Self-Employment and Eudaimonic Well-being: The Mediating Role of Problem- and Emotion-Focused Coping

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Abstract

An emerging body of research has documented that self-employed people are more likely to report higher levels of eudaimonic well-being (e.g., autonomy, competence, meaning, etc.) than their employed counterparts. In this paper, we examine why the self-employed perceive their lives as psychologically more fulfilling even though they face more complex and competing occupational demands that can expose them to more stressors. Specifically, we hypothesize that the self-employed are more likely to engage in *problem-focused* coping—productive and proactive behaviors and thoughts aimed to help them overcome challenges (e.g., planning and active coping)—and less likely to engage in emotion-focused coping—behaviors and thoughts to merely make them feel better (e.g., venting and denial)—which, in turn, can promote higher levels of eudaimonic well-being. Using data from waves 2 and 3 of the National Study of Midlife in Development in the United States, we find supportive evidence for our theory. More importantly, we show that the well-being benefits from self-employment accrue almost entirely because the self-employed are more likely to use problem-focused coping as opposed to emotionfocused coping. In a series of robustness tests, including random-effects models, matching estimators, and twin and sibling fixed-effects, we further demonstrate the relevance of coping as a key explanatory mechanism in the relationship between self-employment and eudaimonic wellbeing.

Keywords: Well-being, Self-Employment, Eudaimonic Well-being, Psychological Well-being, Problem-Focused Coping, Emotion-Focused Coping, Structural Equation Modelling

INTRODUCTION

There is a growing interest in well-being as a key outcome of starting and managing a business (Stephan, 2018; Wiklund et al., 2019; Lerman et al., 2020; Stephan et al., 2020). This is because an increasing number of surveys (e.g., Parker, 2019; Shane, 2011) reveal that one of the main reasons why people want to start new business ventures is not the potential for financial gain but because they want "to achieve greater freedom" (Dellot, 2014, p.25) by "escaping the drudgery of working for others" (Nikolova et al., 2022, p. 2). In fact, close to two-thirds of all Americans (Swins, 2018) and over a third of all Europeans (European Commission, 2013) aspire to run their own businesses one day, largely because they believe that being in charge of their destiny can bring them greater personal fulfillment, continued growth, and sustained satisfaction. This suggests that well-being is of utmost importance to most people who want to pursue or are already pursuing entrepreneurship (Wach et al., 2016).

Well-being is a complex construct that reflects "optimal experience and functioning" (Ryan & Deci, 2001, p.141). Research on well-being stems from two main theoretical traditions: (1) the hedonic perspective, which focuses on subjective well-being (SWB) and defines well-being as the presence of positive emotions, absence of negative ones, and positive life evaluations; and (2) the eudaimonic well-being (EWB) perspective, which focuses on self-realization and meaning and defines well-being as the extent to which a person is fully functioning. Prior research in the entrepreneurship literature has mostly focused on hedonic well-being. For example, it is by now well-established that despite working longer hours, earning less,

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¹ Dellot (2014) documents that over three quarters (79%) of founders look for freedom and flexibility most in their personal work, over half (54%) for the chance to use their talents to the full, and 44% for meaningful work. In contrast, only 21% look for high pay and 17% for short working week. The point we are trying to make here is that studying eudaimonic well-being outcomes such as meaning, autonomy, or a sense of personal growth (fulfilling one's talents) are equally, if not more, important outcomes to most entrepreneurs as are some of the most commonly studied outcomes of business performance and success.

and facing greater work demands, the self-employed are more likely to report higher levels of job and life satisfaction (Hamilton, 2000; Hundley, 2001; Binder & Coad, 2013; 2016).

An exciting and promising direction, although surprisingly less common in the literature (Stephan et al., 2020), has been recent research that has started examining the link between self-employment and eudaimonic well-being. This research builds on models of *sustainable* happiness, which suggest that achieving lasting SWB (happiness and life satisfaction) is a *by-product* of a life well-lived (e.g., see Sheldon & Lyubomirsky, 2021; Ryan & Deci, 2001). In other words, engaging in eudaimonic (virtuous, expansive, integrative, growth-promoting) activities helps people satisfy their basic psychological needs, which, in turn, helps them maintain high levels of SWB over time. Indeed, both Nikolaev et al. (2020) and Shir et al. (2019) find that self-employment is associated with higher levels of psychological functioning (e.g., autonomy, competence, positive relations with others), and it is the fulfillment of these basic psychological needs that, in turn, leads to SWB (both hedonic and evaluative). Similarly, Stephan et al. (2020) demonstrate that entrepreneurs experience more meaningfulness and work autonomy (key eudaimonic outcomes), which then drive their sense of subjective vitality (a state of positive energetic activation).

While these papers provide important first insights on the relationship between self-employment and various aspects of EWB (e.g., autonomy, meaning, and competence), and by extension SWB (Shir et al., 2019; Nikolaev et al., 2020; Stephan et al., 2020), we still lack understanding of the psychological mechanisms that drive the link between the two (Ahmed et al., 2022). This is important because engaging in eudaimonic-promoting activities requires the proactive and continuous investment of effort through intentional behaviors. In other words, well-being is "a bicycle tire that needs continued pumping to stay inflated, or a fire that needs

continued fuel to burn brightly" (Lyubomirksy et al., 2021, p. 150). In that sense, it is worth asking *how* self-employed people respond to complex and competing occupational demands in ways that have the potential to *fuel* their optimal psychological functioning.

In this paper, integrating insights from the job control (Karasek, 1979) and coping literature (Lazarus & Folkman, 1984), we propose that self-employment increases eudaimonic well-being (Ryff, 1989) through the mediating role of coping—"the thoughts and behaviors used to manage the internal and external demands of situations that are appraised as stressful" (Folkman and Moskowitz, 2004: p. 745). Specifically, as a self-determined activity characterized by higher levels of job control, self-employment is more likely to lead to appraisals of stressful situations as growth-promoting challenges (Lazarus & Folkman, 1984; LePine et al., 2005). In turn, the self-employed are more likely to engage in *problem-focused* coping—productive and proactive behaviors and thoughts aimed to help them overcome these challenges (e.g., planning and active coping)—and less likely to engage in *emotion-focused* coping—behaviors and thoughts to merely make them feel better (e.g., venting and denial)—which can then promote eudaimonic well-being such as a sense of personal growth and meaning.

Our paper contributes to the entrepreneurship, coping, and well-being literature in three ways. First, while previous studies have examined specific eudaimonic outcomes (e.g., autonomy, meaning, competence), we focus on Ryff's (1989) six-factor model, which more holistically integrates a wider range of eudaimonic outcomes. Thus, we answer recent calls in the literature to focus on "different models of eudaimonic well-being...[to] disentangle diverse eudaimonic processes and outcomes and determine which are most relevant for entrepreneurship" (Stephan et al., 2020, p. 20). This approach also allows us to extend prior research (Shir et al., 2019; Nikolaev et al., 2020; Stephan et al., 2020) by investigating key

eudaimonic outcomes such as personal growth and self-acceptance that have received relatively little attention in the entrepreneurship literature so far.

More importantly, previous studies have documented a positive link between self-employment and the fulfillment of basic psychological needs such as autonomy, competence, or meaning (Shir et al., 2019; Nikolaev et al., 2020; Stephan et al., 2020). In this study, we go a step further by examining why the self-employed perceive their lives as psychologically more fulfilling even though they face more complex and competing occupational demands that can expose them to more stressors (Cardon and Patel, 2015; Reid et al., 2018). To do so, we highlight the importance of two categories of coping strategies—problem- and emotion-focused coping—as a key explanatory psychological mechanism between self-employment and EWB.

Additionally, we test differences in coping and eudaimonic well-being between self-employed and employed supervisors and non-supervisors, complementing recent research that has started examining important boundary conditions of the relationship between EWB and self-employment (Stephan et al., 2020; Nikolova et al., 2022).

Second, our study contributes to the coping literature in entrepreneurship. An emerging stream of research suggests that how entrepreneurs cope with stress can explain differences in performance (Drnovšek et al., 2010; Örtqvist et al., 2007), emotional functioning after business failure (Corner et al., 2017; Byrne & Shepherd, 2015), and, more generally, subjective well-being (Ahmed et al., 2022; Uy et al., 2013). However, virtually all studies in this stream of research focus on the benefits of coping for hedonic well-being among *sub-samples* of entrepreneurs (i.e., explore differences among the self-employed). In this paper, while integrating relevant insights from this line of work, we focus on a very different question—does self-employment, *relative to* wage work, promote more productive coping, which, in turn, can

explain differences in EWB between the employed and self-employed. In doing so, we move the conversation to coping-as-mediator approach (i.e., self-employment *drives* coping) as opposed to the traditionally used coping-as-moderator approach. We further contribute to prior research by examining the unique effect of six distinct coping strategies—planning, positive reinterpretation, active coping, venting, denial, and behavioral disengagement—in a more integrative framework rather than focusing on composite (or single) indicators of coping.

Finally, popular models of well-being suggest that life circumstances account for no more than 10% of the variation in well-being, with genetic factors and intentional behaviors accounting for 50% and 40%, respectively (e.g., Lyubomirsky et al., 2005; Diener et al., 1999). The implication is that studying life circumstances, such as one's occupational choice, might be fruitless if our goal is to ultimately find ways to increase well-being. However, recent criticisms of this popular view suggest that such models assume life circumstances, intentional activities, and genetic factors to be independent of each other (Brown & Rohler, 2020). It is entirely possible that the effect of genes or life circumstances is largely mediated by people's intentional activities (e.g., Lykken 1999). For example, as we argue in this paper, self-employment, as an occupational choice,² can lead to higher levels of well-being through more productive coping strategies (i.e., intentional activities) such as the proactive pursuit of intrinsically valuable life goals that are in accord with one's individual interests, values, and motives (Emmons & King 1988; Sheldon & Kasser, 1995). Thus, our theorizing and findings open the door for further inquiry regarding the role of other life circumstances (e.g., one's socio-economic status, family upbringing, or social support) in facilitating coping and EWB.

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² We note that socio-demographic characteristics such as one's education, income, marital status or occupational choice (e.g., self-employment status) are treated as life circumstances in the well-being literature (e.g., see Lyubomirsky et al., 2005; Brown & Rohler, 2020). Consistent with previous studies, we find that basic socio-demographic characteristics explain less than 10% of the variation in EWB. At the same time, including coping increases the explanatory power of our model over 6 times (from 6.9% to 41.9%, e.g., see Table 4).

We test our mediation model with data from Wave 2 and Wave 3 of the National Study of Midlife in the United States (MIDUS II and III: Ryff et al., 2012), a nationally representative longitudinal survey of Americans aged 25 to 74. We find that people's coping strategies almost entirely mediate the positive effect of self-employment on eudaimonic well-being. Thus, we advance research comparing the well-being of the self-employed and employed by highlighting the role of coping as a key explanatory mechanism.

SELF-EMPLOYMENT, COPING, AND EUDAIMONIC WELL-BEING: AN INTEGRATED FRAMEWORK

In this section, we draw insights from the eudaimonic well-being (Ryff, 1989) and coping (Lazarus, 1966; Lazarus & Folkman, 1984) literature to develop an integrated model of self-employment, coping, and EWB (Figure 1). Our model suggests that the self-employed (relative to wage-workers), due to their greater job control and decision-authority, are more likely to use productive coping strategies (e.g., planning and active coping) and less likely to use passive and covert coping strategies (e.g., venting and denial). In turn, more productive coping strategies promote higher levels of EWB (e.g., personal growth, meaning, mastery).

[Figure 1 around here]

Eudaimonic Well-being

Different theoretical models have been developed to conceptualize eudaimonic well-being (e.g., Huta & Ryan, 2010; Keyes, 2002; Ryan & Deci, 2001; Ryan et al., 2008; Seligman, 2002; Steger et al., 2013). In this paper, we adopt Ryff's (1989) model of eudaimonic well-being, which suggests that well-being is an outcome of personal fulfillment and expressiveness (Waterman et al., 2010), personal development (Erikson, 1959), self-actualization (Maslow, 1968), individuation (Jung, 1933; Von Franz, 1964), and self-determination (Ryan and Deci, 2000), which reflect a fully functioning and optimal life (Rogers, 1962; Ryff, 1989).

Specifically, Ryff's model of eudaimonic well-being focuses on six psychological processes, which together encompass living a fully functioning life: (1) having a deep sense of self-determination and ability to evaluate oneself by personal standards (*autonomy*), (2) shaping the surrounding environment to meet one's personal needs and values (*environmental mastery*), (3) self-realization and the continuous development of personal potential (*personal growth*), (4) developing warm and trusting relationships with others (*positive relations with others*), (5) having meaning, direction, and goals in life that unify one's efforts and challenges (*purpose in life*), and (6) having positive attitudes toward oneself while recognizing one's own limitations (*self-acceptance*).³ Extensive evidence has validated the psychometric properties of the six-dimension model (Ryff, 1989; Ryff & Keyes, 1995) in different cultural and organizational contexts (Ryff, 2014), including self-employment settings (Machiraju, 2020).

