Digital Laborers' Proactivity and the Venture for Meaningful Work: Fruitful or Fruit- less?

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Abstract

Digital Labor, taking up flexible but small-scale employment arrangements on online interme- diary platforms, with few constraints on how much, when, and where work is performed, are becoming the new work reality for many individuals. Scholars have argued that this type of work is inherently demeaning. We seek to explore the worker's perspective and how their long- term perspective aligns or misaligns with their actual work arrangement. We draw on career construction theory and hypothesize a job–career congruence model suggesting that when workers' cognitive presentations of their microwork as jobs or careers are incongruent, they are less likely to experience their work as meaningful. The results from a two-stage field study of 803 workers from two microworking platforms support the negative effect of an incongruent job–career schema on workers' experience of meaningful work. Additionally, results demon- strate that even workers who are proactive in nature, seem unable to excel in these fluid work settings when their job-career schema are not aligned.

Keywords: microwork, digital labor, crowdsourcing, meaningful work, job–career congruence

As technological and business model innovations disrupt traditional forms of employment, new forms of labor emerge in the 'digital economy' that increasingly replace fixed employer–em- ployee relationships (Huws, Spencer, & Syrdal, 2018; Gandini, 2019). Scholars have stressed that online digital labor is a logical conclusion of longer-standing employment trends, and will have an ever-increasing impact (Huws et al., 2018; Spreitzer, Cameron, & Garrett, 2017). Sub- sequent calls for attention have increased among the management disciplines to develop a more thorough understanding of how digital labor, such as microwork, is evolving and driven (Col- bert, Yee, & George, 2016).

Microwork denotes work on online platforms, such as Amazon Mechanical Turk (MTurk), Fiverr,   or Clickworker, where a large group of undefined individuals contribute small parts to broad projects that they often do not see finished (Jabagi et al., 2019). Through digital platforms, employers distribute these batches of work, which might consist of the re- mote completion of small digital tasks, such as transcribing a snippet of hand-written text, classifying an image, categorizing the sentiment expressed in a comment, or rating the rele- vance of a search engine result. While previous research demonstrates that digital laborers can value what they do (Boons, Stam, & Barkema, 2015), little is known about what contributes to these positive experiences. Moreover, while most of the research on digital labor focusses on certain aspects of jobs, such as compensation and task complexity (Nakatsu, Grossman & Lacovou, 2014), there is limited attention paid to career aspects, such as long-term career as- piration versus short-term goals, and how these may affect digital laborers' experiences of mi- crowork. A more integrated view of microwork is needed to understand the circumstances driving digital laborers' commitment to microwork despite adverse conditions, e.g. low wages and lack of career development opportunities (Gandini, 2019). Therefore, we study digital la- borers' perceptions of their jobs and careers through the lens of career construction theory.

Career construction theory asserts that individuals are driven to integrate their personal voca- tional developmental (concurrent) needs and (aspirational) opportunities to construct careers that fit their lives (Savickas, 2012).

We adopt a congruence concept, and propose a job–career congruence model to explain under which conditions workers experience microwork as meaningful. Specifically, we suggest that the extent to which digital laborers experience meaningful work depends on the extent to which they consider their work as representative of their ideal job and career, and whether these cognitive representations are congruent at high levels. We also propose that proactive digital laborers may fit better in the online environment, but only when they see microwork both as a job and career. We tested our hypothesized model using a two-stage field data set from two major crowdworking platforms.

The intended contributions of our research are threefold. First, we extend career con- struction research by exploring the functions of job–career congruence. The current job versus career discussion tends to describe an either/or situation with two possible incongruent out- comes (high job but low career or low job but high career). By also examining the possible job–career congruence scenarios, we add two additional possibilities in which workers could score job and career high or job and career low. Second, we contribute to proactivity literature, which recognizes the conditions, which can limit the flourishing of proactivity. Proactivity re-search has shown proactivity to relate to career adaptability (Hirschi, Herrmann, & Keller, 2015), suggesting that proactive individuals are likely to take initiative and act to effect change in accomplishing their goals (Bateman & Crant, 1993). We argue that when individuals do not see their goals, job, and career schemas as congruent, or see them as congruently low, proac- tivity would not help them in seeking meaningfulness. Third, we hope to prompt more man- agement research on digital labor, which has been frequently requested (Heaphy et al., 2018; Moisander, Groß, & Eräranta; 2018; Spreitzer et al., 2017). In particular, given the lack of

discussion on the career aspects of microwork, we aim to craft meaningful career narratives in a field that is currently absent of well-defined career ladders (Schwartz, 2018).

Theory and Hypotheses Job and Career: From the Career Construction Perspective

Much literature considers jobs and careers as going hand-in-hand, with the job referring to an

individual's explicit position, and the career referring to their professional entirety (i.e. their goals, interests, job, and outlook on work) (e.g. Beutell & Witig-Berman, 1999). However, more recently researchers have begun to differentiate between jobs and careers, as less synon- ymous and more as reflections of an individual's perception of their work. Jobs are traditionally considered positions workers hold to earn money. People who have jobs and not careers are described as interested in the material benefits from work and do not seek or receive any other type of reward from it (Wrzesniewski et al., 1997). Many researchers agree that the only reward of a job is money (Parker et al., 2016), unless the job is also considered a career. The work involved with a job is not an end in itself, but a means that allows individuals to acquire the resources needed to enjoy their time off. The major interests and ambitions of job holders are not expressed through their work, making extrinsic motivation the most prominent incentive associated with jobs (Wrzesniewski et al., 1997). Careers have, on the contrary, been described

as more complex than jobs. People who have careers have deeper personal investments in their work and mark their achievements not only through monetary gain, but through advancement within their field, often up an organizational hierarchy. A career focuses on promotion and associated change in the kind of work performed (Wrzesniewski et al., 1997). Rewards of a career are often considered: money, benefits, healthcare, career satisfaction, and opportunity to progress (Parker et al., 2016).

How we see our career may not entirely align with our objective career path (Savickas, 2013). An objective career includes the sequence and sum of positions one occupies from

school through retirement. A subjective career is the patterning of these experiences into a cohesive whole, onto which an individual actively imposes meaningfulness and ~~that~~ which

guides, regulates, and sustains their work behavior (Savickas, 2002). This notion that careers do not unfold, but are constructed as individuals make choices that repeatedly revise and align with their self-concepts and goals via imposing meaningfulness on their work roles, is central to career construction theory (Savickas, 2002). Moreover, in the construction process, individual proactivity plays a significant role on the degree to which the individuals may be able to revise and align their goals with their career choices (Hirschi et al., 2015).

The alignment between job and career ~~are~~ is not *necessarily* dependent upon occupation (Wrzesniewski et al., 1997). For example, an individual with professional limitations, such as delayed mental development or disability, may consider a "low status" job as a career. Con- versely, other researchers point out that there are patterns in type of work, such as self-em- ployed and non-profit employees, who are more likely to consider their work as careers (Parker et al., 2016). A widely agreed upon line of differentiation between job and career is the level of interest one has in their work, with large interest ~~being~~ relating to considering one's work

as a career, and lack of interest relating to one considering their work as a job (Wrzesniewski et al., 1997). Moreover, it is important to consider the idea that an individual can have a job and a career, while it is also possible for some to consider themselves to have a job but not a career, or vice versa, or none.

