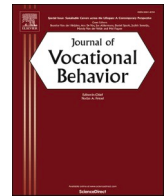


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## Journal of Vocational Behavior

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# Living a calling despite the challenges of the gig economy? The role of meaning-making and work alienation<sup>☆</sup>

Lorenz Affolter<sup>a,\*</sup>, Daniel Spurk<sup>b</sup>, Caroline Straub<sup>a</sup><sup>a</sup> Bern University of Applied Sciences, Switzerland<sup>b</sup> University of Bern, Switzerland

## ARTICLE INFO

## Keywords:

Calling  
Gig work  
Hindrances demands  
Work alienation  
Personal resources

## ABSTRACT

This article aims to shed light on the diverse career experiences of gig workers by investigating the relationship between gig work challenges and living a calling. Drawing from the Job Demands-Resources (JD-R) theory and the Work as Calling Theory (WCT), we conceptualize gig work challenges as hindrance demands which can potentially undermine individuals' sense of living a calling through a health impairment process mediated by work alienation. Beyond that, we look at meaning-making as a personal resource that can buffer negative effects of hindrance demands for living a calling. In a three-wave time-lagged sample of 723 gig workers that work through online labor platforms (OLPs), we investigated the relationship between gig work challenges and living a calling. We found that gig work challenges were negatively related to living a calling. This relationship was fully mediated by work alienation. Furthermore, we found that meaning-making buffered the effect of these challenges on living a calling through work alienation. The results support the idea that hindrance demands are negatively related to living a calling and that the way individuals cope with hindrances plays an important role in maintaining a sense of living a calling. We discuss the implications of these findings for the WCT and reflect on its relevance for our understanding of subjective career success in the context of the gig economy.

## 1. Introduction

The career experiences of gig workers have become an emerging and contested topic in career research. Operating outside traditional employment structures, gig workers engage in short-term, project-based contracts with organizations or individual clients, often navigating an external and fragmented labor market (Cropanzano et al., 2023; Wu & Huang, 2024). Research has shown that gig work can be associated with a range of alienating career experiences, including social isolation, sense of powerlessness, uncertainty about future career paths, and feelings of anxiety (Caza et al., 2022; Glavin et al., 2021; Berger et al., 2019). At the same time, scholars have suggested that gig work can also be related to psychological fulfillment (e.g., Wu & Huang, 2024) with some studies showing that gig workers show higher levels of life satisfaction than traditional employees (Berger et al., 2019). This potential for thriving and fulfillment in the context of the gig economy is mostly associated with high levels of autonomy, flexibility and independence (Wu & Huang, 2024). To fully understand the scope of gig workers' career experiences, scholars have increasingly emphasized the need to investigate how the challenges of the gig economy are related to gig workers' thriving and fulfillment within this form of work

<sup>☆</sup> We have no known conflict of interest to disclose.

\* Corresponding author at: University of Applied Sciences of Bern, New Work Institute, Brückenstrasse 73, 3011 Bern, Switzerland.  
E-mail address: [lorenz.affolter@bfh.ch](mailto:lorenz.affolter@bfh.ch) (L. Affolter).

<https://doi.org/10.1016/j.jvb.2025.104175>

Received 29 February 2024; Received in revised form 29 August 2025; Accepted 2 September 2025

Available online 9 September 2025

0001-8791/© 2025 The Author(s).

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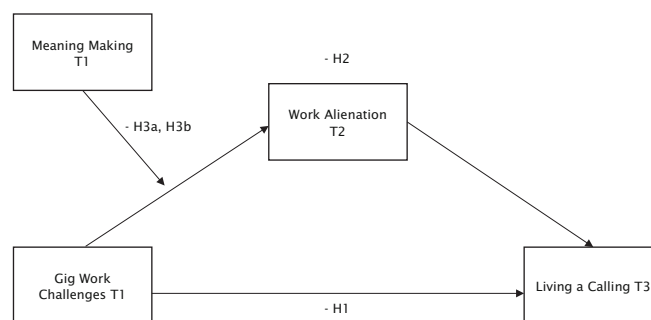
(Ashford et al., 2018; Wu & Huang, 2024).

Scholars have turned towards the study of callings to understand the experience of thriving and psychological fulfillment at work (e.g., Dobrow et al., 2023; Duffy et al., 2018). At the core of the notion of calling lies an experience of work that provides “fulfillment” from engaging with one’s work and represents a meaningful “end in itself” (e.g. Wrzesniewski et al., 1997, p 22). Being able to live out a calling in one’s work has been conceptualized as the “pot of gold at the end of the work rainbow” (Duffy et al., 2014, p. 416) and individuals that are living a calling have been found to be the most engaged and satisfied employees (e.g., Dobrow et al., 2023; Duffy et al., 2018). In regard to gig work, scholars have argued that the high levels of independence might facilitate individuals’ ability to engage in their calling domain (Schabram et al., 2023). While studies have found evidence for that claim, the same studies often point to the structural challenges associated with gig work which can potentially undermine workers’ sense of living a calling (Affolter et al., 2024; Nemkova et al., 2019; Petriglieri et al., 2019). Understanding better how challenges of the gig economy are related to living a calling therefore allows us to get a better understanding of gig workers’ thriving and psychological fulfillment.

We see two important gaps in the literature on living a calling which contribute to a better understanding of gig workers’ career experiences. First, theoretical frameworks such as the Work as Calling Theory (WCT) or the Psychology of Working Theory (PWT) postulate that an individual’s ability to engage with intrinsically fulfilling work is determined by that individual’s access to decent work and jobs which offer organizational support and job resources (Duffy et al., 2019; Duffy, Blustein et al., 2016; Hirschi et al., 2018). However, studies show that many individuals with a strong sense of living a calling work in precarious work environments where job resources and organizational support are scarce (Cinque et al., 2021; Schabram & Maitlis, 2017). Similarly, gig work is characterized by a lack of organizational resources and plentitude of specific challenges (Ashford et al., 2018; Caza et al., 2022; Petriglieri et al., 2019). While some scholars have emphasized the significant role that challenges in the work context play for individuals’ sense of living a calling (Schabram & Maitlis, 2017), the ways and conditions under which such challenges are related to living a calling remain underexplored in empirical research. We therefore investigate the role of gig work challenges for living a calling in the context of the gig economy. Based on the Job Demands-Resources (JD-R) theory (Bakker et al., 2023; Bakker & Demerouti, 2017), we suggest that gig work challenges constitute hindrance demands and consequently are negatively related to living a calling as they hinder individuals from effectively engaging in their calling. We suggest that this relationship is mediated by a feeling of alienation which arises as individuals are deprived of time and energy to invest in their calling domain.

Second, research on living a calling has not paid sufficient attention to the role of individual coping mechanisms that might help to attenuate potential negative effects of the work environment (e.g., gig work challenges) on living a calling. Exceptions are qualitative studies which showed that individuals are often able to maintain a sense of calling despite working in extremely precarious work conditions (e.g., Bunderson & Thompson, 2009; Cinque et al., 2021; Schabram & Maitlis, 2017). This raises the question of what factors enable individuals to deal with challenges to attain and maintain a sense of living their calling. In the context of the gig economy, Ashford et al. (2018) have suggested that due to a lack of organizational holding structures, personal resources become increasingly important to moderate the effects of challenges on work and career related outcomes in the gig economy. We follow this line of reasoning by investigating the role of individuals’ meaning-making as a buffer against negative effects of gig work challenges. Qualitative studies on living a calling pointed towards the important role of individuals’ narratives through which they construct a coherent identity as called professionals and give meaning to the challenges that they encounter (Bloom et al., 2021; Cinque et al., 2021). Based on the JD-R theory, we expect that individuals who actively create meaning in the face of gig-work challenges experience less alienation in their work. Consequently, we expect that meaning-making buffers the negative indirect relation between gig-work challenges and living a calling through work alienation (see Fig. 1 for our research model)

We advance existing theoretical and empirical research on living a calling by analyzing our suggested model in a time-lagged study of 723 workers that work in the gig economy. To do this, we apply a longitudinal autoregressive path model based on three measurement points. By testing this model, we aim to provide the following contributions to past research. First, our findings contribute to the work as calling theory (WCT) (Duffy et al., 2018) by extending the focus to challenges in the work context that suppress living a calling. In so doing, we shed light on a suppressive pathway for living a calling, characterized by hindrance demands in the immediate work environment and negative work-related experiences. Second, our findings contribute to our understanding of the role of personal resources for living a calling in the context of hardships. We therefore follow the call of Ashford et al. (2018) which emphasized the



**Fig. 1.** Theoretical Model of the Relationship between Gig Work Challenges and Living a Calling.

Note. H2 suggests an indirect relationship between gig work challenges and living a calling through work alienation.

importance of considering personal resources to understand individuals thriving in the context of the gig economy. This approach is fruitful for the calling literature as it has predominantly emphasized socio-economic and organizational factors (Duffy et al., 2018). Third, we contribute to the emerging research about subjective career success in the gig economy (Petriglieri et al., 2019, Van den Born & van Witteloostuijn, 2013; Wong et al., 2020) by looking at living a calling as a specific form of subjective career success (Hall & Chandler, 2005). We discuss our findings against the background of the emerging field of research about career success in the gig economy.