Because self-employment starts with the self-determined choice to pursue such a career in the first place, the personal drive to express one's identity through work, and allows opportunities to "shape work in line with one's values, skills and needs" (Stephan et al., 2020, p.2), it is uniquely positioned to benefit people's EWB. In fact, EWB occurs when people's "life activities are deeply congruent or meshing with deeply held values and are holistically or fully engaged" (Ryan & Deci, 2001, p.146). This relates to "purpose-seeking, realization of personal talents and capabilities, and enlightened self-knowledge" (Ryff, 2014, p.10), which often require

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³ Eudaimonic models focus on one of four major categories of analysis—orientations, behaviors, experiences, and functioning. Ryff's (1989) conceptualization of EWB focuses on psychological *functioning*. We note that Ryff's scales of EWB, consistent with her lifespan model of human flourishing, are based on retrospective summary judgements of the six aspects of EWB, in contrast to momentary fluctuations in well-being, and thus reflect "chronic well-being levels" or experiences that are more enduring (e.g., In general, I feel I am in charge of the situation in which I live"). While there is a genetic (trait-based) component to EWB, as there is with hedonic well-being (e.g., see Luybomirsky et al., 2005), the realization of personal potential, which is at the core of EWB, requires planning and active engagement with one's environment. This implies that a set of circumstances, including one's occupational status, as well as intentional activities such as how one chooses to cope with different stressors, is critical to EWB (Baltes & Baltes, 1990; Friedman & Ryff 2012; Ryff, 2013). Indeed, previous studies suggest that one's circumstances such as social-economic or occupational work status are strongly related to EWB (see Ryff, 2014 for a summary).

accomplishing challenging tasks and persevering in the face of adversity. Entrepreneurial activities encompass a high degree of stress, uncertainty, and complex task demands (McMullen & Shepherd, 2006) that have the potential to lead to the realization of personal goals and development as entrepreneurs overcome challenges and barriers (Ryff, 2019; Stephan, 2018; Stephan et al., 2020).

Eudaimonic Well-being among the Self-Employed and Employed

Emerging empirical evidence suggests that self-employment is associated with the fulfillment of basic psychological needs such as autonomy, mastery, personal growth, positive relationships, and meaning (e.g., Shir et al., 2019; Nikolaev et al., 2020; Stephan et al., 2020; Nikolova et al., 2022). Self-employment promotes *autonomy* because it enables people to make decisions that allow them to live in accordance with their own personal convictions and values, independent of others (Baron, 2010; Benz & Frey, 2004; Nikolaev et al., 2020). Unlike most traditional occupations, the self-employed have more freedom to choose the type and substance of their work, utilize their skills as they see fit, and respond to different challenges and stressors in their environment, which can lead to feelings of *environmental mastery* (Blanchflower, 2004; Hessels et al., 2017; Wach et al., 2021; Shir et al., 2019).

The self-employed are also more likely to engage in behaviors and pursue goals they find personally relevant and fulfilling, which allows them to express their identity in a more authentic way—one that is consistent with their strengths, values, and competencies (Nikolova et al., 2022). In turn, they are more likely to form deep identity connections with their work and derive a greater sense of *meaning* from it (Stephan et al., 2020; Nikolaev et al., 2020; Shir et al., 2019).

As a process that entails the development of the founder's vision (Marvel et al., 2020), which is associated with the continuous investment of time, effort, energy, passion, and iterative

learning over time (Carter et al., 1996; Lichtenstein et al., 2007), self-employment can also lead to *personal growth* (Nikolaev et al., 2020). This process can be profoundly fulfilling and lead to a change from uncertain founder identity to authentic founder identity as it enables self-actualization and promotes *self-acceptance* (O'Neil et al., 2022; Nikolaev et al., 2020).

Waged employees, on the other hand, tend to have more narrowly defined, specialized, and structured roles. They are more likely to pursue less personally relevant goals, often organizationally determined, and are constantly evaluated and judged by standards set by others, which can diminish their sense of *autonomy*, *meaning*, *mastery*, *personal growth*, and *self-acceptance* (Grant & Parker, 2009; Wrzesniewski & Dutton, 2001; Nikolaev et al., 2020).

While self-employment can produce feelings of loneliness and isolation (Akande, 1994; Gumpert and Boyd, 1984), especially in the early stages of the venture creation process, it also grants the freedom necessary to cultivate *positive relationships* with others (Forbes et al., 2006; Shepherd & Patzelt, 2017). Ultimately, whether "entrepreneurs choose to work with people who match their values, vision, or personality, they make this choice for themselves, and are thus more likely to invest in and maintain the relationships they form" (Shir et al., 2019, p. 6). In contrast, wage-workers are more likely to abide by the decisions of others and work with people chosen by higher management (Levitt & March, 1988; Simon, 1991). In sum, we expect that: H1: *The self-employed experience greater eudaimonic well-being (autonomy, personal growth, environmental mastery, meaning, positive relations, and self-acceptance) than wage-workers*.

While early research in the entrepreneurship literature has started converging toward a positive relationship between self-employment and eudaimonic well-being, we still lack an understanding of the psychological mechanisms that drive the link between the two. Integrating insights from the job control (Karasek, 1979) and coping literature (Lazarus & Folkman, 1984),

we next propose that self-employment increases eudaimonic well-being because it promotes more productive coping strategies.

Problem- and Emotion-Focused Coping

Individuals evaluate the meaning of potentially challenging situations through an appraisal process that subsequently drives their coping strategies (Lazarus, 1966; 1991a; 1991b; 1993; Lazarus & Folkman, 1984). Coping strategies are more generally expressed as a two-process model of *problem-focused* and *emotion-focused* coping (Lazarus & Folkman, 1984). *Problem-focused coping* is "aimed at managing or altering the problem causing the distress" and typically involves individuals responding by planning, focusing on the next steps, or moving to directly address problems (Lazarus & Folkman, 1984, p. 150). *Emotion-focused coping* is "coping that is directed at regulating emotional responses to the problem" and typically involves individuals attempting to regulate negative emotions by engaging in distracting activities and seeking emotional support (Lazarus & Folkman, 1984, p. 150).

In general, humans are motivated to control the world around them and actively strive to regulate their development (Carver & Scheier, 1982; Heckhausen & Schulz, 1995; Rothbaum et al., 1982). Given a choice, they prefer *problem-focused* coping or shaping the environment to suit their needs and self-defined goals (Lazarus & Folkman, 1984). However, *problem-focused* coping is not always possible, and, in such cases, people often resort to *emotion-focused* coping

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⁴ We note that coping can be classified as either a style (i.e., disposition) or a state. In the context of our study, the MIDUS data collection framed the scales "in terms of what the person *usually* does when under stress" (Carver et al. 1989, p. 270). Thus, our theorizing relates to "coping tendencies…use[d] relatively consistently across a range of situations" as opposed to what a person did "in a specific coping episode" (p. 270). However, it is also important to note that tendencies are *activated* or enabled and thus predict behavior under specific conditions, such as occupational work characteristics (Tett & Burnett, 2003). In other words, while it is popular to assume that high heritability implies low malleability, this is not the case: A trait can be both highly heritable and malleable at the same time" (Brown & Rohrer, 2020, p.1289). For instance, while general intelligence is highly heritable, education reliably increases intelligence (Plomin and Deary, 2015; Ritchie & Tucker-Drob, 2018). Thus, our argument, which is based on extensive support from the coping and job control literatures, suggests that differences in work characteristics—specifically differences in job control (e.g., Lazarus & Folkman, 1984; Spector, 2002)—across occupational workplaces promote different degrees of expression of those tendencies.

(Lazarus & Folkman, 1984). Emotion-focused coping only affects people's *reactions* to the environment; such coping strategies only make individuals feel better about the situation (Spector, 2002).

Job Control and Coping Behavior

The job demand-control model (Karasek, 1979; Theorell & Karasek, 1996) suggests that there are two work characteristics, job demand and job control, that are critical to how people appraise and cope with work stressors. Job demands represent sources of stress in the work environment, such as high workload, time pressure, long working hours, or emotional strain (Bakker et al., 2003). Job control refers to the extent to which individuals are able to influence what happens in their work environment (i.e., decision-authority), especially in the context of pursuing relevant personal goals. Individuals can have control over many aspects of their job—when and where to work, how to perform their work-related tasks, or influence over how others do their jobs. As a result, job control affects people's choice of *coping strategy* (Spector, 2002).

Specifically, work that facilitates job control tends to "lead to constructive coping, whereas ... lack of control is more likely to lead to destructive coping" (Spector, 2002, p. 135). Individuals who perceive control over job stressors are more likely to see the situation as a challenge rather than a threat (Lazarus & Folkman, 1984; LePine et al., 2005). In turn, they are more likely to engage in productive and proactive behaviors and thoughts (*problem-focused* coping) designed to help them overcome the challenge. On the other hand, individuals who feel a lack of control are more likely to engage in covert and passive thoughts and behaviors (*emotion-focused* coping) to manage their feelings, such as avoiding work or venting (Spector, 2002).⁵

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⁵ The JDC model has been used extensively to compare differences in well-being between various occupational groups. More recently, the JDC model has been used to explain differences between the self-employed and employed with respect to their overall health (Stephan & Roesler, 2010) and stress levels (Hessels et al., 2017).

Coping Among the Self-employed and Employed

Compared to wage-workers, the self-employed "can choose the type and content of their work, have freedom over how to organize and schedule their tasks, and have no superiors to answer to" (Stephan, 2018, p.8). Greater degrees of control make the self-employed more likely to assess potential stressors as challenges and opportunities for growth (Lazarus & Folkman, 1984; Spector, 2002). Such perceptions elicit positive affect that promotes approach-oriented coping because of the belief that such coping will facilitate personally valued outcomes (Folkman & Moskowitz, 2000; Khosla, 2006; Lazarus, 1991b). In turn, the self-employed are more likely to leverage *problem-focused* coping, such as *active coping* (I take direct action to get rid of the problem), *planning* (I think about how I might best handle the problem), or *positive reinterpretation and growth* (I try to grow as a result of the experience).

In contrast, wage-workers operate within organizational hierarchies and often lack decision authority. They often rely on existing routines and operating procedures while following orders from higher management (Levitt & March, 1988; Simon, 1991). In turn, less job control is likely to lead to more covert or passive coping strategies such as *behavioral disengagement* (I admit to myself that I can't deal with it, and quit trying), *denial* (I pretend that it hasn't really happened), or *venting* (I get upset and let my emotions out).

For example, if a self-employed person has a conflict with a co-worker, they can exert control over the situation by firing the employee (i.e., *active coping*). At the same time, an

Therefore, the JDC model provides a useful and widely used framework to study occupational differences in coping and well-being.

⁶ Our intention is not to suggest that the self-employed *always* use problem-focused coping nor that wage workers *always* use emotion-focused coping. Rather, the self-employed are more likely to use problem-focused coping *more often*. This theoretical focus fits with our empirical measurement. Still, we note an extensive literature that details the complex mechanisms through which the self-employed self-regulate (Ho & Pollack, 2014; Ivanova et al., 2018; Podoynitsyna et al., 2012; Santos et al., 2020). In brief, the coping process within a given individual over time is in reality a non-linear and iterative process, involving many ups and downs.

employee in a similar situation may feel out of control, resolving to a more emotional and covert response such as complaining to their spouse (i.e., *venting*). Similarly, if a self-employed person needs to take care of a stressful situation outside of work (e.g., taking care of a sick family member), they can rearrange their work schedule to cope with the situation in a more proactive way (e.g., decrease the number of hours worked, work from home or different times of the day) (Hundley, 2001). These options are not always available to organizational employees.⁷

In addition, self-employment starts with the choice to do what one considers worth doing (Stephan et al., 2020). Most self-employed people are deeply passionate about their ventures beyond the potential for financial gain (Cardon et al., 2012) and form deep identity connections with their businesses. Such profound personal significance can promote initiative and lead to planning and proactive coping (take direct action and concentrate efforts on reaching their self-imposed and personally relevant goals) as they pour effort, time, energy, and passion for making the business successful. On the other hand, because wage-workers have more limited responsibility for the success of their organization, they can more easily disengage from their work environments via *emotion-focused* coping (e.g., Blanchflower, 2004; Buttner, 1992). For example, when facing stressors, wage-workers may disengage behaviorally by reducing their effort or by giving up altogether (i.e., Carver et al., 1989; Kling et al., 1997). In sum, we expect that:

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⁷ Previous studies, for instance, show that the self-employed are more likely to work outside of the workplace and have more frequent intervals between spells of work (Hyytinen & Ruuskanen, 2007). In the European Union, most self-employed people can determine their working hours as well as the content and order of their tasks (Nikolova et al., 2022).

