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The Dark Side of Meaningful Work-from-Home: A Non-Linear Approach

Abstract

Changes in the technological environment of work already in motion over the last few years, but accelerated by the COVID-19 pandemic, place individuals' search for meaningfulness in their work under a new light. In this context, we draw on enrichment theory and the ego-depletion perspective and challenge the prevailing notion that meaningfulness is always positive and hypothesize that, under certain conditions, there can be such a thing as "too much meaningfulness." A two-wave study of 243 full-time employees working from home during the COVID-19 pandemic in the US offers support for a non-linear effect of meaningfulness of work for workaholics, such that it has a positive effect on individuals up to a certain point, but a negative effect if there are excessive amounts of meaningfulness. We discuss these findings in light of the debate around the moral duty of managers and firms to offer meaningful jobs to employees and offer practical suggestions for firms.

Introduction

Consistent with this growing emphasis by individuals to search for meaning in their work and the rise of many related TV shows, podcasts, and books in recent years, researchers have also devoted increasing attention to the topic of meaningful work (Lysova et al. 2019; Magni and Manzoni 2020). The current narrative, however, is dominated by the underlying assumption that meaningful work is always positive. Whilst, indeed, most of such research suggests positive benefits for employees and organizations alike, there is some evidence to suggest that meaningful work can become a "double-edged sword" (Bunderson and Thompson 2009, p.39) due to increased engagement, personal sacrifice, and a sense of rigid duty. This seeming contradiction suggests that there might exist such a thing as "too much meaningfulness" (Vogel

et al. 2019, p.763) and that the relationship between meaningful work and individual outcomes may be more complex than previously thought.

The context of the ongoing COVID-19 pandemic arguably constitutes an interesting backdrop for exploring both the positive and the negative effects of meaningful work, as the working conditions for a significant number of employees globally have changed and individuals are increasingly being asked to work from home. In a recent article, *The Economist* described ‘the old times’ up until February 2020 as “bc” (before coronavirus) and life afterwards as the new “ad” (after domestication) (Bartleby 2020). With many companies such as Facebook, Twitter, and Fujitsu announcing plans to make remote work a permanent option even after the pandemic (Conger, 2020), the future of working life seems to be, to a great extent, remote. This shift is gradually transforming both the typical working week and the 9-to-5 workday, with home life and work life blending together. However, meaningful work done remotely is challenging as less opportunities exist for important prerequisites of meaningful work, such as building interpersonal relationships (Rosso et al. 2010), fostering a sense of belonging, developing connectedness and shared identity (Bailey et al. 2017, Antonacopoulou and Georgiadou 2020), expressed appreciation from clients (Nemkova et al. 2019) and informal interactions, common activities, and rituals (Toraldó et al. 2019).

Building on the sparse evidence about the “dark side” of meaningfulness, the aim of this paper is to shed light on the conditions under which meaningful work is associated with potentially undesirable outcomes. Drawing on enrichment theory (Powell and Greenhaus 2006) and the phenomenon of ego depletion (Muraven et al. 1998), we suggest that the relationship between meaningful work and two important outcomes, namely work-life balance (maintaining a balance between work and personal life; De Cieri et al. 2005) and job stress (tension and/or

anxiety due to one's inability to cope with their work demands; Xie and Johns 1995), is more complicated than expected. Enrichment theory and ego depletion arguably can be viewed as the two sides of the same coin. On the one hand at the core of enrichment theory lies the notion that engaging in one life role (e.g., work) might help an individual generate important resources (e.g., psychological, and physiological resources) that can be useful in improving one's performance and satisfaction in another life role (e.g., family) (Greenhaus and Powell 2006; Maertz and Boyar 2011). On the other hand, the phenomenon of ego depletion suggests that individuals utilize resources in an effort to volitionally control their thoughts, emotions, and behaviours during their participation in one role/task and, ultimately, this leads to the depletion of their resources and the subsequent inability to self-regulate themselves in other roles/tasks (Baumeister et al. 1998). On this basis and in line with extant research evincing a link between meaningful work and various positive individual and organizational outcomes, we expect a positive relationship between meaningful work on work-life balance and a negative relationship between meaningful work and job stress because meaningful work can be viewed as generating important psychological resources and positive affect that help individuals navigate their various life roles and enhance their ability to self-regulate.

These relatively straightforward relationships, however, are expected to be more complicated when considering an important personality-related boundary condition: workaholism. Workaholism, defined as an individual trait that compels people to work not because of external demands but due to an internal pressure which leads to distress or guilt about not working (Spence and Robbins 1992), has been characterized as a vulnerability of meaningful work (Duffy and Dik 2013). This is particularly important to be examined now, as work from home can be particularly problematic for workaholics, who have the tendency to not only work long hours, but also to ruminate longer about their job and can struggle to detach

psychologically from work (Brummelhuis and Rothbard 2018). Psychological detachment from work during non-working moments is, however, an important prerequisite for relief from job stress and burnout (Etzion et al. 1998). Research shows that workaholics find it difficult to disengage attention and effort or fail to terminate them (Carver and Scheier 1996). Meaningful work, therefore, might lead to unhealthy levels of investment at work. Indeed, the ‘dark side’ of meaningfulness has been reported mainly in papers studying individuals in professions commonly associated with excessively high levels of meaning, such as nurses (Sherman 2004), sustainability practitioners (Mitra and Buzzanell 2017), teachers (Serow 1994), social entrepreneurs (Dempsey and Sanders 2010), and animal shelter workers (Schabram and Maitlis 2017). On the grounds of enrichment theory (Powell and Greenhaus 2006) and the phenomenon of ego depletion (Muraven and Baumeister 2000), we suggest that for low levels of workaholism perceived meaningfulness of work can ‘create’ resources and thus has positive impact for the individuals. On the contrary, in the case of individuals who experience high-levels of workaholism, high-levels of perceived meaningfulness of work can lead to ‘depletion’ of resources and in turn have negative results for the individual.

Figure 1 portrays our framework graphically for two distinct dependent variables, those of *work-life balance* and *job stress*. While meaningful work has been documented to have a wide range of effects on the individual, for our hypotheses we decided to focus on these two dependent variables because a) we wanted to test our hypotheses in one positive (work-life balance) and one negative (job stress) outcome, b) we were interested in variables that have been documented in past literature to be outcomes of both meaningful work (Florian et al. 2019; Cartwright and Holmes 2006) and also workaholism (Aziz and Cunningham 2008) an important boundary condition for our model, and c) finally, work-life-balance and job stress were viewed as the most relevant outcomes of employees working from home during the

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COVID-19 pandemic (Dima et al. 2021; Hjálmsdóttir and Bjarnadóttir 2021). Arguably, the direction of the hypothesized relationships could be the opposite so that work-life balance and job stress lead to perceived meaningful work but as the main scope of this study is to explore the potential outcomes of “too much” meaningfulness, we adopt the approach followed by previous studies (for a review, see Allan et al. 2019; Bailey et al. 2018) in hypothesizing a direct effect of meaningfulness on the chosen variables and not vice versa.

Our conceptualization of the effect of meaningful work as non-linear along with the moderating role of workaholism, stands to make several contributions to current discourse. Firstly, we challenge the prevailing notion that it is unconditionally beneficial to pursue a meaningful job (Steger et al. 2012). While we are not the first to suggest a negative side to meaningfulness, we are among the very few papers that offer empirical and quantitative evidence for this and we are the first, to the best of our knowledge, to suggest a more nuanced, non-linear relationship between meaningful work and employee outcomes, an argument which might help explain previously published contradicting results (Allan et al. 2016; 2018). We expand, therefore, current theory by offering empirical evidence for the “paradox” of meaningful work, whereby the pursuit of meaningfulness to satisfy individuals’ inner needs can draw them towards harmful outcomes (Bailey et al. 2019). Further, our addition of workaholism as a key moderator in this relationship helps also deepen understanding of job-related stress, while the context of the study, which focuses on employees working from home during the pandemic can be useful to explore issues around reconceptualization of work and workplaces in an inclusively meaningful way. We also make a significant contribution to the research on enrichment theory (Powell and Greenhaus 2006) and the phenomenon of ego depletion (Muraven et al. 1998) as we reconcile these two seemingly contradicting theoretical perspectives by demonstrating that

under different levels of experienced meaningful work, each perspective becomes more prominent and influences work-life balance and job stress.