## 2. Literature review and theoretical development

### 2.1. Job demands-resources theory

The Job Demands-Resources (JD-R) theory offers a comprehensive framework for understanding the influence of work-related challenges on gig workers' thriving and fulfillment (e.g., Ashford et al., 2018; Watson et al., 2021) by bringing together different perspectives on job stress and motivation (Bakker et al., 2023; Bakker & Demerouti, 2017). Essentially, the theory outlines how job demands and job resources impact employee well-being. At the core of the theory is the suggestion of two simultaneously existing processes: a health impairment process triggered by job demands leading to exhaustion, and a motivational process triggered by job resources leading to engagement (e.g., Bakker & Demerouti, 2017). Although rooted in burnout and engagement research (Demerouti et al., 2021), JD-R theory has, over the past 20 years, integrated insights from key job stress and motivation theories creating a more holistic view of employee well-being at work (Bakker et al., 2023).

An important suggestion of the theory is that job demands can undermine individuals' engagement through exhaustion (Bakker et al., 2023). Job demands are physical, psychological, social, or organizational aspects of a job that require sustained effort or skills and are therefore associated with physiological and psychological costs (e.g., work pressure, emotional demands) (Bakker & Demerouti, 2017). Excessive demands can trigger a health impairment process which depletes employees' energy and mental resources, gradually leading to exhaustion. Furthermore, the JD-R theory suggests that exhaustion can spill over to individuals' motivation and undermine individuals' engagement over time. In that regard researchers have specifically highlighted the role of hindrance demands (van den Broeck et al., 2009). Hindrance demands are aspects of the work environment that are perceived as threatening obstacles which drain energy and interfere with individuals' work-related goals (van den Broeck et al., 2009). Scholars have argued that the gig economy is characterized by a high level of factors which put additional strain on individuals besides their actual load, hinting at the important role of hindrance demands for gig workers.

Beyond job-related factors, the JD-R theory highlights the role of personal resources, which are positive self-evaluations linked to an individual's ability to control and influence their environment successfully (Xanthopoulou et al., 2007). These include traits such as self-efficacy, optimism, and self-esteem (Mäkikangas et al., 2013). According to the JD-R theory, personal resources do not only contribute directly to motivation and engagement but also moderate the effects of job demands on different outcomes (Bakker & Demerouti, 2017). It is suggested that when employees perceive that they can control their work environment, they are better able to deal with job demands (e.g., Bakker et al., 2023). For instance, a weekly diary study conducted by Bakker and Sanz-Vergel (2013) showed that challenging emotional job demands were positively associated with work engagement, particularly when levels of self-efficacy and optimism were high. Recently, scholars have highlighted the important role of personal resources in the relationship between stressors and exhaustion (Ashford et al., 2018; Bakker et al., 2023).

### 2.2. Work as calling

Calling can be defined as an orientation towards work that encompasses (1) finding individual meaning and overall purpose in work, (2) helping others or contributing to the common good, and (3) feeling a sense of being compelled (either internally or externally) towards that work (Duffy et al., 2018). An important step for attaining a more nuanced understanding of calling at work has been the differentiation between perceiving a calling and living a calling as two distinct constructs (Duffy, Allan, & Bott, 2012). While perceiving a calling represents a work orientation characterized by a focus on inherent fulfillment and meaningfulness (Wrzesniewski et al., 1997), living out a calling refers to the experience of being able to actively engage in work that aligns with one's calling (e.g., Duffy et al., 2018). The research on living a calling suggests that the positive effects of callings are largely dependent on whether a person can live out their calling in their current work (Duffy et al., 2013; Duffy et al., 2019; Gazica & Spector, 2015). Unlike constructs such as work engagement (Bakker & Demerouti, 2008) or work meaningfulness (Lysova et al., 2019), living a calling encompasses a more enduring, identity-based connection to work that often transcends organizational boundaries or short-term motivation. Living a calling therefore has also been conceptualized as a form of subjective career success (e.g., Hall & Chandler, 2005). In contrast to objective career success which includes salary, promotions or job title, subjective career success refers to the achievement of a personally meaningful career outcomes (Ng et al., 2005; Seibert, 2006, Shockley et al., 2016, as cited in Spurk et al., 2019). As a strong form of subjective career success, living a calling is particularly useful in understanding gig workers' thriving and fulfillment.

The Work as Calling Theory (e.g., Duffy et al., 2018, 2019) constitutes the most elaborated theoretical framework to explain circumstances under which individuals can live out a calling. Based on empirical research, it suggests that living a calling is dependent on individuals' ability to find a high person-environment fit which leads to positive work experiences such as meaningfulness and commitment, which in turn strengthen individuals' sense of living a calling. In that regard, WCT draws from PWT to suggest that individuals' access to supportive and resourceful work environments is largely determined by vocational privilege (Duffy, Blustein et al., 2016). Various studies have provided support for this proposition (Duffy et al., 2022; Duffy, Autin, & Douglass, 2016; Hirschi

et al., 2018). While existing research has mostly focused on positive societal and organizational factors that enable individuals to live their calling, less is known about immediate challenges in the workplace and their role for of living a calling. This is relevant as many workers are pursuing their calling in work arrangements that do not offer extensive resources and support (Lysova & Khapova, 2019; Schabram & Maitlis, 2017). The context of the gig economy in particular has been theorized to potentially undermine individuals' sense of living a calling due to structural constraints (Cinque et al., 2021).

### 2.3. The role of gig work challenges for living a calling

The term gig worker most commonly is used as a collective term for different forms of alternative workers that work outside of traditional employment structures (e.g., Cropanzano et al., 2023; Wu & Huang, 2024). Gig workers are independent workers contracted and compensated on a short-term basis to organizations or individual clients (Wu & Huang, 2024). Researchers have differentiated between different forms of alternative work including part time workers, freelancers and agency workers (Cappelli & Keller, 2013). As a common differentiator to traditional work, authors have suggested that gig workers are paid per contract and do not stand under directive control by their contractor (Cappelli & Keller, 2013; Wu & Huang, 2024).

Studies point towards the challenges and difficulties of gig work. One specific set of challenges is related to the fact that gig workers work on their own without any organizational holding structures. Therefore, they are constantly switching between different tasks and projects, which goes along with high financial instability, career-path uncertainty, transience, and separation (Ashford et al., 2018; Petriglieri et al., 2019). Based on the growing number of studies about the challenges of gig work, Caza et al. (2022) describe six types of challenges associated with working in the gig economy. They differentiate between viability challenges, organizational challenges, identity challenges, career-path-uncertainty challenges, emotional challenges, and relational challenges. Cumulatively, these can be referred to as gig work challenges. Interestingly, it has been found that the joint effect of all these gig work challenges together is more strongly connected to lower levels of job performance, job satisfaction and well-being than the specific challenges on their own (Caza et al., 2022). This indicates that the cumulation of different gig work challenges has a stronger impact on positive and negative experiences of gig workers than specific challenges on their own.