⁸ Of course, it is possible that self-employed people experience greater job demands, and, consequently more stress. However, the evidence so far has been mixed, with some studies finding positive, others negative, and some insignificant association between the two (see Hessels et al., 2017 for a summary). However, because the self-employed are more likely to have greater decision-authority, even when facing greater job demands, they are still more likely to evaluate stressors as promoting mastery, personal growth, and future gains, and thus feel challenged (Lazarus & Folkman, 1984; LePine et al., 2005). The perception of challenge, in turn, especially when combined with high degrees of perceived control, evokes positive thoughts and emotions that drive *problem-focused* coping.

H2: The self-employed are more likely to use problem-focused coping (planning, active coping, or positive reinterpretation and growth) and less likely to use emotion-focused coping (denial, behavioral disengagement, or venting) than wage-workers.

Coping and Eudaimonic Well-being

How people choose "to think through, prepare for, and potentially act to alter" current and potential stressors plays a major role in their mental health and well-being (Aspinwall, 2011, p. 334). This is true for any occupational group (not just the self-employed), and hundreds of papers in different contexts suggest that coping is a critical driver of various well-being outcomes—from physical health and positive emotions to the experience of meaning, personal growth, mastery, and self-acceptance (Aspinwall, 2011; Folkman, 2011; Park, 2011).

Along these lines, there are reasons to expect that problem-focused coping will facilitate each element of eudaimonic well-being. First, problem-focused coping is intimately tied to learning across a wide range of occupational contexts (Delahaij & Van Dam, 2016; Eng & Pai, 2015; Engel et al., 2006; Lapina, 2018). This iterative learning process may alleviate feelings of stagnation and help individuals experience *personal growth* and *self-acceptance*. Further, those who use problem-focused coping more frequently over time interact with and learn about their external environment regarding how it may influence them and how they can respond to it. This knowledge facilitates more accurate perceptions of stressors and assists in overcoming them, developing and reinforcing *autonomy* (van Gelderen, 2016) and a sense of *environmental mastery*. Finally, problem-focused coping often involves interacting collaboratively with others in occupational environments, including co-workers, bosses, employees, or others. By working in teams to overcome occupational demands, people develop *relations with others*, and a sense of

At the same time, the employed are more likely to perceive stressors as hindering their mastery, personal growth, and future gains, and thus feel threatened (Lazarus & Folkman, 1984). Particularly, when combined with low degrees of perceived control, the employed are more likely to have negative thoughts and emotions that drive *emotion-focused* coping styles.

belonging that may engender *purpose in life*. In fact, coping can be viewed as a *meaning-making* process that leads to changes known as *meanings made*. Prior studies show that meanings made are most often associated with changes in one's sense of personal growth, global meaning (purpose in life), and self-acceptance (Park, 2011), which are key aspects of EWB.

Conversely, although emotion-focused coping can have positive effects on hedonic well-being (Patzelt & Shepherd, 2011; Uy et al., 2013), overcoming fear of failure (Engel et al., 2021), or coping with failure (Byrne & Shepherd, 2015), it is not necessarily conducive to developing psychological functioning. Disengaging from problems also limits opportunities for the development of *growth* and *environmental mastery*. Along these lines, by not enacting environmental challenges, one becomes more vulnerable to environmental influences, hence reducing *autonomy* (van Gelderen, 2016) and *self-acceptance*. Certain forms of emotion-focused coping (but not all) can also lead to withdrawal from others as opposed to promoting engagement, thus lessening the development of positive *relations with others*. Finally, engagement in goals that are personally meaningful is a core driver of *purpose in life* (Kashdan & McKnight, 2009), and hence disengagement limits this development. Thus, we propose that:

H3: Coping mediates, at least partially, the relationship between self-employment and eudaimonic well-being, such that self-employed people will be more (less) likely to use problem-(emotion-) focused coping, which, in turn, will increase (decrease) their eudaimonic well-being, relative to wage-workers.

METHODS

Data Source

To examine the proposed hypotheses, we used data from Wave 2 and Wave 3 of the National Study of Midlife in the United States (MIDUS II and III; Ryff et al., 2012). MIDUS is

⁹ We use only wave 2 and 3 of the dataset because wave 1 included shortened (3-item) scales of eudaimonic wellbeing that had relatively low reliability. Other key variables such as coping also had limited availability. We also

a nationally representative longitudinal survey of Americans aged 25 to 74 that took place between 2004 to 2006 (Wave 2, n = 4,963) and 2013 to 2014 (wave 3, n = 3,294). After deleting missing observations, we were able to match individuals between waves for a final sample of 6,061 observations. 2,140 individuals appeared in both waves (for a total of 4,280 observations), and 1,781 individuals appeared in only one of the waves, with the vast majority of these observations coming from wave 2 (1529). Overall, close to 2/3 of individuals in our sample appeared in both waves. Data were collected through a 30-minute phone interview followed by two self-reported questionnaires. Participants received monetary compensation ranging from \$20 to \$60. The average age of participants was 55.21 (SD = 12.42) in Wave 2 and 63.64 years (SD = 12.42) in Wave 2 and 83.64 years (SD = 12.42) in Wave 2 and SD = 12.4211.35) in Wave 3. Across all waves, the distribution of gender was relatively even. The typical participant reported having at least 2 years of college, with average incomes ranging from \$55,000 to \$75,000 between waves (cf. Radler, & Ryff, 2010).

Variables and Measures

Table 1 presents summary statistics for all variables used in the study. Table 2 shows a matrix with pairwise correlations. Overall, after eliminating missing observations, 10 our final sample consisted of 6,061 individual-level observations—731 self-employed individuals and 5,330 organizational workers. In additional tests, we also used a sub-sample of 930 twins (465 pairs) and 714 siblings (357 pairs).

[Table 1]

[Table 2]

Eudaimonic Well-being. Consistent with our theoretical framework, eudaimonic well-being (EWB) was assessed using a 42-item version of Ryff's (1989) scale of psychological functioning.

note that the full sample in wave 2 included 2257 main respondents, 733 siblings, 1484 twins, and 489 city oversample respondents.

¹⁰ We only used individuals for whom we had information on all relevant variables (i.e., no missing information on key variables) and we did not impute any data.

The scale consists of six subscales, each one assessed with 7 items. The six subscales (with an example item) are: (1) self-acceptance (e.g., 'In general, I feel confident and positive about myself'), (2) positive relations with others (e.g., 'Maintaining close relationships has been difficult and frustrating for me'), (3) autonomy (e.g., 'My decisions are not usually influenced by what everyone else is doing'), (4) environmental mastery (e.g., 'In general, I feel I am in charge of the situation in which I live'), (5) purpose in life (e.g., 'I have a sense of direction and purpose in life'), and (6) personal growth (e.g., 'I have the sense that I have developed a lot as a person over time'). Each item was scored on a 7-point scale ranging from (1) 'strongly agree' to (7) 'strongly disagree'. Each subscale was created by calculating the sum of each set of 7 items. Some items were reverse-coded so that higher scores reflect higher levels of eudaimonic well-being. The overall EWB index was created as an average of the six subscales.

The eudaimonic well-being scales, which were developed by a multidisciplinary team of scholars, have been translated to more than 35 languages and have been used in more than 750 publications (Ryff, 2019). Extensive psychometric work has tested the reliability, validity, and dimensional structure of Ryff's model (e.g., Ryff, 1989; Ryff & Keyes, 1995; Ryff, 2014). The overall index is a highly reliable measure of eudaimonic well-being (6-week test-retest reliability for the six scales >.8, Ryff, 1989). Each one of the six subscales also has adequate reliability (Cronbach's alpha = .7 - .84).

Self-employment. Self-employment was measured with a dummy variable (taken from the variable A1PB3B), which asked respondents if they were self-employed and coded responses as either yes or no. We recoded the variable as 1 if they answered 'yes' and 0 if they answered 'no' (i.e., self-employed = 1; and employed = 0). In additional analyses, we further compared subsamples of self-employed people who reported supervising and employing others (entrepreneur

supervisors, N=213) with self-employed people who had no employees (solo entrepreneurs, N=232), employed people who supervised others (employed supervisors, N=863), and employed people who didn't have supervisory responsibilities (employed non-supervisors, N=1,132). This allowed us to also explore the well-being benefits of self-employed people who are job creators and have a significantly higher economic impact (Parker, 2009).

Coping Strategies. To measure coping, we used six scales that are part of the COPE Inventory (Carver et al., 1989). Provided Specifically, we used a 12-item scale for problem-focused coping that combined three 4-item subscales measuring (1) positive reinterpretation and growth (e.g., 'I try to grow as a person as a result of the experience'), active coping (e.g., 'I take direct action to get around the problem'), and planning (e.g., 'I try to come up with a strategy about what to do'). We also used a 12-item scale for emotion-focused coping that combined three 4-item subscales for (1) focus on venting of emotion (e.g., 'I get upset and let my emotions out'), denial (e.g., 'I refuse to believe that it has happened'), and behavioral disengagement (e.g., 'I give up trying to reach my goal'). All items were measured on a 4-point scale ranging from (1) 'a lot' to (4) 'not at all'. All scales were constructed by calculating the sum of the items in each scale. Some items were reverse coded so that higher scores reflected higher standing on the scale (e.g., greater problemor emotion-focused coping). The scales for problem-focused and emotion-focused coping had strong reliability (Cronbach's alpha = .83 and .90, respectively). The six subscales also had adequate reliability (Cronbach's alpha = .73-.83).

Control Variables

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¹¹ We fully acknowledge that the Carver et al. (1989) scales were not originally designed to generate values for problem- and emotion-focused coping. However, we used the categorization developed by the MIDUS researchers (Kling et al., 1997), who used the scales developed by Carver et al. (1989) and based on confirmatory factor analyses (CFA) supported the creation of two coping factors—problem- and emotion-focused coping—which provided significantly better fit with both the MIDUS and original Carver et al. data. In that sense, we did not use researcher discretion when picking up the coping sub-scales; rather, we used all available coping scales in MIDUS. We also note that how to best categorize coping is still an on-going debate. For example, "in the more than 100 category systems examined ... no two included the same set of categories" (Skinner et al., 2003).

Consistent with the literature, we also included a number of relevant socio-demographic controls that are correlated with both well-being and entrepreneurship. Specifically, we included controls for gender (a dummy equal to 0 if the respondent was male and 1 if female) (Stevenson & Wolfers, 2009); age and its quadratic (Blanchflower & Oswald, 2008; Cheng et al., 2017; Fung et al., 2008); marital status (a dummy equal to 1 if the respondent was married); education (an ordinal variable ranging from 1 to 12 where 0=no school/some grade school and 12=Ph.D. or another professional degree) (Campbell, 1981; Nikolaev & Rusakov, 2016); and the logarithmic transformation of self-reported (pre-tax) personal income (Clarke et al., 2006; Kahneman & Deaton, 2010).

Equation (1) outlines our baseline econometric specification. *EWB* denotes our dependent variable, eudaimonic well-being; *SELF* denotes our measure of self-employment; X_i is a matrix of control variables (age, age², gender, marital status, education, children, income); and ε_i is the stochastic error term. We then augment this baseline specification with the two mediating coping variables—*EFC* denotes our measure of emotion-focused coping, and *PFC* denotes our measure of problem-focused coping. Equation (2) outlines this model. To formally test the mediation hypotheses, we first exclude the coping variables from the model (equation 1), then we augment this baseline model with the coping variables (equation 2). There is evidence of mediation if β_1 is reduced in the third model compared to the first. β_0 is the intercept, and $\beta_1, \beta_2, \beta_3$, and μ are parameters to be estimated. We further modify equation 3 to include three subcomponents of emotion-focused coping (venting, denial, disengagement) and problem-focused coping (positive reinterpretation, active coping, and planning) in the place of the aggregate constructs. This model is depicted in equation 4 and introduces six additional parameters to be estimated ($\delta_1, \delta_2, \delta_3$, and ρ_1, ρ_2, ρ_3) corresponding to the subcomponents of each construct.

$$EWB_i = \beta_0 + \beta_1 SELF_i + \varepsilon_i \tag{1}$$

$$EWB_i = \beta_0 + \beta_1 SELF_i + X_i'\mu + \varepsilon_i$$
 (2)

$$EWB_i = \beta_0 + \beta_1 SELF_i + \beta_2 EFC_i + \beta_3 PFC_i + X_i'\mu + \varepsilon_i$$
(3)

$$EWB_{i} = \beta_{0} + \beta_{1}SELF_{i} + \beta_{2}EFC_{i} + \beta_{3}PFC_{i} + X'_{i}\mu + \varepsilon_{i}$$

$$EWB_{i} = \beta_{0} + \beta_{1}SELF_{i} + \sum_{i=1}^{3} \delta_{i}EFC_{i} + \sum_{i=1}^{3} \rho_{i}PFC_{i} + X'_{i}\mu + \varepsilon_{i}$$

$$(4)$$

EMPIRICAL ANALYSIS

Before we turn to our results, it is important to discuss whether the main constructs used in our study—problem- and emotion-focused coping and EWB—are distinct from each other. Table 1A (online Appendix) reports Confirmatory Factor Analysis (CFA) and shows that the factors have strong reliability with their latent constructs. Table 1B reports the results from a Principal-Component Analysis (PCA), which indicates three distinct factors, following the guideline of an Eigenvalue greater than or equal to one (Cliff, 1988). The PCA involves 12 separate items (three items from problem coping, three items from emotional coping, and six items from eudaimonic wellbeing). Lastly, Table 1C, which reports the factor analysis results, indicates that problem coping loads onto Factor 2, emotional coping loads onto Factor 3, and eudaimonic well-being loads onto Factor 1. The blank cells in Table 1C denote factors with absolute values less than .3, which is considered a reasonable cutoff. However, even if we use a higher cutoff of .5 or .6, we draw the same conclusion.

