person-Environment (P-E) fit theory, I suggest that individuals who voluntarily enter a specific NSWA do so based on the match between their own characteristics and the characteristics of the work arrangement. I further argue and provide limited empirical evidence to show that this match between the worker's characteristics and the NSWA's characteristics can positively influence how successful the worker perceives their career to be. I offer suggestions for how the inclusion of person-work arrangement (P-WA) fit into P-E fit theory can proceed, and I discuss the importance of considering the larger context when investigating P-E fit.

As such, this dissertation contributes to P-E fit theory by expanding its scope through the addition of P-WA fit. In addition, it contributes to the NSWA literature by providing a new perspective on workers' volitional choices of specific work arrangements as well as by exploring the consequences of such choices, above and beyond the job and organizational level. Researchers may be inspired by this new perspective on NSWAs and continue their quest of understanding nonstandard workers and their experiences – short- and long-term – in this new world of work.

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Tables

Table 1. Demands-Abilities and Needs-Supplies Fit for Different Types of Nonstandard Work Arrangements

NSWA	Demands[a]	Abilities[b]	Supplies[a]	Needs[b]
Independent contractors	Control own work	Occupational self-efficacy	Opportunity to direct one's work, development, client/project acquisition	Autonomy
	Bear economic risks	Risk propensity		Workplace flexibility
	Keep skills current	Openness to ideas	Risky work environment that requires hard work, taking charge, and continuous development	Competence
	Frequent adjustment to new work environments	Openness to actions		
	Obtain future work	Assertiveness	Variety in projects and clients	Novelty
Temporary staffing agency workers	Frequent adjustment to new work environments	Openness to actions	Limited duration of assignments; Opportunity for off-time between assignments	Workplace flexibility
	Highly specified assignments with narrow scope	Dutifulness	Frequent change of work settings, duties, locations	Novelty
	No guarantee for future assignments	Uncertainty tolerance	Trainings provided by de Jure employer; Accumulation of experience through varying assignments	Competence

NSWA	Demands[a]	Abilities[b]	Supplies[a]	Needs[b]
On-call workers; **Direct-hire temporary workers**	Short-notice availability; Unpredictability of future assignments	Low employment commitment Uncertainty tolerance	Limited duration of assignments; Opportunity for off-time between assignments	Workplace flexibility
	Highly specified assignments with narrow scope	Dutifulness	Possible implicit or explicit understanding of future assignments at the same organization	Relatedness
Remote workers	Work without direct oversight	Occupational self-efficacy Self-discipline	Work without direct oversight	Autonomy
	Work in isolation	Low gregariousness	Work from convenient location; Schedule determined by worker	Workplace flexibility
			Ongoing relationship with employer	Job security
Workers provided by contract firms	Work with limited oversight	Occupational self-efficacy	Work without direct oversight	Autonomy
	Completely outsourced services on client site	Low gregariousness	Frequent change of work settings	Novelty
	Frequent adjustment to new work environments	Openness to actions	Ongoing relationship with contract firm	Job security

[a] Demands and supplies describe the characteristics of the work environment (E; i.e., the NSWA).
[b] Abilities and needs describe the characteristics of the person (P; i.e., the voluntary nonstandard worker).

Table 2. Sample Characteristics

	Independent Contractors	On-Call and Direct-Hire Temporary Workers	Remote Workers
Sample size	431	112	374
Gender identity	54.8% women 42.7% men 1.6% non-binary	60.7% women 35.7% men 1.8% non-binary	56.1% women 43.6% men 0.3% non-binary
Race	3.0% American Indian or Alaska Native 6.7% Asian 12.8% Black 0.7% Native Hawaiian or other Pacific Islander 79.1% White	2.7% American Indian or Alaska Native 10.7% Asian 8.9% Black 0.0% Native Hawaiian or other Pacific Islander 79.5% White	0.8% American Indian or Alaska Native 10.4% Asian 7.5% Black 0.0% Native Hawaiian or other Pacific Islander 83.4% White
Ethnicity	15.9% Hispanic, Latino, or Spanish	11.6% Hispanic, Latino, or Spanish	7.5% Hispanic, Latino, or Spanish
Age (mean)	38.7 years	36.5 years	38.5 years
Marital status	52.7% married	44.6% married	53.5% married
Personal/family obligations	64.3% maintain household 26.7% raise children 13.5% care for elderly parents	53.6% maintain household 25.9% raise children 12.5% care for elderly parents	65.2% maintain household 30.2% raise children 9.1% care for elderly parents

	Independent Contractors	On-Call and Direct-Hire Temporary Workers	Remote Workers
Level of education	65.2% Bachelor's degree or higher 7.9% Associate's degree 17.4% completed some college 9.3% high school diploma/GED 0.2% not completed high school	55.4% Bachelor's degree or higher 8.9% Associate's degree 29.5% completed some college 6.3% high school diploma/GED 0.0% not completed high school	69.5% Bachelor's degree or higher 11.8% Associate's degree 15.0% completed some college 3.5% high school diploma/GED 0.3% not completed high school
Occupations (Top 3)	– Business and financial operations (14.0%) – Arts, design, entertainment, sports and media (13.3%) – Sales and related (10.9%)	– Education, training and library; (23.2%) – Office and administrative support (8.9%) – Healthcare practitioner and technical (8.9%) – Computer and mathematical science (8.9%)	– Computer and mathematical science (19.8%) – Business and financial operations (15.8%) – Office and administrative support (11.0%)
Industries (Top 3)	– Other services (13.5%) – Arts, entertainment and recreation (13.3%) – Information (10.0%)	– Educational services (24.1%) – Health care and social assistance (17.9%) – Professional, scientific and technical services (9.8%)	– Information (16.0%) – Professional, scientific and technical services (15.0%) – Finance and insurance 11.5%)
Tenure in work arrangement (mean)	6 years, 4 months	2 years, 10 months	3 years, 1 month

Table 3. Descriptive Statistics for Independent Contractors' Fit and SCS Retained Measures

Observed variable	Mean (SD)	Skewness	Kurtosis
Demands-abilities fit			
Direct fit			
DAfit_1	4.155 (0.956)	-1.396	1.943
DAfit_2	4.221 (0.963)	-1.542	2.339
DAfit_3	4.203 (0.945)	-1.389	1.838
Indirect perceived fit – person			
OEFF_P_1	3.906 (0.851)	-0.437	-0.303
OEFF_P_2	3.827 (0.843)	-0.401	-0.130
OEFF_P_3	3.944 (0.832)	-0.424	-0.292
OEFF_P_6	4.053 (0.812)	-0.496	-0.253
RISK_P_1	3.279 (1.241)	-0.508	-0.860
RISK_P_2	2.957 (1.310)	-0.083	-1.194
RISK_P_3	2.782 (1.347)	0.065	-1.275
RISK_P_4	2.957 (1.312)	-0.102	-1.174
RISK_P_5	2.782 (1.307)	0.108	-1.159
RISK_P_6	3.426 (1.220)	-0.563	-0.653
IDEA_P_1	3.789 (1.084)	-0.888	0.133
IDEA_P_3	4.126 (0.901)	-1.179	1.381
IDEA_P_5	4.102 (0.909)	-1.011	0.826
IDEA_P_6	4.165 (0.840)	-1.114	1.616
ACT_P_1	2.614 (1.068)	0.439	-0.629
ACT_P_3	2.711 (1.009)	0.291	-0.310
ACT_P_7	2.647 (1.076)	0.308	-0.682
ASSRT_P_1	2.947 (1.186)	-0.107	-0.978
ASSRT_P_3	3.307 (1.226)	-0.510	-0.718
ASSRT_P_5	3.546 (1.056)	-0.617	-0.182
Indirect perceived fit – NSWA			
OEFF_NSWA_1	3.827 (1.003)	-0.737	0.048
OEFF_NSWA_2	3.637 (1.065)	-0.398	-0.572
OEFF_NSWA_3	4.030 (0.903)	-0.700	0.005
OEFF_NSWA_6	3.980 (0.893)	-0.731	0.203
RISK_NSWA_1	3.234 (1.265)	-0.445	-0.947
RISK_NSWA_2	3.147 (1.319)	-0.332	-1.127
RISK_NSWA_3	2.703 (1.405)	0.158	-1.335
RISK_NSWA_4	2.957 (1.382)	-0.194	-1.328
RISK_NSWA_5	2.863 (1.339)	-0.066	-1.277
RISK_NSWA_6	3.246 (1.324)	-0.452	-1.006

Observed variable	Mean (SD)	Skewness	Kurtosis
IDEA_NSWA_1	3.261 (1.266)	-0.454	-0.978
IDEA_NSWA_3	3.701 (1.081)	-0.830	0.100
IDEA_NSWA_5	3.472 (1.214)	-0.544	-0.687
IDEA_NSWA_6	3.513 (1.222)	-0.651	-0.514
ACT_NSWA_1	2.782 (1.206)	0.303	-1.031
ACT_NSWA_3	2.586 (0.958)	0.351	-0.229
ACT_NSWA_7	2.772 (1.164)	0.268	-0.910
ASSRT_NSWA_1	3.003 (1.272)	-0.197	-1.145
ASSRT_NSWA_3	3.416 (1.280)	-0.521	-0.796
ASSRT_NSWA_5	3.348 (1.290)	-0.531	-0.847
Indirect objective fit – NSWA			
OEFF_NSWA_O_1	3.796 (0.000)	0.737	-0.107
OEFF_NSWA_O_2	3.619 (0.000)	0.397	-0.403
OEFF_NSWA_O_3	4.007 (0.000)	0.700	0.750
OEFF_NSWA_O_6	3.958 (0.000)	0.731	-0.112
RISK_NSWA_O_1	3.204 (0.000)	0.445	-1.004
RISK_NSWA_O_2	3.116 (0.000)	0.332	-1.105
RISK_NSWA_O_3	2.696 (0.000)	-0.158	-1.342
RISK_NSWA_O_4	2.944 (0.000)	0.194	-1.336
RISK_NSWA_O_5	2.851 (0.000)	0.066	-1.262
RISK_NSWA_O_6	3.223 (0.000)	0.452	-0.973
IDEA_NSWA_O_1	3.232 (0.000)	0.454	-0.885
IDEA_NSWA_O_3	3.687 (0.000)	0.830	0.273
IDEA_NSWA_O_5	3.434 (0.000)	0.544	-0.707
IDEA_NSWA_O_6	3.462 (0.000)	0.651	-0.455
ACT_NSWA_O_1	2.773 (0.000)	-0.303	-1.038
ACT_NSWA_O_3	2.592 (0.000)	-0.351	-0.200
ACT_NSWA_O_7	2.763 (0.000)	-0.268	-0.908
ASSRT_NSWA_O_1	2.984 (0.000)	0.197	-1.124
ASSRT_NSWA_O_3	3.380 (0.000)	0.521	-0.809
ASSRT_NSWA_O_5	3.274 (0.000)	0.531	-0.859
Needs-supplies fit			
Direct fit			
NSfit_1	4.198 (0.935)	-1.352	1.657
NSfit_2	4.066 (0.992)	-1.253	1.399
NSfit_3	3.871 (1.060)	-0.752	-0.306
Indirect perceived fit – person			
ATMY_P_3	3.520 (1.106)	-0.437	-0.433
ATMY_P_4	3.723 (0.962)	-0.586	0.118
ATMY_P_5	3.952 (0.884)	-0.655	0.114