We suggest that gig work challenges undermine individuals' sense of living a calling through the health impairment process proposed by JD-R. Based on JD-R and WCT we view living a calling as a strong form of being engaged in one's current work (e.g., Duffy et al., 2018). We draw from the JD-R theory to conceptualize gig work challenges as hindrance demands that can undermine motivational processes at work (van den Broeck et al., 2009). To thrive in the gig economy, individuals have to deal with these challenges, which demand time and energy from them and can be seen as a hindrance to their work-related goals. We therefore argue that gig work challenges pose additional strain on individuals and deprive them of time and energy to invest in their calling domain. This argument is supported by the empirical findings that unnecessary tasks are negatively related to living a calling (Mauno et al., 2022). Hence, based on the JD-R theory and empirical findings, we postulate the following hypothesis:

**Hypothesis 1.** Gig work challenges are negatively related to living a calling.

### 2.4. Work Alienation as a Mediator between Gig Work Challenges and Living a Calling

Building on Hypothesis 1, we further suggest that work alienation mediates the relationship between gig work challenges and living a calling. Work alienation can be defined as the separation from one's work, other workers, and oneself (Seeman, 1959). Over the last decade there has been a revival of the notion of work alienation due to the emergence of the gig economy (Bucher et al., 2024; Fayard, 2021; Glavin et al., 2021). The reason that work alienation is often discussed regarding gig work is that platforms lack much of the "relational and organizational architecture" of traditional organizational holding structures (Kost et al., 2018), which consequently causes gig workers to work on their own. Furthermore, the temporary and project-based nature of gig work is often thought to lead to a lack of understanding about how one's efforts link to an overall purpose (Kaganer et al., 2013). Accordingly, studies in the context of the gig economy have found that workers report high levels of powerlessness (Glavin et al., 2021).

Based on the JD-R theory, we assume that work alienation mediates between gig work challenges and living a calling. Work alienation can be placed on the opposite spectrum to engagement and captures the notion of distancing oneself cognitively and emotionally from one's work. This has been described in the JD-R literature as a possible consequence of the health impairment process (Bakker et al., 2014). As mentioned above, we argue that gig work challenges constitute hindrance demands that hold back individuals from living their calling. We argue further that these gig work challenges internally separate individuals from themselves and their work as they draw individuals' time and energy away from the work that they actually want to do. For example, 'organizational challenges' as one type of gig-work challenges require individuals to structure their own work. This includes scheduling and managing billing as well as communicating and negotiating with clients. We suggest that the cumulation of such gig work challenges puts substantial strain on individuals, which reduces their available time and energy to engage in their calling, which leads to more work alienation. This expectation is supported by empirical findings which suggest that role stressors drive work alienation (Singh & Randhawa, 2018). Furthermore, Al Hosani et al. (2020) found that individuals who work in organizations which they perceive as just and trustworthy experience less work alienation. We therefore expect that gig work challenges which emerge as individuals work outside of organizations are positively related to work alienation.

Additionally, we draw from the WCT to suggest that higher levels of work alienation impair individuals' sense of living a calling. According to WCT, individuals' positive work-related experiences and attitudes (meaningfulness and career commitment) are related to a sense of living a calling (Duffy et al., 2018). We suggest that the opposite dynamic (triggered by negative work-related experiences

and attitudes) in the gig work context accounts for lower levels of living a calling. Consequently, we argue that work alienation constitutes a negative work-related experience which lowers individuals' sense of living their calling. Furthermore, Fedi et al. (2016) have found a negative relation between work alienation and job satisfaction. This supports our assumption, as various studies have found a strong correlation between job satisfaction and living a calling. An overview of different studies that examined the relationship between living a calling and job satisfaction can be found in Duffy et al. (2018). Due to these theoretical considerations and empirical findings, we hypothesize:

**Hypothesis 2.** The negative relationship between gig work challenges and living a calling is mediated by work alienation.

### 2.5. Meaning making as a moderator for the indirect relationship between gig work challenges and living a calling

We investigate the role of meaning making as a moderator of the indirect relationship between gig work challenges and living a calling through work alienation. Meaning making is the act of actively integrating challenging and ambiguous events into a framework of personal meaning using value-based reflection (van den Heuvel et al., 2009). The concept has its roots in sense making theory (Weick, 1995) and narrative identity theory (Ibarra, 1999) and has had an influence on positive psychology (Steger, 2012) as well as cognitivist psychology (Park, 2010). Meaning making has been introduced to the literature on vocational behavior as a personal resource that helps individuals to deal with work environments that are fluid and uncertain (van den Heuvel et al., 2009; van den Heuvel et al., 2013). From an identity narrative and sense making perspective, meaning making is not merely a buffer against stressors but a dynamic intrapersonal process through which individuals reframe challenges, construct coherence, and derive purpose from adversity (e.g., Park, 2010). It reflects a form of psychological resilience that enables individuals to reinterpret demanding experiences in ways that align with core values and personal narratives, thereby fostering long-term engagement and well-being (e.g., Hartmann et al., 2020). Scholars have suggested that the challenges of the gig economy stress the importance of individual coping mechanisms which allow individuals to thrive despite the structural challenges of their work environment (Ashford et al., 2018).

We assume that individuals that show high levels of meaning making are more resilient towards work alienation when confronted with gig work challenges. As a consequence, we further assume that they are better able to maintain a sense of living a calling. We base our assumption on the JD-R theory, which suggests that personal resources can buffer negative effects of job-related demands (Bakker & Demerouti, 2017). We suggest that individuals engaging in meaning making are better able to integrate the experience of gig work challenges into their framework of personal meaning. This could, for example, be by reflecting on how overcoming these challenges is a crucial part of living out a calling. Moreover, meaning making can also help individuals to become aware of opportunities to live their calling despite these hardships. As a result, we expect that individuals with higher levels of meaning making show a weaker relationship between gig work challenges and work alienation and in turn are better able to maintain their sense of living a calling. In line with our theoretical assumption Petriglieri et al. (2019) have found in a qualitative study with independent workers that actively creating and maintaining a sense of purpose plays a central role in creating a personal holding environment which balances out the tensions between precariousness and self-expression. Based on these theoretical and empirical considerations we postulate the following two hypotheses:

**Hypothesis 3a.** The positive relationship of gig work challenges and work alienation is moderated by meaning making so that under higher levels of meaning making the relationship is weaker compared to lower levels of meaning making.

**Hypothesis 3b.** The negative indirect relationship of gig work challenges and living a calling through work alienation is moderated by meaning making so that higher levels of meaning making buffer the negative indirect relationship compared to lower levels of meaning making.

## 3. Methods

### 3.1. Participants and procedure

This study is part of a larger research project about the work and careers of gig workers in Switzerland, Germany and Austria. The anonymity and confidentiality of all respondents were guaranteed, and all participants were asked for their informed consent. Gig workers from Switzerland, Germany and Austria were invited through online labor platforms (OLPs) to complete a questionnaire. On OLPs gig workers are digitally matched to customers for contract-based work (Duggan et al., 2020; Meijerink & Keegan, 2019). Work on OLPs can be characterized as being project-based, temporary and involving some degree of flexibility about when, how and where the work is performed (Watson et al., 2021). As such, OLPs generally are a relatively easy and flexible way for gig workers to find customers. We reached out to gig workers on eleven platforms. On six of these we collaborated with the platform providers who sent an invitation link to gig workers enrolled on the platforms. On five platforms, we directly invited participants by creating a gig on the platform itself. Platforms included four on-demand platforms where workers are matched online and conduct their work locally, as well as seven crowd work platforms on which workers are matched online and conduct their work remotely (e.g., Duggan et al., 2020). Gig workers were offered compensation (ranging from 5 to 23 Swiss francs) for completing the survey.

All variables in the current study were measured either at T1, T2 or T3 over the course of seven months altogether (from April 2022 to May 2023). We conducted the first data collection in the third quarter of 2022. We collected T2 in the first quarter 2023, and the third data collection took place in the second quarter of 2023.

From the data collection a sample of 916 participants resulted. After data screening and excluding, for example, participants who

gave illogical answers or were identified as speeders or completed only the first socio-demographic variables but no core study variables, we excluded all participants that either reported that they did not perceive a calling for their work or indicated that they were only on platforms to find a regular job. This resulted in a final sample of  $N = 723$  for T1,  $N = 375$  for T2, and 303 at T3. Therefore, we had a response rate at T2 (compared to T1) of 51.9 % and 41.9 % at T3 (compared to T1).

The sample was 41.1 % female and 57.1 % male (1.8 % indicated diverse gender or no response), with an age range between 15 and 79 ( $M = 36.6$ ;  $SD = 13$ ). On average, participants have worked on their main platform for 36.1 months (approx. Three years) ( $SD = 33.5$  months). The main activities on the platform that workers indicated were text writing (45.9 %), consulting (10.5 %), and programming (7.6 %). The remaining 36 % were distributed between various other activities such as online marketing, design and manual work. 65.3 % of the participants were based in Germany, 19.1 % in Austria and 13.7 % in Switzerland.