The independence between the concepts of jobs and careers can be particularly pro- found for digital laborers. The nature of microwork is often precarious, temporal, and organi- zationally detached, with some working only occasionally to relieve boredom (Mason & Suri, 2012), or ~~as a~~ temporarily as individuals engage in career changes. For these workers, this role might or might not reflect their overall identity, goals, or future career. However, a significant

portion of this workforce includes individuals who depend heavily or exclusively on the in- come generated, and individuals who are otherwise unable to generate income (Deng, Joshi, & Galliers, 2016). Moreover, online platforms enable workers 'to renew existing skills through practice, discover and utilize latent skills, develop specialist skills' (Barnes et al., 2015, p. 28), and build professional networks. For these reasons, some suggest that microwork could be a stepping stone in a career trajectory. Whether and/or when microworking provides a temporary position when transitioning, an alternative to traditional work, or a long-term career path, re- mains an open question (Deng & Joshi, 2016). This highlights the need to differentiate the concurrent work situation and aspirational opportunities. Accordingly, digital laborers seeing their work as a job or as a career might not be as additive of an effect as researchers have argued in traditional work settings. Alternatively, we suggest that it is the alignment of one's job and career view of microworking that matters.

Meaningful Work: A Job–Career Congruence Perspective on Microwork

Meaningful work, referring to work that is both "significant and positive in valence" (Steger, Dik, & Duffy, 2012, p. 323), is considered a central aspect of individual vocational develop- ment (Savickas et al., 2009). Individuals seek meaningful work in their jobs and careers beyond objective rewards such as salary and promotions and into enjoyment and fostering personal growth (Bailey et al., 2017). Indeed, a significant part of meaningfulness is experiencing the opportunity to become oneself through work (Lips-Wiersma & Morris, 2009), according to the self-concept-job fit (Shamir, 1991). A self-concept-job fit occurs when job tasks produce indi- vidual perceptions that match their self-perceptions (Scroggins, 2008). Indeed, individuals in- tegrate their vocational self-concepts into their work roles via interpretive processes through which individuals impose meaningfulness onto their vocational development (Savickas, 2002), such as certain aspects of work contributing to personal fulfillment or identity (Bailey et al., 2017), family well-being (Beutell & Wittig-Berman, 1999), their organizations (Cohen-Meitar,

Carmeli, & Waldman, 2009), and/or the overall greater good (Duffy & Sedlacek, 2007). This process reflects the idea of career construction, through which an individual actively takes steps to integrate their personal interests and goals with their professional realities (Savickas, 2012).

On the surface, microwork promises little opportunity to experience meaningfulness with little to no contact with beneficiaries of their work, colleagues, or leaders that could enrich ~~their~~ one's work (Bailey et al., 2017). Nevertheless, digital laborers may experience meaningfulness by selecting tasks that they perceive as meaningful and that offer opportunity for growth (Kost, Fieseler, & Wong, 2018). Workers often evaluate the current state of their career regarding the alignment of their work with desired self-concepts and future desired state (Savickas, 2002). These representations of whether the current job and career are close to the ideal are schemata, internal cognitive structures that guide the processing of incoming information (Markus, 1977), such as beliefs about one's job and/or career. As such, one can consider job and career schemata as a specific type of self-schema, "cognitive generalizations about the self, derived from past experience that organize and guide the processing of self-related information" (Markus, 1977, p. 64), in this case, regarding vocational activities.

We propose that the extent to which digital laborers feel their current job is close to their desirable job and integrated with their overall ideal career determines meaningfulness. We focus on digital laborers' relationships with work as a job and/or career as an attempt to examine how they might experience their work as meaningful. Using the framework of job versus career schema, we postulate four possible situations with two categories, namely (1) job-career incongruence and (2) job-career congruence, in which digital laborers see mi- crowork. Figure 1 illustrates the matrix of these four possible situations. Next, we discuss each of these situations and how digital laborers' schemata relate to experienced work meaningful- ness.

INSERT FIGURE 1 ABOUT HERE

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1. Job–Career Incongruence

As Figure 1 shows, there are two scenarios where job- and career-schema are incongruent, reflected in the left upper corner and the right lower corner of the model. One possibility would be that digital laborers see what they do on the platforms as far from an ideal job, but as an ideal career (I-1). The second possible incongruent situation would be that digital labor- ers like what they do as a job but do not see it as an ideal career (I-2). We discuss both job- career incongruent situations in the following.

I-1. Microwork close or equal to their ideal job but unequal to their ideal career. For some, microwork is a job. For instance, microwork may serve as a safety net or an interim support system in the midst of a career change or disruption (Deng & Joshi, 2016). This defi- nition could be applied to people who use microwork as their primary source of income because they would otherwise be at risk of long-term unemployment (Risak, 2016). Nevertheless, fi- nancial considerations and the lack of job security are among the reported barriers to consider- ing microwork as a career (Spreitzer et al., 2017). When digital laborers do not see microwork as a career but as a temporary job, they are likely to experience an incongruence between their current job situation and their desired future career development.

I-2. Microwork unequal to their ideal job but close or equal to their ideal career. In another incongruent situation, digital laborers see microwork as a long-term career but not as a desirable short-term job. For them, microwork as a career refers to something fulfilling that can be developed or advanced over the long-term, from entry to master contractor level, or as a means to create their own microwork business (Wrzesniewski et al., 1997). Individuals who value their independence and have a strong need to do their work in their own way and on

their own schedule may prefer this career path (Spreitzer et al., 2017). However, the ongoing tasks digital laborers engage in, due to having insufficient assignments and limited task pro- files, might be limited to tasks that require relatively low and easily replaceable skills (Spreitzer et al., 2017). In this context, they might see microwork as being insufficient to make a living, but see the opportunity to build a career. We argue that in both of these situations, digital la- borers are likely to experience their work as less meaningful without believing that microwork provides them with the necessary material benefits of a job or the prosperity of a career.

2. Job–Career Congruence

In the job-career congruence category, we conceptualize two possible congruence situations, the first being when digital laborers experience high degrees of both job- and career schemas, which situates in the right upper corner of Figure 1. Digital laborers see their work on platforms as an ideal job as well as career. We discuss this high-congruence situation in details in C-1 below. Conversely, the second possible congruence situation would be when digital laborers see their work on platforms as far from ideal as a job or a career (the left lower corner of Figure 1). We discuss this low-congruence situation further in C-2.

C-1. Microwork close or equal to both their ideal job and career. A study by Deng and Joshi (2016) revealed that some digital laborers initially viewed MTurk as temporary work but made microworking their full-time career after having positive experiences with the plat- form's work environment. For these workers, microwork provides economic and emotional safety (Deng & Joshi, 2016). Those who see bundling and/or managing multiple job assign- ments as an enactment in pursuing a career path (Savickas et al., 2009) probably see these tasks more as one job rather than independent microwork. Additionally, they likely feel ownership of their careers (Moisander et al., 2018) because they tend to be more conscious of how their work now (i.e., as jobs) may develop (i.e., into careers; Inkson, 2004). These digital laborers, who benefit from the flexibility in overcoming their personal and professional constraints, are

likely to experience meaningfulness in their work because they appreciate their career pro- spects and value what they do (Boons et al., 2015).