Observed variable	Mean (SD)	Skewness	Kurtosis
FLEX_P_1	4.345 (0.729)	-0.911	0.394
FLEX_P_2	4.201 (0.845)	-0.822	0.056
FLEX_P_3	4.221 (0.851)	-0.955	0.502
COMP_P_1	4.046 (0.874)	-0.704	0.163
COMP_P_2	4.272 (0.828)	-1.051	0.831
COMP_P_3	4.292 (0.736)	-0.826	0.515
COMP_P_4	4.160 (0.782)	-0.702	0.247
NOVEL_P_1	3.198 (1.141)	-0.239	-0.766
NOVEL_P_2	3.114 (1.177)	-0.203	-0.853
NOVEL_P_4	3.261 (1.155)	-0.363	-0.691
NOVEL_P_6	3.398 (1.218)	-0.349	-0.831
Indirect perceived fit – NSWA			
ATMY_NSWA_3	3.688 (0.959)	-0.378	-0.563
ATMY_NSWA_4	3.576 (1.059)	-0.411	-0.540
ATMY_NSWA_5	3.944 (0.859)	-0.613	0.077
FLEX_NSWA_1	4.345 (0.714)	-1.033	1.362
FLEX_NSWA_2	4.211 (0.824)	-0.952	0.467
FLEX_NSWA_3	4.292 (0.750)	-0.896	0.669
COMP_NSWA_1	3.848 (0.908)	-0.570	-0.020
COMP_NSWA_2	3.926 (0.817)	-0.395	-0.106
COMP_NSWA_3	4.013 (0.847)	-0.525	-0.278
COMP_NSWA_4	3.805 (0.929)	-0.534	-0.175
NOVEL_NSWA_1	3.464 (1.047)	-0.337	-0.528
NOVEL_NSWA_2	3.289 (1.063)	-0.304	-0.521
NOVEL_NSWA_4	3.482 (1.033)	-0.263	-0.635
NOVEL_NSWA_6	3.470 (1.109)	-0.264	-0.846
Indirect objective fit – NSWA			
ATMY_NSWA_O_3	3.666 (0.000)	0.378	-0.662
ATMY_NSWA_O_4	3.541 (0.000)	0.411	-0.757
ATMY_NSWA_O_5	3.935 (0.000)	0.613	0.693
FLEX_NSWA_O_1	4.348 (0.000)	1.033	1.463
FLEX_NSWA_O_2	4.195 (0.000)	0.951	1.216
FLEX_NSWA_O_3	4.264 (0.000)	0.896	0.692
COMP_NSWA_O_1	3.826 (0.000)	0.570	0.522
COMP_NSWA_O_2	3.884 (0.000)	0.395	-0.874
COMP_NSWA_O_3	3.958 (0.000)	0.525	-0.652
COMP_NSWA_O_4	3.766 (0.000)	0.534	-0.489
NOVEL_NSWA_O_1	3.425 (0.000)	0.337	-0.735
NOVEL_NSWA_O_2	3.262 (0.000)	0.304	-0.541
NOVEL_NSWA_O_4	3.469 (0.000)	0.263	-0.741
NOVEL_NSWA_O_6	3.457 (0.000)	0.264	-0.708

Observed variable	Mean (SD)	Skewness	Kurtosis
Subjective career success			
SCS_REC1	4.495 (0.646)	-1.082	0.775
SCS_REC2	4.317 (0.760)	-0.915	0.310
SCS_REC3	4.216 (0.847)	-1.202	1.861
SCS_QUAL1	4.371 (0.787)	-1.382	2.264
SCS_QUAL2	4.213 (0.815)	-0.914	0.662
SCS_QUAL3	4.360 (0.778)	-1.111	1.056
SCS_MEAN1	4.114 (0.934)	-1.256	1.606
SCS_MEAN2	4.079 (0.964)	-1.091	0.896
SCS_MEAN3	3.898 (1.035)	-0.868	0.253
SCS_INFL1	3.784 (1.033)	-0.775	0.220
SCS_INFL2	3.825 (0.998)	-0.852	0.466
SCS_INFL3	3.893 (0.992)	-0.988	0.903
SCS_AUTH1	4.109 (0.913)	-1.218	1.521
SCS_AUTH2	4.074 (0.947)	-0.955	0.397
SCS_AUTH3	4.170 (0.915)	-1.058	0.730
SCS_LIFE1	4.135 (0.934)	-1.129	0.854
SCS_LIFE2	4.168 (0.908)	-1.109	1.016
SCS_LIFE3	4.190 (0.826)	-0.852	0.318
SCS_GROW1	4.246 (0.798)	-1.129	1.481
SCS_GROW2	4.046 (0.886)	-0.922	0.826
SCS_GROW3	4.246 (0.817)	-1.206	1.719
SCS_SAT1	4.025 (0.984)	-1.168	1.199
SCS_SAT2	3.954 (1.024)	-0.944	0.295
SCS_SAT3	4.180 (0.926)	-1.207	1.317

N = 394
SD = Standard deviation

Table 4. Validity, Reliability, and Pairwise Correlations for Independent Contractors' Direct P-WA Fit

	Composite Reliability	AVE	(1)	(2)	(3)
(1) DAfit	0.902	0.754	0.868		
(2) NSfit	0.841	0.638	0.702	0.799	
(3) SCS	0.903	0.543	0.292	0.479	0.737

Note: Statistics represent the square-rooted AVE.
AVE = Average variance explained

Table 5. SEM Results for Independent Contractors' Direct P-WA Fit

Path		*b**	Standard error	p-value
DAfit	→ SCS	-0.056	0.083	0.499
NSfit	→ SCS	0.505	0.082	0.000
Control variables				
Age	→ SCS	-0.056	0.059	0.344
Gender (woman)	→ SCS	-0.100	0.051	0.051
Race (white)	→ SCS	-0.069	0.050	0.164
Marital status (married)	→ SCS	-0.059	0.066	0.373
Spouse's work status	→ SCS	0.191	0.063	0.002
Personal/family obligations (none)	→ SCS	-0.053	0.057	0.352
Level of education	→ SCS	0.004	0.049	0.931
Weekly hours worked	→ SCS	-0.002	0.050	0.969
Tenure in NSWA	→ SCS	0.147	0.055	0.008

N = 382

* Statistics represent standardized coefficients.

Table 6. Validity, Reliability, and Pairwise Correlations for Independent Contractors' Indirect Perceived Demands-Abilities Fit

	Composite Reliability	AVE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) OEFF_P	0.827	0.546	0.739										
(2) OEFF_NSWA	0.817	0.527	0.639	0.726									
(3) RISK_P	0.931	0.694			0.833								
(4) RISK_NSWA	0.931	0.693			0.709	0.832							
(5) IDEA_P	0.808	0.517					0.719						
(6) IDEA_NSWA	0.851	0.591					0.516	0.769					
(7) ACT_P	0.682	0.419							0.648				
(8) ACT_NSWA	0.701	0.442							0.649	0.664			
(9) ASSRT_P	0.790	0.559									0.747		
(10) ASSRT_NSWA	0.779	0.543									0.822	0.737	
(11) SCS	0.904	0.546	0.583	0.607	0.376	0.362	0.358	0.486	-0.115	0.037	0.598	0.587	0.739

Note: Statistics on the diagonal represent the square-rooted AVE. Pairwise correlations among constructs not entered into the same analyses are not shown.
AVE = Average variance explained

Table 7. SEM and LMS Results for Independent Contractors' Indirect Perceived Demands-Abilities Fit

Path		*b**	Standard error	p-value
Occupational self-efficacy[a]				
OEFF_P	→ SCS	0.322	0.088	0.000
OEFF_NSWA	→ SCS	0.384	0.089	0.000
Control variables				
Age	→ SCS	-0.046	0.056	0.415
Gender (woman)	→ SCS	-0.129	0.050	0.009
Race (white)	→ SCS	-0.050	0.039	0.198
Marital status (married)	→ SCS	-0.001	0.057	0.984
Spouse's work status	→ SCS	0.099	0.058	0.085
Personal/family obligations (none)	→ SCS	-0.044	0.058	0.452
Level of education	→ SCS	-0.027	0.047	0.563
Weekly hours worked	→ SCS	-0.011	0.045	0.801
Tenure in NSWA	→ SCS	0.078	0.047	0.009
Risk propensity[b]				
RISK_P	→ SCS	0.297	0.086	0.001
RISK_NSWA	→ SCS	0.174	0.091	0.057
RISK_P*NWSA	→ SCS	0.176	0.052	0.001
Control variables				
Age	→ SCS	0.014	0.062	0.818
Gender (woman)	→ SCS	-0.163	0.060	0.006
Race (white)	→ SCS	-0.025	0.042	0.552
Marital status (married)	→ SCS	-0.049	0.061	0.421
Spouse's work status	→ SCS	0.123	0.060	0.040
Personal/family obligations (none)	→ SCS	-0.083	0.057	0.145
Level of education	→ SCS	-0.050	0.051	0.323
Weekly hours worked	→ SCS	-0.024	0.050	0.629
Tenure in NSWA	→ SCS	0.139	0.050	0.006
Openness to ideas[a]				
IDEA_P	→ SCS	0.169	0.092	0.066
IDEA_NSWA	→ SCS	0.395	0.077	0.000
Control variables				
Age	→ SCS	-0.055	0.060	0.371
Gender (woman)	→ SCS	-0.167	0.055	0.002
Race (white)	→ SCS	-0.044	0.040	0.270
Marital status (married)	→ SCS	-0.057	0.059	0.334
Spouse's work status	→ SCS	0.122	0.059	0.039
Personal/family obligations (none)	→ SCS	-0.090	0.061	0.143
Level of education	→ SCS	-0.046	0.048	0.345
Weekly hours worked	→ SCS	-0.037	0.052	0.467
Tenure in NSWA	→ SCS	0.168	0.050	0.001

Path		*b**	Standard error	p-value
Assertiveness[a]				
ASSRT_P	→ SCS	0.335	0.139	0.016
ASSRT_NSWA	→ SCS	0.327	0.136	0.016
Control variables				
Age	→ SCS	0.057	0.059	0.332
Gender (woman)	→ SCS	-0.159	0.051	0.002
Race (white)	→ SCS	0.014	0.039	0.724
Marital status (married)	→ SCS	-0.061	0.056	0.275
Spouse's work status	→ SCS	0.048	0.057	0.399
Personal/family obligations (none)	→ SCS	-0.044	0.058	0.455
Level of education	→ SCS	-0.062	0.045	0.168
Weekly hours worked	→ SCS	-0.032	0.046	0.489
Tenure in NSWA	→ SCS	0.052	0.047	0.269

N = 382

* Statistics represent standardized coefficients.