We conducted the empirical analysis in several steps. First, we estimated ordinary least squares (OLS) well-being regressions to examine whether and to what extent self-employed individuals report higher levels of EWB (and its sub-components) relative to individuals in traditional occupations while holding relevant socio-demographic characteristics constant. Next, we estimated a structural equation model (SEM) in order to examine the mediating effect of problem- and emotion-focused coping strategies in the relationship between self-employment and eudaimonic well-being. These first two estimations were based on a pooled cross-sectional sample from both waves. However, we performed several robustness tests using random-effects models, matching estimators, twin and sibling pair fixed-effects, and further explored heterogeneities based on whether the employed and self-employed supervised others. All models were estimated with the statistical software Stata 15.

OLS Regressions

Table 3.1 presents the results from several multivariate linear regressions of self-employment on eudaimonic well-being (model 1) and its sub-components (models 2-7). In all models, engaging in self-employment is systematically correlated with higher levels of eudaimonic well-being (β = 1.069, p < .001) including self-acceptance (β = 1.018, p < .001), purpose (β = 1.223, p < .001), growth (β = 1.275, p < .001), positive relations (β = .879, p < .001) and autonomy (β = 1.546, p < .001) compared to traditional employment. The only exception is mastery, which is positively but insignificantly related to self-employment (β = .474, p > .10). These relationships hold even after controlling for a set of covariates that have previously been found to correlate with eudaimonic well-being such as age, gender, marital status, education, and personal income (see Ryff, 2019). The magnitude of these relationships is significant—being self-employed is associated with .25 standard deviation increase in EWB. Overall, these results provide strong support for H1.

[Table 3.1]

Table 3.2 presents the results from several multivariate linear regressions of selfemployment on problem- and emotion-focused coping. We observe that engaging in selfemployment is also associated with higher levels of problem-focused coping (β = 1.480, p < .001) including positive reinterpretation and growth (β = .395, p < .001), active coping (β = .583, p < .001), and planning (β = .502, p < .001), compared to traditional employment. In contrast, we observe that engaging in self-employment is associated with lower levels of emotion-focused coping (β = -.451, p < .001) including denial (β = -.261, p < .001) and behavioral disengagement (β = -.270, p < .001), compared to traditional employment. The only exception is venting, which is positively but insignificantly related to self-employment (β = .082, p > .10). The magnitude of these relationships is significant—being self-employed is associated with .25 standard deviation increase in problem-focused coping and a .08 decrease in emotion-focused coping. Overall, these results provide strong support for H2.

[Table 3.2]

Table 4 introduces our mediating variables—emotion-focused and problem-focused coping strategies—and allows us to examine to *what extent* the introduction of these variables affects the relationship between self-employment and EWB. We find that emotion-focused coping is negatively correlated with EWB so that one standard deviation increase in emotion-focused coping decreases EWB by almost .35 standard deviations. On the other hand, problem-focused coping is associated with higher levels of EWB, with one standard deviation increase in problem-focused coping increasing eudaimonic well-being by almost a half of a standard deviation.

[Table 4]

Overall, the most complete model (4) explains over 40 percent of the variation in EWB. We note that both the strength and significance of the relationship between self-employment and eudaimonic well-being are greatly diminished once we introduce the coping variables in the model. For example, the magnitude of the estimated coefficient on self-employment decreases from 1.364 to .316 (a drop of 77 percent) and becomes statistically insignificant in model (3),

which suggests that much of the effect of self-employment on EWB likely goes through the channel of coping.

SEM Analysis

To investigate the possibility that self-employment leads to higher levels of EWB via differences in coping strategies between self-employed and employed people (H2-H3), we used structural equation modeling (SEM). The analysis is closely related to the causal mediation analysis developed by Baron & Kenny (1986) and allowed us to perform a linear partial mediation analysis in which self-employment affects EWB both directly and indirectly through the channels of problem-focused and emotional-focused coping. We used the default estimator in Stata 15, which is based on a maximum likelihood estimator that uses a log-likelihood function. To account for heteroscedasticity and possible autocorrelation of the error terms across different panels, we also used robust standard errors clustered at the individual level. In addition, we allowed the residuals of our mediating variables (problem- and emotion-focused coping) to be correlated with each other to account for the possibility that they may exhibit parallel effects on EWB. We included all relevant controls from Table 4.

Figure 2 presents our main SEM findings. Overall, our model explained close to 36 percent of the variation in our dependent variable (EWB). Consistent with H2, we found that self-employment is positively associated with problem-focused coping. Specifically, the self-employed are more likely to use positive reinterpretation (β = .33, p < .001), active coping (β = .64, p < .001), and planning (β = .55, p < .001) as coping strategies. In addition, we found that the self-employed are less likely to use emotion-focused coping strategies such as venting of emotion (β = -.16, p = .249), denial (β = -.31, p < .001), and behavioral disengagement (β = -.42,

p < .001). These results suggest that the self-employed are more (less) likely to use problem (emotion) focused coping, providing support for H2.

[Figure 2]

Our findings also provide support for H3. Specifically, people who use positive reinterpretation (β = .70, p < .001), active coping (β = .33, p < .001), and planning (β = .24, p < .001) are more likely to report higher levels of EWB. In turn, using emotion-focused coping strategies such as venting of emotion (β = -.30, p < .001), denial (β = -.22, p < .001), and behavioral disengagement (β = -.54, p < .001) are more likely to report lower EWB. Thus, relative to their employed counterparts, the self-employed are more likely to report higher levels of EWB, partly because they are more (less) likely to use problem (emotion) focused coping.

Table 5 summarizes the direct, indirect, and total effects of our SEM analysis (reported in Figure 2). Overall, the results suggest that the *indirect* effect of self-employment on EWB via the channels of problem- and emotion-focused coping (β = .92, p < .001) is more than three times larger than the direct effect (β = .28, p < .30), which is also insignificant. Thus, the total effect of self-employment on EWB (β = 1.20, p < .001) largely runs through the channel of coping. This is to say that the self-employed experience higher levels of EWB (autonomy, purpose, personal growth, self-acceptance, etc.) *almost entirely* because they adopt different coping strategies when dealing with work and life's challenges than do employees.

[Table 5]

Robustness Checks

We used several robustness tests to examine the sensitivity of our findings to alternative samples, estimators, and procedures. First, we replicated the model in Figure 2 (Figure 1A, Online Appendix) while also controlling for the Big Five Personality Traits (extraversion,

agreeableness, openness, conscientiousness, and neuroticism). Overall, the results were consistent with our findings in Figure 2 and suggested that our findings are robust even when controlling for alternative psychological mechanisms.

Random Effects (Longitudinal Analysis)

As an additional robustness check, we also took advantage of the longitudinal nature of the MIDUS survey by using a random-effects (RE) approach (Table 2A and 2B, Online Appendix). This approach allows us to examine variation in EWB for the same individuals both over time (i.e., between waves 2 and 3) and between individuals. We choose a RE estimator for several reasons. First, the RE approach is largely preferred in most branches of statistics (Cameron & Trivedi, 2009). Second, previous studies suggest that the RE model is more appropriate in the context of well-being research (Van Praag & Ferrer-i-Carbonell, 2008). This is because the RE model allows for both level and shock effects and is more parsimonious (e.g., a fixed-effects model requires that we estimate 2,140 additional parameters—one for each individual). The RE model allows for an individual-specific intercept in addition to the model intercept. Overall, our findings are consistent and qualitatively similar to the main results using OLS.

Propensity Score Matching

A potential issue with our analysis is that of reverse causality—e.g., are the self-employed more likely to use problem-focused coping and experience higher levels of EWB, or are those who have a tendency to use problem-focused coping and experience higher levels of EWB more likely to become self-employed? This is an extremely difficult problem to untangle with observational data, especially since using experimental techniques in this type of setting is unfeasible. Nevertheless, we attempt to address this issue in several ways.

First, we used Propensity Score Matching (PSM), which allows us to examine the relationship between self-employment and EWB for individuals who are very similar along with several covariates yet different in their occupational choices. Following recent papers using matching methods in the entrepreneurship and well-being literature (Binder & Coad, 2013; Kautonen et al., 2017), we use PSM, which allows researchers to mimic randomized control trials and better control for self-selection. PSM matches each individual in the treatment group with a very similar individual in the control group, where similarity is defined as the closest match based on a set of pre-treatment characteristics of covariates (Caliendo & Kopeinig, 2008; Li, 2012). After the matching process is completed, there should be few differences between the treatment and control groups. Consequently, the observed difference in outcomes is more reliably attributed to the treatment (Austin, 2011).

Prior to examining the PSM estimates, we must first analyze the balancing diagnostics of the covariates in the model. These findings (Table 3A, Online Appendix) indicate the balancing procedure is adequate. This conclusion is also supported by Figure 2A, which depicts the standardized bias (%) for each covariate pre and post-matching. As Figure 2A illustrates, the matching procedure greatly reduces the standardized bias. Moreover, the PSM estimates (Table 4A, Online Appendix) indicate that the self-employed experience greater eudaimonic well-being, denoted by a positive average treatment effect on the treated (ATT=.035; p<.05). The results also indicate that the self-employed experience higher levels of problem-focused coping (ATT=.097; p<0.001) through positive reinterpretation (ATT=.038; p<0.10), planning (ATT=.091; p<0.01), and active coping (ATT=.097; p<0.01) and lower levels of emotion-focused coping (ATT=-.014; p>0.10) primarily through denial (ATT=-.083; p<0.001) and behavioral disengagement (ATT=-.048; p<0.001).

Twin Sample

We also took advantage of the MIDUS dataset to examine a sub-sample of 714 twins (357 pairs) using a twin-pair fixed-effects model. This strategy allowed us to control for shared genetic and environmental factors such as family background and early upbringing. Hence, unobserved factors such as ability and intelligence are less likely to play a role in the observed differences. In turn, the models will be less likely to suffer from an endogeneity problem where the covariates are correlated with the model residuals. Research shows that inherited traits account for approximately 50 percent of differences in human personalities, with the rest coming from environmental influences (e.g., see Shirey, 2006). Recent studies also show that the propensity to engage in self-employment may have some genetic basis (Nicolaou et al., 2008; Rietveld, Slob, & Thurik, 2020) via chemical mechanisms in the brain (e.g., leading to extroversion), shaping of preferences (e.g., risk tolerance), selection in environments where entrepreneurship is more common, and responsiveness to business opportunities (Parker, 2019).

The results (Tables 5A and 5B, Online Appendix) are again consistent with our main findings. That is, we find that even after accounting for genetic makeup and shared environmental factors and upbringing, twins who choose to become self-employed are significantly more likely to use problem-focused coping, which, in turn, is associated with higher levels of EWB. The twin results suggest that our results are likely driven by problem-focused coping and that self-employment is most likely to promote (causally) one's sense of personal growth and autonomy.

Sibling Sample

We conducted a very similar test and found the results (Tables 6A and 6B, Online Appendix) were robust when we considered a sub-sample of 930 siblings (465 pairs). Overall,

these results provide additional support that choosing self-employment as a career path is associated with higher levels of eudaimonic well-being, higher levels of problem-focused coping, and lower levels of emotion-focused coping.