C-2. Microwork unequal to both their ideal job and career. In other situations, peo- ple might not value microwork as a job or a career. Some might consider microwork as a hobby to earn extra money but not as something to do for a living. These individuals often include students, homemakers, and well-qualified people "in between" jobs (Risak, 2016). Although online waged labor is a central construct within the digital economy, digital laborers can also be motivated by numerous nonmonetary factors, such as social influence and hedonism (Boons et al., 2015). These non-work- related factors are thus likely to be salient in the cognitive gen- eralization process, especially when the digital laborers have low expectations both as a job

and a career.

Taken together, we argue that the joint effect of job and career schemas on work mean- ingfulness is not additive, such that one can compensate for the lack of the other. Rather, we expect that digital laborers are better able to perceive the purpose of their work when their job and career schemas are matched at similar levels. Hence, we hypothesize (H1) a job–career congruence model, as shown in Figure 2, and, specifically:

Hypothesis 1: The more a digital laborer's job schema deviates from their career schema in either direction, the less likely he or she is to experience work meaningfulness.

INSERT FIGURE 2 ABOUT HERE

Asymmetric Job–Career Congruence Situations

We define asymmetric job-career congruence situations as the differences digital laborers may experience when their job- and career- schemas are matched at high levels compared to job-

and career-schemas matched at low levels. ~~Beside~~ In addition to digital laborers might experi-enc~~ing~~e less meaningfulness when they consider microwork as either their ideal job or their

ideal career (i.e., high–low or low–high), we also expect that digital laborers experience less meaningfulness when the congruent job and career schemas are at low levels (i.e., low–low) than when the schemas are at high levels (i.e., high–high). Therefore, digital laborers who do not see their work as close or equal to their ideal job with future prospects of developing into a career (i.e., low–low situation) might reasonably be expected to find microwork meaningless due to lower likelihood of seeing future prospects for career advancement, from a career con- struction perspective (Savickas, 2002). Even if digital laborers engage in their work as a hobby with monetary benefits, the sense of work significance will not be as high as it would be if they considered their work a job and a career. In comparison, digital laborers in the high–high con- dition would value their work even more positively because they are more likely to value di- verse aspects of the job and might better see the job's fit within their overall career outlooks (Shin, 2004). Therefore, we hypothesize (H2) the following:

Hypothesis 2: When job schema and career schema are at similar levels, more work meaningfulness is experienced when job schema and career schema are matched at higher lev- els than when they are matched at lower levels.

Proactive Personality as a Moderator

Proactive personality refers to individuals who tend to identify opportunities, take initiative, ~~and~~ act to effect change in accomplishing their goals, and cannot definitively be considered a

positive or negative trait ~~has no indication of whether it is a positive or negative trait~~ (Bateman & Crant, 1993), as there are various outcomes associated with it. ~~For instance, while proactive individuals can adapt to situations easier and make changes for the better, they can also be maladaptive, resulting in poorer work outcomes (Chan, 2006). Nevertheless, much of the pro-activity research focuses on the positive side, while a minority have investigated its potential~~

negative outcomes (e.g., Chan, 2006; Li, Liang, & Crant, 2010; Seibert, Crant, & Kraimer, 1999). On the positive side, the link between a proactive personality and career development

is well established in the career construction literature (Fuller & Marler, 2009). Proactive indi- viduals are less likely to passively wait and more likely to seek and craft opportunities (Li et al., 2010; Parker & Collins, 2010), which relates to job performance, satisfaction, organiza- tional commitment (Thomas, Whitman, & Viswesvaran, 2010), career exploration (Cai et al., 2015), sponsored mobility (Li et al., 2010), and contest mobility (Crant, 1995), and adaptability

(Hirschi et al., 2015). These activities associated with proactivity align well with those related

to career construction, acting as logical steps towards a career that is well fitted to one's life

(Savickas, 2012). Moreover, proactive individuals tend to be more future-oriented regarding

their careers (Cai et al., 2015). That is, proactive individuals tend to identify with their future

work selves according to their current work aspirations (Strauss, Griffin, & Parker, 2012) driven by their desire to integrate their

personal and professional development (Savickas,

2012).

Because they can identify opportunities (Seibert et al., 1999), in situations in which digital laborers relate to their work as a job and a career at high levels, they can reasonably be expected to see what needs to be done to bring about meaningful change to achieve their goals and construct their careers. Accordingly, we argue that proactive digital laborers perceive more

meaningfulness when job and career schemas match at high levels than less proactive digital laborers do. As these findings indicate,

much of the proactivity research focuses on the positive

side, while a minority have investigated its potential negative or lack of outcomes (e.g., Chan,

2006; Li, Liang, & Crant, 2010; Seibert, Crant, & Kraimer, 1999). For instance, while proactive

individuals can adapt to situations easier and make changes for the better, they can also be

maladaptive, resulting in poorer work outcomes (Chan, 2006).

~~Conversely, P~~proactivity can be positively related to negative moods and higher levels of stress (Fritz & Sonnentag, 2009) implying that high degrees of personal initiative due to proactivity can lead to inefficient or nonexistent coping resources (Belschak, Den Hartog, &

Fay, 2010). Moreover, proactive individuals who are less effective in judging the situation, could be maladaptive towards achieving relevant goals and purposes fitting to the specific sit- uation they are in, likely to act in a counterproductive of ineffective manner as they seek to

effect change (Chan, 2006). The misalignment or low alignment between job and career ~~or low alignment~~ is likely to render proactive individuals' ~~hinder workers'~~ abilities to assess their work situations ineffective, with regard to~~ing~~ understanding what it may take to reach high job-career alignment (Chan, 2006). In other words, high proactivity paired with low job-career alignment may relate to ineffective steps in career construction. In our case, when proactive digital laborers experience incongruence between their job and career schemas or alignment at low levels, we expect that their proactivity may not help them find meaningfulness in their work.

First of all, as we have mentioned earlier, in job-career misalignment or low job-career alignment situations, digital laborers are likely to face more obstacles and more likely to be stressed ~~more~~ by, for instance, financial and job insecurity (Spreitzer et al., 2017) than those in high job-career alignment situations, underlying the idea that proactivity may not be helpful when job and career are incongruent or are congruent but low. Given that proactivity requires resources, in stressful situations where resources are reduced and depleted, ~~the resource depletion would lower individual~~ coping mechanisms may not be effective, ~~ability~~ regardless of ~~their~~ an individual's work engagement (Schmitt et al., 2016). In the case of microwork, it is likely that digital laborers who are either in the job-career misalignment or in the low job-career

alignment, have more restrained personal resources than those who are in high job-career align- ment situations, resulting in ~~less~~ coping abilit~~ies have no effect ony in~~ seeking opportunities to

craft meaning in their work. We therefore hypothesize (H3) the following:

Hypothesis 3: The congruence effect between job schema and career schema on a dig- ital laborer's experience of meaningfulness is moderated by their proactive personality; the more proactive digital laborers are, the more likely they are to experience higher work mean- ingfulness when their job schema matches their career schema at a higher level.