[a] Results are based on the SEM.

[b] Results are based on the LMS.

Table 8. Validity, Reliability, and Pairwise Correlations for Independent Contractors' Indirect Perceived Needs-Supplies Fit

	Composite Reliability	AVE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) ATMY_P	0.776	0.538	0.733								
(2) ATMY_NSWA	0.728	0.472	0.812	0.687							
(3) FLEX_P	0.831	0.626			0.791						
(4) FLEX_NSWA	0.823	0.610			0.869	0.781					
(5) COMP_P	0.852	0.592					0.769				
(6) COMP_NSWA	0.880	0.647					0.604	0.805			
(7) NOVEL_P	0.890	0.669							0.818		
(8) NOVEL_NSWA	0.874	0.636							0.866	0.797	
(9) SCS	0.904	0.546	0.607	0.729	0.379	0.389	0.530	0.732	0.492	0.645	0.739

Note: Statistics on the diagonal represent the square-rooted AVE. Pairwise correlations among constructs not entered into the same analyses are not shown.
AVE = Average variance explained

Table 9. SEM Results for Independent Contractors' Indirect Perceived Needs-Supplies Fit

Path		*b**	Standard error	p-value
Need for workplace flexibility				
FLEX_P	→ SCS	0.087	0.158	0.579
FLEX_NSWA	→ SCS	0.319	0.155	0.039
Control variables				
Age	→ SCS	-0.080	0.063	0.206
Gender (woman)	→ SCS	-0.080	0.057	0.162
Race (white)	→ SCS	-0.071	0.045	0.121
Marital status (married)	→ SCS	-0.059	0.063	0.355
Spouse's work status	→ SCS	0.166	0.063	0.008
Personal/family obligations (none)	→ SCS	-0.019	0.063	0.759
Level of education	→ SCS	0.019	0.053	0.720
Weekly hours worked	→ SCS	0.056	0.056	0.319
Tenure in NSWA	→ SCS	0.199	0.053	0.000
Need for competence				
COMP_P	→ SCS	0.161	0.082	0.050
COMP_NSWA	→ SCS	0.619	0.073	0.000
Control variables				
Age	→ SCS	-0.072	0.048	0.131
Gender (woman)	→ SCS	-0.073	0.041	0.078
Race (white)	→ SCS	-0.069	0.033	0.037
Marital status (married)	→ SCS	-0.003	0.053	0.951
Spouse's work status	→ SCS	0.139	0.051	0.006
Personal/family obligations (none)	→ SCS	-0.005	0.050	0.923
Level of education	→ SCS	-0.036	0.043	0.404
Weekly hours worked	→ SCS	0.000	0.043	0.997
Tenure in NSWA	→ SCS	0.126	0.042	0.003
Need for novelty				
NOVEL_P	→ SCS	-0.236	0.128	0.065
NOVEL_NSWA	→ SCS	0.842	0.123	0.000
Control variables				
Age	→ SCS	-0.079	0.055	0.149
Gender (woman)	→ SCS	-0.167	0.047	0.000
Race (white)	→ SCS	-0.037	0.036	0.307
Marital status (married)	→ SCS	-0.035	0.053	0.513
Spouse's work status	→ SCS	0.107	0.054	0.050
Personal/family obligations (none)	→ SCS	-0.053	0.055	0.332
Level of education	→ SCS	-0.037	0.047	0.432
Weekly hours worked	→ SCS	-0.027	0.047	0.569
Tenure in NSWA	→ SCS	0.145	0.046	0.002

N = 382

* Statistics represent standardized coefficients.

Table 10. Descriptive Statistics for On-Call and Direct-Hire Temporary Workers' Fit and SCS Measures

Observed variable	Mean (SD)	Skewness	Kurtosis	Cronbach's Alpha
Demands-abilities fit				
Direct fit				
DAfit	4.259 (0.720)	-1.379	3.493	0.824
Indirect perceived fit – person				
UTOL_P	3.163 (0.736)	0.024	-0.413	0.835
ECOM_P	2.192 (0.750)	0.430	-0.369	0.820
DUTY_P	4.259 (0.559)	-0.612	-0.288	0.717
Indirect perceived fit – NSWA				
UTOL_NSWA	3.172 (0.750)	0.271	-0.444	0.715
ECOM_NSWA	2.507 (0.833)	0.033	-0.663	0.801
DUTY_NSWA	4.014 (0.531)	-0.834	1.136	0.581
Indirect objective fit – NSWA				
UTOL_NSWA_O	3.172 (0.000)	-0.271	-0.444	0.715
ECOM_NSWA_O	2.507 (0.000)	-0.033	-0.663	0.801
DUTY_NSWA_O	4.014 (0.000)	0.834	1.136	0.581
Needs-supplies fit				
Direct fit				
NSfit	4.015 (0.836)	-0.536	-0.588	0.796
Indirect perceived fit – person				
FLEX_P	4.191 (0.829)	-0.797	0.066	0.857
RELAT_P	2.603 (0.995)	0.212	-0.993	0.919
Indirect perceived fit – NSWA				
FLEX_NSWA	4.223 (0.832)	-0.763	-0.279	0.902
RELAT_NSWA	3.027 (0.882)	0.167	-0.697	0.803
Indirect objective fit – NSWA				
FLEX_NSWA_O	4.223 (0.000)	0.763	-0.279	0.902
RELAT_NSWA_O	3.027 (0.000)	-0.167	-0.697	0.803
Subjective career success				
SCS	3.912 (0.616)	-0.365	-0.814	0.917

N = 112
SD = Standard deviation

Table 11. Pairwise Correlations for On-Call and Direct-Hire Temporary Workers' Fit and SCS Measures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) DAfit	1.000																	
(2) NSfit	0.458	1.000																
(3) UTOL_P			1.000															
(4) UTOL_E			0.045	1.000														
(5) UTOL_EO			-0.045		1.000													
(6) ECOM_P						1.000												
(7) ECOM_E						0.375	1.000											
(8) ECOM_EO						-0.375		1.000										
(9) DUTY_P									1.000									
(10) DUTY_E									0.468	1.000								
(11) DUTY_EO									-0.468		1.000							
(12) FLEX_P												1.000						
(13) FLEX_E												0.649	1.000					
(14) FLEX_EO												-0.649		1.000				
(15) RELAT_P															1.000			
(16) RELAT_E															0.403	1.000		
(17) RELAT_EO															-0.403		1.000	
(18) SCS	0.308	0.495	-0.107	0.030	-0.030	0.054	0.086	-0.086	0.525	0.148	-0.148	0.155	0.263	-0.263	0.078	0.287	-0.287	1.000

Note: Pairwise correlations among constructs not entered into the same analyses are not shown.

Table 12. Linear Regression Results for On-Call and Direct-Hire Temporary Workers' Direct P-WA Fit

Variable	*b**	p-value	VIF
DAfit	0.093	0.326	1.340
NSfit	0.403	0.000	1.597
Control variables			
Age	0.134	0.240	
Gender (woman)	-0.188	0.032	
Race (white)	0.029	0.732	
Marital status (married)	-0.089	0.478	
Spouse's work status	0.097	0.391	
Personal/family obligations (none)	-0.051	0.587	
Level of education	-0.005	0.950	
Weekly hours worked	0.080	0.611	
Tenure in NSWA	-0.195	0.217	
Stress	-0.253	0.009	

N = 103
VIF = Variance inflation factor
Dependent variable: Subjective career success
* Statistics represent standardized coefficients.

Table 13. Regression Results for On-Call and Direct-Hire Temporary Workers' Indirect Perceived Demands-Abilities Fit

Variable	*b**	p-value	VIF
Uncertainty tolerance			
UTOL_P	0.081	0.438	1.297
UTOL_NSWA	0.072	0.452	1.084
UTOL_P*NSWA	-0.088	0.372	1.165
Control variables			
Age	0.152	0.233	
Gender (woman)	-0.167	0.086	
Race (white)	0.037	0.703	
Marital status (married)	-0.047	0.742	
Spouse's work status	0.045	0.726	
Personal/family obligations (none)	-0.055	0.607	
Level of education	0.056	0.571	
Weekly hours worked	0.051	0.773	
Tenure in NSWA	-0.072	0.679	
Stress	-0.433	0.000	
Employment commitment			
ECOM_P	-0.003	0.976	1.405
ECOM_NSWA	0.110	0.292	1.325
ECOM_P*NWSA	0.163	0.099	1.187
Control variables			
Age	0.150	0.234	
Gender (woman)	-0.186	0.053	
Race (white)	0.055	0.571	
Marital status (married)	-0.024	0.867	
Spouse's work status	0.009	0.943	
Personal/family obligations (none)	-0.064	0.539	
Level of education	0.042	0.661	
Weekly hours worked	0.029	0.867	
Tenure in NSWA	-0.062	0.720	
Stress	-0.385	0.000	

Variable	*b**	p-value	VIF
Dutifulness			
DUTY_P	0.430	0.000	1.584
DUTY_NSWA	-0.126	0.221	1.570
DUTY_P*NSWA	-0.015	0.873	1.329
Control variables			
Age	0.016	0.892	
Gender (woman)	-0.077	0.390	
Race (white)	0.083	0.337	
Marital status (married)	0.033	0.795	
Spouse's work status	0.006	0.959	
Personal/family obligations (none)	0.009	0.923	
Level of education	0.104	0.234	
Weekly hours worked	0.136	0.413	
Tenure in NSWA	-0.095	0.547	
Stress	-0.279	0.004	

N = 103
VIF = Variance inflation factor
Dependent variable: Subjective career success
* Statistics represent standardized coefficients and are based on mean-centered variables.

Table 14. Regression Results for On-Call and Direct-Hire Temporary Workers' Indirect Perceived Needs-Supplies Fit

Variable	*b**	p-value	VIF
Need for workplace flexibility			
FLEX_P	-0.007	0.957	2.120
FLEX_NSWA	0.233	0.080	2.157
FLEX_P*NSWA	0.066	0.538	1.416
Control variables			
Age	0.188	0.151	
Gender (woman)	-0.128	0.204	
Race (white)	0.041	0.664	
Marital status (married)	-0.093	0.504	
Spouse's work status	0.114	0.372	
Personal/family obligations (none)	-0.001	0.991	
Level of education	0.046	0.632	
Weekly hours worked	0.101	0.569	
Tenure in NSWA	-0.135	0.444	
Stress	-0.345	0.001	
Need for relatedness			
RELAT_P	0.039	0.696	1.475
RELAT_NSWA	0.318	0.002	1.480
RELAT_P*NWSA	0.240	0.008	1.149
Control variables			
Age	0.247	0.039	
Gender (woman)	-0.156	0.077	
Race (white)	0.049	0.584	
Marital status (married)	-0.170	0.189	
Spouse's work status	0.182	0.120	
Personal/family obligations (none)	-0.113	0.239	
Level of education	0.101	0.263	
Weekly hours worked	-0.024	0.879	
Tenure in NSWA	-0.063	0.690	
Stress	-0.310	0.002	

N = 103
VIF = Variance inflation factor
Dependent variable: Subjective career success
* Statistics represent standardized coefficients and are based on mean-centered variables.