Finally, our study addresses recent and increasing calls to develop research that: explores how human resource development can contribute to meaningful work (Thory 2016); examines well-being variables beyond satisfaction, such as job-related stress (Duffy et al. 2016); and studies how individuals' perception of meaningful work has been (and is being) influenced by the COVID-19 pandemic and in the context of work-from-anywhere as a conceptualization of the future of work (Kramer and Kramer 2020). Overall, our findings bridge emerging, yet diverse, literatures on meaningful work (Lysova et al. 2019), workaholism (Clark et al. 2016), and work from home – especially in the context of the COVID-19 pandemic (Chadee, Ren and Tang 2021) which is redefining the future of work (Georgiadou et al.,2022) and, in so doing, advance theory in all realms. Practically, our findings may provide useful guidance for organizations that are morally (and otherwise) interested in facilitating meaningfulness in their employees' work without burdening them with its negative effects.

Literature Review and Hypotheses Development

Discussion on meaningful work is complicated by a conceptual ambiguity around the topic and a debate about how to best define and measure it. Both-Nwabuwe et al. (2017)'s review identified 14 unique definitions for meaningful work, most of which however, stressed the positive significance or purpose of meaningful work and its subjective nature, suggesting it is a psychological construct resulting from how employees perceive the characteristics of their jobs (Aquinis and Glavas 2019). Additionally, we agree that it is a sensemaking activity that answers the question “why am I here” (Pratt and Ashford 2003 p.311) and should be differentiated from work that simply makes us feel good (Cheney et al. 2008 p.144),

highlighting its eudaimonic (growth- or purpose-oriented) rather than hedonic (pleasure-oriented) focus (Steger et al. 2012). Finally, we adopt the view that meaningful work is socially constructed (Pratt and Ashford 2003). From this perspective, employees are not just “passive recipients of their work environments” (Rosso et al. 2020, p.117) but agents that can craft and create work meaningfulness (Müller et al 2019) by interacting with significant others, such as co-workers, family members, customers, or other recipients of the outcome of their work (Wrzesniewski, Dutton, and Debebe 2003; Vuori, San, and Kira 2012).

Our conceptualisation of meaningful work aims to help define, measure, and differentiate it from the theoretically similar constructs of life meaning, intrinsic motivations, work engagement, or answering a calling (Lips-Wiersma and Wright 2012). Calling especially is the most closely related concept to meaningful work (Lysova et al. 2019) as it refers to work individuals feel compelled to do and that is meaningful and serves a higher purpose (Dik and Duffy 2009). While calling falls under the umbrella of meaningful work with similar outcomes for the individual (Steger et al. 2012) it is distinct in that it implicitly downplays the importance of context (Pratt and Ashford 2003). If one believes they are answering their calling via their work, they are likely to disregard other key aspects that influence meaningfulness such as opportunities to make a difference and grow, or the work culture, context, and outcomes. While calling and meaningful work are strongly and positively correlated and often used interchangeably, and while we agree that “research on callings [is] a central perspective to examine meaningful work” (Lepisto and Pratt 2017, p.101) in our review of the literature we treat callings as only a subset of meaningful work.

Within management research, specifically, scholarly attention on meaningful work has been fuelled, in part, by the realization that it can have positive outcomes for individuals and

organizations. Deriving purpose and meaning from work, for example, can lead to important personal and wellbeing related positive outcomes, such as increased happiness and feelings of self-accomplishment (Pavlish and Hunt 2012), reduced work exhaustion (Fairlie 2011), depression (Allan et al. 2016), and stress and anxiety (Daniel 2015). Perceived meaningfulness has been linked to important work-related employee attitudes, such as employee engagement (Steger et al. 2012), motivation (Johns et al. 1992), and job satisfaction (Duffy et al. 2012). As Bailey et al. (2019) conclude, many theories have been used to understand the relationship between meaningful work and positive individual outcomes. Johnson and Jiang (2017), for instance, showed that meaningful work is a mechanism for work-to-life enrichment by providing a sense of purpose and identity, and a clearer understanding of one's role at work and, in general, the society.

Theoretical rationale for a positive impact of meaningful work may be found in enrichment theory (Powell and Greenhaus 2006). Enrichment refers to “the extent to which experiences in one role improve the quality of life in the other role” (Greenhaus and Powell 2006, p. 73). Greenhaus and Powell (2006) theorized that engaging in one life role (e.g., work) can enable an individual to generate important resources, such as psychological and physiological resources, social capital, and flexibility, which, in turn, can be useful in improving one's performance and satisfaction in another life role (e.g., family). This enrichment process can occur via two routes: a) the instrumental route, which suggests a direct transfer of resources from one role to another and b) the affective route, which suggests that positive affect stemming from engagement in one role is transferred to another role (Carlson et al. 2006; Greenhaus and Powell 2006; Maertz and Boyar 2011). Research on the job characteristics model proposes and supports the notion that engaging in meaningful work enhances the likelihood that employees will experience higher levels of positive affect (Allan et al. 2019; Chalofsky 2003; Hackman

and Oldham 1976; Oldham and Hackman 2010). On the basis of Greenhaus and Powell's (2006) enrichment model, this positive affect can be either viewed as a psychological resource that is transferred from the work domain to other life domains (instrumental route) or as directly impacting one's motivation to engage with other domains of life (affective route) and, ultimately, enhancing the perceived levels of work-life balance.

It is, therefore, reasonable to hypothesize that individuals who perceive their work to be more meaningful, will view their work and non-work lives as being more balanced:

H1: Meaningful work will be positively associated with work life balance

Similarly, it can be argued that the resources generated due to engaging in meaningful work not only influence an employee's ability and motivation to engage in their non-work life domains, as enrichment theory suggests, but can also be "re-invested" back in the employee's work domain. Specifically, employees who derive meaning from their work are more likely to experience higher positive affect (e.g., Allan et al. 2019) which enhances their motivation to engage further with their meaningful work and, thus, creates a virtuous circle. This meaning and positive affect are, ultimately, likely to reduce the experience job stress. As Folkman and Moskowitz (2007) highlight, events or situations (in our case meaningful work) that generate positive affect, contribute to the creation or strengthening of one's personal resources, and ultimately help individuals experience lower levels of stress or be able to better cope with stress. This aligns with research findings that show, for instance, that meaningful work is linked to decreased burnout and stress (Greco et al. 2006; Isaksen 2000). Therefore, we postulate that:

H2: Meaningful work will be negatively associated with job stress

However, a more nuanced picture is painted when the negative implications of meaningfulness are taken into consideration. Meaningful work is defined as work; "particularly significant and

holding more *positive* meaning for individuals” (Rosso et al. 2010, p.95, emphasis added), suggesting that it is inherently beneficial for all and is positioned as positive in “valence” (Steger et al. 2012). Perhaps this explains why researchers often hold the underlying assumption that meaningful work is always “a good thing” (Michaelson et al. 2014), and why relevant scholarship has been described as suffering from a positive bias (Mitra and Buzzanell 2017), with researchers only recently focusing on the negative aspects of meaningfulness. Dobrow and Tosti-Kharas’ (2012) survey, for instance, found that people with a strong calling (i.e., meaningful passion) towards their profession were more likely to ignore negative career advice from mentors and show less adaptability in their work. Another disadvantage of meaningful work, exemplified in Bunderson and Thompson’s (2009) study, relates to individuals’ self-identification through their work. Specifically, employees who found their work to be deeply meaningful were more likely to identify with their work, but also felt that employers took advantage of their passion, as they were willing to make more sacrifices, get paid less, and do physically demanding and dangerous work. Similarly, when social entrepreneurs (Dempsey and Sanders 2010) and animal shelter workers (Schabram and Maitlis 2017) are involved in meaningful jobs, are found to be more likely to engage in self-sacrifice and underpaid labor.