Method

Samples and Procedures

This study involved a two-stage survey of 801 digital laborers from two platforms, MTurk (N_1 = 482) and Clickworker (N_2 = 319) to account for different labor design features, and to account for the United States and Europe, where the respective platforms have their main focus. We recruited participants by posting a call for the survey on both platforms. Time 1 and Time 2 data were collected in November 2016 and February 2017, respectively. The temporal separa- tion between Times 1 and 2 exceeded one month, which research indicates as necessary to reduce the effects of common method variance (Podsakoff & Organ, 1986). We measured the independent variables in Time 1 (job and career schemas), and the moderator (proactive per- sonality), and the dependent variable (meaningful work) in Time 2 to avoid several sources of common method bias, such as priming effects (Podsakoff et al., 2003). After Time 1 was com- pleted, we invited respondents who had completed Time 1 to complete Time 2 by using each participant's unique worker ID.

Overall, 51.1% of the respondents were male, 48.4% were female, and 0.5% identified as other. The average microwork tenure was 2.02 years, and the average income earned through microwork was $341.26 monthly. The maximum income earned was $7,000 monthly. On av- erage, they worked 15.35 hours weekly on the platform. Additionally, 148 participants reported

working on the platform as their full-time jobs, and 653 reported holding outside full-time jobs. We checked our data for multivariate outliers to identify careless responses and calculated Ma- halanobis distances and chi-square distributions to identify potential careless or improbable response patterns (Meade & Craig, 2012). Any case with a p-value smaller than 0.001 is con- sidered an outlier. We identified two cases with a p-value < 0.001 in our sample and excluded them from the analysis.

To assess the differences between the two samples, we conducted mean comparisons on demographics, the independent and dependent variables used in this study. No observed mean differences emerged regarding their ages ($M_1 = 35.67$; $SD = 10.98$ vs. $M_2 = 36.21$; $SD = 12.15$, $p = .51$), number of part-time jobs ($M_1 = 1.33$; $SD = 0.15$ vs. $M_2 = 1.52$; $SD = 0.20$, $p = .43$), or career schema ($M_1 = 3.21$; $SD = 0.08$ vs. $M_2 = 3.03$; $SD = 0.09$, $p = .13$). However, our sample included a higher percentage ($p < .05$) of female participants (51.7%; 47.7% male par- ticipants and 0.6% other) recruited from MTurk than from Clickworker (56.1% males, 43.6% females, and 0.3% other). The means of education attainment ($M_1 = 4.19$; $SD = 0.06$ vs. $M_2 = 3.57$; $SD = 0.11$, $p < .01$) and weekly work hours on the platform ($M_1 = 20.14$; $SD = 11.11$ vs. $M_2 = 8.11$; $SD = 7.40$, $p < .01$) were higher in the MTurk sample than the Clickworker sample.

Moreover, microwork tenure ($M_1 = 2.18$; $SD = 0.05$ vs. $M_2 = 1.78$; $SD = 0.06$, $p < .01$) and monthly income in USD ($M_1 = 501.02$; $SD = 66.86$ vs. $M_2 = 59.18$; $SD = 7.00$, $p < .01$) were higher among the participants from MTurk than those from Clickworker. The participants from MTurk also indicated higher job schemas ($M_1 = 3.23$; $SD = 0.07$ vs. $M_2 = 2.99$; $SD = 0.08$, $p < .05$), proactivity ($M_1 = 3.35$; $SD = 0.04$ vs. $M_2 = 3.10$; $SD = 0.4$, $p < .01$), and perceived work meaningfulness ($M_1 = 3.26$; $SD = 0.04$ vs. $M_2 = 2.92$; $SD = 0.05$, $p < .01$). Accordingly, we controlled for these platform differences by using a dummy variable in further analyses.

We propose that digital laborers are likely to experience different levels of work mean- ingfulness according to the four scenarios, namely, low job and career schema, low job but

high career schema, high job but low career schema, and high job and career schema. We divided the digital laborers in our sample into the four proposed clusters using the means of job and career schemas as the cutoff values and assessed the distribution. The results show that the largest cluster was those who reported low job and career schemas ($N = 330$), followed by the high job and career schema cluster ($N = 174$), high job but low career schema cluster ($N = 129$), and low job but high career schema cluster ($N = 118$).

Given that prior research supports the influence of socioeconomic status on subjective well-being (Andrews & Withey, 2012), we controlled for the following demographics. Using ANOVA, except for gender, $F(3, 747) = 5.72$, $p < .01$; education attainment, $F(3, 689) = 3.16$, $p < .05$; and weekly hours worked on the platform, $F(3, 747) = 10.39$, $p < .05$, we observed no differences among participants across the four cluster groups regarding age, $F(3, 747) = 1.71$, $p > .05$; platform tenure, $F(3, 747) = 2.45$, $p > .05$; respective platform, $F(3, 747) = 2.00$, $p >$
.05; number of part-time jobs, $F(3, 715) = 0.71$, $p > .05$; number of children, $F(3, 747) = 2.05$, $p > .05$; or monthly income, $F(3, 619) = 1.56$, $p > .05$. We therefore concluded that the partic- ipants across the four clusters were relatively evenly distributed regarding demographics.

Measures

Job and career schemas (Time 1). We operationalized job and career schemas as be- liefs about one's job and career, derived from a reflection concerning the current and past states of one's job and/or career, which guide the processing of information regarding one's voca- tional activities. To capture the reflection of invariance or variance between the current job and career situation, we asked participants to indicate how close their current job and career came to their ideal job and career, corresponding with the assumption of career construction theory that career actors reflect upon current and desired states. We provided the following instruc- tions for participants:

"In the following, please indicate the extent to which your current job as a crowdworker represents your ideal job, by marking one of the 7 sets of circles below. The closer the circles, the closer you feel your job as a crowdworker represents your ideal job. The further apart the circles, the further apart your ideal job is from your work as a crowdworker."

"Now, we would also want to know about your career. Please indicate below the extent to which your current career represents your ideal career, by marking one of the 7 sets of circles below. The closer the circles, the closer you feel your career represents your ideal career. The further apart the circles, the further apart your ideal career is from your career."

The goal was to capture participants' reflections of the current state of their job and careers. We therefore did not provide respondents with definitions of careers and jobs in order to avoid priming participants concerning what researchers consider to be jobs and careers. We measured job and career schemas with a Venn diagram—a common method (van Quaquebeke, van Knippenberg, & Brodbeck, 2011)—by asking participants to indicate the schematic close- ness between their current job/career and their ideal job/career (see Figure 2). Using pictorial Venn diagrams disrupts verbal surveys and serves as a "cognitive speedbump" for the partici- pants, encouraging participants to pay attention to the survey (van Quaquebeke et al., 2011).

INSERT FIGURE 3 ABOUT HERE

Proactive personality (Time 2). We measured dispositions toward proactive behavior using Seibert and colleagues' (1999) 10-item proactive personality scale, shortened from Bate- man and Crant's (1993) 17-item measure. We asked participants to indicate their experience on items such as "I am constantly on the lookout for new ways to improve my life" (Seibert et al., 1999) on a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*). The scale anchors differed from the mediator variable and the outcome variable, which is recommended to avoid common method bias (Podsakoff et al., 2003). The wording differed from the other scales,

simultaneously serving as an attention check for participants. The items had a Cronbach's alpha of .91, similar to Seibert et al.'s (1999) study ($\alpha = .86$).