Post-Hoc (Group) Analysis

We replicated our main analysis by further comparing differences in EWB in several subsamples of the self-employed and traditionally employed (see Table 6). Model 1 of Table 6 reports our baseline model, in which we compared the self-employed and the employed (β = 1.069, p < .001). In model 2, we compared the self-employed who reported supervising and employing others (entrepreneur supervisors) with the employed who did not have any supervisory duties. We found that being self-employed and supervising others (relative to being wage-employed) has an even stronger positive effect on EWB compared to the overall sample of entrepreneurs (β = 2.253, p < .001). Next, we compared entrepreneur supervisors with solo entrepreneurs (model 3). We found that the self-employed who employ and supervise others report significantly higher levels of EWB relative to solo entrepreneurs (β = 1.832, p < .001). In model 4, we compared entrepreneur supervisors with employed supervisors. Once again, we found that self-employment has a strong and positive effect on EWB (β = 1.106, p < .001). Finally, we compared solo-entrepreneurs with employed non-supervisors (model 5) and found a positive but statistically insignificant effect (β = .544, p > .10).

[Table 6]

We also replicated our main analysis by comparing differences in problem-focused coping in several sub-samples of the self-employed and traditionally employed. We present these results in Table 7A in the Online Appendix. Model 1 of Table 7A reports our baseline model, in which we compared the self-employed and the employed ($\beta = 1.480$, p < .001). In model 2, we

compared the self-employed who reported supervising and employing others (entrepreneur supervisors) with the employed who did not have any supervisory duties. We found that being self-employed and supervising others (relative to being wage-employed) has an even stronger positive effect on problem-focused coping compared to the overall sample of entrepreneurs (β = 2.361, p < .001). Next, we compared entrepreneur supervisors with solo entrepreneurs (model 3). We found that the self-employed who employ and supervise others report significantly higher levels of problem-focused coping relative to solo entrepreneurs (β = 1.279, p < .001). In model 4, we compared entrepreneur supervisors with employed supervisors. Once again, we found that self-employment has a strong and positive effect on problem-focused coping (β = 1.366, p < .001). Finally, we compared solo entrepreneurs with employed non-supervisors (model 5). Here, we found a positive and statistically significant effect (β = 1.176, p < .001).

We performed a similar analysis with respect to emotion-focused coping (Table 7B in the online appendix). Model 1 of Table 7B reports our baseline model, in which we compare the self-employed and the wage-employed (β = -.451, p < .001). In model 2, we compared the self-employed who reported supervising and employing others (entrepreneur supervisors) with the employed who did not have any supervisory duties. We observe that being self-employed and supervising others (relative to being wage-employed) has an even stronger negative effect compared to the overall sample of entrepreneurs (β = -1.153, p < .001). Next, we compared entrepreneur supervisors with solo entrepreneurs (model 3). We found that the self-employed who employ and supervise others report significantly lower levels of emotion-focused coping relative to solo entrepreneurs (β = -1.107, p < .001). In model 4, we compared entrepreneur supervisors with employed supervisors. Once again, we found that self-employment has a strong and negative effect on emotion-focused coping (β = -.688, p < .001). Finally, we compared solo

entrepreneurs with employed non-supervisors (model 5) and found a positive but statistically insignificant effect ($\beta = .026$, p > .10).

Overall, these findings provide a more nuanced understanding of the hypothesized relationships. Specifically, we found that most of the well-being benefits of self-employment go to people who are job creators and manage and supervise others (Parker, 2019). But our findings also suggest that even solo-entrepreneurs experience well-being benefits relative to people in traditional occupations. Supervising others is also strongly and positively associated with problem-focused coping, suggesting that as the business grows, founders gain more job control and decision authority, which allows them to cope with stressful situations more proactively.

DISCUSSION

Drawing insights from the job control (Karasek, 1979) and coping (Lazarus & Folkman, 1984) literature, we develop a model in which two categories of coping—problem- and emotion-focused—mediate the relationship between self-employment and EWB. Using data from wave 2 and wave 3 of the National Study of Midlife in Development in the United States (N=6,061), we then test our model and find that the self-employed experience significantly higher levels of EWB relative to their employed counterparts. We argue and find that these positive well-being benefits accrue almost *entirely* because the self-employed are more likely to engage in *problem-focused* coping (active coping, planning, and positive reinterpretation) and less likely to engage in *emotion-focused* coping (venting, denial, and behavioral disengagement). Thus, our study contributes to the emerging literature on self-employment and EWB by highlighting the role of coping as a key explanatory mechanism.

Theoretical Implications

Entrepreneurship and well-being. Our study answers several calls in the entrepreneurship literature to "mov[e] beyond the hedonic to embrace eudaimonic well-being outcomes" (Wiklund et al., 2019, p.18; Stephan, 2018; Ryff, 2019). Indeed, an emerging stream of research suggests that self-employment, as a self-determined and volitional career choice that requires overcoming challenges and barriers but also promises much in terms of personal fulfillment, is uniquely positioned to benefit people's EWB (Shir et al., 2019; Stephan et al., 2020). We contribute to this emerging but still scarce research in the entrepreneurship literature in several ways.

First, while previous studies have focused on specific eudaimonic outcomes and processes (e.g., autonomy, meaning, competence, etc.), we build our conceptual framework around Ryff's (1989) six-factor model, which more holistically integrates a wider range of eudaimonic well-being outcomes. Thus, we answer recent calls in the literature to focus on "different models of eudaimonic well-being...[in order to] disentangle diverse eudaimonic processes and outcomes and determine which are most relevant for entrepreneurship" (Stephan et al., 2020, p. 20). Similar to previous studies, our findings highlight the importance of autonomy (Shir et al., 2019) and meaning (Stephan et al., 2020) but also underscore that self-employment is strongly related to other key eudaimonic outcomes such as one's sense of personal growth and self-acceptance that have received relatively little attention in the entrepreneurship literature.

Second, prior research in the entrepreneurship literature builds on models of sustainable happiness that consider engaging in eudaimonic and growth-promoting activities as critical to satisfying people's basic psychological needs, which, in turn, can promote sustained hedonic well-being over time (Shir et al., 2019; Nikolaev et al., 2020; Stephan et al., 2020). We go a step further by investigating what it is about self-employment that leads to eudaimonic well-being.

Specifically, our theory and findings suggest that self-employment, as an occupation characterized by a high degree of decision authority and job control, is more likely to lead to appraisals of stressful situations as growth-promoting challenges (Lazarus & Folkman, 1984; LePine et al., 2005). Consequently, the self-employed are more likely to engage in productive and proactive behaviors and thoughts (*problem-focused* coping) aimed to help them overcome these challenges and less likely to engage in behaviors and thoughts to merely make them feel better (*emotion-focused* coping). Engaging in more productive coping, then, can promote EWB over time—one's sense of personal growth, meaning, competence, and self-acceptance.

Thus, our approach provides a more nuanced understanding of why the self-employed perceive their lives as psychologically more fulfilling even though they face complex and competing occupational demands that can expose them to more stressors and negatively affect their physical (Cardon and Patel, 2015) and mental health (Reid et al., 2018), at least in the short run. In other words, we identify what *fuels* EWB and what it is about self-employment, relative to waged work, that *kindles* the fire. Combining our findings with existing work could suggest that self-employed people are willing to make trade-offs not only in terms of financial stability and gains but also in terms of occupation-related stress in order to pursue more meaningful work that offers opportunities for personal growth and fulfillment. It also suggests that while self-employed people may be "unable to fully escape from work demands or the cognitive, stress-related processes associated with work...which are both necessary for effective stress recovery" (White & Gupta, 2020, p.65), they can still more effectively cope with stress through *problem-focused* coping relative to wage-workers.

Third, our post-hoc tests draw from recent research that has started examining important boundary conditions in the relationship between self-employment and well-being (Nikolova et

al., 2022; Stephan et al., 2020). We document that most of the EWB benefits accrue to those who employ and supervise others. Perhaps this is not surprising because self-employed supervisors have more resources that can allow them to delegate tasks, which can increase their decision authority and sense of job control. Nonetheless, these additional findings are consistent with our hypotheses and provide further confidence in our theory, which links self-employment to coping via job control.

Coping in entrepreneurship. Our theory and findings also complement research on coping in entrepreneurship. Most studies in this stream of research examine the role of *problem*-and *emotion-focused* coping (six out of eight studies in our review, see Table 8A online Appendix), although by focusing on coping among samples of entrepreneurs and with respect to hedonic well-being (e.g., Drnovšek et al., 2010; Örtqvist et al., 2007; Uy et al., 2013). Our focus on comparing occupational groups, as opposed to focusing on variation across entrepreneurs alone, allows us to integrate theory about *control* into this literature that highlights what is unique about self-employment relative to other occupations that can lead to more effective coping strategies. Along these lines, our work changes existing theory by moving the narrative of coping as a *moderator* between self-employment and well-being (e.g., Patel et al., 2019; Patzelt & Shepherd, 2011) to a mediator—suggesting instead that self-employment itself *drives* coping strategies.

In addition, prior studies predominately leverage composite indicators of problem- and emotion-focused coping. We contribute to this line of work by exploring six distinct coping strategies (planning, positive reinterpretation, active coping, venting, denial, and behavioral disengagement), thus providing a more nuanced understanding of the underlying coping processes and their relationship to well-being. For example, while we find that positive

reinterpretation has the strongest effect on EWB, self-employment is substantially more likely to promote active coping. Finally, we highlight EWB as a key outcome of the coping process. This is important because EWB variables such as purpose, autonomy, and competence can also serve as important mediators that underpin the relationship between coping and other relevant venture-related outcomes such as motivation, performance, job satisfaction, or opportunity evaluation.

Broader coping and well-being literature. Our study also advances the literature on coping and well-being more generally. Specifically, well-being models suggest that life circumstances, such as one's occupational choice, account for less than 10% of the variation in SWB, with intentional activities and genes explaining the remaining 90% (e.g., Lyubomirski et al., 2005; Diener et al., 1999; Van Praag & Ferrer-i-Carbonell, 2007). From this perspective, pursuing happiness through changes in occupational status may seem like a "wild goose chase" that may never be attained. We show, however, that life circumstances play a critical role in one's well-being *indirectly* by affecting how people cope with different stressors in their life, which, in turn, can have a large effect on their well-being. In fact, including coping increases the explanatory power of our well-being models drastically (our most complete model explains over 40% of the variation in EWB), further stressing the importance of coping as a key determinant of well-being but also highlighting the interdependence of life circumstances and intentional activities (Brown & Rohrer, 2020).

Thus, our theory and findings open the door for a new line of research that can examine how other life circumstances (e.g., one's socio-economic status, family upbringing, or social support) interact with self-employment and influence the psychological mechanisms that underpin the mediation (coping) processes we document. Similarly, examining how specific work characteristics affect people's sense of job control and, in turn, their coping strategies can

be critical to job crafting and the creation of a more psychologically fulfilling workplace. For example, the Covid-19 pandemic has resulted in changes to working arrangements for millions of employees who are now working from home (Oakman et al., 2020). Studying the effects of such changes and their interaction with measures of organizational support, social connectedness, or work-family conflict on workers' sense of perceived control and coping may provide important insights as employees adapt to their new workplace realities.

Practical Implications

Our study and findings also have practical implications. First, because coping is a key determinant of well-being, entrepreneurship training that focuses not just on the practicalities of running a business (financial accounting, market analysis, managing employees) but also teaches entrepreneurs how to effectively cope with their unique occupational demands can be especially promising in enhancing business outcomes. In this respect, well-being therapy (e.g., Fava, 1999; Fava et al., 1998)—a short, well-being enhancing psychotherapeutic therapy—can be a particularly promising intervention. The therapy, based on Ryff's cognitive model of psychological well-being, provides a structured, directive, and problem-oriented model that can be used in conjunction with cognitive-behavioral therapy (CBT). Some of the techniques include cognitive restructuring (modification of automatic and irrational thoughts), scheduling of activities (mastery, pleasure, and task assignments), and problem-solving, which are closely related to the problem-focused coping strategies we discuss in the current paper.

Second, because entrepreneurial narratives in the media influence self-employment intentions (e.g., Laviolette et al., 2012; Radu & Redien-Collot, 2008), policymakers have attempted to enact policies that incentivize start-ups (Eikhof et al., 2013). While existing action has focused on the importance of success stories or representation of minorities, our findings

suggest that the personal fulfillment characteristics of EWB may be a worthwhile avenue to incentivize more individuals to start new business ventures. For example, media coverage that focuses on reflective accounts from both breakthrough but also small business owners, detailing how their self-employment experiences influenced their well-being (both positively and negatively), and the behaviors necessary to facilitate those outcomes, could prove useful in helping aspiring business owners decide if self-employment is right for them. However, we provide policy advice sparingly and cautiously, given that the evidence herein is correlational as opposed to causal.