Most of the studies that report negative consequences of work meaningfulness explore meaningfulness in contexts that involve excessive meaning and a great level of passion for one’s profession, such as the arts and music (Dobrow and Tosti-Kharas 2012); working to protect animals (Bunderson and Thompson 2009; Schabram and Maitlis 2017); people (Sherman 2004; Florian et al. 2019); or the environment (Mitra and Buzzanell 2017). In such contexts, negative implications are more likely to occur due to the excessive levels of meaningfulness these jobs have for such workers and for people who prioritize their work over

other aspects of their life, potentially depleting their limited resources. Contrary to enrichment theory that focuses on the expansion of one's resources (Greenhaus and Powell 2006), the basic tenet of the phenomenon of ego depletion is that individuals have only limited mental capacity and as they utilize resources in an effort to volitionally control their thoughts, emotions, and behaviors during their participation in one role/task, ultimately, they deplete their energy and resources and, subsequently, they are unable to self-regulate in other roles/tasks (Baumeister et al. 1998). Taking this together with most of the research that suggests many positive outcomes for meaningfulness, we conclude that while finding a universally negative relationship between meaningfulness and job outcomes is highly unlikely, a non-linear (e.g., inverted U-shaped relationship) one is possible.

We further argue that post-COVID-19 working conditions and increased remote working will change employees' perceptions of meaningfulness (Akkermans et al. 2020) which, in turn, will heighten the negative consequences of meaningfulness across all professions. This is because potentially problematic outcomes of a meaningful work context, such as self-sacrifice, inability to place boundaries between work and non-work life, and high levels of work involvement, can also be caused by individual characteristics and tendencies such as workaholism (Clark et al. 2016). In fact, Dempsey and Sanders (2010) discuss the negative impacts of promoting the notion of meaningful work on individuals' employees' work-life-balance, health, well-being, as it often results in extreme self-sacrifice and precarious work in the expense of healthy social reproduction. It is reasonable to assume, therefore, that combining the individual characteristic of workaholism and a work context of really high levels of meaningfulness may lead to problematic outcomes.

Based on the above discussion, we argue that whether an individual suffers or not from the negative impact of excessive levels of meaningfulness will depend on their individual tendency towards workaholism, especially when remote working. Workaholism is an obsession, an addiction to work, evidenced by long working days, excessive and compulsive work involvement, and loss of self-control (Clark et al. 2016; Ng et al. 2007). Previous research has explored and proved the moderating role of workaholism on the relationship between positive working experiences and employees' well-being (Gordon 2021). Workaholics work a lot and often bring their work home with them, not due to external pressures (e.g., from supervisors), but because they are compelled to do so; if they do not, emotions of guilt and anxiety occur (Dalla Rosa and Vianello 2020). Most recent studies suggest that workaholism is a negative attribute linked to job stress, work-life imbalance and diminished job satisfaction (Clark et al. 2016). However, some studies suggest the opposite outcomes. For example, Ng et al. (2007) argue that theoretically workaholism might increase job satisfaction - if workaholics feel guilty when they are not working, they should be happier when at work. Empirically, a few researchers report that workaholism is actually positively related to job satisfaction and organizational commitment (Burke et al. 2004; Schaufeli et al. 2008).

One central characteristic of workaholism is that excessive investment in work occurs because of an internal addiction, not because of a passion for the work itself (Snir and Harpaz 2012). Workaholics work compulsively and unnecessarily hard, but do not necessarily love what they do (Graves et al. 2012). In contrast, people who find their job meaningful, derive enjoyment, pleasure, a sense of purpose, and self-actualization (Lepisto and Pratt 2017). It seems likely, therefore, that for workaholics, a small increase in meaningfulness will lead to positive outcomes by removing some of the associated guilt and suffering from their obsessive working via adding a sense of purpose and a source of satisfaction to their

compulsive behaviour. Further, on the basis of enrichment theory, engaging with meaningful work can generate additional resources for employees. In the case of workaholics, that have the natural tendency to devote more time engaging with their work demands, these additional resources might give them the necessary energy and tools to engage with their other non-work life domains. Given that work-life balance is subjective and depends highly on an individual's priorities and values (Haar et al. 2014), it can be argued that for workaholics a small increase in meaningfulness can also increase their perceived levels of work-life balance because they are following their priorities (prioritizing work over other aspects of life), while simultaneously gaining more resources for dealing with the demands of their non-work roles.

However, further increases in meaningfulness might become problematic as individuals may rationalize unhealthy levels of investment in work as “necessary or even praiseworthy, given the societal and/or personal value of what they are trying to accomplish” (Duffy et al. 2018, p.430). Taken together, these suggestions lead us to argue that workaholism has a moderating effect on the relationship between job meaningfulness and its outcomes, in that it will alter the nature and/or the magnitude of this relationship. The main tenet of this paper is, therefore, the following: ***For workaholics, increased meaningfulness will have a non-linear effect on job related outcomes such that the relationship will be positive up to a certain point and then start to decrease.*** We expect the relationship to be positive and linear for non-workaholics.

To test our main research question, we hypothesize and explore a non-linear relationship between meaningful work from home in workaholics and two dependent variables, those of *work-life balance*, and *job stress*. Previous studies report that workaholics are overly attached to their jobs so that they are less concerned with and more willing to make sacrifices for non-work domains, such as time with friends and family (Schaufeli et al. 2008); they also

experience greater work-life conflict (Clark et al. 2016). Job meaningfulness can mediate some of these effects. For example, when significant others value the individuals' work as meaningful, it can lead to an emotional connection and work-life enrichment (Oelberger 2019). However, in the context of working from home, where boundaries between the work life and home life are more difficult to enforce, increasingly higher levels of meaningfulness might become detrimental for individuals' work-life balance, especially when organizations do not acknowledge their moral obligation to prioritize the establishment of such conditions for employees that aim to safeguard this balance. The theoretical backdrop of this argument stems from the concept of self-regulation failure (Baumeister et al. 1994), which suggests that when individuals are engaged in activities important to themselves or to others, they find it difficult to disengage attention and effort or fail to terminate them (Carver and Scheier 1996). Therefore, individuals will be less able to limit job demands during the working day and undertake non-work activities, self-reflect, or offer emotional and instrumental support to their significant others

Taken together, these arguments lead to the following hypotheses:

H3: For individuals with a low workaholism score, perceived meaningfulness of work will have a linear, positive effect on work-life balance.

H4: For individuals with a high workaholism score, perceived meaningfulness of work will have a non-linear effect on work-life balance.

Similarly, we predict that for workaholics working from home, an increase in meaningfulness at low levels will help alleviate job stress; however, a further increase might reduce this positive effect. Job-related stress arises from an imbalance of perceived requirements and the individual's ability to satisfy these demands (Linder 2020). Workaholics often set unreasonably

high demands and expectations for themselves (Porter 1996) and are therefore very likely to suffer from job stress (Clark et al. 2016). If, however, the work is perceived as meaningful, individuals' need for self-integration and self-actualization are better satisfied and job-related stress is diminished (Treadgold 1997). It should be noted that other studies have failed to confirm that meaningfulness reduces stress and have concluded that it does so only when the job is perceived as both meaningful and satisfactory (Allan et al. 2016), and when the employees fully use their skills and abilities (Allan et al. 2018).