Table 15. Descriptive Statistics for Remote Workers' Fit and SCS Retained Measures

Observed variable	Mean (SD)	Skewness	Kurtosis
Demands-abilities fit			
Direct fit			
DAfit_1	4.393 (0.766)	-1.676	3.832
DAfit_2	4.473 (0.794)	-2.145	5.780
DAfit_3	4.427 (0.769)	-1.875	4.936
Indirect perceived fit – person			
OEFF_P_1	4.043 (0.782)	-0.504	0.018
OEFF_P_2	4.006 (0.827)	-0.681	0.464
OEFF_P_3	4.080 (0.780)	-0.679	0.441
OEFF_P_6	4.103 (0.785)	-0.606	0.125
DSCPL_P_3	4.396 (0.720)	-0.984	0.408
DSCPL_P_4	3.946 (1.061)	-0.877	-0.130
DSCPL_P_8	4.094 (0.903)	-1.046	0.931
GREG_P_1	2.473 (1.283)	0.502	-0.966
GREG_P_2	2.236 (1.064)	0.739	-0.095
GREG_P_3	2.177 (1.031)	0.750	0.032
GREG_P_5	3.185 (1.200)	-0.112	-0.959
Indirect perceived fit – NSWA			
OEFF_NSWA_1	3.866 (0.935)	-0.527	-0.377
OEFF_NSWA_2	3.761 (1.004)	-0.538	-0.286
OEFF_NSWA_3	4.054 (0.837)	-0.656	0.179
OEFF_NSWA_6	4.134 (0.752)	-0.626	0.357
DSCPL_NSWA_3	4.142 (0.875)	-0.994	0.575
DSCPL_NSWA_4	4.336 (0.713)	-0.875	0.732
DSCPL_NSWA_8	4.641 (0.581)	-1.648	2.943
GREG_NSWA_1	1.396 (0.880)	2.499	5.671
GREG_NSWA_2	1.382 (0.846)	2.467	5.547
GREG_NSWA_3	1.667 (0.874)	1.443	1.861
GREG_NSWA_5	1.621 (0.964)	1.541	1.449
Indirect objective fit – NSWA			
OEFF_NSWA_O_1	3.848 (0.000)	0.527	-0.395
OEFF_NSWA_O_2	3.716 (0.000)	0.538	-0.268
OEFF_NSWA_O_3	4.029 (0.000)	0.656	-0.275
OEFF_NSWA_O_6	4.110 (0.000)	0.627	0.248
DSCPL_NSWA_O_3	4.126 (0.000)	0.994	0.278
DSCPL_NSWA_O_4	4.131 (0.000)	0.874	1.783
DSCPL_NSWA_O_8	4.610 (0.000)	1.648	1.594
GREG_NSWA_O_1	1.441 (0.000)	-2.499	5.675
GREG_NSWA_O_2	1.444 (0.000)	-2.467	5.549
GREG_NSWA_O_3	1.671 (0.000)	-1.443	1.868
GREG_NSWA_O_5	1.655 (0.000)	-1.541	1.447

Observed variable	Mean (SD)	Skewness	Kurtosis
Needs-supplies fit			
Direct fit			
NSfit_1	4.484 (0.691)	-1.704	4.408
NSfit_2	4.313 (0.823)	-1.526	2.888
NSfit_3	4.174 (0.959)	-1.285	1.208
Indirect perceived fit – person			
FLEX_P_1	4.208 (0.812)	-0.843	0.333
FLEX_P_2	4.051 (0.959)	-0.838	0.108
FLEX_P_3	4.157 (0.831)	-0.687	-0.265
ATMY_P_3	3.151 (1.113)	-0.114	-0.691
ATMY_P_4	3.519 (0.975)	-0.319	-0.364
ATMY_P_5	3.815 (0.926)	-0.659	0.327
SECUR_P_1	3.504 (1.021)	-0.373	-0.483
SECUR_P_2	3.265 (1.105)	-0.182	-0.655
SECUR_P_3	3.709 (1.033)	-0.779	0.291
SECUR_P_4	3.538 (1.069)	-0.443	-0.295
Indirect perceived fit – NSWA			
FLEX_NSWA_1	4.214 (0.839)	-1.085	1.228
FLEX_NSWA_2	4.179 (0.847)	-0.857	0.109
FLEX_NSWA_3	4.205 (0.804)	-0.847	0.257
ATMY_NSWA_3	3.479 (1.059)	-0.340	-0.540
ATMY_NSWA_4	3.496 (1.021)	-0.302	-0.431
ATMY_NSWA_5	3.821 (0.939)	-0.626	0.023
SECUR_NSWA_1	2.949 (1.144)	-0.060	-0.698
SECUR_NSWA_2	2.698 (1.208)	0.138	-0.954
SECUR_NSWA_3	3.142 (1.151)	-0.190	-0.750
SECUR_NSWA_4	3.302 (1.096)	-0.320	-0.440
Indirect objective fit – NSWA			
FLEX_NSWA_O_1	4.179 (0.000)	1.085	0.640
FLEX_NSWA_O_2	4.174 (0.000)	0.856	0.188
FLEX_NSWA_O_3	4.187 (0.000)	0.847	0.854
ATMY_NSWA_O_3	3.468 (0.000)	0.340	-0.587
ATMY_NSWA_O_4	3.449 (0.000)	0.302	-0.403
ATMY_NSWA_O_5	3.783 (0.000)	0.626	0.066
SECUR_NSWA_O_1	2.917 (0.000)	0.060	-0.690
SECUR_NSWA_O_2	2.658 (0.000)	-0.138	-0.959
SECUR_NSWA_O_3	3.118 (0.000)	0.190	-0.765
SECUR_NSWA_O_4	3.286 (0.000)	0.320	-0.392
Subjective career success			
SCS_REC1	4.538 (0.690)	-1.594	2.532
SCS_REC2	4.442 (0.752)	-1.287	1.175
SCS_REC3	4.262 (0.887)	-1.322	1.628

Observed variable	Mean (SD)	Skewness	Kurtosis
SCS_QUAL1	4.450 (0.656)	-1.029	0.938
SCS_QUAL2	4.291 (0.782)	-1.024	0.729
SCS_QUAL3	4.427 (0.696)	-0.958	0.230
SCS_MEAN1	3.877 (1.106)	-0.893	-0.042
SCS_MEAN2	3.872 (1.114)	-0.910	0.076
SCS_MEAN3	3.610 (1.195)	-0.625	-0.528
SCS_INFL1	3.581 (1.152)	-0.669	-0.411
SCS_INFL2	3.613 (1.114)	-0.705	-0.261
SCS_INFL3	3.741 (1.056)	-0.877	0.216
SCS_AUTH1	3.963 (0.962)	-0.964	0.485
SCS_AUTH2	3.838 (1.048)	-0.770	-0.086
SCS_AUTH3	3.960 (1.029)	-0.862	0.063
SCS_LIFE1	4.048 (0.970)	-1.109	0.822
SCS_LIFE2	4.142 (0.959)	-1.062	0.387
SCS_LIFE3	4.185 (0.859)	-1.012	0.769
SCS_GROW1	4.365 (0.715)	-1.133	1.721
SCS_GROW2	4.251 (0.769)	-1.024	1.210
SCS_GROW3	4.302 (0.740)	-1.011	1.242
SCS_SAT1	3.823 (1.085)	-0.797	-0.091
SCS_SAT2	3.667 (1.127)	-0.573	-0.580
SCS_SAT3	3.997 (1.085)	-1.039	0.308

N = 351
SD = Standard deviation

Table 16. Validity, Reliability, and Pairwise Correlations for Remote Workers' Direct P-WA Fit

	Composite Reliability	AVE	(1)	(2)	(3)
(1) DAfit	0.928	0.810	0.900		
(2) NSfit	0.866	0.686	0.692	0.827	
(3) SCS	0.836	0.409	0.295	0.329	0.640

Note: Statistics represent the square-rooted AVE.
AVE = Average variance explained

Table 17. SEM Results for Remote Workers' Direct P-WA Fit

Path		*b**	Standard error	p-value
DAfit	→ SCS	0.139	0.084	0.097
NSfit	→ SCS	0.246	0.086	0.004
Control variables				
Age	→ SCS	-0.040	0.063	0.526
Gender (woman)	→ SCS	-0.025	0.056	0.653
Race (white)	→ SCS	-0.020	0.058	0.724
Marital status (married)	→ SCS	-0.020	0.068	0.774
Spouse's work status	→ SCS	0.018	0.064	0.780
Personal/family obligations (none)	→ SCS	-0.036	0.058	0.536
Level of education	→ SCS	0.176	0.054	0.001
Weekly hours worked	→ SCS	0.017	0.057	0.771
Tenure in NSWA	→ SCS	0.053	0.060	0.374

N = 346

* Statistics represent standardized coefficients.

Table 18. Validity, Reliability, and Pairwise Correlations for Remote Workers' Indirect Perceived Demands-Abilities Fit

	Composite Reliability	AVE	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) OEFF_P	0.774	0.464	0.681						
(2) OEFF_NSWA	0.801	0.502	0.657	0.709					
(3) DSCPL_P	0.805	0.508			0.713				
(4) DSCPL_NSWA	0.692	0.366			0.599	0.605			
(5) GREG_P	0.813	0.522					0.722		
(6) GREG_NSWA	0.812	0.540					0224	0.735	
(7) SCS	0.834	0.407	0.406	0.385	0.478	0.466	0.141	0.068	0.638

Note: Statistics on the diagonal represent the square-rooted AVE. Pairwise correlations among constructs not entered into the same analyses are not shown.
AVE = Average variance explained

Table 19. SEM Results for Remote Workers' Indirect Perceived Demands-Abilities Fit

Path		*b**	Standard error	p-value
Occupational self-efficacy				
OEFF_P	→ SCS	0.255	0.102	0.012
OEFF_NSWA	→ SCS	0.230	0.091	0.012
Control variables				
Age	→ SCS	-0.015	0.067	0.817
Gender (woman)	→ SCS	-0.043	0.055	0.438
Race (white)	→ SCS	-0.016	0.048	0.739
Marital status (married)	→ SCS	0.000	0.076	1.000
Spouse's work status	→ SCS	0.007	0.066	0.920
Personal/family obligations (none)	→ SCS	-0.016	0.061	0.797
Level of education	→ SCS	0.163	0.060	0.007
Weekly hours worked	→ SCS	-0.018	0.056	0.746
Tenure in NSWA	→ SCS	0.040	0.060	0.505
Gregariousness				
GREG_P	→ SCS	0.120	0.072	0.096
GREG_NSWA	→ SCS	0.025	0.059	0.675
Control variables				
Age	→ SCS	-0.006	0.074	0.939
Gender (woman)	→ SCS	-0.055	0.060	0.364
Race (white)	→ SCS	-0.005	0.053	0.929
Marital status (married)	→ SCS	-0.006	0.077	0.938
Spouse's work status	→ SCS	-0.027	0.068	0.695
Personal/family obligations (none)	→ SCS	-0.055	0.067	0.409
Level of education	→ SCS	0.140	0.066	0.034
Weekly hours worked	→ SCS	0.054	0.062	0.378
Tenure in NSWA	→ SCS	0.067	0.065	0.303

N = 346

* Statistics represent standardized coefficients.