Limitations and Future Research

It is also important to discuss the limitations of our research and the extent to which our findings are generalizable (Simons et al., 2017). First, we rely on MIDUS, a nationally-representative longitudinal study of health and well-being in the United States. The dataset includes a long list of psychological (e.g., personality traits) and biological (e.g., a twin sample) factors that are not available in most studies. By controlling for many of these factors, we account for a host of potential biases that greatly increase the generalizability of our findings relative to most primary data collection studies in the self-employment well-being literature. 12

However, MIDUS relies only on data from the United States, and our sample largely consists of individuals in their midlife. Therefore, future studies will need to provide external validation to our findings in other cultural contexts and among wider age groups. This is especially relevant for our study because the motivation to engage in self-employment action is vastly different across cultural contexts (GEM, 2016). At the same time, well-being can also

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¹² A full description of the goals of the research, including participants, materials, and procedures, is available on the MIDUS website (http://www.midus.wisc.edu/). The quality of this data collection is evidenced by its widespread use across many disciplines. Since 1997, data from the MIDUS has been used in 1,617 publications across 450 scientific journals.

differ substantially across countries (Mitchell et al., 2013) and different age groups (Ryff & Singer, 2008). For example, Stephan et al. (2020) show that the social legitimacy of entrepreneurship at the country level influences the effect of career choice (self-employment vs. wage-employment) on EWB indicators.

Second, self-employment is highly heterogeneous. Recent studies suggest that business owners differ vastly in terms of their motivation and aspirations, which can affect how they perceive various well-being outcomes (Mmbaga et al., 2020). Some self-employed people are growth-oriented visionaries, while others are motivated primarily by profit; some pursue self-employment for independence or as a creative outlet, while others are pushed into business ownership due to a lack of other options. Similarly, the ventures themselves differ in terms of a focus on survival, lifestyle, sustained growth, or aggressive growth (Morris et al., 2018). This variance is consequential, as the type of firm and founder identity can drastically differ across different types of ventures and subsequently influence key decisions and the self-concept of the founder (Fauchart & Gruber, 2011). Future studies will have to explore the heterogeneity of our findings with respect to different groups of business owners.

Third, several recent studies suggest that restorative (emotion-focused) coping behaviors can have various benefits for entrepreneurs (e.g., Williamson et al., 2019). Along these lines, a recent editorial suggests that emotion-focused behaviors such as respite (e.g., breaks, music, positive reflections) and regimen (e.g., exercise and sleep) are a viable path forward to "apply our knowledge to devise interventions that can make a difference in the lives of entrepreneurs and enhance their well-being" (Williamson et al., In Press: p. 2). The benefits of recovery are theoretically and empirically clear (e.g., Kark & Carmeli, 2009; Shirom, 2011; Sonnentag, 2018; Sonnentag & Fritz, 2007; Wach et al., In 2021), and we, therefore, encourage self-employed to

utilize such behaviors via interventions. Our findings may seem inconsistent with these studies. However, we examine only a small subset of *emotion-focused* coping strategies (venting, denial, and behavioral disengagement). Indeed, there are many others. Thus, our results should be interpreted with caution while our knowledge of various coping strategies accumulates in the future.

Along these lines, while we do find that the greater tendency to engage in problemfocused coping is associated with EWB, doing so too often and for too long without proper
recovery may also lead to burnout and general ill-being (Williamson et al., In Press). These
findings are not necessarily surprising. For example, whereas passion can have positive
implications (Cardon et al., 2009), obsessive forms of passion may be detrimental to
performance (Ho & Pollack, 2014). Similarly, whereas optimism may lead to positive
perspectives of self-employment challenges (Hmieleski & Baron, 2009), some people adopt
unhealthy forms of optimism (Ucbasaran et al., 2010), which may lead to biases and heuristics
that hinder innovation (Amore et al., 2020). Thus, future studies can enhance the understanding
gleaned here by better detailing the proper *balance* and possible *interactions* between problemfocused coping and necessary restorative (emotion-focused) behaviors.

Fourth, while we incorporate a longitudinal dataset, we utilize only two waves of data and have limited insight into the stage of the venture. Thus, we are unable to explore how the relationship between self-employment, coping, and EWB may evolve over time. It could very well be the case that coping styles and EWB change in a meaningful way during certain stages of the venture creation process. Previous studies, for example, suggest that it takes time for autonomy to unfold (e.g., Stephan, 2018), which implies that some of the EWB benefits from self-employment may materialize later in the venture creation process rather than sooner. Future

studies will have to examine how EWB and coping unfold over time as firms get established, grow, or fail.

Fifth, another important limitation of our study is that of reverse causality. For example, people who have a tendency to use problem-coping styles may be more likely to start a business. Similarly, eudaimonic well-being can be a determinant of problem-coping (Hahn et al., 2012). While we have provided several robustness checks to mitigate these concerns through random-effects, matching, and various fixed-effects estimators, no method is perfect. We invite future studies to attempt to examine the proposed relationships with alternative identification strategies.

Finally, our theorizing is based on a global measure of EWB, which has six subcomponents. Thus, our study does not develop detailed theoretical arguments for each of these subcomponents. A more nuanced examination, which we encourage future researchers to undertake, could examine how specific coping tendencies facilitate some but not other EWB outcomes. For example, maintaining positive relationships with some stakeholders, such as investors, may require giving up a board of directors seat. Yet, such a concession may impact autonomy, and to the extent the strategic direction of the firm shifts on the whim of a strong board and vested investor, the self-employed may find their sense of purpose in life from venture activities diminished. This example represents just one of many of the complexities inherent in self-employment and implies more nuanced dynamics between EWB subcomponents than are possible to examine in the current study.

In totality, future research should cautiously interpret our findings, as they may be subject to generality constraints pertaining to culture, individual motivations for pursuing a venture, and the limited coping variables studied.

Conclusion

Integrating insights from the job control (Karasek, 1979) and coping literature (Lazarus & Folkman, 1984), we hypothesize and find that the self-employed experience higher levels of eudaimonic well-being (e.g., personal growth, meaning, etc.) relative to their employed counterparts because they adopt different coping strategies when dealing with work and life's challenges. Specifically, we argue and find that the positive well-being benefits of self-employment accrue *almost entirely* because the self-employed are more likely to engage in *problem-focused* coping—productive and proactive behaviors and thoughts aimed to help them overcome challenges (e.g., planning and active coping)—and less likely to engage in *emotion-focused* coping—behaviors and thoughts to merely make them feel better (e.g., venting and denial). Thus, our theory and findings highlight the importance of coping as a key explanatory psychological mechanism (mediator) between self-employment and eudaimonic well-being.

REFERENCES

- Ahmed, A. E., Ucbasaran, D., Cacciotti, G., & Williams, T. A. (2022). Integrating Psychological Resilience, Stress, and Coping in Entrepreneurship: A Critical Review and Research Agenda. *Entrepreneurship Theory and Practice*, 10422587211046542. https://doi.org/10.1177/10422587211046542
- Akande, A. (1994). Coping with entrepreneurial stress: Evidence from Nigeria. *Journal of Small Business Management*, 32(1), 83.
- Amore, M. D., Garofalo, O., & Martin-Sanchez, V. (2020). Failing to Learn from Failure: How Optimism Impedes Entrepreneurial Innovation. *Organization Science*.
- Aspinwall, L. G. (2011). Future-oriented thinking, proactive coping, and the management of potential threats to health and well-being. In S. Folkman (Ed.), *The Oxford handbook of stress, health, and coping* (pp. 334–365). Oxford University Press.
- Austin, P. C. (2011). An introduction to propensity score methods for reducing the effects of confounding in observational studies. *Multivariate Behavioral Research*, 46(3), 399-424.
- Backman, M., Hagen, J., Kekezi, O., Naldi, L., & Wallin, T. (2021). In the Eye of the Storm: Entrepreneurs and Well-Being During the COVID-19 Crisis. *Entrepreneurship Theory and Practice*, 10422587211057028. https://doi.org/10.1177/10422587211057028
- Bakker, A. B., Demerouti, E., De Boer, E., & Schaufeli, W. B. (2003). Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior*, 62(2), 341-356.
- Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation.
- Baron, R. A. (2010). Job design and entrepreneurship: Why closer connections= mutual gains. *Journal of Organizational Behavior*, 31(2/3), 370–378.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173.
- Benz, M., & Frey, B. S. (2004). Being independent raises happiness at work. *Swedish Economic Policy Review*, 11(2), 95–134.
- Binder, M., & Coad, A. (2013). Life satisfaction and self-employment: A matching approach. *Small Business Economics*, 40(4), 1009–1033.
- Binder, M., & Coad, A. (2016). How satisfied are the self-employed? A life domain view. *Journal of Happiness Studies*, 17(4), 1409–1433.
- Blanchflower, D. G. (2004). *Self-employment: More may not be better*. National Bureau of Economic Research Cambridge, Mass., USA.
- Blanchflower, D. G., & Oswald, A. J. (2008). Is well-being U-shaped over the life cycle?. *Social Science & Medicine*, 66(8), 1733-1749.
- Brown, N. J., & Rohrer, J. M. (2020). Easy as (happiness) pie? A critical evaluation of a popular model of the determinants of well-being. *Journal of Happiness Studies*, 21(4), 1285-1301.
- Buttner, E. H. (1992). Entrepreneurial stress: is it hazardous to your health? *Journal of Managerial Issues*, 223-240.
- Byrne, O., & Shepherd, D. A. (2015). Different strokes for different folks: Entrepreneurial narratives of emotion, cognition, and making sense of business failure. *Entrepreneurship Theory and Practice*, 39(2), 375–405.

- Caliendo, M., & Kopeinig, S. (2008). Some practical guidance for the implementation of propensity score matching. *Journal of Economic Surveys*, 22(1), 31-72.
- Cameron, A. C., & Trivedi, P. K. (2009). *Microeconometrics with STATA*. College Station, TX: StataCorp LP.
- Campbell, A. (1981). The sense of well-being in America: Recent patterns and trends.
- Cardon, M. S., Foo, M. D., Shepherd, D., & Wiklund, J. (2012). Exploring the heart: Entrepreneurial emotion is a hot topic. *Entrepreneurship Theory and Practice*, *36*(1), 1-10.
- Cardon, M. S., & Patel, P. C. (2015). Is stress worth it? Stress-related health and wealth trade-offs for entrepreneurs. *Applied Psychology*, 64(2), 379-420.
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of management Review*, 34(3), 511-532.
- Carter, N. M., Gartner, W. B., & Reynolds, P. D. (1996). Exploring start-up event sequences. *Journal of Business Venturing*, 11(3), 151–166.
- Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality–social, clinical, and health psychology. *Psychological bulletin*, 92(1), 111.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267.
- Cheng, T. C., Powdthavee, N., & Oswald, A. J. (2017). Longitudinal evidence for a midlife nadir in human well-being: Results from four data sets. *The Economic Journal*, 127(599), 126-142.
- Clarke, G. R., Xu, L. C., & Zou, H. F. (2006). Finance and income inequality: what do the data tell us?. *Southern Economic Journal*, 578-596.
- Cliff, N. (1988). The eigenvalues-greater-than-one rule and the reliability of components. *Psychological Bulletin*, 103(2), 276–279. https://doi.org/10.1037/0033-2909.103.2.276
- Corner, P. D., Singh, S., & Pavlovich, K. (2017). Entrepreneurial resilience and venture failure. *International Small Business Journal*, *35*(6), 687–708.
- Delahaij, R., & Van Dam, K. (2016). Coping with acute stress in the military: The influence of coping style, coping self-efficacy and appraisal emotions. *Personality and Individual Differences*, 119, 13-18.
- Dellot, B. (2014). Salvation in a start-up? The origins and nature of the self-employment boom.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276.
- Drnovsek, M., Örtqvist, D., & Wincent, J. (2010). The effectiveness of coping strategies used by entrepreneurs and their impact on personal well-being and venture performance. Zbornik Radova Ekonomskog Fakulteta u Rijeci, Časopis Za Ekonomsku Teoriju i Praksu-Proceedings of Rijeka Faculty of Economics, Journal of Economics and Business, 28(2), 193–220.
- Eikhof, D. R., Summers, J., & Carter, S. (2013). "Women doing their own thing": media representations of female entrepreneurship. *International Journal of Entrepreneurial Behaviour & Research*.
- Emmons, R. A., & King, L. A. (1988). Conflict among personal strivings: Immediate and long-term implications for psychological and physical well-being. *Journal of Personality and Social Psychology*, 54(6), 1040.
- Eng, C., & Pai, H. (2015). Determinants of nursing competence of nursing students in Taiwan: The role of self reflection and insight. *Nurse Education Today*, *35*, 450-455.