Perceived meaningfulness of work (Time 2). We measured perceived meaningfulness of participants' work on MTurk or Clickworker on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) based on Steger and colleagues' (2012) 10-item Work- and-Meaning Inventory. Cronbach's alpha for the scale was .92, similar to Steger et al.'s (2012) original study ($\alpha = .93$). This scale included a reversed item as an attention check, "My work at (platform) really makes no difference to the world".

Analytic Procedures

Our hypothesized model is concerned with the indirect (in)congruence effect of job and career schemas on digital laborers' experience of meaningful work with the moderating role of pro- activity on the alleged relationships. Profile similarity indices and difference scores (e.g., cor- relation or calculated gap score) have been criticized for the inability to clearly identify the construct underlying the measures and discarding information essential to testing (in)congru- ence hypotheses, (Edwards & Parry, 1993). Therefore, with polynomial regression and re- sponse surface analytic techniques, we test our hypotheses for both job-schema and career schema, as two separate dimensions and measures supplemented by higher-order terms to as- sess the (in)congruence relationships between job- and career-schema, i.e., the four possible (in)congruence situations (Edwards & Parry, 1993). Specifically, the polynomial regression analysis is based on an unconstrained regression equation consisting of J, C, J^2, J x C and C^2 (Edwards & Parry, 1993). The two component measures, i.e., job-schema (J) and career- schema (C), were centered using a common value midway between their means (Lambert, Ed- wards & Cable, 2003). Centering the scales reduces multicollinearity between the component measures (i.e., J and C) and their associated higher-order terms (i.e., J^2, J x C and C^2) (Aiken & West, 1991).

For H1 and H2, we test the posited incongruence and asymmetric congruence effects, respectively. We first regressed meaningful work on a set of control variables; the two compo- nent variables, job schema (J) and career schema (C); their squared terms; and the cross product (i.e., J, C, J², C², and J x C). We then obtained the coefficients to examine the proposed inverted U-shape curvature on the incongruence line (J = -C) using the bootstrapping method. If the curvilinear slope along the incongruence line (a_4) is negative and significant, H1 is supported. To assess this imbalance in the congruence effect of H2 (i.e., high–high > low–low), we exam- ined the linear slope on the congruence line (J = C) using the coefficients obtained from the same polynomial regression model used with H1. A positive and significant linear slope will support H2.

For H3, we expected that when a proactive personality is high, the curvature on the incongruence line (J = -C) will be negative and significant. When a proactive personality is low, we expected a flat surface, where the curvature would not differ from zero. To test this moderated polynomial regression hypothesis, we regressed work meaningfulness on a set of control variables; the five basic polynomial regression component variables mentioned in H1 and H2; the moderator, namely, proactive personality (P); and its five product terms (i.e., J x P, C x P, J² x P, J x C x P, and C² x P). We obtained the curvature of the moderated surfaces (i.e., low vs. high proactive personality) and their lower and upper bounds at 95% CIs using a bootstrapping procedure to test for significance.

Results

Means, standard deviations, intercorrelations, and reliability coefficients (Cronbach's alphas) of the variables studied are presented in Table 1. To assess the internal consistency of the items measured, Cronbach's alpha was used when values reached above 0.70, which is generally deemed to be acceptable for research purposes (Nunnally, 1978). The Cronbach's alpha values

for proactive personality, work meaningfulness, and subjective well-being were above .90, in- dicating satisfactory internal consistency. Next, we conducted confirmatory factor analyses with M-plus to examine the factor structure of the variables studied, as shown in Table 2. We determined the model fit using the χ^2 and the χ^2 change. Due to its reliance on sample size, χ^2 is sensitive for large sample sizes and may falsely indicate poor fit, i.e. a significant χ^2 (Cheung & Rensvold, 2002). We therefore employed additional fit indices, root mean square error of estimation (RSMEA), the comparative fit index (CFI), and the SRMR, to compare model fit. The expected 4-factor solution (meaningful work, career schema, job schema, and proactive personality) demonstrated an adequate model fit. Although the chi-square statistic was signif- icant, the other fit statistics indicated an adequate fit (chi-square [206] = 1009.26 p = .00, CFI

= .9, RMSEA = .07, SRMR = .06). We then tested alternative nested models to assess whether a better fitting model could be achieved and tested both the chi-square change (calculated in MPlus with MLMV estimator) and CFI change.

INSERT TABLE 1 & 2 ABOUT HERE
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The results from a 3-factor solution (job schema and proactive personality were com- bined into one factor) show a slightly poorer—as indicated by the SRMR—fit (chi-square [207]

= 1061.43 p = .00, CFI = .9, RMSEA = .07, SRMR = .07). Poorer results were found with a 2- factor solution (proactive personality, job schema, and career schema were combined into one factor; chi-square [208] = 1080.34 p = .00, CFI = .9, RMSEA = .08, SRMR = .08) as indicated by the slightly higher RMSEA and SRMR, and a 1-factor solution (proactive personality, job schema, and career schema, were combined into one factor; chi-square [209] = 3059.99 p = .00 CFI = .6, RMSEA = .14, SRMR = .16).

The results from the chi-square difference test indicate that the one factor solution should be adopted since the chi-square change yielded a significant p-value for all models (see

table 1). This however, may be due to the large sample size (Cheung & Rensvold, 2002). There- fore, we also consulted the CFI change. Cheung and Rensvold (2002) suggest values of CFI change equal or smaller to 0.01 indicate that the null hypothesis of invariance should not be rejected. Adhering to these criteria, the results would suggest that a two-factor solution would be the best solution (see table 2), as the CFI stays the same for models three and four. However, the four-factor model achieves a slightly better SRMR and is supported by theory. Proactive personality, career and job schema are three different theoretical concepts. Furthermore, the four-factor model achieves a good fit and it is therefore justifiable to adopt the four-factor structure.

H1 and H2 are concerned with the (in)congruence effect of job and career schemas on work meaningfulness. The results of the respective polynomial regression analyses are shown in Table 3, and the slopes and curvatures of the response surface are depicted in Table 4. H1 posited that meaningful work decreases as job schema deviates from career schema in either direction. In other words, the response surface of the alleged relationship should be an inverted U-curve along the incongruence line (J = -C). When we examined the curvature on the incon- gruence line, the results demonstrated that the curvature was negative (-.08) and significant with a 95% CI [-.14, -.01] not including zero. We then inspected the response surface. As shown in Figure 4, the surface along the incongruence line was concave, supporting H1.

INSERT TABLE 3, 4 and Figure 4 ABOUT HERE

H2 posited a positive congruence effect; the more closely job and career schemas matched at higher levels, the more the digital laborers would experience their work as mean- ingful. The results from the polynomial regression analysis, shown in Table 3, indicate that both job and career schemas positively contribute to work meaningfulness with coefficients of

.16 ($p < .01$) and .09 ($p < .01$), respectively. We further assessed the linear slope on the con- gruence line (J = C), which was positive (.24) with the 95% CI [.19, .30] not including zero, effectively supporting H2.