Table 20. Validity, Reliability, and Pairwise Correlations for Remote Workers' Indirect Perceived Needs-Supplies Fit

	Composite Reliability	AVE	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) FLEX_P	0.880	0.713	0.845						
(2) FLEX_NSWA	0.913	0.778	0.619	0.882					
(3) ATMY_P	0.761	0.515			0.718				
(4) ATMY_NSWA	0.751	0.503			0.771	0.709			
(5) SECUR_P	0.876	0.638					0.799		
(6) SECUR_NSWA	0.886	0.660					0.496	0.813	
(7) SCS	0.835	0.408	0.176	0.233	0.211	0.501	0.275	0.426	0.638

Note: Statistics on the diagonal represent the square-rooted AVE. Pairwise correlations among constructs not entered into the same analyses are not shown.
AVE = Average variance explained

Table 21. SEM Results for Remote Workers' Indirect Perceived Needs-Supplies Fit

Path		*b**	Standard error	p-value
Need for workplace flexibility				
FLEX_P	→ SCS	0.047	0.077	0.537
FLEX_NSWA	→ SCS	0.206	0.076	0.006
Control variables				
Age	→ SCS	0.012	0.074	0.869
Gender (woman)	→ SCS	-0.049	0.058	0.401
Race (white)	→ SCS	-0.007	0.052	0.894
Marital status (married)	→ SCS	-0.030	0.075	0.692
Spouse's work status	→ SCS	-0.028	0.067	0.678
Personal/family obligations (none)	→ SCS	-0.035	0.066	0.599
Level of education	→ SCS	0.154	0.064	0.016
Weekly hours worked	→ SCS	0.055	0.061	0.374
Tenure in NSWA	→ SCS	0.066	0.064	0.300
Need for autonomy				
ATMY_P	→ SCS	-0.459	0.208	0.027
ATMY_NSWA	→ SCS	0.870	0.201	0.000
Control variables				
Age	→ SCS	0.038	0.067	0.570
Gender (woman)	→ SCS	-0.025	0.053	0.641
Race (white)	→ SCS	-0.036	0.048	0.460
Marital status (married)	→ SCS	-0.018	0.069	0.792
Spouse's work status	→ SCS	-0.007	0.060	0.908
Personal/family obligations (none)	→ SCS	-0.059	0.058	0.313
Level of education	→ SCS	0.195	0.057	0.001
Weekly hours worked	→ SCS	-0.010	0.057	0.867
Tenure in NSWA	→ SCS	0.052	0.063	0.412
Need for job security				
SECUR_P	→ SCS	0.151	0.078	0.054
SECUR_NSWA	→ SCS	0.370	0.072	0.000
Control variables				
Age	→ SCS	0.101	0.068	0.136
Gender (woman)	→ SCS	-0.019	0.054	0.722
Race (white)	→ SCS	-0.038	0.048	0.437
Marital status (married)	→ SCS	-0.021	0.071	0.773
Spouse's work status	→ SCS	-0.006	0.063	0.923
Personal/family obligations (none)	→ SCS	-0.014	0.056	0.807
Level of education	→ SCS	0.160	0.058	0.006
Weekly hours worked	→ SCS	-0.051	0.057	0.371
Tenure in NSWA	→ SCS	0.069	0.064	0.276

N = 346

* Statistics represent standardized coefficients.

Table 22. Summary of Empirical Findings

Hypothesis	Sample					
	Independent Contractors		On-Call and Direct-Hire Temporary Workers		Remote Workers	
H1a	*Not supported*		*Not supported*		*Not supported*	
H1b	*Supported*		*Supported*		*Supported*	
H2a	Occupational self-efficacy	*Not supported*	Uncertainty tolerance	*Not supported*	Occupational self-efficacy	*Not supported*
	Risk propensity	*Supported*	Employment commitment	*Not supported*	Self-discipline	*Not tested*
	Openness to ideas	*Not supported*	Dutifulness	*Not supported*	Gregariousness	*Not supported*
	Openness to actions	*Not tested*				
	Assertiveness	*Not supported*				
H2b	Need for autonomy	*Not tested*	Need for workplace flexibility	*Not supported*	Need for workplace flexibility	*Not supported*
	Need for workplace flexibility	*Not supported*	Need for relatedness	*Supported*	Need for autonomy	*Not supported*
	Need for competence	*Not supported*			Need for job security	*Not supported*
H3a	*Not tested*		*Not tested*		*Not tested*	
H3b	*Not tested*		*Not tested*		*Not tested*	

Figures

Figure 1. Degrees of Externalization for Common Work Arrangements

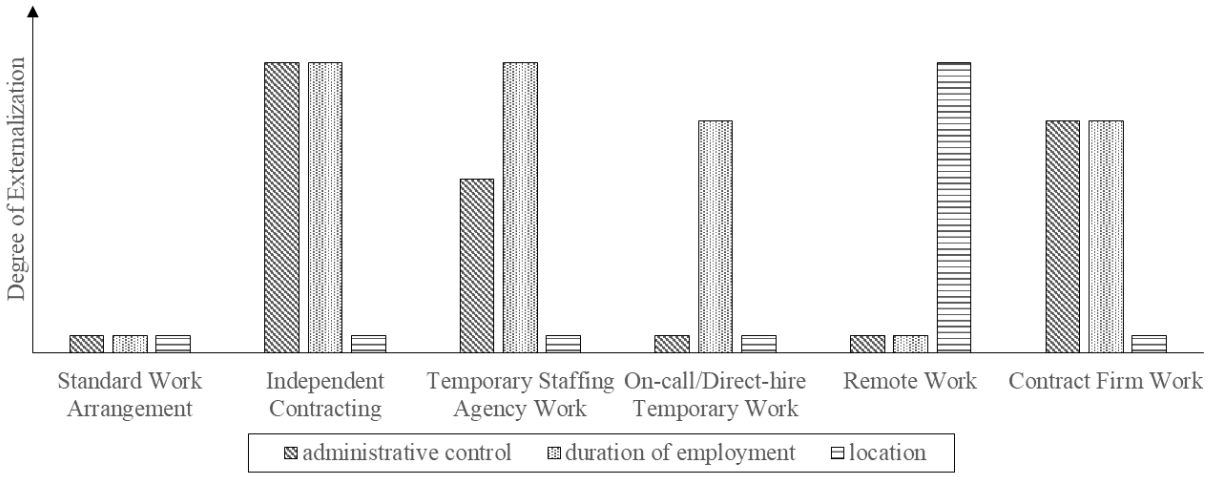


Figure 2. Research Model

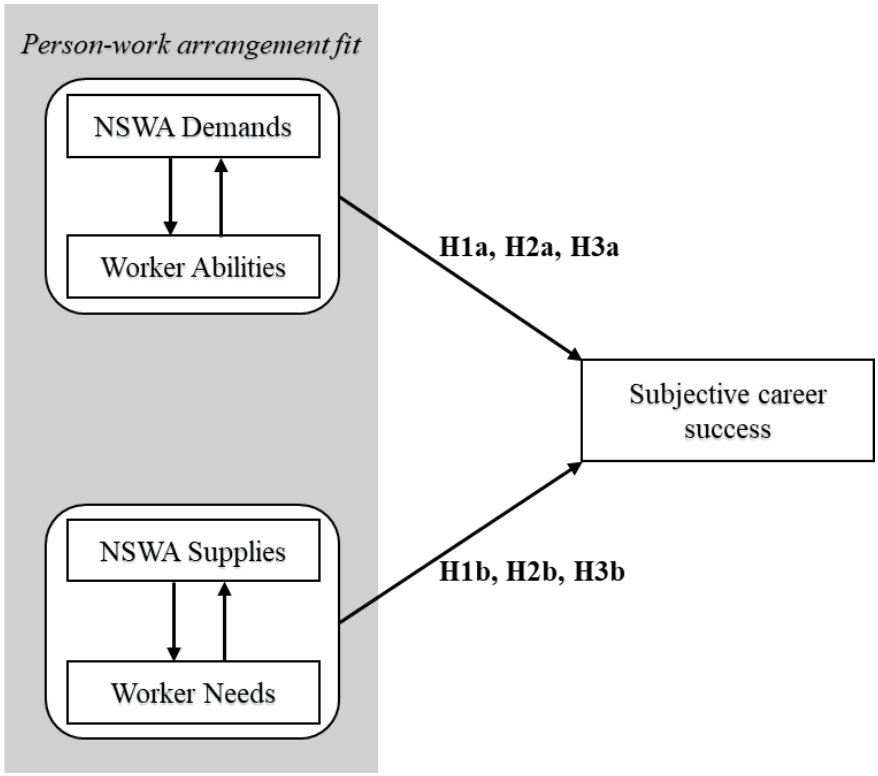


Figure 3. Plot of Interaction Effect for Independent Contractors' P-WA Fit with Respect to Risk Propensity