- Engel, Y., Noordijk, S., Spoelder, A., & van Gelderen, M. (2021). Self-compassion when coping with venture obstacles: Loving-kindness meditation and entrepreneurial fear of failure. *Entrepreneurship Theory and Practice*, 45(2), 263-290.
- Engel, K. G., Rosenthal, M., & Sutcliffe, K. M. (2006). Residents' responses to medical error: Coping, learning, and change. *Academic Medicine*, 81, 86-93.
- Erikson, E. H. (1959). *Psychological issues: Identity and the life cycle*. International Universities Press.
- European Commission (2013). Flash Eurobarometer 354 (Entrepreneurship in the EU and Beyond): GESIS Datenarchiv, Köln. ZA5789 Datenfile Version 1.0.0, https://doi.org/10.4232/1.11590.
- Fauchart, E., & Gruber, M. (2011). Darwinians, communitarians, and missionaries: The role of founder identity in entrepreneurship. *Academy of Management Journal*, *54*(5), 935-957.
- Fava, G. A. (1999). Well-being therapy: Conceptual and technical issues. *Psychotherapy and Psychosomatics*, 68(4), 171–179.
- Fava, G. A., Rafanelli, C., Cazzaro, M., Conti, S., & Grandi, S. (1998). Well-being therapy. A novel psychotherapeutic approach for residual symptoms of affective disorders. *Psychological Medicine*, 28(2), 475–480.
- Folkman, S. (Ed.). (2011). The Oxford handbook of stress, health, and coping. Oxford University Press.
- Folkman, S., & Moskowitz, J.T. (2000). Positive affect and the other side of coping. American Psychologist, 55(6), 647-654.
- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annu. Rev. Psychol.*, 55, 745–774.
- Forbes D.P., Borchert P.S., Zellmer- Bruhn M.E., Sapienza H.J. Entrepreneurial team formation: An exploration of new member addition. *Entrepreneurship Theory and Practice*, 2006, 30, 225-248.
- Friedman, E. M., & Ryff, C. D. (2012). Living well with medical comorbidities: A biopsychosocial perspective. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 67(5), 535–544.
- Fung, H. H., Isaacowitz, D. M., Lu, A. Y., Wadlinger, H. A., Goren, D., & Wilson, H. R. (2008). Age-related positivity enhancement is not universal: Older Chinese look away from positive stimuli. *Psychology and Aging*, *23*(2), 440.
- GEM, (2016). GEM. Retrieved November 3, 2016, from. http://www.gemconsortium.org.
- Grant, A. M., & Parker, S. K. (2009). 7 redesigning work design theories: The rise of relational and proactive perspectives. *Academy of Management Annals*, *3*(1), 317–375.
- Gumpert, D. E., & Boyd, D. P. (1984). The loneliness of the small-business owner. *Harvard Business Review*, 62(6), 18.
- Hahn, V. C., Frese, M., Binnewies, C., & Schmitt, A. (2012). Happy and proactive? The role of hedonic and eudaimonic well—being in business owners' personal initiative. *Entrepreneurship Theory and Practice*, *36*(1), 97-114.
- Hamilton, B. H. (2000). Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *Journal of Political Economy*, 108(3), 604–631.
- Heckhausen, J., & Schulz, R. (1995). A life-span theory of control. *Psychological review*, 102(2), 284.
- Hessels, J., Rietveld, C. A., & van der Zwan, P. (2017). Self-employment and work-related stress: The mediating role of job control and job demand. *Journal of Business Venturing*,

- *32*(2), 178–196.
- Hmieleski, K. M., & Baron, R. A. (2009). Entrepreneurs' optimism and new venture performance: A social cognitive perspective. *Academy of Management Journal*, *52*(3), 473-488.
- Ho, V. T., & Pollack, J. M. (2014). Passion isn't always a good thing: Examining entrepreneurs' network centrality and financial performance with a dualistic model of passion. *Journal of Management Studies*, 51(3), 433-459.
- Hundley, G. (2001). Why and when are the self-employed more satisfied with their work? *Industrial Relations: A Journal of Economy and Society*, 40(2), 293–316.
- Huta, V., & Ryan, R. M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, 11(6), 735–762.
- Hyytinen, A., & Ruuskanen, O. P. (2007). Time use of the self-employed. *Kyklos*, 60(1), 105-122.
- Ivanova, S., Treffers, T., & Langerak, F. (2018). Emotional paths leading to opportunity desirability and feasibility beliefs through controllability. *International Small Business Journal*, *36*(5), 546-573.
- Jung, C. G. (1933). Modem man in search of a soul.(WS Dell & C. Baynes, Trans.). *New York: Hartcourt*.
- Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. Proceedings of the National Academy of Sciences, 107(38), 16489-16493.
- Karasek Jr, R. A. (1979a). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 285–308.
- Kark, R., & Carmeli, A. (2009). Alive and creating: the mediating role of vitality and aliveness in the relationship between psychological safety and creative work involvement. *Journal of Organizational Behavior*, 30, 785–804.
- Kashdan, T. B., & McKnight, P. E. (2009). Origins of purpose in life: Refining our understanding of a life well lived. Psihologijske Teme, 18(2), 303-313.
- Kautonen, T., Kibler, E., & Minniti, M. (2017). Late-career entrepreneurship, income and quality of life. Journal of Business Venturing, 32(3), 318-333.
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, 207–222.
- Kling, K. C., Seltzer, M. M., & Ryff, C. D. (1997). Distinctive late-life challenges: Implications for coping and well-being. *Psychology and Aging*, 12(2), 288.
- Khosla, M. (2006). Positive affect and coping with stress. Journal of the Indian Academy of Applied Psychology, 32(3), 185-192.
- Lapina, A. (2018). Facilitating coping through reflective learning in adult education: A review of the reciprocal relationship between coping and learning. *Adult Learning*, 29(4), 131-140.
- Laviolette, E. M., Lefebvre, M. R., & Brunel, O. (2012). The impact of story bound entrepreneurial role models on self-efficacy and entrepreneurial intention. *International Journal of Entrepreneurial Behavior & Research*.
- Lazarus, R. S. (1966). Psychological stress and the coping process.
- Lazarus, R. S. (1991a). Cognition and motivation in emotion. American Psychologist, 46(4), 352.
- Lazarus, R. S. (1991b). Emotion and adaptation: Oxford university press on demand.
- Lazarus, R. S. (1993). Coping theory and research: past, present, and future. *Psychosomatic medicine*, 55(3), 234-247.

- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor—hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, 48(5), 764–775.
- Lerman, M. P., Munyon, T. P., & Williams, D. W. (2020). The (not so) dark side of entrepreneurship: A meta-analysis of the well-being and performance consequences of entrepreneurial stress. *Strategic Entrepreneurship Journal*.
- Levitt, B., & March, J. G. (1988). Organizational learning. *Annual Review of Sociology*, 14(1), 319–338.
- Li, M. (2013). Using the propensity score method to estimate causal effects: A review and practical guide. *Organizational Research Methods*, *16*(2), 188-226.
- Lichtenstein, B. B., Carter, N. M., Dooley, K. J., & Gartner, W. B. (2007). Complexity dynamics of nascent entrepreneurship. *Journal of Business Venturing*, 22(2), 236–261.
- Lykken, D. (1999). *Happiness: What studies on twins show us about nature, nurture, and the happiness set-point.* Golden Books.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803.
- Manchiraju, S. (2020). Psychometric evaluation of the Ryff's Scale of psychological wellbeing in self-identified American entrepreneurs. *Journal of Business Venturing Insights, 14*, e00204.
- Marvel, M. R., Wolfe, M. T., & Kuratko, D. F. (2020). Escaping the knowledge corridor: How founder human capital and founder coachability impacts product innovation in new ventures. *Journal of Business Venturing*, *35*(6), 106060.
- Maslow, A. (1968). Some educational implications of the humanistic psychologies. *Harvard Educational Review*, *38*(4), 685–696.
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, *31*(1), 132–152.
- Mitchell, L., Frank, M. R., Harris, K. D., Dodds, P. S., & Danforth, C. M. (2013). The geography of happiness: Connecting twitter sentiment and expression, demographics, and objective characteristics of place. *PloS one*, 8(5).
- Mmbaga, N. A., Mathias, B. D., Williams, D. W., & Cardon, M. S. (2020). A review of and future agenda for research on identity in entrepreneurship. *Journal of Business Venturing*, 35(6), 106049.
- Morris, M. H., Neumeyer, X., Jang, Y., & Kuratko, D. F. (2018). Distinguishing types of entrepreneurial ventures: An identity-based perspective. *Journal of Small Business Management*, 56(3), 453-474.
- Nicolaou, N., Shane, S., Cherkas, L., Hunkin, J., & Spector, T. D. (2008). Is the tendency to engage in entrepreneurship genetic?. *Management Science*, 54(1), 167-179.
- Niemiec, C. P., Ryan, R. M., & Deci, E. L. (2009). The path taken: Consequences of attaining intrinsic and extrinsic aspirations in post-college life. *Journal of Research in Personality*, 43(3), 291–306.
- Nikolova, M., Nikolaev, B., & Boudreaux, C. (2022) Being your own boss and bossing others: The moderating effect of managing others on work meaning and autonomy for the self-employed and employees. *Small Business Economics*.
- Nikolaev, B., Boudreaux, C. J., & Wood, M. (2020). Entrepreneurship and subjective well-being:

- The mediating role of psychological functioning. *Entrepreneurship Theory and Practice*, 44(3), 557–586.
- Nikolaev, B., & Rusakov, P. (2016). Education and happiness: an alternative hypothesis. *Applied Economics Letters*, 23(12), 827-830.
- Oakman, J., Kinsman, N., Stuckey, R., Graham, M., & Weale, V. (2020). A rapid review of mental and physical health effects of working at home: how do we optimise health?. *BMC Public Health*, 20(1), 1-13.
- O'Neil, I., Ucbasaran, D., & York, J. G. (2022). The evolution of founder identity as an authenticity work process. *Journal of Business Venturing*, *37*(1), 106031.
- Örtqvist, D., Drnovsek, M., & Wincent, J. (2007). Entrepreneurs' coping with challenging role expectations. *Baltic Journal of Management*.
- Park, C. L. (2011). Meaning, coping, and health and well-being. In S. Folkman (Ed.), *The Oxford handbook of stress, health, and coping* (pp. 227–241). Oxford University Press.
- Parker, S. C. (2009). Why do small firms produce the entrepreneurs?. *The Journal of Socio-Economics*, 38(3), 484-494.
- Parker, S. C. (2019). The economics of entrepreneurship. Cambridge University Press.
- Patzelt, H., & Shepherd, D. A. (2011). Recognizing opportunities for sustainable development. *Entrepreneurship Theory and Practice*, 35(4), 631-652.
- Plomin, R., & Deary, I. J. (2015). Genetics and intelligence differences: five special findings. *Molecular Psychiatry*, 20(1), 98-108.
- Podoynitsyna, K., Van der Bij, H., & Song, M. (2012). The role of mixed emotions in the risk perception of novice and serial entrepreneurs. *Entrepreneurship Theory and Practice*, 36(1), 115-140.
- Radler, B. T., & Ryff, C. D. (2010). Who participates? Accounting for longitudinal retention in the MIDUS national study of health and well-being. *Journal of Aging and Health*, 22(3), 307-331.
- Radu, M., & Redien-Collot, R. (2008). The social representation of entrepreneurs in the French press: Desirable and feasible models?. *International Small Business Journal*, 26(3), 259-298.
- Rauch, A., Fink, M., & Hatak, I. (2018). Stress processes: An essential ingredient in the entrepreneurial process. *Academy of Management Perspectives*, 32(3), 340-357.
- Reid, S. W., Patel, P. C., & Wolfe, M. T. (2018). The struggle is real: self-employment and short-term psychological distress. *Journal of Business Venturing Insights*, *9*, 128-136.
- Rietveld, C. A., Slob, E. A., & Thurik, A. R. (2021). A decade of research on the genetics of entrepreneurship: a review and view ahead. *Small Business Economics*, *57*(3), 1303-1317.
- Ritchie, S. J., & Tucker-Drob, E. M. (2018). How much does education improve intelligence? A meta-analysis. *Psychological Science*, 29(8), 1358-1369.
- Rogers, C., R. (1962). Toward Becoming a Fully Functioning Person. *Perceiving, Behaving, Becoming: A New Focus for Education. Yearbook. Ed. AW Combs (Edited by AW Combs).-Washington, DC: Association for Supervision and Curriculum Development,* 256.
- Rothbaum, F., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology*, 42(1), 5.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and