For H3, we posited a moderating role of proactive personality on the incongruence ef- fect. In other words, digital laborers ~~with a~~ higher in proactive personality tend to experience

their work as more meaningful when job and career schemas are congruent. However, for dig- ital laborers with low proactive personality, we expected the surface along the incongruence line (J = -C) to become flat with a curvature not different from zero. The results of Step 2 in Table 3 indicate that proactive personality interacts with the job and career schemas in the (in)congruence component by predicting work meaningfulness with a significant increase in R^2 (.07, $F = 11.96$, $p < .01$). The indicated curvature of the J = -C line was negative (-.12) and significant with a 95% CI [-.20, -.03] for those who have highly proactive personalities. How- ever, for those with less proactive personalities, the curvature of the J = -C line was negative (-.04) but not significant with a 95% CI [-.11, .04] including zero. The response surfaces of the two conditions also confirmed that the incongruence effect was stronger for those with highly proactive personalities than for those with less proactive personalities, as shown in Figure 5. The results support H3.

INSERT FIGURE 5 ABOUT HERE

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Discussion

The aim of our study was to examine the impact of the roles of (in)congruent job versus career schemas on digital laborers'
experiences of meaningful work with the moderating role of proactive personality on these relationships. We drew on career construction theory to guide

our conceptual analyses of three hypotheses, and employed polynomial regressions and re- sponse surface analyses to observe how digital laborers' experiences of meaningful work var- ied according to their (in)congruent job–career situations. Notably, our results revealed that digital laborers who related to their work as close to both their ideal job and career experienced more meaningfulness than those who had incongruent job–career views of microwork (H1). However, having a congruent job–career view seems to be insufficient to drive work meaning- fulness. The perception of meaningful work was particularly higher when job and career sche- mas were matched at high levels than when they were matched at low levels (H2). Additionally, this relationship was more robust for proactive digital laborers (H3).

Theoretical Contributions

The current study offers a number of theoretical contributions. First, we extend the current understanding of job versus career in discussions of career construction theory by differentiat- ing four (in)congruent situations, namely a) high job but low career schema, b) low job but high career schema, c) high job and career schema, and d) low job and career schema. Findings indicate that the digital laborers in our sample did experience these four situations and re- sponded to work meaningfulness differently. By conceptualizing and testing job–career (in)congruence, we move away from the "either job or career" perspective and propose a "con- gruence" perspective in which we argue that digital laborers who work with alternative work arrangements and who are often criticized as lacking long-term prosperity might possess mu- tually strong job and career schemas. This discussion is important because, as our findings indicate, different (in)congruent situations yield different outcomes related to the experience of meaningful work. Specifically, the findings demonstrate that strongly relating to microwork as either a job or career is insufficient for digital laborers to experience work meaningfulness. Our findings provide support to the job-career congruence approach towards online microwork design and management. We encourage future researchers to incorporate job design literature

to investigate which job characteristics are more salient for digital laborers to experience stronger job- career schema congruence.

More specifically, according to career construction theory, an individual takes steps in pursuing a sequence of job opportunities towards a career that fits their desired vocational de- velopment (Savickas, 2002, 2012). It is likely that digital laborers take different career steps according to the job–career (in)congruent schemas they experience. Incongruence may be a driver for digital laborers in achieving integration between their current state of vocational development and their desired state. We have two major observations from our findings on proactivity as a moderator. First, proactivity helps digital laborers who have a high job-career congruent schema to experience work meaningfulness. Second, our results demonstrate that proactivity does not appear to be helpful in situations where job and career are incongruent or job-career schemas are congruently low.

Our first finding indicates that proactive digital laborers are better at identifying oppor- tunities to make their work fulfilling when they determine what fits their career aspirations. In line with proactive career behavior research (e.g., Strauss et al., 2012), our findings indicate that proactive individuals, who evaluate their jobs as careers—in our case, high job-career schema congruence—are more likely to see microwork as meaningful than those with low pro- activity. Accordingly, there is concern for less proactive digital laborers, because even if they view their jobs and careers as ideal, they appear less able to find meaningfulness in their work. This could be because less proactive individuals are more passive in areas such as information seeking, mobility advancement, work involvement, and redesign (Parker & Collins, 2010). Given that microworking requires a great deal of effort in taking charge of one's own work schedule and structure, this fluid work setting is probably challenging for these less proactive digital laborers. Future research is necessary to study what crowdsourcing platforms can do to cultivate digital laborers' proactive motivational states (Parker, Bindl, & Strauss, 2010).), as

well as other personal and social factors that influence job-career congruence and work out- comes.

Additionally, we observed that proactive digital laborers, who see their work as both an ideal job and ideal career, are more likely to relate meaningfulness to their work. However, this positive pattern seems to be only applicable for those proactive digital laborers whose jobs and career schemas are aligned at high levels. In other words, in situations where job-career schemas are incongruent or congruently low, digital laborers with high proactivity do not seem to be better at identifying meaningfulness of their work than those with low proactivity. This implies that proactivity may not necessarily help digital laborers in seeking opportunities to improve their work situations when they do not perceive their jobs as careers to begin with. These findings support the line of research suggesting that proactivity may not necessarily help individuals improve their work situation, and more future research is needed to further under- stand under which conditions proactivity may lead to positive or negative outcomes.

Finally, most previous studies investigated what proactive individuals do for their ca- reers, and our study extended this proactivity literature by focusing on the cognitive motiva- tional processes by which proactive personalities might impose meaningfulness according to different job–career (in)congruent situations. We consider the context of our study, i.e., mi- crowork, to be particularly interesting, as career paths in the gig economy may not seem straightforward. It is therefore particularly relevant in today's turbulent work environment to investigate how cognitions like job-career congruence influence digital laborers' work motiva- tion. More research on how proactivity relates to cognitive motivational processing is needed.

Practical Implications

Considering the increasing use of crowdsourcing, more research on digital labor as an alterna- tive employment arrangement is needed (Colbert et al., 2016; Spreitzer et al., 2017). Our find- ings contribute to the development of a career theory for digital laborers, which has important implications for the sustainability of platforms, as many crowdsourcing platforms struggle to retain participation (Deng & Joshi, 2016). Specifically, our results shed light on the importance of digital laborers' career-development processes. Platform organizations are recommended to not only focus on short term incentives, but long term career development to cultivate digital laborers' job-career congruence and help mediate issues related to lack of career prosperity in microwork design (Deng & Joshi, 2016; Nakatsu et al., 2014).

Echoing previous studies, we stress that even for digital laborers who work with no fixed employment, a career is an important aspect in understanding their vocational responses (Bush & Balven, 2018; Heaphy et al., 2018). In particular, our research implies that focusing only on job features such as flexibility, autonomy, and rewards (Oldham & Hackman, 2005) is insufficient to motivate and inspire meaningfulness among digital laborers. Platforms also need to recognize aspirational career elements, such as career ladders, employability, and work-life balance (Savickas et al., 2009) to reduce possible exploitation in this employment area (Spreit- zer et al., 2017).

Additionally, given that proactive digital laborers who have high job-career schema are more likely to recognize meaning in their work, platform organizations are encouraged to pro- vide training for digital laborers on proactive working. Indeed, while there is research arguing that proactivity is a dispositional trait (Seibert et al., 1999), proactivity can be learned (Kirby, Kirby & Lewis, 2002). For example, developmental opportunities that foster career adaptabil-

ity can encourage proactive career behaviors (Spurk et al., 2019). Training would help digital

laborers to go about their work and subsequently, platforms may benefit from attracting good talents who are interested in developing their careers in the gig economy.