A potential explanation for the mixed findings on meaningfulness and job stress may be found in our conceptualization of 'too much meaningfulness' and is related to the fact that meaningful work consumes employees' time, energy and attention, especially for workaholics. Firstly, meaningful work requires emotional engagement (May et al. 2014), which can lead to emotional exhaustion and burnout (Cheung and Tang 2007), especially if combined with workaholics' constant rumination and reduced opportunities to unwind and cognitively switch off (Spence and Robbins 1992). Secondly, people who perceive their work as meaningful are more engaged, constantly driven to undertake more projects, and often unsatisfied with what they achieve (Hirschi 2011), which leads them to have excessively high standards for their assigned tasks (Ashforth 2000). Higher expectations for self and others can create stress, non-delegation (Spence and Robbins 1992), and diminished pleasure from work relationships. Bunderson and Thompson (2009) have suggested that meaningful work is associated with; "heightened expectations about management's moral duty related to the work" (p.52), adding further stress on the individual. Thus, workaholics who are also engaged in excessively meaningful work might suffer from increased work intensity and emotional exhaustion, boosted by their combined individual traits (workaholism) and situational characteristics (meaningful work). Based on this conclusion, we postulate that:

H5: For individuals with a low workaholism score, perceived meaningfulness of work will have a linear, negative effect on job stress.

H6: For individuals with a high workaholism score, perceived meaningfulness of work will have a non-linear effect on job stress.

Methods

Sample and Procedure

We collected data from 243 full-time employees working from home during the COVID-19 Pandemic (July 2020). They were all working in the US and were employed across a range of diverse industries, organizations, and hierarchical levels. All participants were recruited via the Prolific online panel and were paid, on average, \$5 for completing the survey at two points in time, a week apart. All participants completed the two questionnaires anonymously. Following other cross-sectional studies using online panels for data collection (e.g., Gabeza-Garcia et al. 2018), we used data from only one site, in this case Prolific.com, to ensure homogeneity of the sample. We used the following criteria for inclusion in the study: US nationality; full time employment status; and daily working from home due to COVID-19 when rarely working from home before (less than one day per week). We also used three attention check questions to ensure high quality data and excluded from the analysis thirteen respondents who failed them. The majority of respondents were female (N = 137; 56%), with at least one child leaving in the same household (N = 140, 58%), educated at least at college level (N= 153, 63%), had a mean age of 37 (SD = 10.5) and an average tenure in their current company of 6.8 years (SD = 6.2). They work for a range of for profit (N = 156; 61%) and non-profit (N = 36; 14%) companies, or for the local/ federal government (N = 48; 19%).

Measures

All variables were assessed using a seven-point Likert type scale, ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Perceived meaningfulness of work, workaholism and demographic variables were assessed at time one. Job related stress and work-life balance were measured one week later to minimize concerns about common-method bias. The seven-day gap was considered an appropriate balance between allowing sufficient time for respondents to forget the first questionnaire and the risk of introducing cofounds with a larger time gap (Podsakoff et al. 2012).

We recognize that perceived meaningfulness of work is a complicated construct, so to measure it we followed recent recommendations (Lips-Wiersma et al. 2020) and employed the ten-item Work and Meaning Inventory (WAMI) scale developed by Steger et al. (2012). This is the “most widely adopted measure of meaningful work” (Bailey et al. 2018 p.91) and recommended “for studies aiming to examine the relations between the experience of meaningful work and certain antecedents or outcomes” (Both-Nwabuwe et al. 2017 p.12). Sample items include “I have discovered work that has a satisfying purpose”, “I have found a meaningful career”, “I view my work as contributing to my personal growth” and “I know my work makes a positive difference in the world”.

Workaholism was assessed by five items from the workaholism scale developed by Goldberg et al. (2006). Sample items include: “I am a workaholic, with little time for fun or pleasure” and “I have noticed that I put my work ahead of too many other things”.

Work-life balance was assessed using Brough et al.'s (2014) four-item scale. Two sample items from the four-item scale include: “I feel that the balance between my work demands, and non-

work activities is currently about right” and the reverse-coded: “I have difficulty balancing my work and non-work activities”.

We measured job stress using six items adapted from Parker and DeCotiis’ (1983) scale. Sample items include: “My job gets to me more than it should” and “I have too much work and too little time to do it in”.

Analysis and Findings

Validity, reliability, and common method variance tests

To test the unidimensionality, reliability, and discriminant and convergent validity of all scales we employed confirmatory factor analysis (CFA) using EQS 6.2 ($X^2=621.54$, $df=246$, $p<0.001$, $CFI=0.918$, $TLI=0.908$, $RMSEA=0.079$) and calculated the relevant reliability and validity coefficients (Table 1). All scales were found to be unidimensional, as the loadings of all items to the pertinent factors were above 0.6. The reliability and validity tests revealed that all CR and Cronbach alpha coefficients higher than 0.8 and all Average Variance Extracted (AVE) indices higher than 0.5 and higher than the maximum squared correlation between constructs (Nunnally 1978; Fornell and Larcker 1981). These results indicate that all scales are reliable and valid, appropriate therefore to use in further statistical analysis. Subsequently, the aggregated scores for each scale were calculated using the arithmetic means. Table 1 depicts the descriptive statistics of the aggregated scores, as well as the values of the kurtosis and asymmetry coefficients, which were between -1 and 1 for all variables. This indicates that the summative variables can be considered to follow a normal distribution in approximation.

Finally, because our data were collected from a single sampling unit (Podsakoff et al. 2012), we tested all variables for common method bias. This was done following two different

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procedures. Firstly, we calculated partial correlations of all variables using a conceptually unrelated construct as a control variable, namely materialism (Lindell and Whitney 2001). As shown in Table 2, all partial correlations were very similar to the correlations without the control variable. Moreover, we carried out Harman's test, in other words we tested whether a single factor model fitted the data. The results do not indicate that significant common method variance exists.

Hypotheses testing

We used inferential statistics to test the validity of hypotheses 1-6, which were developed as a result of an extensive literature review to improve the plausibility of a causal explanation (Bettis et al 2014). Specifically, we employed hierarchical regression analysis, using IBM SPSS 24. In doing so, we estimated nine hierarchical regression models with work-life balance as the dependent variable; three for the whole sample (linear, quadratic and cubic); the equivalent three for the subgroup of participants with low workaholism; and the relevant three for the subgroup of participants who scored highly in the workaholism variable. In all nine models we also included the direct effects of two dichotomous control variables that described a) whether the respondents had children or not and b) whether they had care responsibilities for an elderly person. One in ten employees in the US and Europe has caregiving responsibilities for an elderly family member and a flexible work environment including work from home has positive outcomes for the employee (Braingbridge and Townsend 2020). Similarly, having children while working from home especially during the Covid-19 pandemic can affect employees job stress (Lee et al. 2021) and work-life balance (Hjálmsdóttir and Bjarnadóttir 2021). We wanted, therefore, to ensure that their potential influence did not affect our predicted hypotheses.