The participants' highest educational qualification was bachelor's degree (40.1 %), high school (17.9 %), and master's (15.6 %). The remaining 26.4 % of participants had other educational qualifications such as secondary school, apprenticeship or college of higher education. In terms of earnings through platforms per month the mean was 1424.19 Swiss francs ( $SD = 3104.22$ ). The overall mean earnings were calculated by converting the earnings that were reported in euros to Swiss francs by using the average conversion rate from the time period in which the data was collected. 73.7 % of the participants indicated that they have opportunities to work outside of platforms while 19.6 % indicated that platforms are their only way to get work (6.6 % indicated that they don't know).

The mean subjective social status of the participants was 5.64 (on a scale from 1 to 10) ( $SD = 1.90$ ). In terms of platform usage, participants indicated that on average they worked on OLPs for 16.45 h a week ( $SD = 13.875$ ). 66.5 % of the participants complemented their work on platforms with some other kind of income and 28.1 % exclusively worked on platforms (5.3 % don't know). 22.7 % of the participants were active students besides their platform-based work and 77.3 % were at that time not engaging in any formal continuing education. In terms of type of platform work, 59.5 % of the participants were working primarily online and 30.5 % were working primarily offline. 10.0 % indicated that they worked both online and offline.

The study draws from a survey about platform-based work in Switzerland, Germany and Austria. The dataset used for this study was also used for different studies about the career experiences of gig workers. Four publications (including the manuscript at hand) are planned and currently under review at various journals. The other three studies used different constructs. Study 2 explored the healthy and unhealthy pursuit of callings in the gig economy. It used Living a calling at T1, Excessive Working at T1, Job Satisfaction at T1, and Burnout Symptoms at T1. Study 3 focused on self-directed career management in the context of the gig economy. It used protean career orientation and psychological contract breach at T1, meaning making at T2 and occupational identification at T3 and T1 (as an autoregressor). Study 4 investigated different profiles of identification on OLPs. It used platform identification, platform reputation, occupational identification, occupational reputation, positive affect and self-employed identity aspiration at T1 and career satisfaction and optimism at T3. To date, none of these studies has been published. However, no data overlap exists, i.e. the other studies used different variables or the same variables in different functions and at different time points.

### 3.2. Attrition analysis

We conducted an examination of attrition effects, adhering to the guidance provided by (Goodman & Blum, 1996). Our analysis aimed to evaluate how non-random sampling might influence the averages of the variables in our study. We employed independent samples *t*-tests, utilizing the variables measured at Time 1 (T1), to investigate disparities in means across the study's variables depending on the timepoints different individuals participated in the study. First, we compared the individuals who provided responses at both T1 and T2 with those who only responded at T1, omitting T2. Second, we compared the individuals who provided responses at T3 with those who did not. We analyzed whether attrition was influenced by the variables measured at T1 which are gig work challenges and meaning making, as well as our control variables (control variables are introduced below).

With the exception of tenure, we found no significant differences between the participants who participated at T1 versus those that participated until T2 or T3. The group of participants who participated at T2 showed significantly higher tenure ( $M = 39.72$ ,  $SD = 36.42$ ) than the group of participants who only participated at T1 ( $M = 32.32$ ,  $SD = 1.66$ ;  $t = 2.88$ ,  $p < 0.01$ ,  $df = 68$ ). Additionally, the group of participants that participated at T3 ( $M = 38.75$ ,  $SD = 35.49$ ) also showed significantly higher tenure than the group of participants who only participated at T1 ( $t = 1.78$ ,  $p < 0.05$ ,  $df = 675$ ). This could be due to the fact that the individuals who have already worked on platforms for some time are more likely to continue working on platforms because they are more experienced and know better if working on platforms suits their preferences.

### 3.3. Measures

#### 3.3.1. Gig work challenges

We used the 18-item Gig Work Challenges Inventory (GWCI) (Caza et al., 2022) and a five-point Likert response format ranging from 1 (not at all) to 5 (very much so) to measure gig work challenges. The scale consists of 6 subscales that measure different aspects of gig work challenges. These are emotional challenges (e.g., "My work on the platform can get pretty intense emotionally."), identity challenges (e.g., "It is sometimes difficult to explain to others who I am as a worker."), relational challenges (e.g., "Platform based work is lonely."), career path-uncertainty challenges (e.g., "Where I go from here in my career is very unclear."), viability challenges (e.g., "It is hard for me to plan for large expenses as it is difficult to predict what my income will be in any given year."), and organizational challenges (e.g., "I find it difficult to stick to effective routines for handling all the backroom work associated with my job"). Caza et al. (2022) have found in various samples that the overall score of the scale correlates negatively and significantly with thriving ( $r = -0.30$ ,  $p < 0.01$ ;  $r = -0.27$ ,  $p < 0.01$ ), resilience ( $r = -0.37$ ,  $p < 0.01$ ), work meaningfulness ( $r = -0.33$ ,  $p < 0.01$ ), job satisfaction ( $r = -0.52$ ,

$p < 0.01$ ) and belongingness ( $r = -0.57, p < 0.01$ ). The overall score of the scale has also been found to be correlated positively with role ambiguity ( $r = 0.42, p < 0.01$ ), emotional labor ( $r = 0.50, p < 0.01$ ), depletion ( $r = 0.43, p < 0.05$ ) and loneliness ( $r = 0.36, p < 0.01$ ). Significantly, the correlations with important outcomes are generally higher for the overall scale than for the subscales, indicating that the cumulation of different challenges together is putting additional strain on individuals. We therefore used the overall scale, as we wanted to investigate if and how gig workers are hindered in living their calling. In our sample, the Cronbach's alpha for the overall scale was 0.89.

### 3.3.2. Meaning making

We used the seven-item Meaning Making Scale (e.g., "I actively take the time to reflect on events that happen in my life.") as developed by (van den Heuvel et al., 2009). We used the scale with a six-point Likert response format ranging from 1 (*don't agree at all*) to 6 (*fully agree*). In previous studies the scale showed good Cronbach's alpha values above 0.70 (Petrou et al., 2017; van den Heuvel et al., 2009). Cronbach's alpha for meaning making was 0.76.

### 3.3.3. Work alienation

We used the shortened three-item version of the Work Alienation Scale as originally developed and validated by Nair and Vohra (2009). The three-item version was used by Schantz et al. (2015) and features three items that measure the separation of an individual from his or her work (e.g., "I often wish I was doing something else while I am at work."). The major limitation of shortened scales is that they can limit construct coverage (Clark & Watson, 2016) resulting in lower measurement validity. The main reason for this is that due to the reduced number of items, important aspects of a phenomenon are no longer covered. However, we opted for the shortened scale to keep the overall survey within a reasonable time frame, as research suggests that longer completion times are negatively associated with response quality (Galesic & Bosnjak, 2009). Another argument in favor of using the shortened scale, despite its potential limitations, is that both the original and the shortened versions conceptualize and measure work alienation as a unidimensional construct. Therefore, no loss of subdimension coverage was anticipated. Additionally, Schantz et al. (2015) determined convergent, discriminant, and nomological validity of the shortened scale based on the procedures described by (Hair et al., 2009). Through their procedure they showed that the shortened scale still shows sufficient validity for the underlying construct. In terms of reliability, Schantz et al. (2015) indicated a Cronbach's alpha of 0.73. The shortened scale also showed reasonable correlations with related constructs such as decision-making autonomy ( $r = -0.34, p < 0.01$ ), task variety ( $r = -0.34, p < 0.01$ ), task identity ( $r = -0.25, p < 0.01$ ), and social support ( $r = -0.32, p < 0.01$ ). We assessed the scale on a seven-point Likert response format ranging from 1 (*do not agree at all*) to 7 (*fully agree*). In our study, Cronbach's alpha for the scale was 0.79.

### 3.3.4. Living a calling

We used the six-item Living a Calling Scale (Duffy, Bott, et al., 2012) (e.g., "I have regular opportunities to live out my calling") with a seven-point Likert response format ranging from 1 (*do not agree at all*) to 7 (*fully agree*). Duffy, Bott, et al. (2012) reported a Cronbach's alpha of 0.85. In our study, the scale reported a Cronbach's alpha of 0.98 which is comparable to other recently published studies ( $\alpha = 0.96$ , Hirschi et al., 2018;  $\alpha = 0.95$ , Duffy et al., 2022).