Limitations and Suggestions for Future Research

The findings of the present study should be interpreted in light of its limitations. First, we used a cross-sectional design. Although data were collected via a two-wave survey design, the cross- sectional design inhibits causal interpretations of the presented model. To avoid potential bi- ases, we separated the measures with a time lag, where job and career schemas were measured at Time 1 and meaningful work and proactive personality at Time 2. We also employed re- versed items and pictorial Venn-diagrams to disrupt the survey flow and encourage participants to focus (Podsakoff et al., 2003).

We also employed self-report measures. Our results could therefore be subject to com- mon method biases. Given that our model was relatively complex due to involving interactions and quadratic terms, respondents were unlikely to be guided by a cognitive map that includes difficult-to-visualize interactions and nonlinear effects (Chang, van Witteloostuijn, & Eden, 2010). Nevertheless, to control for potential common method biases, we separated the anteced- ent and outcome variables at two different measurement times. Additionally, to reduce evalu- ation apprehension, we stated clearly that there were no right or wrong answers and encouraged honesty (Podsakoff et al., 2003). We did not employ specific attention checks beyond reverse items and cognitive speedbumps because researchers argue that introducing additional atten- tion checks, can increase the likelihood of additional bias in the data Clifford & Jerit, 2015).

Moreover, there are currently various types of microwork, such as identifying objects in a photo or video, or performing data de-duplication, which require different skill sets. How- ever, our sample from Mturk and ClickWork were more likely to be exposed to tasks that required low skill levels, such as transcribing a snippet of hand-written text. The complexity of a task may provide a source of work meaning (Hackman, 1980), and results based on our sample may therefore not be applicable to those who perform tasks that require higher skills and/or are more complex. Nevertheless, our results indicate that some of these individuals did

report high job and/or career schema. Our results align with the recent studies on motivations for doing boring jobs, highlighting that some motivations are nested outside of the task-related context, such as family and other life circumstances (Menges et al., 2017).

Conclusion

As digital technologies continue to advance, their impact on alternative work contexts and organizing has been widely acknowledged. Much attention has been paid to the technology side of this digital transformation, but the human side has largely been overlooked. Drawing on career construction theory, we proposed and tested a job–career congruence model on digital laborers' experiences of work meaningfulness. Our findings, based on 803 digital laborers re- cruited from MTurk and Clickworker, support that the more digital laborers perceive their work as both a job and career, the more meaningfulness they experience. Their sense of meaningful work decreases when they only see their work as a job but not as a career, or vice versa. This job–career (in)congruence effect is stronger for proactive digital laborers. We therefore stress the need to cultivate proactive motivational states among digital laborers to cope within this fluid work environment. The current findings contribute to career construction theory by providing empirical evidence that meaningful work varies according to different job–career (in)congruent situations, and aims to prompt future research on the development of career the- ories for digital labor.

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TABLE 1 Means, Standard Deviations, Intercorrelations, and Reliability Coefficients

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age	35.89	11.45	-												
2. Gender[a]	1.49	0.51	.04	-											
3. Education	3.92	1.65	.09*	.05	-										
4. Tenure	2.02	1.17	.07*	.00	.02	-									
5. Platform[b]	1.40	0.49	.02	-.08*	-.19**	-.17**	-								
6. Number of part-time jobs	1.41	3.31	.04	-.07*	.06	.02	.03	-							
7. Number of children	1.67	0.47	-.09**	-.12**	-.07	.04	.11**	.03	-						
8. Income	341.26	1119.22	-.05	-.03	-.02	.16**	-.19**	-.02	.02	-					
9. Hours worked weekly	15.37	11.44	.04	.08	-.04	.15**	-.52**	-.06	-.02	.21**	-				
10. Job schema	3.14	1.51	.07*	.12**	-.08*	.09*	-.08*	-.06	-.09*	.07	.21**	-			
11. Career schema	3.14	1.66	.08*	.05	.04	.05	-.05	.01	-.08*	.02	.05	.48**	-		
12. Proactive personality	3.25	0.80	-.05	-.02	.03	.00	-.15**	.08*	-.20**	.01	.09**	.16**	.18**	(.91)	
13. Work meaningfulness	3.13	0.89	.05	.15**	-.06	.11**	-.19**	.01	-.19**	.07	.23**	.40**	.24**	.33**	(.92)

Note. $N = 801$. [a] Gender: 1 = male; 2 = female. [b] Platform: 1 = MTurk; 2 = ClickWork. Cronbach's alphas are presented in parentheses.
* $p < .05$. ** $p < .01$.

TABLE 2 Confirmatory Factor Analysis Results

Model	χ^2	df	p	$\Delta\chi^2$	Δdf	Δp	CFI	ΔCFI	RMSEA	SRMR
1 factor	3059.99	209	.00				0.6		0.14	0.16
2 factors	1080.34	208	.00	2887.44	1	.00	0.9	-0.3	0.08	0.08
3 factors	1061.43	207	.00	25.69	1	.00	0.9	0	0.07	0.07
4 factors	1009.26	206	.00	67.86	1	.00	0.9	0	0.07	0.06

Note. $\Delta\chi^2$ = Chi-square difference, ΔCFI = CFI difference

TABLE 3 Path Analytic Results from the Polynomial Regression Models

Variables	Work Meaningfulness			
	Step 1		Step 2	
	b	SE	b	SE
Constant	3.16**	.28	2.84**	.27
Age	.00	.00	.00	.00
Gender	.19**	.07	.22**	.07
Tenure	.06†	.03	.07*	.03
Platform	-.04	.09	.02	.08
Education	-.02	.02	-.01	.02
Number of part-time jobs	.01	.01	.00	.01
Number of children	-.25**	.07	-.17*	.07
Income	.00	.00	.00	.00
Hours worked weekly	.01*	.00	.01*	.00
Job-Schema (J)	.16**	.03	.14**	.03
Career-Schema (C)	.09**	.03	.06*	.03
J^2	-.01	.02	-.02	.02
J x C	.03†	.02	.02	.02
C^2	-.04**	.01	-.04**	.01
Proactive Personality (P)			.30**	.07
J x P			.04	.03
C x P			-.04	.03
J^2 x P			-.02	.02
J x C x P			.04*	.02
C^2 x P			.00	.02
F-statistic	11.97**		11.96**	
ΔR^2			.07**	
R^2		.24**	.31**	

Note. $N = 801$.

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

TABLE 4 Response Surfaces along (In)Congruence Lines

| Dependent Variable	Proactive Personality	Congruence Line ($J = C$)		Incongruence Line ($J = -C$)	
		Slope of Surface	Curvature of Surface	Slope of Surface	Curvature of Surface
Work Meaningfulness	-	.24 [.19, .30]	-.03 [-.06, .01]	.07 [-.03, .16]	-.08 [-.14, -.01]
Work Meaningfulness	Low	.21 [.13, .28]	-.06 [-.11, -.01]	.02 [-.10, .14]	-.04 [-.11, .04]
	High	.21 [.13, .28]	-.02 [-.06, .02]	.14 [.02, .27]	-.12 [-.20, -.03]

Note. $N = 801$. J represents job schema. C represents career schema. Upper and lower bounds of 95% bias-corrected confidence intervals are represented in parentheses.