Moreover, following previous relevant studies (Miao et al 2013; Kostopoulos 2019), in order to test the moderating effect of workaholism: we split the sample in two groups, namely individuals with low to moderate workaholism and those with high workaholism. For the sample separation we used a median split process (median workaholism: 3.2) (Iacobucci et al 2015). Subsequently, for each of the three groups (full sample, low workaholism and high workaholism) we compared the three hierarchical regression models (linear, quadratic and cubic) using the following criteria: i) the significance of the regression coefficients; ii) the improvement of the model's goodness of fit (R^2 and F change); and iii) the relative economy of the models, i.e. the trade-off between improvement of goodness of fit and increase in model complexity using the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC) (Burnham and Anderson 2004). As expected, we only used the third criterion if the more complicated models (with more variables) had not already been rejected following criteria (i) and (ii). Although we expect to detect high multicollinearity in the higher order models, as suggested in the literature, the multicollinearity derives from the polynomial terms and not from high correlations between different independent variables (Cohen, Cohen, West, & Aiken 2003). The interpretation of the results, therefore, can be considered credible.

Work-Life Balance

As shown in Table 3, for the full sample, the only regression coefficient that was found to be significant is that of the linear effect of meaningfulness, and only for the linear ($p < 0.01$) and the quadratic models ($p < 0.05$). Moreover, there are no significant differences in the goodness of fit all three models ($R^2_{\text{linear}} = 0.068$, $R^2_{\text{quadratic}} = 0.074$, $R^2_{\text{cubic}} = 0.074$, $F_{\text{change-quadratic}} = 1.596$ $p > 0.05$, $F_{\text{change-cubic}} = 0.011$ $p > 0.05$). These results indicate that the most suitable model is the linear one and that meaningfulness has a significant positive influence on work-life balance (Figure 2). H1 is therefore accepted.

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For the low workaholism group, the results are similar. Specifically, the only regression coefficient that was found to be significant is the linear effect of meaningfulness and only for the linear model ($p < 0.01$). Furthermore, in this case too, the goodness of fit of the model was not significantly improved after the addition of the quadratic and cubic terms ($R^2_{\text{linear}} = 0.189$, $R^2_{\text{quadratic}} = 0.190$, $R^2_{\text{cubic}} = 0.204$, $F_{\text{change-quadratic}} = 0.054$ $p > 0.05$, $F_{\text{change-cubic}} = 2.054$ $p > 0.05$). The preferable model, therefore, is the linear one (Figure 2) confirming hypothesis 3.

For the high workaholism group on the other hand, the results reveal a different pattern. The regression coefficient for the linear effect is significant for both the linear ($p < 0.05$) and the quadratic models ($p < 0.05$), whereas for the latter, the quadratic effect was also found to be significant ($p < 0.05$). No coefficient was found to be significant for the cubic model, which indicates that this is clearly not the most suitable model. Comparing the two remaining models in terms of their goodness of fit, there is a significant change in the F statistics when the quadratic effect is added ($F_{\text{change-quadratic}} = 4.914$ $p < 0.05$) and a substantial increase in R^2 ($R^2_{\text{linear}} = 0.079$, $R^2_{\text{quadratic}} = 0.116$). Although these results indicate that the best of the three models is probably the quadratic one, it is worth exploring the two model economy criteria to confirm that no unnecessary complexity is added when the quadratic effect is incorporated. Indeed, the values of the AIC and the BIC (or Schwartz) criteria are smaller for the quadratic model than for the linear, indicating that the most appropriate model is the one where the impact of meaningfulness on work-life balance is non-linear and specifically quadratic (Figure 1). H5 is therefore accepted.

Work Stress

Table 4 depicts the results of the nine regression models with work stress as the dependent variable. For the full sample, in all three models (linear, quadratic, cubic) the regression coefficients of all direct effects were not found to be significant ($p > 0.05$). Moreover, for all models, the R^2 coefficient is very low ($R^2_{\text{linear}} = 0.038$, $R^2_{\text{quadratic}} = 0.039$, $R^2_{\text{cubic}} = 0.041$) and

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the F statistic is not significant ($p > 0.05$). These results indicate that the relationship between meaningfulness of work and work stress is not significant for the full sample and therefore H2 is not confirmed.

For the low workaholism group, the regression coefficients of the direct effects were found to be significant for the linear model ($p < 0.05$) and for all effects in the cubic model ($p < 0.05$). The coefficient of the linear and quadratic effect in the quadratic model were not found to be significant ($p > 0.05$). The goodness of fit of the model is only significantly improved when the cubic effect is incorporated ($R^2_{\text{linear}} = 0.118$, $R^2_{\text{quadratic}} = 0.128$, $R^2_{\text{cubic}} = 0.160$, $F_{\text{change-quadratic}} = 1.330$ $p > 0.05$, $F_{\text{change-cubic}} = 4.231$ $p < 0.05$). This suggests that the quadratic model can be rejected, but there is a need to examine the model economy criteria to determine whether the linear or the cubic model should be preferred. As shown in Table 4, the two criteria have contradictory results, that is, according to AIC the preferable model is the cubic one, whilst according to BIC the preferred model is the linear one. Since BIC is considered better for a model with explanatory purpose (Shmueli 2010) we can conclude that for the lower workaholism group the linear model is marginally preferable, confirming hypothesis 4.

The results of the three models for the high workaholism group reveal that the only significant regression coefficients are those for the quadratic and cubic effects in the cubic model ($p < 0.05$). All other beta coefficients were not found to be significant ($p > 0.05$). The goodness of fit of the cubic model is also substantially higher than for the other two ($R^2_{\text{linear}} = 0.118$, $R^2_{\text{quadratic}} = 0.128$, $R^2_{\text{cubic}} = 0.160$, $F_{\text{change-quadratic}} = 1.330$ $p > 0.05$, $F_{\text{change-cubic}} = 4.231$ $p < 0.05$). This means that the cubic model is clearly preferable, confirming hypothesis 6. To sum up, although in the full sample no significant relationship was found to exist between meaningfulness of work and work stress, when we analyze individuals with low workaholism and high workaholism separately, this relationship was indeed found to be negative and significant. For the low workaholism group, the relationship looks like a negative one, whereas

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in the high workaholism group it starts as negative but becomes positive for higher levels of meaningfulness (Figure 3).

Discussion

The findings of our quantitative study shed light on the previously underexamined negative effect of employees' excessive feelings of meaningfulness towards their jobs, especially when working from home. Without rejecting the arguments and findings from previous research that highlight the positive impact of meaningfulness (e.g., Steger et al. 2012, Magrivos et al. 2021), we conclude that at higher levels and for people with workaholic tendencies, meaningfulness can have negative consequences. In our exploration of the relationship between meaningfulness and work-life balance, the results indicate that although for the full sample and for people with low workaholism this relationship is positive and linear, for employees with high levels of workaholism, the relationship is nonlinear, more specifically an inverted-U shaped. This means that when workaholics perceive their job to be meaningful, their work-life balance is improved, but only up to a certain point. After that point, at the higher levels of meaningfulness, its influence on work-life balance decreases and becomes insignificant or even negative. Interestingly, the relationship between meaningfulness and job stress was found to be insignificant for the whole sample.

A more careful examination, however, reveals that this result is not consistent for people with low workaholism and those with high levels of workaholism. Specifically, for employees with low tendencies for workaholism, meaningfulness has a negative linear effect on work stress, indicating that these individuals feel less stressed when their sense of meaningfulness increases. In contrast, for the high workaholism group, the results suggest a nonlinear (cubic) relationship between meaningfulness and job stress. For workaholics, meaningfulness was found to decrease job stress at its lower levels and increase it for higher ones. The different

results for the two groups may help explain why H2 could not be confirmed. Workaholics are compulsive, hard workers; when they perceive their work to be somehow meaningful, their obsessive inner drive to work more, is counterbalanced by the satisfaction stemming from meaningfulness thus reducing their levels of stress. Too much meaningfulness, however, implies a real important task or role or work that needs to be done, which triggers their tendency to invest too much time and effort in perfectionists' work, at the expense of their health, well-being and of course levels of stress.