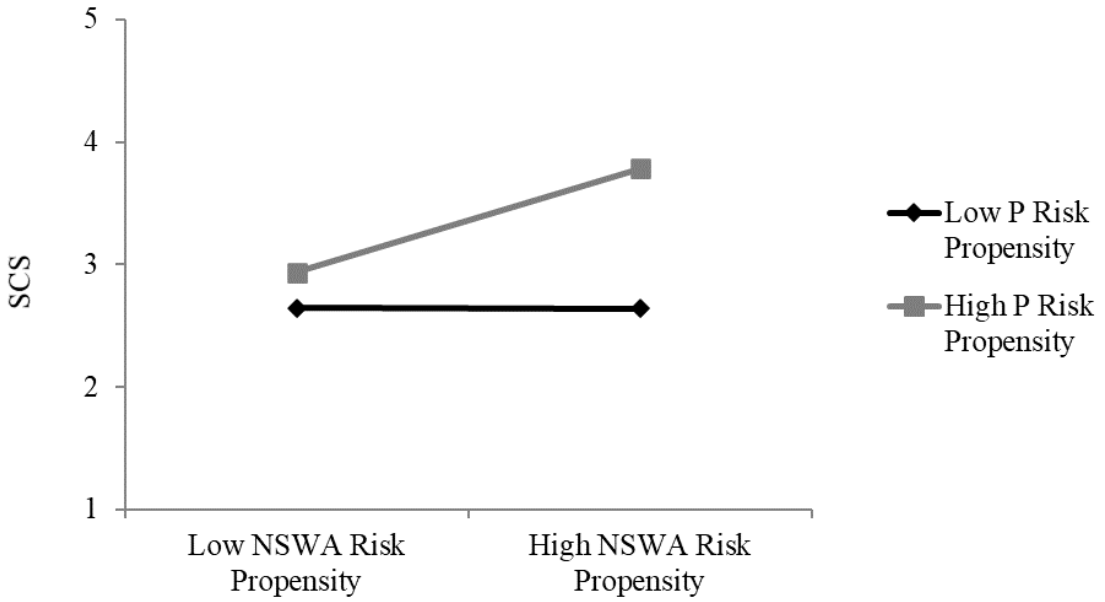
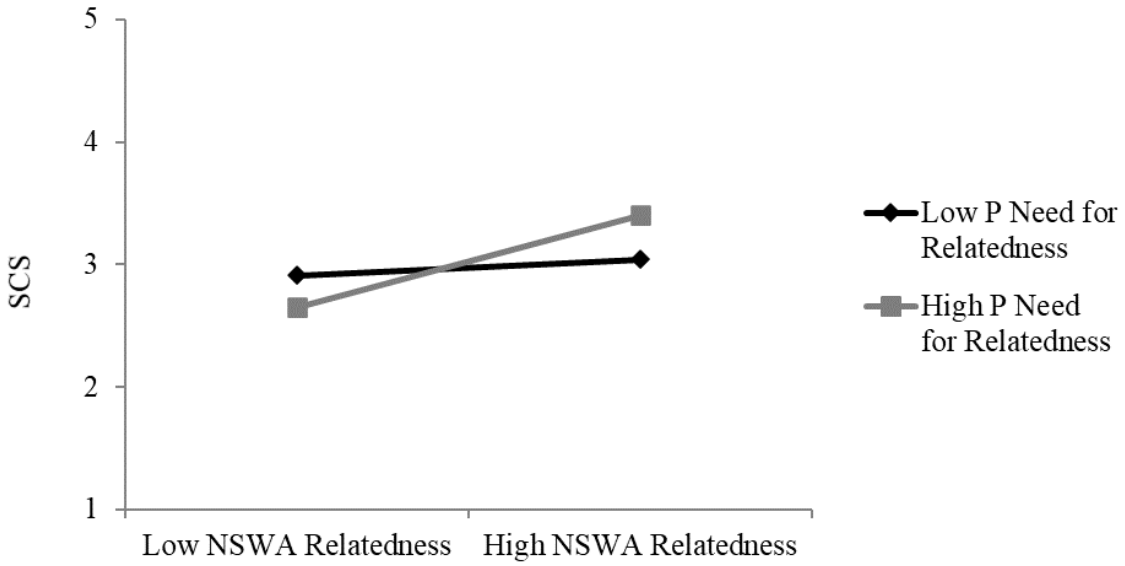


Figure 4. Plot of Interaction Effect for Remote Workers' P-WA Fit with Respect to Need for Relatedness



Appendix A

Screener Survey Questions Used to Determine Survey Participant's Work Arrangements

Are you an independent contractor, an independent consultant, or a free-lance worker on your primary job? That is, someone who obtains customers on their own to provide a product or service.

- Yes *[participant deemed Independent Contractor]*
- No

Some people are in a pool of workers who are only called to work as needed, although they can be scheduled to work for several days or weeks in a row. These people are sometimes called on-call workers. Do you consider yourself to be an on-call worker on your primary job?

- Yes
- No

[Displayed only if participant checked "Yes" for the foregoing question]
Some on-call workers have regularly scheduled hours, but in addition must work when called. Other on-call workers only work when called. Which type of on-call worker are you?

- Work regular hours, but must be available
- Only work when called *[participant deemed On-Call Worker]*

Some companies provide employees or their services (e.g., computer programming, cleaning) to other businesses under contract. Is your primary job to work for a company that contracts out your services?

- Yes
- No

[Displayed only if participant checked "Yes" for the foregoing question]
Are you usually assigned to more than one customer at the same time?

- Yes
- No

[Displayed only if participant checked "No" for the foregoing question]
Do you usually work at the customer's worksite?

- Yes *[participant deemed Worker Provided by Contract Firm]*
- No

Some people are in temporary jobs that last for a limited time or until the completion of a project. Is your primary job temporary?

- Yes
- No

[Displayed only if participant checked "Yes" for the foregoing question]
Are you working only until a specific project is completed?
- Yes
- No

Were you hired to temporarily replace another worker?
- Yes
- No

Were you hired for a fixed period of time?
- Yes
- No

Is your primary job a year-round job or is it only available during certain times of the year?
- Year-round job
- Only available during certain times of the year

Are you paid by a temporary help agency on your primary job?
- Yes *[participant deemed Temporary Staffing Agency Worker]*
- No *[participant deemed Direct-Hire Temporary Worker]*

Some workers have an ongoing employment relationship with their employer, but do not perform their jobs on the employer's premises. Rather, they exclusively work remotely (e.g., at home, coffee shop, co-working space). On your primary job, do you have an employment relationship in which you exclusively work remotely?
- Yes *[participant deemed Remote Worker]*
- No

[Displayed only if participant checked "No" for the foregoing question]
In a given work week, on how many days do you work on your employer's premises?
- On all days
- On at least half of the days
- On fewer than half of the days *[participant deemed Remote Worker]*
- On no days; I exclusively work remotely *[participant deemed Remote Worker]*

Appendix B

List of Motives for Entering a NSWA and their Categorization into Voluntary, Involuntary, and Stepping-Stone Motives

Motive	Motive Category
It allows me flexibility in scheduling my time	Voluntary
It allows me to take care of family or personal obligations	Voluntary
It gives me a sense of freedom	Voluntary
It gives me variety (e.g., different types of work, different organizations)	Voluntary
It provides me with the potential to work for a shorter length of time	Voluntary
The money is better	Voluntary
I enjoy the independence/being my own boss	Voluntary
It allows me to obtain experience/training	Stepping-stone
It gives me the opportunity to gain new skills	Stepping-stone
I hope the job leads to permanent employment	Stepping-stone
It provides a testing ground before I embark on a career with a certain company or in a certain industry	Stepping-stone
It was the only type of work I could find	Involuntary
I was laid off	Involuntary
I lost my previous job	Involuntary
I transitioned into this work arrangement due to the COVID-19 pandemic[1]	Involuntary

[1] While not included in previous NSWA research due to the newness of the COVID-19 pandemic, I added this motive to the survey to capture the possible effect of the COVID-19 pandemic, as an externality, on individuals' work arrangements (e.g., employer-initiated move to remote work in response to the pandemic and related safety concerns).

Appendix C

Cover Story Displayed to Survey Participants Prior to Assessing the Criterion Variable

In this next part of the survey, we would like to ask some questions about your career.

A career can be described as your course or progression through life or a significant period of your life. It is often associated with the jobs you hold, the titles you earn, and the work accomplish as a professional. For each person, the meaning of a career may be somewhat different. For example, some people have professional careers that are concentrated on holding various, often progressive, jobs within one or two organizations. Other people have professional careers that include changes in occupations, organizations, geographic locations, etc.

For the following questions, please think of what you understand to be your career.

Appendix D

Indirect Measures of Perceived Fit

Construct	Items	
	Person (_P)	Work environment (_NSWA)
Occupational self-efficacy (OEFF)[1,2] (Rigotti et al., 2008; Schyns & von Collani, 2002) 1 = not at all true 5 = completely true	1. I can remain calm when facing difficulties in my job because I can rely on my abilities. 2. When I am confronted with a problem in my job, I can usually find several solutions. 3. Whatever comes my way in my job, I can usually handle it. 4. My past experiences in my job have prepared me well for my occupational future. 5. I meet the goals that I set for myself in my job. 6. I feel prepared for most of the demands in my job.	1. This work arrangement demands that I remain calm when facing difficulties and rely on my abilities. 2. In this work arrangement, I must be able to find several solutions when I am confronted with a problem. 3. This work arrangement requires me to handle whatever comes in my way. 4. This work arrangements demands that I use my past experiences to do well. 5. In this work arrangements, I must meet the goals that I set for myself. 6. This work arrangement requires me to be prepared for most of its demands.
Risk propensity (RISK)[1] (Zhang et al., 2019) 1 = strongly disagree 5 = strongly agree	1. Taking risks makes life more fun. 2. My friends would say that I'm a risk taker. 3. I would take a risk even if it means I might get hurt. 4. Taking risks is an important part of my life. 5. I commonly make risky decisions. 6. I am a believer of taking chances.	1. This work arrangement requires me to take risks. 2. In this work arrangement, I must be a risk taker. 3. This work arrangement demands of me to take a risk even if it means I might get hurt. 4. Taking risks is an important part of this work arrangement. 5. In this work arrangement, I commonly must make risky decisions. 6. This work arrangement requires me to take chances.