### 3.3.5. Control variables

Besides the theoretical constructs introduced above, we measured various indicators that might confound the results. We used these indicators as control variables in our models. First, we measured subjective social status to check whether the effects in our models are confounded by the socio-economic background of the participants. This is based on the WCT, which assumes that socio-economic factors are related to workers' ability to live a calling through the amount of career development opportunities a person has (Duffy et al., 2018). Studies found that living a calling is positively related to subjective socio-economic status (Duffy, Autin, & Douglass, 2016; Hirschi et al., 2018). Subjective social status was measured through the MacArthur Scale of Subjective Social Status (Adler et al., 2000).

Second, we asked participants why they used the platforms (e.g., finding flexible gigs, looking for long-term employment, looking for new customers). Studies have reported that gig workers' career experiences differ in regard to whether gig workers view work on the platform as a job or a career, or for example to pursue a purpose in their work (Bucher et al., 2024; Wong et al., 2020). Furthermore, we included reasons to engage through platforms because individuals' identification with different reasons to engage on OLPs was suggested to be related to their commitment as well as their levels of alienation and precarity (Bucher et al., 2024; Congregado et al., 2022). Next, we asked participants about the type of gig work they mostly performed (online, offline, hybrid), as the type of gig work was suggested to have implications for individuals' work-related experiences (Watson et al., 2021). We therefore used the differentiation between on-demand and remote work as two important forms of OLPs suggested by De Stefano (2015). We asked participants if they mostly performed location-based work (offline) or remote work (online) through OLPs. Especially in regard to fulfillment at work, Wu and Huang (2024) suggest that the occupational groups working through remote work vary greatly in their flexibility and autonomy compared location-based gig workers such as, for example, Uber drivers. Especially in regard to finding inherent meaningfulness and fulfillment, studies have found different dynamics on different types of platforms (Cameron, 2022; Nemkova et al., 2019). Additionally, we asked participants about their tenure on the platform and the average number of hours that they worked on platforms per week. We did that to be able to control for the amount of exposure individuals had to OLPs, as it is quite common for certain gig workers only to work on OLPs partially or for short time periods (Dunn, 2020). In regard to the WCT, the amount of exposure to one's calling domain is also expected to be related to one's sense of living a calling. We would expect that individuals who worked more hours through platforms pursue a stronger or weaker sense of living a calling depending on the extent to which they view their work

through the platform as their calling. Concerning tenure, we expect that gig work challenges are experienced differently depending on how long gig workers have subjected to them. For example, [Zwettler et al. \(2024\)](#) found that gig workers go through different career cycles on OLPs in which they perceive different challenges. [Caza et al. \(2022\)](#) have argued that over time, challenges could reveal themselves, grow more salient or fade away. Also, we asked participants if they engaged in other work activities besides working on OLPs. This is interesting because the gig economy includes many different opportunities to find work ([Wu & Huang, 2024](#)). Depending on whether gig workers are fully dependent on their work through platforms they might perceive the challenges differently.

### 3.4. Analytical Procedure

We used Mplus Version 7 ([Muthén & Muthén, 2012](#)) to apply linear multiple regression modeling to test Hypothesis 1, and path analysis to test Hypothesis 2 and Hypothesis 3. Prior to testing our hypotheses, we conducted a confirmatory factor analysis (CFA) to test the factor structure of our applied scales (see below). To test for multivariate normality, we used SPSS to assess whether the Mahalanobis maximum value was significantly higher than the critical chi-square value. The indicated Mahalanobis maximum value for our model variables was 18.01 and exceeded the critical chi square value ( $p < 0.01$ ). This result indicates that no multivariate normality exists in our data ([Cain et al., 2017](#)). We further tested for multicollinearity in SPSS to be sure that inter-relations between different variables are not too strong. As the tolerance value for the variance inflation factor was below 10, it is reasonable to assume that there is no multicollinearity in our data ([Alin, 2010](#)).

We estimated our CFAs as well as our path models through maximum likelihood estimation (ML) in conjunction with bootstrapping. Model fit for the CFA and the path analyses were assessed with the root mean squared error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis index (TLI), and the standardized root mean square residual (SRMR). Values below 0.08 for RMSEA, above 0.95 for CFI and TLI, and below 0.08 for SRMR indicate a good fit ([Hu & Bentler, 1999](#)). CFI and TLI levels above 0.90 represent an acceptable fit ([Bentler & Bonett, 1980](#)). These values constituted the cut-off criteria for our model testing. We applied 5000 bootstrap iterations ([Preacher & Hayes, 2008](#)).

### 3.5. Missing data treatment

We used a method known as full information maximum likelihood estimation (FIML) to handle missing data at time points T2 and T3, as suggested by ([Graham & Coffman, 2012](#)). Consequently, our final sample included 723 participants. The decision to employ FIML was based on the understanding that it represented the most appropriate approach for addressing missing data. Other techniques, such as listwise or pairwise deletion, necessitate stricter assumptions of data missing completely at random (MCAR). Research has demonstrated that these alternatives tend to yield less reliable parameter estimates when compared to FIML ([Enders & Bandelos, 2001](#); [Little & Rubin, 2019](#)).

## 4. Results

### 4.1. Confirmatory factor analysis

We conducted a CFA to assess whether the central study variables assessed by psychological scales (gig work challenges, meaning making, work alienation, and living a calling) were distinct. We compared the model fit of our suggested four-factor model with an alternative model in which all items of all four scales loaded on one general factor. For our four-factor model, we modeled our first factor, gig work challenges, at T1 through the six sub-dimensions of gig work challenges (viability, organizational, identity, career path-uncertainty, emotional, and relational) as indicators of the latent construct. The other three factors were meaning making at T1, work alienation at T2, and living a calling at T3, with the respective scale items as indicators. Our proposed four factor model showed a satisfying model fit ( $\chi^2 [515] = 1295.25$ , RMSEA = 0.05; CFI = 0.93; TLI = 0.93, SRMR = 0.07), while the alternative one-factor model showed an unsatisfactory model fit ( $\chi^2 [102] = 7170.87$ , RMSEA = 0.13; CFI = 0.42; TLI = 0.38, SRMR = 0.23). Based on the significant difference in model fit ( $\Delta\chi^2 = 5875.62$ ,  $\Delta df = 12$ ,  $p < 0.001$ ,  $\Delta CFI = 0.515$ ) we concluded that the assumed four-factor model fits the data better than a model that only assumes one factor.

### 4.2. Preliminary analysis: Correlations

[Table 1](#) displays the means, standard deviations, and Pearson correlations of the study variables. Most importantly and in line with Hypothesis 1, gig work challenges at T1 correlated negatively with the overall score for living a calling at T3 ( $r = -0.19$ ,  $p < 0.001$ ). Furthermore, work alienation at T2 correlated negatively with living a calling at T3 ( $r = -0.37$ ,  $p < 0.001$ ). Additionally, living a calling was positively correlated with subjective social status ( $r = 0.17$ ,  $p < 0.01$ ), which is in line with previous studies about living a calling that found favorable socio-economic factors to be positively related to living a calling. Furthermore, hours per week ( $r = 0.29$ ,  $p < 0.001$ ) and tenure ( $r = 0.17$ ,  $p < 0.01$ ) as indicators for the exposure to working on OLPs were positively correlated with living a calling. Gig work challenges at T1 were negatively related to subjective social status ( $r = -0.30$ ,  $p < 0.001$ ). Work alienation at T2 was negatively related to subjective social status ( $r = -0.19$ ,  $p < 0.001$ ) and hours per week ( $r = -0.13$ ,  $p < 0.01$ ).