This study extends current research on meaningfulness in several ways. First, the dominant assumption in the majority of relevant empirical and conceptual studies is that work meaningfulness has a positive impact on both individual and organizational level outcomes such as motivation (Bunderson and Thompson 2009; Steger et al. 2012); organizational commitment (e.g., Jung and Yoon 2016); engagement (e.g., Allan et al. 2019); and general well-being (e.g., Allan et al. 2015). This study adds to the handful of papers discussing the "dark side" of meaningful work, by challenging the notion that work meaningfulness is always positive and, further, by addressing Bailey et al.'s (2019: 489) recent call to identify the "right amount" of meaningful work. Second, by utilizing a sample of working adults in a range of sectors (for-profit, non-profit, and government), industries, organizations, hierarchical levels, and working environments and contexts (i.e., conventional, commonly shared workplaces), we extend previous findings that have mostly focused on "extreme" cases of professions that are universally characterized as meaningful. Third, this study adds workaholism to the scholarly discussion about meaningfulness addressing calls for a more in-depth exploration of potential conditional factors that might influence the relationship between meaningful work and various individual and organizational level outcomes (e.g., Allan et al. 2019).

Fourth, we make a significant contribution to the research on enrichment theory (Powell and Greenhaus 2006) and the phenomenon of ego depletion (Muraven et al. 1998). These two perspectives are seemingly contradictory: enrichment theory suggests that engaging in one life role might help an individual generate important resources for coping with role demands (Greenhaus and Powell 2006; Maertz and Boyar 2011), while the phenomenon of ego depletion suggests engaging in a role (controlling thoughts, emotions, and behaviours) leads to the reduction of resources available to further engage in that role or other life roles (Baumeister et al. 1998). In this paper we reconcile these two perspectives by theoretically and empirically demonstrating that under different levels of experienced meaningful work, each perspective becomes more prominent and influences important outcomes.

Finally, it is also important to consider the context within which this study was conducted. It can be argued that the extent to which individuals perceive high or low levels of work meaningfulness in the context of COVID-19 depends on two factors. First, as Kramer and Kramer (2020, p.1) aptly note, the context of COVID-19 might yield “changes in what is being perceived by society and individuals as “more important work” versus “less important work”” and, therefore, alter employees’ derived levels of meaningful work. Thus, jobs that during the pre-COVID-19 era were viewed by most as relatively low in meaningfulness such as delivery drivers in the midst of the pandemic might be perceived as essential and rather impactful for society. Second, meaning can stem from a sense of belonging (Lips-Wiersma and Morris 2009) and connectedness (Antonacopoulou and Georgiadou 2020). Given the working conditions imposed by COVID-19 on many individuals (working from home), it can be argued that belongingness and, consequently, the meaningfulness derived from the sense of being a member of a work group or an organization, has arguably been threatened. Hence, we contribute to the literature by expanding current discussions on the role of meaning of work

revisiting the definition of and approach to what constitutes the workplace and where work is taking place.

The findings of this study also offer important implications for organizations, managers, and employees. From the perspective of employees, our results emphasize the importance of individuals' choices in terms of occupations and work environments (e.g., working for a for-profit organization versus a non-profit organization). However, the negative outcome of the interaction between high levels of meaningful work and workaholism underscores the importance of developing soft skills that will enable individuals to strike a better balance between their work and non-work lives. Giurge and Bohns (2020), for instance, emphasize that especially in a remote working mode, individuals need to exert effort to develop and maintain physical and temporal boundaries, as well as aiming to set clear priorities. In a similar manner, Batista (2013) underlines that, particularly for workaholics, the ability of employees to set clear boundaries between their work and non-work lives, as well as focusing on self-care, is rather critical.

Much as both individuals and organisations share the burden to develop meaningful careers (Baruch and Vardi 2015), shielding from potential negative effects of 'too much meaningfulness' does not lie solely in the hands of employees. Managers and organisations as a whole can play an instrumental role. The Job Characteristics Model (Hackman and Oldham 1976) suggests that the characteristics of a job can have an impact on perceived meaningfulness. In line with this argument, Allan's (2017) longitudinal study showed that one of Hackman and Oldham's (1976) job characteristics, task significance, predicts perceptions of meaningful work. The role of leadership is also key in deriving meaning from work. A recent qualitative study by Frémeaux and Pavageau (2020), for instance, suggests that when leaders engage in moral exemplarity, offer support to their employees/co-workers, and exert a positive attitude, employees are more likely to perceive higher levels of meaningfulness in their work.

Second, organizations and managers should acknowledge their moral obligation and play a critical role in assisting their employees to develop the soft skills that will enable them to better set boundaries between their work and non-work lives (for example through training), but also implementing practices that ‘force’ workaholics to disengage from their work responsibilities after work hours. For instance, having a policy that the delivery of all work-related emails sent after 5 pm will be delayed until the next morning is an example of such a practice that, essentially, makes ‘unplugging’ mandatory.

The findings of our paper should be qualified by a few limitations that, however, offer directions for future research. We measured all studied variables using subjective measures by the respondent. We followed previous research which suggests that meaningfulness is highly subjective and that using objective measures such as quantifying workaholism by using number of work hours as a proxy, might be misleading (Ng et al. 2007). Despite following all suggestions in previous studies to minimize concerns for common method bias, the validity of our findings is bound by the measures used. Further, we could not account for the fact that meaningfulness is not a fixed property of an individual or job, rather it is a continuous state (Bailey and Madden 2016). Finally, while all hypothesized relationships are conceptualized as causal, our data did not allow for tests of causality. Therefore, the possibility of a reverse-causality or the existence of bi-directional relationships can’t be ruled out. While we believe that our presented conceptual framework is plausible given theory and past research (indicatively, Bailey et al. 2018, Allan et al. 2020), future longitudinal research could examine the flexible nature of meaningfulness and confirm the causality in the relationship between meaningfulness and individual outcomes (Bunderson and Thompson 2009). For example, our findings might be explained via a process where stressed or workaholic individuals change their perceptions of meaningful work to explain their irrational investment in their work.

Another possibility is that meaningful work moderates the relationship between workaholism and job stress/work-life balance. Replication of similar research questions to ours, in different contexts (such as specific industries or countries), work settings (such as working from an office, or hybrid models), and work measures could potentially yield fruitful results.

In conclusion

We attempted to reconcile two different perspectives on meaningfulness; the aspiration by many individuals to bring more meaning in their current work and a handful academics' perspective that there is a 'dark side' to meaningful work. We found that the negative impact of meaningful work is not unique to some professions, but it depends on the characteristics of the individual. By examining the moderating role of workaholism, we conclude that indeed there can be 'too much' meaningfulness and call for further academic attention to the darker side of even the most widely sought out work characteristics.