Construct	Items	
	Person (_P)	Work environment (_NSWA)
Openness to ideas (IDEA)[1] (Costa & McCrae, 1992) 1 = strongly disagree 5 = strongly agree	1. I often enjoy playing with theories or abstract ideas. 2. I find philosophical arguments boring.[R] 3. I enjoy solving problems or puzzles. 4. I sometimes lose interest when people talk about very abstract, theoretical matters.[R] 5. I have a lot of intellectual curiosity. 6. I have a wide range of intellectual interests.	1. This work arrangement requires me to play with theories or abstract ideas. 2. In this work arrangement I must engage with philosophical arguments. 3. This work arrangements requires me to solve problems or puzzles. 4. In this work arrangement, I am confronted with very abstract, theoretical matters. 5. This work arrangement requires a lot of intellectual curiosity. 6. In this work arrangement, I must have a wide range of intellectual interests.
Openness to actions (ACT)[1] (McCrae et al., 2005) 1 = strongly disagree 5 = strongly agree	1. I'm pretty set in my ways.[R] 2. I think it's interesting to learn and develop new ways of doing things. 3. I like the old-fashioned methods I'm used to.[R] 4. I prefer to spend my time in familiar surroundings.[R] 5. I believe variety is the spice of life. 6. On a vacation, I prefer going back to a tried and true spot.[R] 7. I follow the same routine when I go someplace.[R]	1. This work arrangement requires me to do the same things every day.[R] 2. For this work arrangement, I must learn and develop new ways of doing things. 3. In this work arrangement, I can use the old-fashioned methods I'm used to.[R] 4. This work arrangement requires me to spend my time in familiar surroundings.[R] 5. This work arrangement requires handling variety. 6. In this work arrangement, I prefer going back to a tried and true client.[R] 7. This work arrangement demands that I follow the same routines.[R]

Construct	Items	
	Person (_P)	Work environment (_NSWA)
Assertiveness (ASSRT)[1] (McCrae et al., 2005) 1 = strongly disagree 5 = strongly agree	1. I am dominant, forceful, and assertive. 2. Sometimes I don't stand up for my rights like I should.[R] 3. I have often been a leader of groups I have belonged to. 4. In meetings, I usually let others do the talking.[R] 5. Other people often look to me to make decisions. 6. I would rather go my own way than be a leader of others.[R] 7. I don't find it easy to take charge of a situation.[R]	1. This work arrangements demands of me to be dominant, forceful, and assertive. 2. In this work arrangement, I must stand up for my rights. 3. This work arrangement requires me to be a leader. 4. This work arrangements demands that I do the talking during meetings. 5. In this work arrangement, other people often look to me to make decisions. 6. In this work arrangement, I can go my own way rather than be a leader of others.[R] 7. This work arrangement demands that I take charge of a situation.
Dutifulness (DUTY)[3] (McCrae et al., 2005) 1 = strongly disagree 5 = strongly agree	1. I try to perform all the tasks assigned to me conscientiously. 2. Sometimes I'm not as dependable or reliable as I should be.[R] 3. I ignore a lot of silly little rules.[R] 4. When I make a commitment, I can always be counted on to follow through. 5. I follow my ethical principles strictly. 6. I try to do jobs carefully, so they won't have to be done again. 7. I try to go to work even when I'm not feeling well.	1. This work arrangement requires me to perform all the tasks assigned to me conscientiously. 2. In this work arrangement, I must be dependable and reliable. 3. This work arrangement requires me to comply with a lot of silly little rules. 4. This work arrangement requires commitment that I must follow through with. 5. In this work arrangements, I must follow ethical principles strictly. 6. This work arrangement demands that I do jobs carefully, so they won't have to be done again. 7. In this work arrangement, I must go to work even when I'm not feeling well.

Construct	Items	
	Person (_P)	Work environment (_NSWA)
Tolerance of uncertainty (UTOL)[3] (Carleton et al., 2007; Buhr & Dugas, 2002)[4] 1 = not at all characteristic of me 5 = entirely characteristic of me	1. Unforeseen events upset me greatly. 2. It frustrates me not having all the information I need. 3. One should always look ahead so as to avoid surprises. 4. A small unforeseen event can spoil everything, even with the best planning. 5. I always want to know what the future has in store for me. 6. I can't stand being taken by surprise. 7. I should be able to organize everything in advance.	1. This work arrangement requires that I deal with unforeseen events. 2. In this work arrangement, I do not always get all the information I need. 3. This work arrangement limits my ability to look ahead so as to avoid surprises. 4. In this work arrangement, a small unforeseen event can spoil everything, even with the best planning. 5. In this work arrangement, I always know what the future has in store for me.[R] 6. In this work arrangement, I am often taken by surprise. 7. This work arrangement requires that I organize everything in advance.[R]
Employment commitment (ECOM)[3] (Kanungo, 1982) 1 = strongly disagree 5 = strongly agree	1. The most important things that happen in life involve work. 2. Work is something people should get involved in most of the time. 3. Work should be only a small part of one's life.[R] 4. Work should be considered central to life. 5. In my view, an individual's personal life goals should be work-oriented. 6. Life is worth living only when people get absorbed in work.	1. This work arrangement requires that I work as though it is one of the most important things that happen in life. 2. In this work arrangement, I must get involved in work most of the time. 3. Due to this work arrangement, work is only a small part of my life.[R] 4. This work arrangement requires work to be central to my life. 5. This work arrangement demands that my personal life goals are work-oriented. 6. This work arrangement requires that I get absorbed in work.

Construct	Items	
	Person (_P)	Work environment (_NSWA)
Self-discipline (DSCPL)[2] (Costa & McCrae, 1992) 1 = strongly disagree 5 = strongly agree	1. I'm pretty good about pacing myself so as to get things done on time. 2. I waste a lot of time before settling down to work.[R] 3. I am a productive person who always gets the job done. 4. I have trouble making myself do what I should.[R] 5. Once I start a project, I almost always finish it. 6. When a project gets too difficult, I'm inclined to start a new one.[R] 7. There are so many little jobs that need to be done that I sometimes just ignore them all.[R] 8. I have a lot of self-discipline.	1. This work arrangement requires me to pace myself so as to get things done on time. 2. In this work arrangement, I cannot waste time before settling down to work. 3. This work arrangement demands that I am a productive and always get the job done. 4. In this work arrangement, I must do what I should. 5. This work arrangement almost always requires me to finish the project I started. 6. When a project gets too difficult in this work arrangement, I cannot start a new one. 7. This work arrangement requires me to tend to many little jobs that cannot be ignored. 8. This work arrangement demands that I have self-discipline.
Gregariousness (GREG)[2] (Costa & McCrae, 1992) 1 = strongly disagree 5 = strongly agree	1. I shy away from crowds of people.[R] 2. I like to have a lot of people around me. 3. I usually prefer to do things alone.[R] 4. I prefer jobs that let me work alone without being bothered by other people.[R] 5. Social gatherings are usually boring to me.[R]	1. In this work arrangement, I am exposed to crowds of people. 2. In this work arrangements, there are a lot of people around me. 3. In this work arrangement, I usually do things alone.[R] 4. In this work arrangement, I work alone without being bothered by other people.[R] 5. In this work arrangement, there often are social gatherings.

Construct	Items	
	Person (_P)	Work environment (_NSWA)
Need for autonomy (ATMY)[1,2] (Van den Broeck et al., 2010)[5] 1 = not at all 5 = completely	1. It is important for me to feel like I can be myself at my job. 2. At work, it is important for me to feel like I do not have to follow other people's commands. 3. It is important for me to be able to do things at work differently. 4. It is important for me that the tasks that I have to do at work are in line with what I really want to do. 5. It is important for me to feel free to do my job the way I think it could best be done. 6. In my job, it is important for me to feel that I am not forced to do things I do not want to do.	1. This work arrangement allows me to be myself at my job. 2. In this work arrangement, I must follow other people's commands.[R] 3. This work arrangement gives me the opportunity to do things at work differently. 4. The tasks that I typically do in this work arrangement are in line with what I really want to do. 5. In this work arrangement, I can do my job the way I think it could best be done. 6. In my work arrangement, I am not forced to do things I do not want to do.
Need for workplace flexibility (FLEX)[1,2,3] (Civian et al., 2008)[5,6] 1 = not at all 5 = completely	1. It is important for me to have the flexibility I need in my schedule. 2. It is important for me to I have the flexibility I need to manage personal or family responsibilities. 3. It is important for me that my work arrangement grants me enough flexibility to meet my personal or family responsibilities.	1. This work arrangement provides me with the flexibility I need in my schedule. 2. This work arrangement offers me the flexibility I need to manage personal or family responsibilities. 3. This work arrangement grants me enough flexibility to meet my personal or family responsibilities.
Need for competence (COMP)[1] (Van den Broeck et al., 2010)[5] 1 = not at all 5 = completely	1. It is important for me that I really master my tasks at my job. 2. It is important for me to feel competent at my job. 3. It is important for me that I am good at the things I do in my job. 4. It is important for me to have the feeling that I can even accomplish the most difficult tasks at work.	1. This work arrangement allows me to really master my tasks at my job. 2. This work arrangement gives me the opportunity to feel competent at my job. 3. This work arrangement gives me the opportunity to feel good at the things I do in my job. 4. This work arrangement makes me feel that I can even accomplish the most difficult tasks at work.

Construct	Items	
	Person (_P)	Work environment (_NSWA)
Need for novelty (NOVEL)[1] (González-Cutre et al., 2016, 2019)[5,7] 1 = not at all 5 = completely	1. It is important for me to feel I do novel things at work. 2. At my job, it is important for me to frequently feel there are novelties for me. 3. At my job, it is important for me to feel new sensations. 4. It is important for me that new work situations come up to me. 5. It is important for me to have the opportunity to innovate at work. 6. At work, it is important for me to discover new things frequently.	1. This work arrangement offers me the opportunity to do novel things at work. 2. In this work arrangement, I frequently feel there are novelties for me. 3. This work arrangement allows me to feel new sensations at my job. 4. In this work arrangement, new work situations come up to me. 5. This work arrangement gives me the opportunity to innovate at work. 6. In this work arrangement, I have the opportunity to discover new things frequently at work.
Need for job security (SECUR)[2] (Caplan et al., 1975; Parker et al., 2002)[5]	1. It is important for me to be certain about what my future career picture looks like. 2. It is important for me to be certain about the opportunities for advancement in the next few years. 3. It is important for me to be certain about whether my job skills will be of use and value five years from now. 4. It is important for me to be certain about what my responsibilities will be six months from now.	1. This work arrangement offers me certainty about what my future career picture looks like. 2. This work arrangement offers me certainty about the opportunities for advancement in the next few years. 3. This work arrangement offers me certainty about whether my job skills will be of use and value five years from now. 4. This work arrangement offers me certainty about what my responsibilities will be six months from now.

Construct	Items	
	Person (_P)	Work environment (_NSWA)
Need for relatedness (RELAT)[3] (Van den Broeck et al., 2010)[5] 1 = not at all 5 = completely	1. It is important for me to feel connected with other people at my job. 2. At work, it is important for me to feel part of a group. 3. It is important for me to mix with other people at my job. 4. At work, it is important for me that I can talk with people about things that really matter to me. 5. It is important for me not to feel alone when I am with my colleagues. 6. It is important for me that some people I work with are close friends of mine.	1. This work arrangement does not give me the opportunity to really feel connected with other people at my job.[R] 2. This work arrangement allows me to I feel part of a group at work. 3. This work arrangement gives me the opportunity to mix with other people at my job. 4. In this work arrangement, I can talk with people about things that really matter to me. 5. Due to being in this work arrangement, I often feel alone when I am with my colleagues.[R] 6. This work arrangement allows me to make some people I work with close friends of mine.

[1] The construct was assessed for independent contractors.
[2] The construct was assessed for remote workers.
[3] The construct was assessed for on-call and direct-hire temporary workers.
[4] Tolerance of uncertainty typically is measured in terms of uncertainty intolerance. Therefore, high tolerance of uncertainty is associated with low item scores.
[5] On the person dimension, the scale was modified based on Chen et al. (2015) to capture need valuation rather than need satisfaction.
[6] The wording of item 3 was changed from "supervisor" to "work arrangement".
[7] The scale was modified to pertain to the work context by adding "at work" or "at my job" to each item.
[R] The item was reverse-coded.