### Hypothesis 1. Direct Relationship between Gig Work Challenges and Living a Calling.

To test Hypothesis 1, we performed a multiple linear regression in MPlus where we regressed the outcome (living a calling at T3) on

**Table 1**  
Descriptive statistics and intercorrelations.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Subjective Social Status T1	5.64	1.90	–											
2. Tenure T1	36.10	33.51	–0.08	–										
3. Hours per Week T1	16.45	14.19	0.12**	0.23***	–									
4. Type of OLP T1	–	–	–0.05	–0.04	–0.02	–								
5. Goal of Working through OLPs T1	–	–	–0.11*	–0.21***	–0.27***	0.08*	–							
6. Work besides OLPs T1	–	–	–0.10*	–0.01	0.14***	0.03	0.03	–						
7. Living a Calling T1	3.67	1.83	–0.23***	0.01	0.27***	–0.03	–0.17**	0.07	–					
8. Work Alienation T1	3.16	1.6	–0.18***	–0.09*	–0.15***	0.01	0.06	0.01	–0.31***	–				
9. Gig Work Challenges T1	2.32	0.72	–0.30***	–0.03	–0.05	0.05	0.08*	0.05	–0.13**	0.35***	–			
10. Meaning Making T1	4.60	0.80	0.17***	0.01	0.20***	0.07	–0.04	–0.01	0.24***	–0.16***	–0.11**	–		
11. Work Alienation T2	3.23	1.45	–0.19***	0.04	–0.13**	–0.01	0.06	–0.04	–0.37***	0.34***	0.42***	–0.13*	–	
12. Living a Calling T3	3.48	1.60	0.17**	0.15**	0.29***	0.03	–0.17**	0.05	0.72***	–0.36***	–0.19***	0.021***	–0.37***	–

Note. Type of OLP (0 = online or hybrid, 1 = offline), Goal of Working through OLPs (0 = long term work, new business opportunity, others, 1 = flexible work), Work besides OLP (0 = no or don't know, 1 = yes).

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .

\*\*\*  $p < 0.001$ .

the predictor (gig work challenges at T1) together with the control variables subjective social status, tenure, hours per week and type of OLP (a dummy variable for type of gig work in which offline is equal to 1), goal of working through OLPs (a dummy variable which signifies which goals gig workers follow on OLPs, where 1 equals looking for flexible work), Work besides OLPs (a dummy variable which signifies if gig workers also worked besides OLPs, where 1 equals yes) (all at T1). In line with Hypothesis 1, the regression coefficient of gig work challenges was negative and significant ( $\beta = -0.17, p < 0.01$ ). Hence, individuals who experienced more and intense gig work challenges were less able to live their calling across time.

**Hypothesis 2.** Mediation Model from Gig Work Challenges at T1 to Living a Calling at T3 via Work Alienation at T2.

To test Hypothesis 2, we used MPlus to calculate a longitudinal autoregressive mediation model with one independent variable (gig work challenges at T1), one mediator (work alienation at T2) and one outcome variable (living a calling at T3). We applied maximum likelihood estimation with 5000 bootstrap samples. Besides our four constructs, we included our control variables as well as the autoregressor variables living a calling at T1 and work alienation at T2. To control for our autoregressors we regressed work alienation at T2 on work alienation at T1 and living a calling at T3 on living a calling at T1. The predictor, controls and autoregressors were allowed to correlate freely among each other. The model showed good model fit ( $\chi^2 [19] = 282.84, RMSEA = 0.04, CFI = 0.99, TLI = 0.93, SRMR = 0.01$ ).

As shown in Fig. 2, work alienation at T2 was predicted by gig work challenges at T1 ( $\beta = 0.32, p < 0.001$ ) and living a calling at T3 was predicted by work alienation at T2 ( $\beta = -0.10, p < 0.05$ ). Additionally, gig work challenges at T1 were not significantly related to living a calling at T3 when adding the mediator variable work alienation at T2 ( $\beta = 0.07, p = 0.07$ ). The autoregressive path from work alienation at T1 to work alienation at T2 ( $\beta = 0.28, p < 0.001$ ) and from living a calling at T1 to living a calling to T3 ( $\beta = 0.66, p < 0.001$ ) were significant. Supporting Hypothesis 2, we found a significant indirect effect from gig work challenges to living a calling through work alienation ( $\beta = -0.03, p < 0.04, CI_{95} [-0.066, -0.002]$ ). Also, as depicted in Table 2, the effect of gig work challenges on living a calling was insignificant ( $\beta = -0.07, p = 0.07, CI_{95} [-0.148, 0.012]$ ). This suggests that work alienation fully mediated the relationship between gig work challenges and living a calling.

**Hypothesis 3.** Moderation Effect of Meaning Making.

To test Hypothesis 3a and Hypothesis 3b, we used MPlus to calculate a longitudinal autoregressive moderated mediation model with one predictor variable (gig work challenges at T1), one mediator (work alienation at T2), one moderator (meaning making at T1) that moderates the relationship between the predictor variable and the mediator, and one outcome variable (living a calling at T3). We applied maximum likelihood estimation with 5000 bootstrap samples. Besides our four constructs, we included the same covariables and autoregressors as in the mediation model. The model showed good model fit ( $\chi^2 = 301.84 [23], RMSEA = 0.01, CFI = 1.00, TLI = 1.00, SRMR = 0.01$ ).

We first investigated the interaction effect of meaning making at T1 on our mediator work alienation at T2 to test Hypothesis 3a. The results showed that gig work challenges at T1 were positively related to work alienation at T2 ( $\beta = 0.46, p < 0.001$ ), and meaning making at T1 was negatively related to work alienation at T2 ( $\beta = -0.03, p = 0.72$ ). The interaction term between meaning making at T1 and gig work challenges at T1 was significant and negatively related to work alienation at T2 ( $\beta = -0.11, p < 0.05$ ) suggesting that meaning making buffered the positive relationship between gig work challenges at T1 and work alienation at T2. Additionally, Fig. 3 shows a graphical representation of the interaction effects. By applying the procedure recommended by Aiken and West (1991), we plotted gig work challenges at T1 and work alienation at T2 at different levels of meaning making. Supporting Hypothesis 3a, the findings showed that the relationship between gig work challenges at T1 and work alienation at T2 is weaker for individuals with high meaning making (+1 SD:  $b = 0.59, p < 0.001$ ) than for individuals with low meaning making (-1 SD:  $b = 0.39, p < 0.001$ ).

Second, we analyzed the conditional indirect effect of gig work challenges on living a calling via work alienation. As shown in Table 2, those conditional tests showed that gig work challenges were negatively related to work alienation under conditions of low meaning making (SD - 1:  $b = -0.06, SD = 0.04, p < 0.05$ ) as well as under conditions of high meaning making (SD + 1:  $b = -0.04, SD = 0.02, p = 0.06$ ). However, in line with Hypothesis 3b, the indirect effect was smaller and insignificant in the high-meaning-making condition, suggesting that meaning making buffers the effect of gig work challenges on living a calling via work alienation.

In other words, individuals who experience more intense gig work challenges are not so negatively impaired to live out their calling over time in the case that they make active meaning out of their work and career experiences. The explaining mechanism within the

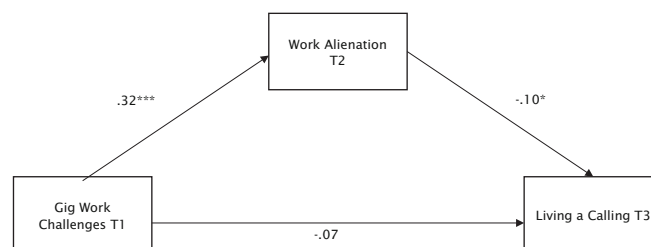


Fig. 2. Results of the Mediation Model.

Note.  $N = 723$ ; \*\*\*  $p < 0.001$ . The model includes all control variables as well as the autoregressors work alienation at T1 and living a calling at T1. Effects of controls and autoregressors are not displayed.

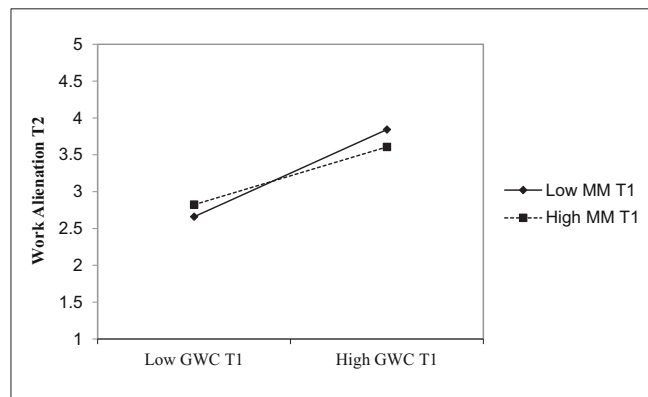
**Table 2**  
Results of direct, indirect, and conditional indirect effects.

Model	Path	B	SE	95 % CI	
Model 1 (Mediation Model)	Direct effect (Gig Work Challenges – Living a Calling)	–0.07	0.046	–0.148	0.012
Model 2 (Moderated Mediation Model)	Indirect effect (Gig Work Challenges – Work Alienation – Living a Calling)	–0.03***	0.02	–0.066	–0.002
	–1 SD (–1.01)	–0.06*	0.04	–0.125	–0.001
	Mean Value	–0.05*	0.03	–0.046	–0.001
	+1 SD (+1.01)	–0.04	0.02	–0.081	–0.000

Note.  $N = 723$ , 95 % CI = 95 % confidence intervals.  $p$  values are two-tailed. SD = Standard Deviation.