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Tables and Figures

Table 1: Constructs' Descriptive Statistics, Validity, and Reliability

Constructs	Mean	St Dev	Skewness	Kurtosis	CR	Cronbach's alpha	AVE	Max Corr ²
Meaningfulness of work	4.989	1.219	-0.764	0.353	0.944	0.944	0.655	> 0.052
Work life balance	4.844	1.376	-0.617	-0.331	0.935	0.931	0.872	> 0.617
Job stress	3.217	1.351	0.215	-0.721	0.890	0.887	0.675	> 0.617
Workaholism	3.248	1.356	0.300	-0.678	0.884	0.884	0.605	> 0.414

Table 2: Correlations (below diagonal) and Partial Correlations (above diagonal)

Control Variable:
Materialism

	Meaningfulness of work	Work life balance	Job stress	Workaholism
Meaningfulness of work	1	0.230**	-0.109	0.138*
Work life balance	0.229**	1	-0.786**	-0.533**
Job stress	-0.106	-0.784**	1	0.638**
Workaholism	0.138*	-0.526**	0.644*	1

** Significant at 0.01 level

* Significant at 0.05 level

Table 3: Hierarchical Regression Models for Work-Life Balance

Full Sample						
	Model 1^a		Model 2^b		Model 3^c	
	B	t- value	B	t- value	B	t- value
Linear Effects						
Meaningfulness of work	0.23	3.64**	0.68	1.88*	0.53	0.38
Nonlinear Effects						
Meaningfulness of work ²			-0.46	-1.26	-	0.04
					0.13	
Meaningfulness of work ³					-	-0.11
					0.19	
Control Variables						
Child responsibilities	0.07	1.15	0.07	1.10	0.07	1.10
Elder care responsibilities	-	-1.70	-0.10	-1.50	-	-1.48
	0.11				0.09	
F-change	5.770**		1.596		0.011	
R²	0.068		0.074		0.074	
ΔR²			0.006		0.000	
AIC	145.32		145.69		147.68	
BIC	159.27		163.14		168.61	
Low Workaholism						
	Model 1^a		Model 2^b		Model 3^c	
	B	t- value	B	t- value	B	t- value
Linear Effects						
Meaningfulness of work	0.40	4.71**	0.29	0.63	2.81	1.55
Nonlinear Effects						
Meaningfulness of work ²			0.11	0.23	-	-1.40
					5.64	
Meaningfulness of work ³					3.31	1.43
Control Variables						
Child responsibilities	0.18	2.12	0.18	2.10	0.19	2.22
Elder care responsibilities	-	-1.39	-0.12	-1.35	-	-1.15
	0.12				0.10	
F-change	8.869**		0.054		2.054	
R²	0.189		0.190		0.204	
ΔR²			0.001		0.014	
AIC	19.38		21.32		21.38	
BIC	30.46		35.18		37.81	

High Workaholism

	Model 1 ^a		Model 2 ^b		Model 3 ^c	
	B	t- value	B	t- value	B	t- value
Linear Effects						
Meaningfulness of work	0.20	2.24*	1.35	2.60*	-	-0.83
					1.81	
Nonlinear Effects						
Meaningfulness of work ²			-1.17	-2.22*		0.22
					5.91	
Meaningfulness of work ³					-	-0.14
					4.00	
Control Variables						
Child responsibilities	0.11	1.20	0.09	1.03	0.07	0.74
Elder care responsibilities	-0.17	1.94	-0.14	-1.57	-0.11	-1.21
F-change	3.442*		4.914*		2.236	
R²	0.079		0.116		0.132	
ΔR²			0.037		0.016	
AIC	65.04		62.02		61.70	
BIC	76.32		76.12		78.61	

** Significant at 0.01 level

* Significant at 0.05 level

$$^a Y_i = b_0 + b_1 C_i + b_2 E_i + b_3 X_i + e_i$$

$$^b Y_i = b_0 + b_1 C_i + b_2 E_i + b_3 X_i + b_4 X_i^2$$

$$^c Y_i = b_0 + b_1 C_i + b_2 E_i + b_3 X_i + b_4 X_i^2 + b_5 X_i^3 + e_i$$

Full Sample

	Model 1^a		Model 2^b		Model 3^c	
	B	t- value	B	t- value	B	t- value
Linear Effects						
Meaningfulness of work	-	-1.66		0.21	-	-0.56
	0.11		0.08		0.80	
Nonlinear Effects						
Meaningfulness of work ²			-0.19	-0.50	1.80	0.57
Meaningfulness of work ³					-	-0.63
					1.13	
Control Variables						
Child responsibilities	-	-1.15	-0.07	-1.16	-	1.17
	0.07				0.08	
Elder care responsibilities	-0.15	2.41*	0.16	2.46*	0.16	-
					2.49*	
F-change	3.164*		0.616		0.529	
R²	0.038		0.039		0.041	
ΔR²			0.001		0.001	
AIC	143.83		145.57		147.16	
BIC	157.79		163.02		168.10	

Low Workaholism

	Model 1^a		Model 2^b		Model 3^c	
	B	t- value	B	t- value	B	t- value
Linear Effects						
Meaningfulness of work	-	-2.572*	0.31	0.64	-	-1.92*
	0.24				3.57	
Nonlinear Effects						
Meaningfulness of work ²			-0.56	-1.15	7.87	2.95**
Meaningfulness of work ³					-	2.06*
					4.86	
Control Variables						
Child responsibilities	-	-0.57	-0.05	-0.58		
	0.05					
Elder care responsibilities	0.26	2.96**	0.28			
				3.10**		
F-change	5.065**		1.330		4.231*	
R²	0.118		0.128		0.160	
ΔR²			0.010		0.032	
AIC	12.56		13.18		10.80	
BIC	23.64		27.03		27.42	

High Workaholism

	Model 1 ^a		Model 2 ^b		Model 3 ^c	
	B	t- value	B	t- value	B	t- value
Linear Effects						
Meaningfulness of work	-	1.67	0.31	0.64	-	-1.82
	0.14				3.37	
Nonlinear Effects						
Meaningfulness of work ²			-0.56	-1.15	7.87	-1.98*
Meaningfulness of work ³					-	2.06*
					4.86	
Control Variables						
Child responsibilities	-	-0.59	-0.05	-0.58	-	-0.35
	0.05				0.03	
Elder care responsibilities	0.26	2.96**	0.27	3.10**	0.26	3.00**
F-change	5.065*		1.330		4.231*	
R²	0.118		0.128		0.160	
ΔR²			0.010		0.032	
AIC	12.56		13.18		10.80	
BIC	23.64		27.03		27.42	