Appendix E

Subjective Career Success Inventory (Shockley et al., 2016)

Subdimension	Items[1]
	Considering my career as a whole…
Recognition	1. …my supervisors/clients have told me I do a good job. 2. …the organizations I worked for have recognized me as a good performer. 3. …I have been recognized for my contributions.
Quality work	1. …I am proud of the quality of the work I have produced. 2. …I have met the highest standards of quality in my work. 3. …I have been known for the high quality of my work.
Meaningful work	1. …I think my work has been meaningful. 2. …I believe my work has made a difference. 3. …the work I have done has contributed to society.
Influence	1. …decisions that I have made have impacted my (clients') organization(s). 2. …the organizations I have worked for have considered my opinion regarding important issues. 3. …others have taken my advice into account when making important decisions.
Authenticity	1. …I have been able to pursue work that meets my personal needs and preferences. 2. …I have felt as though I am in charge of my own career. 3. …I have chosen my own career path.
Personal life	1. …I have been able to spend the amount of time I want with my friends and family. 2. …I have been able to have a satisfying life outside of work. 3. …I have been able to be a good worker/employee while maintaining quality non-work. relationships.
Growth and development	1. …I have expanded my skill sets to perform better. 2. …I have stayed current with changes in my field. 3. …I have continuously improved by developing my skill set.
Satisfaction	1. …my career is personally satisfying. 2. …I am enthusiastic about my career. 3. …I have found my career quite interesting.

[1] All items were assessed on a scale from 1 = strongly disagree to 5 = strongly agree.

Appendix F

Regression Results for Voluntary Independent Contractors

Variable	*b**	p-value	VIF
Direct Fit			
DAfit	0.022	0.718	1.859
NSfit	0.371	0.000	1.874
Control variables:			
Age	-0.075	0.163	
Gender (woman)	-0.084	0.077	
Race (white)	-0.052	0.259	
Marital status (married)	-0.046	0.448	
Spouse's work status	0.169	0.004	
Personal/family obligations (none)	-0.051	0.331	
Level of education	0.020	0.659	
Weekly hours worked	-0.032	0.484	
Tenure in NSWA	0.134	0.008	
Stress	-0.219	0.000	
Indirect Perceived Fit – Demands-Abilities			
Occupational self-efficacy			
OEFF_P	0.385	0.000	1.813
OEFF_NSWA	0.294	0.000	1.661
OEFF_P*NSWA	0.020	0.613	1.053
Control variables:			
Age	-0.042	0.361	
Gender (woman)	-0.102	0.012	
Race (white)	-0.022	0.585	
Marital status (married)	0.004	0.941	
Spouse's work status	0.063	0.206	
Personal/family obligations (none)	-0.044	0.328	
Level of education	-0.038	0.331	
Weekly hours worked	-0.032	0.425	
Tenure in NSWA	0.060	0.171	
Stress	-0.165	0.000	
Risk propensity			
RISK_P	0.242	0.000	2.193
RISK_NSWA	0.174	0.008	2.159
RISK_P*NSWA	0.168	0.000	1.073

Variable	*b**	p-value	VIF
Control variables:			
Age	-0.007	0.900	
Gender (woman)	-0.143	0.003	
Race (white)	-0.005	0.907	
Marital status (married)	-0.051	0.406	
Spouse's work status	0.095	0.104	
Personal/family obligations (none)	-0.072	0.173	
Level of education	-0.029	0.525	
Weekly hours worked	-0.053	0.258	
Tenure in NSWA	0.119	0.021	
Stress	-0.345	0.000	
Openness for ideas			
IDEA_P	0.148	0.000	1.611
IDEA_NSWA	0.301	0.000	1.313
IDEA_P*NSWA	0.004	0.936	1.330
Control variables:			
Age	-0.069	0.212	
Gender (woman)	-0.155	0.001	
Race (white)	-0.034	0.460	
Marital status (married)	-0.043	0.489	
Spouse's work status	0.102	0.083	
Personal/family obligations (none)	-0.090	0.086	
Level of education	-0.019	0.628	
Weekly hours worked	-0.063	0.179	
Tenure in NSWA	0.151	0.004	
Stress	-0.310	0.000	
Assertiveness			
ASSRT_P	0.178	0.001	1.575
ASSRT_NSWA	0.376	0.000	1.632
ASSRT_P*NSWA	-0.021	0.660	1.277
Control variables:			
Age	0.033	0.529	
Gender (woman)	-0.144	0.001	
Race (white)	0.011	0.805	
Marital status (married)	-0.041	0.473	
Spouse's work status	0.041	0.459	
Personal/family obligations (none)	-0.056	0.261	
Level of education	-0.031	0.466	
Weekly hours worked	-0.058	0.191	
Tenure in NSWA	0.059	0.232	
Stress	-0.308	0.000	

Variable	*b**	p-value	VIF
Indirect Perceived Fit – Needs-Supplies			
Need for workplace flexibility			
FLEX_P	0.124	0.082	2.514
FLEX_NSWA	0.224	0.002	2.692
FLEX_P*NSWA	-0.060	0.241	1.320
Control variables:			
Age	-0.100	0.069	
Gender (woman)	-0.067	0.168	
Race (white)	-0.055	0.239	
Marital status (married)	-0.036	0.553	
Spouse's work status	0.140	0.018	
Personal/family obligations (none)	-0.023	0.665	
Level of education	0.032	0.482	
Weekly hours worked	0.021	0.655	
Tenure in NSWA	0.177	0.001	
Stress	-0.282	0.000	
Need for competence			
COMP_P	0.211	0.000	1.671
COMP_NSWA	0.457	0.000	1.594
COMP_P*NSWA	-0.032	0.431	1.183
Control variables:			
Age	-0.080	0.083	
Gender (woman)	-0.053	0.186	
Race (white)	-0.053	0.168	
Marital status (married)	0.009	0.864	
Spouse's work status	0.112	0.024	
Personal/family obligations (none)	-0.014	0.754	
Level of education	-0.021	0.580	
Weekly hours worked	-0.025	0.520	
Tenure in NSWA	0.111	0.010	
Stress	-0.187	0.000	
Need for novelty			
NOVEL_P	-0.015	0.840	3.224
NOVEL_NSWA	0.542	0.000	2.988
NOVEL_P*NSWA	0.019	0.654	1.108

Variable	*b**	p-value	VIF
Control variables:			
Age	-0.054	0.276	
Gender (woman)	-0.147	0.001	
Race (white)	-0.023	0.592	
Marital status (married)	-0.019	0.727	
Spouse's work status	0.068	0.198	
Personal/family obligations (none)	-0.050	0.298	
Level of education	-0.030	0.474	
Weekly hours worked	-0.062	0.144	
Tenure in NSWA	0.113	0.015	
Stress	-0.323	0.000	

N = 382
Dependent variable: Subjective career success
* Statistics represent standardized coefficients.

Appendix G

Regression Results for Voluntary Remote Workers

Variable	*b**	p-value	VIF
Direct Fit			
DAfit	0.133	0.033	1.737
NSfit	0.202	0.001	1.765
Control variables:			
Age	-0.004	0.946	
Gender (woman)	-0.040	0.416	
Race (white)	-0.014	0.783	
Marital status (married)	-0.020	0.738	
Spouse's work status	0.027	0.629	
Personal/family obligations (none)	-0.037	0.469	
Level of education	0.109	0.025	
Weekly hours worked	0.047	0.348	
Tenure in NSWA	0.065	0.213	
Stress	-0.319	0.000	
Indirect Perceived Fit – Demands-Abilities			
Occupational self-efficacy			
OEFF_P	0.412	0.000	2.214
OEFF_NSWA	0.157	0.008	1.827
OEFF_P*NSWA	0.014	0.757	1.068
Control variables:			
Age	0.001	0.978	
Gender (woman)	-0.046	0.316	
Race (white)	-0.022	0.641	
Marital status (married)	-0.002	0.973	
Spouse's work status	0.014	0.786	
Personal/family obligations (none)	-0.016	0.735	
Level of education	0.102	0.023	
Weekly hours worked	-0.015	0.752	
Tenure in NSWA	0.060	0.271	
Stress	-0.125	0.016	
Gregariousness			
GREG_P	0.121	0.033	1.308
GREG_NSWA	-0.091	0.119	1.387
GREG_P*NSWA	0.039	0.470	1.217

Variable	*b**	p-value	VIF
Control variables:			
Age	0.016	0.789	
Gender (woman)	-0.073	0.160	
Race (white)	-0.008	0.889	
Marital status (married)	-0.005	0.935	
Spouse's work status	-0.007	0.910	
Personal/family obligations (none)	-0.052	0.328	
Level of education	0.080	0.121	
Weekly hours worked	0.077	0.137	
Tenure in NSWA	0.089	0.110	
Stress	-0.334	0.000	
Indirect Perceived Fit – Needs-Supplies			
Need for workplace flexibility			
FLEX_P	0.061	0.343	1.733
FLEX_NSWA	0.187	0.003	1.614
FLEX_P*NSWA	0.046	0.383	1.177
Control variables:			
Age	0.040	0.483	
Gender (woman)	-0.053	0.295	
Race (white)	-0.009	0.858	
Marital status (married)	-0.019	0.755	
Spouse's work status	-0.014	0.806	
Personal/family obligations (none)	-0.030	0.576	
Level of education	0.089	0.076	
Weekly hours worked	0.081	0.114	
Tenure in NSWA	0.078	0.149	
Stress	-0.325	0.000	
Need for autonomy			
ATMY_P	-0.018	0.761	1.578
ATMY_NSWA	0.357	0.000	1.636
ATMY_P*NSWA	0.022	0.638	1.045
Control variables:			
Age	0.049	0.367	
Gender (woman)	-0.040	0.413	
Race (white)	-0.015	0.764	
Marital status (married)	-0.019	0.751	
Spouse's work status	0.010	0.864	
Personal/family obligations (none)	-0.057	0.260	
Level of education	0.119	0.013	
Weekly hours worked	0.045	0.355	
Tenure in NSWA	0.064	0.213	
Stress	-0.357	0.000	

Variable	*b**	p-value	VIF
Need for job security			
SECUR_P	0.178	0.001	1.462
SECUR_NSWA	0.285	0.000	1.364
SECUR_P*NSWA	0.068	0.150	1.078
Control variables:			
Age	0.121	0.028	
Gender (woman)	-0.030	0.534	
Race (white)	0.033	0.509	
Marital status (married)	-0.016	0.782	
Spouse's work status	0.011	0.838	
Personal/family obligations (none)	-0.014	0.769	
Level of education	0.098	0.037	
Weekly hours worked	-0.010	0.843	
Tenure in NSWA	0.081	0.111	
Stress	-0.253	0.000	

N = 346
Dependent variable: Subjective career success
* Statistics represent standardized coefficients.