\*  $p < 0.05$ .

\*\*\*  $p < 0.001$ .



**Fig. 3.** Meaning Making as a Moderator for the Gig Work Challenges-Work Alienation Relationship.

Note. GWC T1 = Gig work challenges measured at T1. MM T1 = Meaning making measured at T1.

buffering effect of meaning making is that those individuals are less alienated and distanced from their work in their calling domain.

## 5. Discussion

The aim of this study was to achieve a better understanding of the role of gig work challenges and personal resources in living a calling by integrating reasoning from the JD-R and the framework of WCT. Based on theoretical considerations, we specifically wanted to understand the role of work alienation as a mediator, and meaning making as a moderator, of the relationship between gig work challenges and living a calling. The findings showed that gig work challenges are negatively related to living a calling and that work alienation mediates this relationship (Hypothesis 1, Hypothesis 2). Furthermore, we found that meaning making buffers the positive relationship between gig work challenges and work alienation (Hypothesis 3a) as well as the indirect negative relationship between gig work challenges and living a calling via work alienation (Hypothesis 3b). These results were robust after considering work alienation and living a calling at T1 as autoregressors as well as including subjective social status, tenure, hours per week, type of OLPs, different goals for working through OLPs, and work besides OLPs as control variables. Our findings provide implications for WCT as well as for research about callings (and associated career success) in the gig economy.

### 5.1. Implications for WCT

Based on our findings, we derive three main theoretical implications for the research on living a calling. First, our findings contribute to the theoretical understanding of antecedents of living a calling by extending the focus from organizational and job-related resources that support living a calling to hindrances that suppress living a calling. We show how these gig-work-related challenges are related to living a calling and furthermore also provide insights into their relationship to aspects of vocational privilege. While qualitative studies have already explored the importance of hardships (Bunderson & Thompson, 2009; Cinque et al., 2021) for maintaining a calling, our study constitutes to our knowledge the first comprehensive quantitative study into the relationship between hindrance demands and living a calling. We suggest that due to having to face hindrance demands, individuals may have less time and energy to invest in their calling domain, leaving them alienated from their work, which in turn reduces their sense of living a calling. While we have conducted our study in the context of the gig economy, these findings are generally relevant to attaining a better understanding about the relationship between hindrance demands and living a calling.

Our findings are in line with the study of Mauno et al. (2022), which showed that unnecessary tasks are related to lower levels of

living a calling. We go beyond these findings by extending our analysis from one specific hindrance to a comprehensive set of hindrances in the gig economy. A closer look at the correlation table of our study variables shows that gig work challenges were negatively related to subjective social status which indicates that individuals with lower socio-economic backgrounds tend to face more hindrance demands when working in the gig economy. This supports the current view that living a calling is also dependent on an individual's socio-economic background and vocational privilege. However, in our study as well as in [Mauno et al.'s \(2022\)](#) study the negative relationship between work related hindrances and living a calling remained significant after controlling for socio-economic factors (subjective social status and education). This shows that hindrance demands are also an obstacle for individuals with a calling from favorable socio-economic backgrounds. This conclusion is further supported by a study about hindrance demands and perceiving a calling, which showed that perceiving a calling strengthens the negative relationship between hindrance demands and psychological health ([Wilson & Britt, 2021](#)). It has been found that perceiving a calling is not related to socio-economic factors ([Duffy & Autin, 2013](#)), which underlines the importance of hindrance demands regardless of individuals' vocational privilege. Together, these findings underline the relevance of hindrance demands for callings, regardless of an individual's socio-economic background and point towards the importance of integrating hindrance demands into the work as a calling theory.

Second, our study confirms the importance of work-related experiences for living a calling by shedding light on the role of negative work-related experiences. While previous studies have suggested that positive work-related experiences and attitudes precede higher levels of living a calling (rather than being an outcome of living a calling) ([Duffy, Douglass, et al., 2016](#); [Duffy et al., 2014](#)), we show that negative experiences have the opposite suppressive effect on living a calling. We further found that these negative experiences (i.e. being alienated from one's work) fully explain the relationship between hindrance demands and living a calling. Our results thus suggest that besides an enhancing pathway for living a calling which is characterized by positive experiences and fostered by resources, there exists also a suppressive pathway for living a calling, which is characterized by negative experiences at work and hindering demands. Understanding how these two pathways jointly influence individuals' sense of living a calling over time, as well as how these pathways interact with each other could expand our theoretical understanding of antecedents of living a calling and should be an issue for future research.

Third, our results highlight the importance of personal resources for living a calling as buffers against demands. Additionally, we also found evidence that personal resources could play a role as predictors for living a calling, as meaning making at T1 was positively related to living a calling at T3. A similar finding was made by [Yuliawati and Ardyan \(2022\)](#) who found that living a calling is predicted by planfulness as a person's disposition to live their life in a planful way. Our findings thus contribute to attaining first insights into the complex relationship between personal resources and living a calling and indicate that they may be related to living a calling in multiple ways. For future research it could be fruitful to consider further propositions of JD-R to understand the link between personal resources and living a calling. For example, JD-R suggests a reciprocal relationship between personal resources and job resources and that both together predict engagement and at the same time bolster the relationship between job demands and exhaustion ([Bakker et al., 2023](#)). It would therefore be interesting to explore the role of personal resources for both gain cycles and loss cycles that foster and undermine living a calling. This could be done through a longitudinal approach such as cross-lagged panel modeling which shows the reciprocal relationship of personal resources, job demands, job resources and living a calling over time. Lastly, a look at our correlation table shows that meaning making is positively related to subjective social status, which hints towards a positive relation between socio-economic factors and personal resources. We assume that while certain stable personal resources are unrelated to socio-economic factors, others might mediate the relationship between vocational privilege and living a calling.

## 5.2. Implications for Career Success in the Gig Economy

Our findings are also relevant for research on careers and career success in the gig economy. Subjective career success is defined as an individual's evaluation and experience of achieving personally meaningful career outcomes ([Ng et al., 2005](#); [Seibert, 2006](#), [Shockley et al., 2016](#), as cited in [Spurk et al., 2019](#)). Scholars have referred to an individual's ability to live out a calling as one of the "highest forms of subjective career success" ([Hall & Chandler, 2005](#)). In career research, calling is seen as a career orientation which emphasizes meaningfulness and personal, moral and societal significance ([Wrzesniewski et al., 1997](#)). Living out a calling therefore represents a specific form of subjective career success, which plays a crucial role for individuals with a calling orientation. By looking at a specific form of subjective career success, we contribute to a more comprehensive picture of career success in the gig economy.

Research on career success in the gig economy is important due to the changing nature of careers and career success. As more and more individuals work outside of traditional employment settings, careers become more self-managed and flexible ([Hirschi, 2018](#)). As a result, understanding the complex interactions between independent workers and their work environment is seen as a key aspect of understanding independent workers' career success ([Van den Born & van Witteloostuijn, 2013](#)). Hence, [Ashford et al. \(2018\)](#) have suggested that we need to understand the personal resources that allow individuals to survive or even thrive in the gig economy. Although research has begun to look at the role of OLPs in career success, we know little about the various ways in which OLPs can influence individuals' career success.

For example, [Wong et al. \(2020\)](#) have found that in cases where individuals experience congruence between their cognitive presentations of platform work as jobs or careers, they find their work more meaningful. By investigating and focusing on living a calling, we focused on a form of subjective career success which is closely related to meaningful work ([Hall & Chandler, 2005](#)). Hence, in other words, we extend our knowledge about careers by showing that gig work challenges can undermine subjective career success (in the form of living a calling) through work alienation.

Furthermore, we found in our sample that hours worked on platforms per week were positively related to living out a calling, which could be an indication that besides the challenges of gig work, working on OLPs contributes to subjective career success. This may be

because for some individuals OLPs provide access to activities that are in line with their calling. Somewhat unexpectedly, online gig work was not more strongly related to living a calling than offline location-based gig work. Offline gig work is often low skilled and includes delivery driving or ride hailing. Some scholars suggested that especially for highly skilled individuals, the gig economy can contribute to career success while low skill work is more subjected to precariousness and exploitation (Spreitzer et al., 2017).