Table 4: Hierarchical Regression Models for Job Stress

** *Significant at 0.01 level*

* *Significant at 0.05 level*

$$^a Y_i = b_0 + b_1 C_i + b_2 E_i + b_3 X_i + e_i$$

$$^b Y_i = b_0 + b_1 C_i + b_2 E_i + b_3 X_i + b_4 X_i^2$$

$$^c Y_i = b_0 + b_1 C_i + b_2 E_i + b_3 X_i + b_4 X_i^2 + b_5 X_i^3 + e_i$$

Figure 1: Conceptual Framework

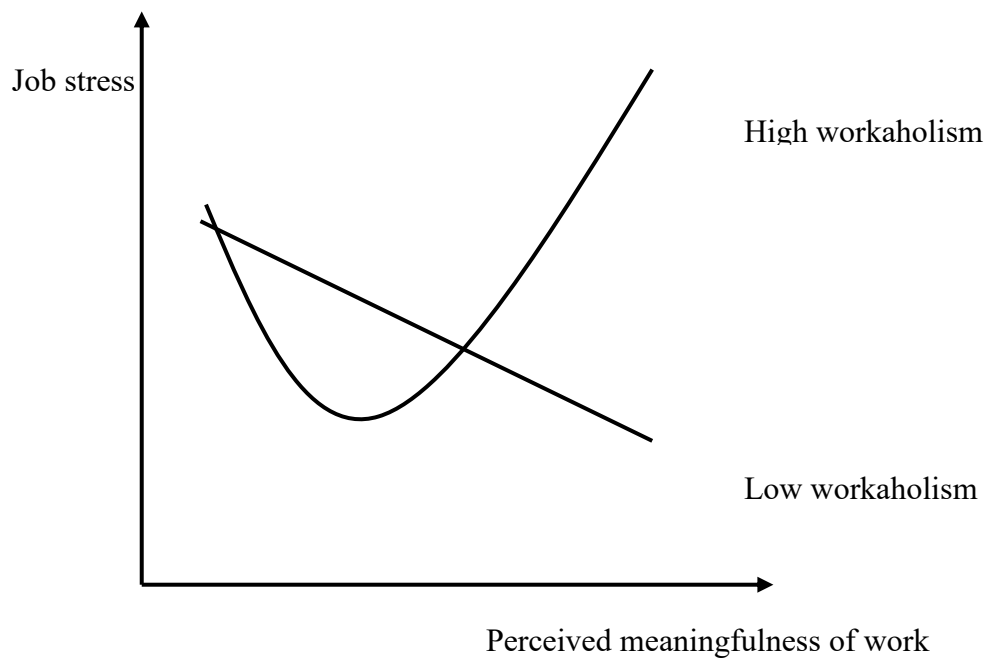
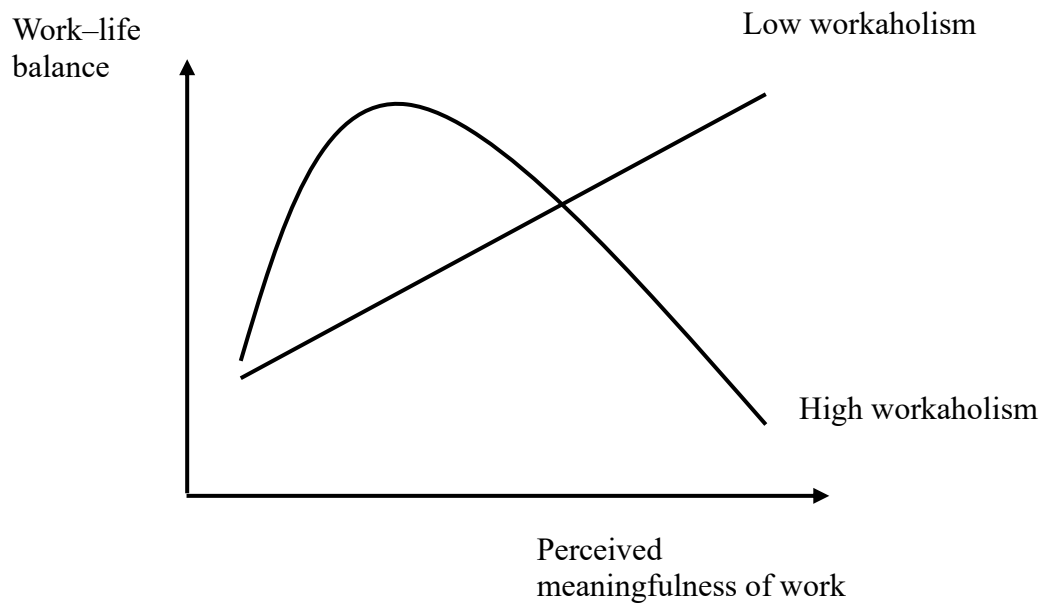
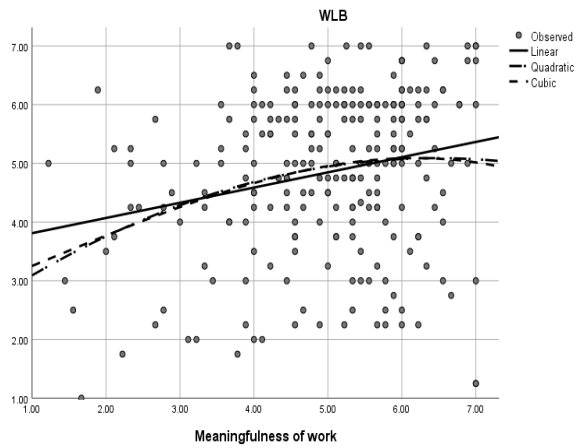


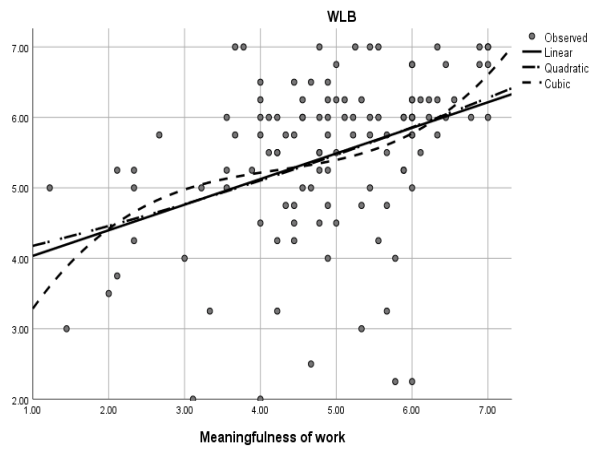
Figure 2: Linear, Quadratic and Cubic Relationships between Meaningfulness and Work-Life

Balance

Full sample



Low workaholism



High workaholism

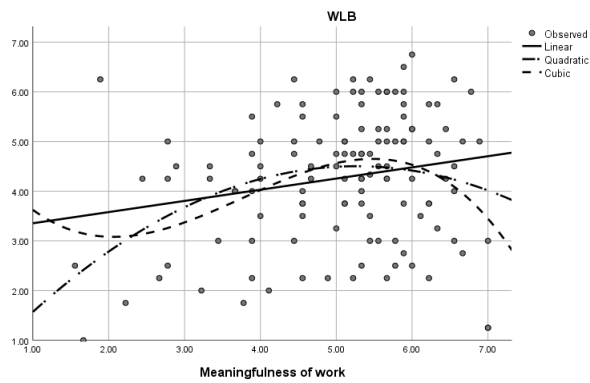
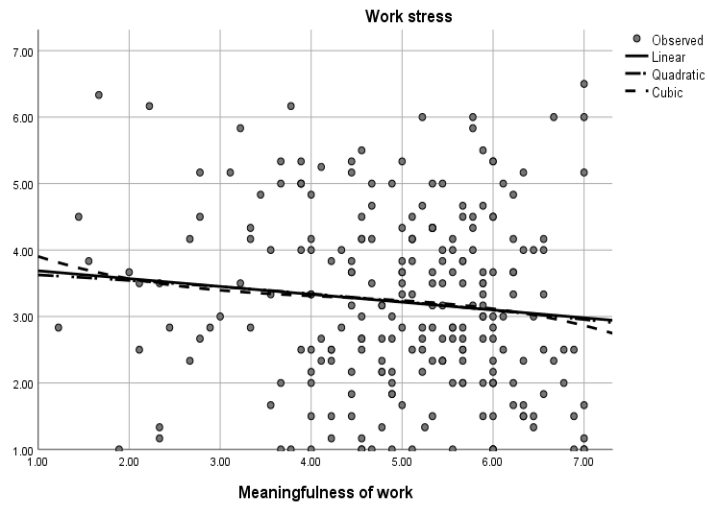
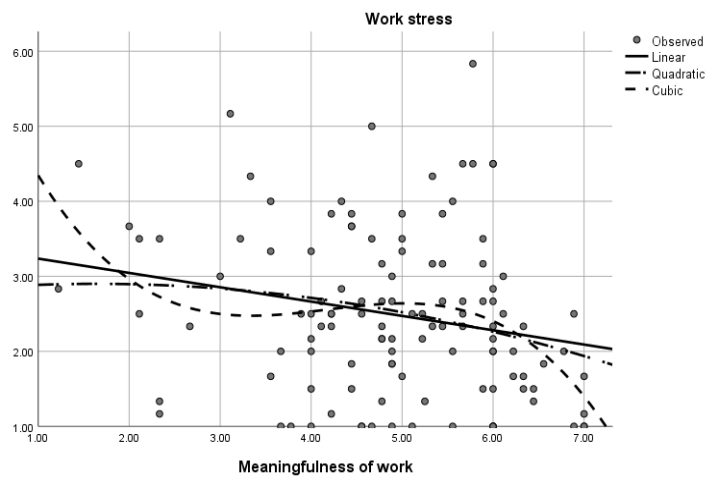


Figure 3: Linear, quadratic and cubic relationships between meaningfulness and work stress

Full sample



Low workaholism



High workaholism