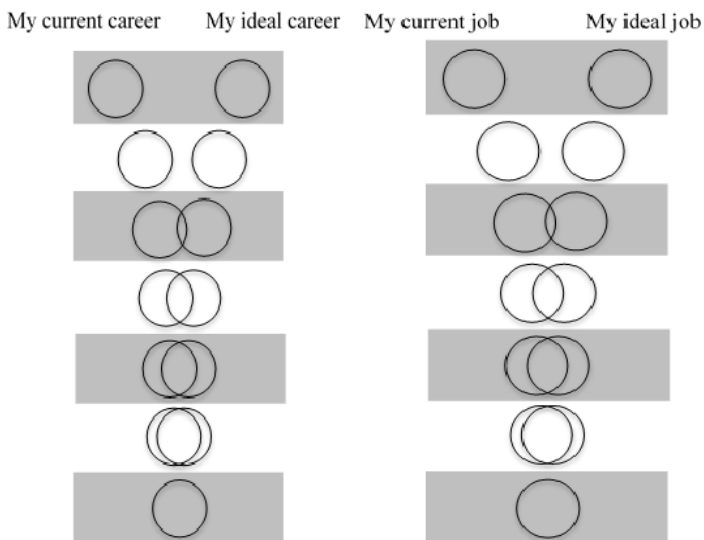**FIGURE 1** The Job-Career (In)Congruence Model
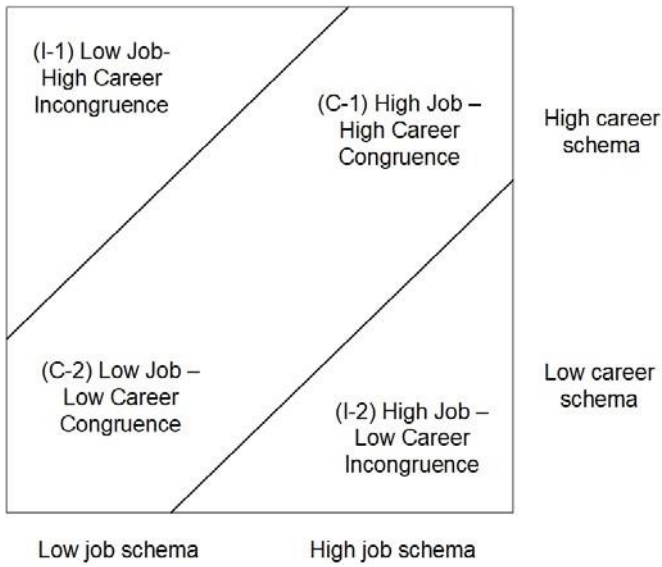
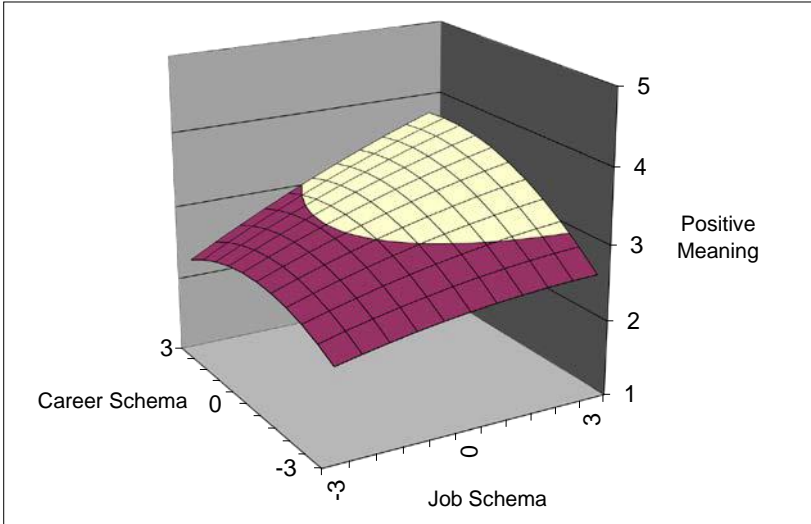**FIGURE 2** The Conceptual Model
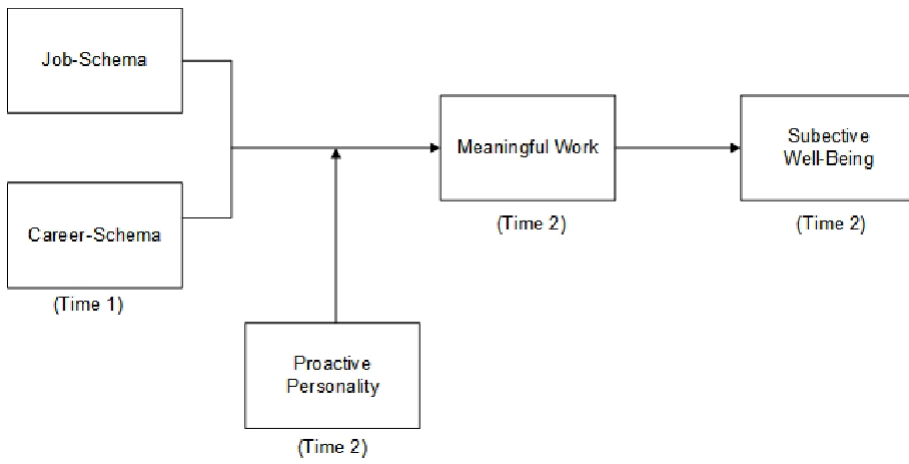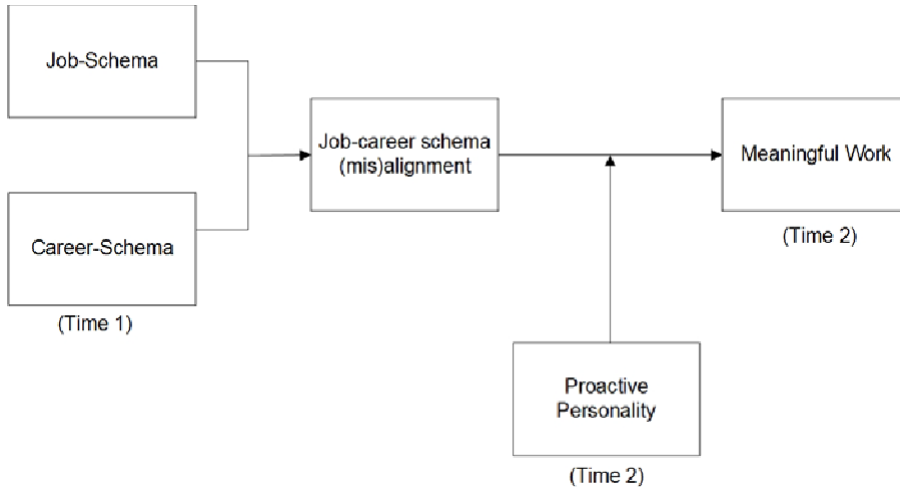
FIGURE 3 Pictorial Venn Diagrams Assessing Job and Career Schemas

FIGURE 4 Job and Career Schema Congruence Effect on Work Meaningfulness

FIGURE 5 Job and Career Schema Congruence Effect on Work Meaningfulness at Low and High Levels of Proactive Personality