### 5.3. Practical implications

Our findings have important implications for individuals, policymakers, and providers of online labor platforms (OLPs). While working independently is often associated with high levels of autonomy and self-determination (Ryff, 2019), our results indicate that the structural and relational challenges inherent in gig work can undermine workers' ability to thrive and experience fulfillment. To counter this, individuals should regularly reflect on how their work aligns with their broader career goals and personal values. Policy makers and platform providers can play a crucial role in supporting this process by fostering a gig work ecosystem that explicitly supports meaning-making.

For instance, platform providers could develop features that facilitate community building and peer support, such as virtual coworking spaces, mentorship programs, or moderated forums where workers can share experiences and strategies. Moreover, platforms could implement regular check-ins or feedback mechanisms that go beyond task ratings to include well-being assessments or personal development goals. They could also offer structured reflection tools that help workers assess the meaning and impact of their work over time. Training resources and online workshops should not only focus on managing workflow and client relationships but also address topics such as setting personal boundaries, maintaining intrinsic motivation, and fostering a sense of purpose.

Policymakers on the other hand could integrate education about the unique demands and psychological risks of gig work into vocational training and guidance services offered through national employment agencies. This would help prepare individuals for platform work not just in terms of technical or entrepreneurial skills, but also in terms of emotional resilience, identity development, and long-term career navigation. Beyond educational initiatives, policymakers can shape structural conditions that promote meaning making and reduce alienation in gig work through regulation and support mechanisms. For example, they can incentivize platforms to adopt transparency standards regarding algorithmic decision making, task allocation, and rating systems. These are key factors that influence workers' sense of agency and fairness. Clearer governance and accountability frameworks can empower workers to understand and influence the systems that affect their livelihood, fostering a greater sense of control and engagement. In addition, policymakers could introduce quality certifications for platforms that adhere to fair pay and minimum working standards, including extended social security benefits, minimum wage guarantees, and nondiscriminatory conditions. While these measures may seem tangential to psychological well-being, they form the structural foundation upon which meaningful and sustainable work experiences can be built.

### 5.4. Limitations and future research

One limitation of our study is that we measured all our model variables with the same method, which could be a source of bias for the observed covariations (Podsakoff et al., 2012). Nevertheless, we mitigated this issue by separating the predictors, mediator, and outcome measures over time. Furthermore, we performed a Confirmatory Factor Analysis (CFA), demonstrating that the constructs can be separated from each other. Despite this, no clear causal reasoning can be derived from this study (Mitchell & James, 2001). For a clearer exploration of causality, future studies should consider implementing a comprehensive longitudinal approach, where all variables are measured at multiple points in time.

Second, we only included individuals based in Germany, Switzerland, and Austria. As a result, our findings cannot be readily generalized beyond this specific regional context without acknowledging several important limitations. Maybe most importantly, these three countries sometimes also known as the DACH countries have relatively strong social safety nets and overall higher socioeconomic privilege, represented for example in higher minimum living standards, greater labor protections and better access to social services. In many regions of the world the urge to turn to online labor platforms out of economic necessity rather than personal preference or a sense of calling might be stronger. The structural precarity and limited welfare in those regions can profoundly shape workers' experiences, motivations, and agency. While we did control for subjective social status, our participants were generally highly privileged compared to the global population of individuals working in the gig economy. Hence, the results should not be generalized to other samples without careful consideration of the socioeconomic context. Also, cultural differences in work values and motivations need to be considered. Workers in the DACH region may interpret and pursue work as a calling differently due to cultural norms and values. In contrast in other regions survival needs or family obligations might dominate work-related motivations. This means that emotional and psychological engagement with gig work could manifest very differently across regions. Lastly, platform accessibility and digital infrastructure vary greatly in the DACH region compared to other parts of the world. Reliable internet access and a generally strong digital infrastructure might posit a stark contrast to the work realities of gig workers in other regions. This technological disparity poses an additional challenge for many workers globally and influences the quality and volume of gig work a person can perform. Due to these reasons future studies on callings and gig work should include individuals from different parts of the world.

Third, our study may be subject to self-selection bias and language-based exclusion bias. Even though we did not mention the topic of calling when inviting participants to take part in our study, it is possible that participants who self-identify with the concept of calling were more motivated to take part in this study about gig work. While there might be an overrepresentation of individuals with stronger intrinsic motivation, we find in our sample amounts of individuals with low levels of perceiving a calling that are comparable

to other samples (e.g., Marsh et al., 2020). Additionally, many gig workers in the DACH region could not participate in the survey due to language barriers. This point is particularly important because a considerable share of gig workers in the DACH region have a migration background and may not be fluent in either German or English. For example, workers from Eastern Europe, the Middle East, Africa, or South Asia are disproportionately represented in platform-based delivery and ride-hailing services. To make the study more inclusive, we offered English as a second survey language next to German. However, future studies should therefore aim to recruit more diverse samples, possibly using stratified or randomized sampling techniques, and explicitly target groups of workers that are not fluent in English or German to ensure that their experiences and challenges are adequately captured.

Fourth, our sample has substantial attrition at T2 and T3. We had a response rate of 51.9 % at T2 and 41.9 % at T3 (compared to T1). High dropout rates may introduce bias, as those who remained in the study could differ systematically from those who dropped out in ways that affect the outcomes of interest (e.g., engagement level, job stability, or platform satisfaction). Due to our attrition analysis (see the Methods section) there was only evidence for systematic differences in tenure between the different time points. This can be explained at least partially due to the time that passed between the three time points. It can however not be fully ruled out that individuals with a high tenure at T1 participated more often at later time points. One possible explanation could be that some gig workers ended their engagement with gig work between different time points. This could mean that we captured a subsample of gig workers at T2 and T3 that are either more strongly committed to gig work or more resilient towards the challenges of the gig economy. Future studies could investigate why and under which circumstances gig workers leave the gig economy to better understand the challenges of the gig economy as well as the systematic biases in gig work longitudinal samples over time.

Fifth, from a theoretical perspective we only looked at hindrance demands and their role for living a calling. The JD-R framework, however, highlights the importance of challenge demands and suggests that they are positively related to engagement and unrelated to burnout (van den Broeck et al., 2009). We conceptualized gig work challenges as hindrance demands due to their theoretical classification as obstacles and their negative relation to thriving and satisfaction at work, as well as a positive relation to depletion and isolation (Caza et al., 2022). However, some aspects of gig work challenges could also be appraised as challenge demands by some individuals. Future studies on living a calling should therefore also assess individuals' appraisal of different factors in the work environment as challenges or hindrances, similarly to the study of Spurk et al. (2021). Finally, future studies should look at different moderators to get a better understanding of the factors which can buffer or strengthen the negative relationship between gig work challenges and living a calling. While we did find evidence for a buffering role for meaning making, the conditional indirect relationship between gig work challenges and living a calling via work alienation was still significant at high levels of meaning making. Based on JD-R, future studies should, on one hand, test the role of other personal resources such as optimism or self-efficacy. On the other hand, future studies should also explore how job resources such as autonomy and task significance moderate the relationship between demands and living a calling. Such studies would contribute to a better understanding about the interaction between the enhancing pathway of living a calling represented in WCT and the suppressive pathway of living a calling which was investigated in this study.

## 6. Conclusion

This study had two central goals. First, it aimed to shed light on the relationship between gig work challenges and living a calling by looking at the mediating role of work alienation. Second, it aimed at understanding the role of meaning making as a personal resource which buffers the relationship between gig work challenges and living a calling through work alienation. The findings extend our understanding of living a calling by shedding light on a suppressive pathway for living a calling which is characterized by hindrance demands and negative work-related experiences. In addition, our findings offer valuable insights into the mechanisms and boundary conditions which foster and diminish a gig worker's subjective career success.

## CRedit authorship contribution statement

**Lorenz Affolter:** Writing – review & editing, Writing – original draft, Visualization, Validation, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Daniel Spurk:** Writing – review & editing, Supervision, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization. **Caroline Straub:** Writing – review & editing, Supervision, Resources, Project administration, Investigation, Funding acquisition.

## Declaration of competing interest

We herewith declare that we have no known conflict of interest to disclose.

Correspondence concerning this article should be addressed to the first author.

This research was supported by a grant from the Swiss National Science Foundation (SNSF, project number: 407740\_187490).

## Acknowledgement

This research was supported by a grant from the Swiss National Science Foundation (SNSF, project number: 407740\_187490).

## Data availability

Data will be made available on request.

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