- new directions. Contemporary Educational Psychology, 25(1), 54–67.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141–166.
- Ryan, R. M., Huta, V., & Deci, E. L. (2008). Living well: A self-determination theory perspective on eudaimonia. *Journal of Happiness Studies*, 9(1), 139–170.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069.
- Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics*, 83(1), 10–28.
- Ryff, C. D. (2017). Eudaimonic well-being, inequality, and health: Recent findings and future directions. *International Review of Economics*, 64(2), 159–178.
- Ryff, C. D. (2019). Entrepreneurship and eudaimonic well-being: Five venues for new science. *Journal of Business Venturing*, *34*(4), 646–663.
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719.
- Ryff, C., Friedman, E., Fuller-Rowell, T., Love, G., Miyamoto, Y., Morozink, J., Radler, B., & Tsenkova, V. (2012). Varieties of resilience in MIDUS. *Social and Personality Psychology Compass*, 6(11), 792–806.
- Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9(1), 13-39.
- Santos, S. C., Caetano, A., Costa, S. F., Lopes, R. R., Silva, A. J., & Neumeyer, X. (2020). Uncovering the affective turmoil during opportunity recognition and exploitation: A nonlinear approach. *Journal of Business Venturing Insights, 14*, e00184
- Seligman, M. E. (2002). Positive psychology, positive prevention, and positive therapy. *Handbook of Positive Psychology*, 2(2002), 3–12.
- Shane, S. (2011). The great recession's effect on entrepreneurship. *Economic Commentary*, 2011–04.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, 76(3), 482.
- Sheldon, K. M., & Kasser, T. (1995). Coherence and congruence: Two aspects of personality integration. *Journal of Personality and Social Psychology*, 68(3), 531.
- Sheldon, K. M., & Lyubomirsky, S. (2021). Revisiting the sustainable happiness model and pie chart: can happiness be successfully pursued?. *The Journal of Positive Psychology*, 16(2), 145-154.
- Sheldon, K. M., Ryan, R. M., Rawsthorne, L. J., & Ilardi, B. (1997). Trait self and true self: Cross-role variation in the big-five personality traits and its relations with psychological authenticity and subjective well-being. *Journal of Personality and Social Psychology*, 73(6), 1380–1393. Scopus. https://doi.org/10.1037/0022-3514.73.6.1380
- Shepherd, D. A., & Patzelt, H. (2017). *Trailblazing in entrepreneurship: Creating new paths for understanding the field.* Springer Nature.
- Simons, D. J., Shoda, Y., & Lindsay, D. S. (2017). Constraints on generality (COG): A proposed addition to all empirical papers. *Perspectives on Psychological Science*, 12(6), 1123-1128.
- Shir, N., Nikolaev, B. N., & Wincent, J. (2019). Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness. *Journal of Business Venturing*,

- *34*(5), 105875.
- Shirey, M. R. (2006). Entrepreneurship: is it in your DNA?. *Clinical Nurse Specialist*, 20(3), 130-133
- Shirom, A. (2011). Vigor as a Positive Affect at Work: Conceptualizing Vigor, Its Relations with Related Constructs, and Its Antecedents and Consequences. *Review of General Psychology*, 15, 50–64.
- Simon, H. A. (1991). Bounded rationality and organizational learning. *Organization Science*, 2(1), 125–134.
- Sonnentag, S. (2018). The recovery paradox: Portraying the complex interplay between job stressors, lack of recovery, and poor well-being. *Research in Organizational Behavior*. https://doi.org/10.1016/j.riob.2018.11.002
- Sonnentag, S., & Fritz, C. (2007). The Recovery Experience Questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology*, 12, 204–221.
- Spector, P. E. (2002). Employee control and occupational stress. *Current Directions in Psychological Science*, 11(4), 133-136.
- Steger, M. F., Littman-Ovadia, H., Miller, M., Menger, L., & Rothmann, S. (2013). Engaging in work even when it is meaningless: Positive affective disposition and meaningful work interact in relation to work engagement. *Journal of Career Assessment*, 21(2), 348–361.
- Stephan, U. (2018). Entrepreneurs' mental health and well-being: A review and research agenda. *Academy of Management Perspectives*, *32*(3), 290–322.
- Stephan, U., Rauch, A., & Hatak, I. (2022). Happy Entrepreneurs? Everywhere? A Meta-Analysis of Entrepreneurship and Wellbeing across Institutional Contexts. *Entrepreneurship Theory and Practice*, 104225872110727. https://doi.org/10.1177/10422587211072799
- Stephan, U., & Roesler, U. (2010). Health of entrepreneurs versus employees in a national representative sample. *Journal of Occupational and Organizational Psychology*, 83(3), 717-738.
- Stephan, U., Tavares, S. M., Carvalho, H., Ramalho, J. J., Santos, S. C., & Van Veldhoven, M. (2020). Self-employment and eudaimonic well-being: Energized by meaning, enabled by societal legitimacy. *Journal of Business Venturing*, *35*(6), 106047.
- Stets, J. E., and Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, 63(3), 224-237.
- Swins (2018). Most Americans dream of being their own boss. NewYork Post. https://nypost.com/2018/01/17/most-americans-dream-of-being-their-own-boss/
- Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, 88(3), 500-517.
- Theorell, T., & Karasek, R. A. (1996). Current issues relating to psychosocial job strain and cardiovascular disease research. *Journal of Occupational Health Psychology, 1*(1), 9-26.
- Ucbasaran, D., Westhead, P., Wright, M., & Flores, M. (2010). The nature of entrepreneurial experience, business failure and comparative optimism. *Journal of Business Venturing*, 25(6), 541-555.
- Uy, M. A., Foo, M.D., & Song, Z. (2013). Joint effects of prior start-up experience and coping strategies on entrepreneurs' psychological well-being. *Journal of Business Venturing*, 28(5), 583–597.
- Van Gelderen, M. (2016). Entrepreneurial autonomy and its dynamics. Applied Psychology,

- *65*(3), 541-567.
- Van Praag, B. M., & Ferrer-i-Carbonell, A. (2011). *Happiness economics: A new road to measuring and comparing happiness*. Now Publishers Inc.
- Von Franz, M. L. (1964). Science and the Unconscious. Man and his symbols, 241-246.
- Wach, D., Stephan, U., & Gorgievski, M. (2016). More than money: Developing an integrative multi-factorial measure of entrepreneurial success. *International Small Business Journal*, 34(8), 1098–1121.
- Wach, D., Stephan, U., Weinberger, E., & Wegge, J. (2021). Entrepreneurs' stressors and wellbeing: A recovery perspective and diary study. *Journal of Business Venturing*, *36*(5), 106016.
- Waterman, A. S., Schwartz, S. J., Zamboanga, B. L., Ravert, R. D., Williams, M. K., Bede Agocha, V., Yeong Kim, S., & Brent Donnellan, M. (2010). The Questionnaire for Eudaimonic Well-Being: Psychometric properties, demographic comparisons, and evidence of validity. *The Journal of Positive Psychology*, 5(1), 41–61.
- White, J. V., & Gupta, V. K. (2020). *Stress and well-being in entrepreneurship: A critical review and future research agenda*. Entrepreneurial and small business stressors, experienced stress, and well-being.
- Wiklund, J., Nikolaev, B., Shir, N., Foo, M.-D., & Bradley, S. (2019). Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing*, *34*(4), 579–588.
- Williamson, A. J., Battisti, M., Leatherbee, M., & Gish, J. J. (2019). Rest, zest, and my innovative best: Sleep and mood as drivers of entrepreneurs' innovative behavior. *Entrepreneurship Theory and Practice*, 43(3), 582-610.
- Williamson, A. J., Gish, J. J., & Stephan, U. (in-press). Let's focus on solutions to entrepreneurial ill-being: Recovery interventions to enhance entrepreneurial well-being. *Entrepreneurship Theory and Practice*.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26(2), 179–201.

Tables and Figures

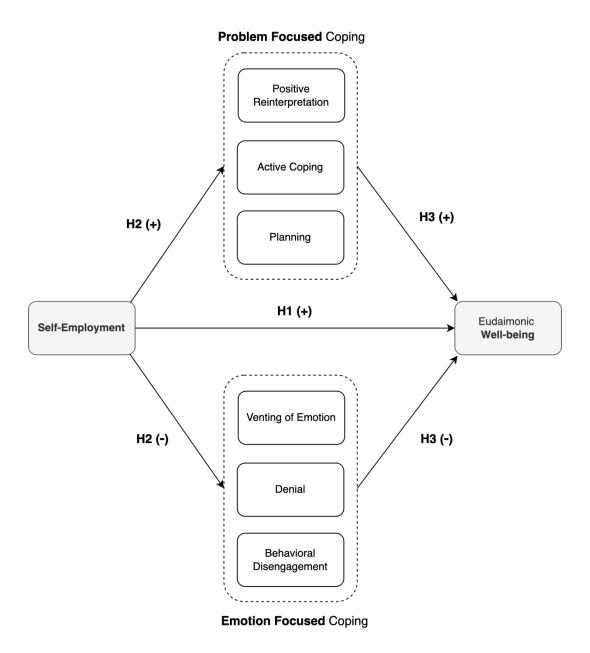


Fig 1: Conceptual Framework

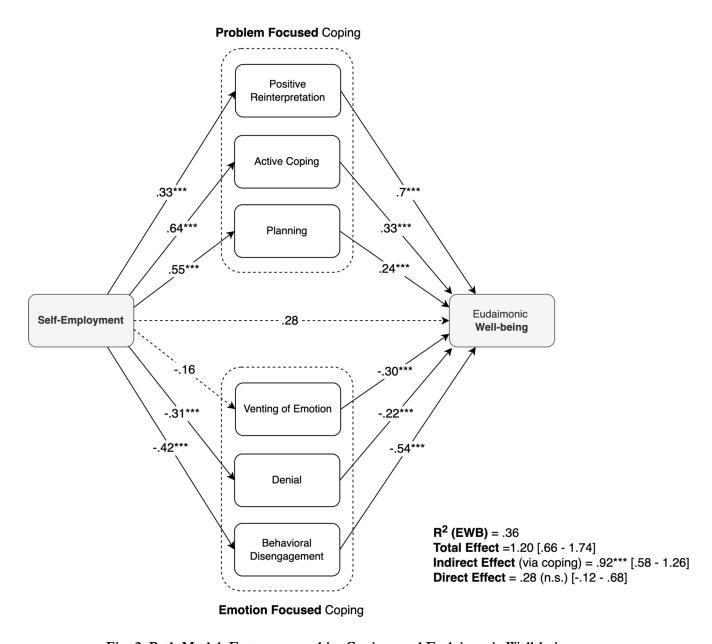


Fig. 2: Path Model, Entrepreneurship, Coping, and Eudaimonic Well-being

Note. N = 6,061. Robust standard errors are clustered at the individual level to account for autocorrelation of the error term across waves. We allow the residuals of all coping mediators to be correlated. The model includes controls for age, age squared, gender, marital status, children, and personal income. R^2 (Overall) = .05, R^2 (Eudaimonic Well-being) = .36. Total effect (self-employment) = 1.20; indirect effect (self-employment via coping strategies) = .92

*** p < 0.01, ** p < 0.05, * p < 0.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
EWB Index	38.61	5.76	16.17	49
EWB: Autonomy	37.27	6.82	10	49
EWB: Mastery	38.44	7.41	8	49
EWB: Growth	38.57	6.79	11	49
EWB: Pos Relations	40.68	6.85	14	49
EWB: Purpose	38.51	6.92	8	49
EWB: Self-Acceptance	38.2	8.16	7	49
Self-employed	.12	.33	0	1
Emotion-Focused Coping	21.93	5.52	12	48
Problem-Focused Coping	37.83	6.02	12	48
PC: Pos Reinterpretation	12.31	2.35	4	16
PC: Active Coping	12.54	2.17	4	16
PC: Planning	12.98	2.34	4	16
EC: Venting Emotion	9.05	2.78	4	16
EC: Denial	5.99	2.2	4	16
EC: Disengagement	6.88	2.28	4	16
Age	58.96	12.43	30	92
Age Squared	3630.3	1493.39	900	8464
Gender	.54	.5	0	1
Married	.7	.46	0	1
Education	7.46	2.51	1	12
Children	2.49	1.75	0	22
Income (log)	9.74	2.75	0	12.61

N=6,061

Table 2: Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
(1) EWB Index	1.00																				
(2) EWB: Autonomy	0.65*	1.00																			
(3) EWB: Mastery	0.86*	0.50*	1.00																		
(4) EWB: Growth	0.80*	0.42*	0.58*	1.00																	
(5) EWB: Pos Relations	0.78*	0.35*	0.61*	0.57*	1.00																
(6) EWB: Purpose	0.83*	0.38*	0.63*	0.68*	0.59*	1.00															
(7) EWB: Self-Accept	0.89*	0.49*	0.77*	0.63*	0.65*	0.69*	1.00														
(8) Self-employed	0.08*	0.09*	0.04*	0.08*	0.03	0.08*	0.06*	1.00													
(9) Problem Coping	0.53*	0.38*	0.40*	0.52*	0.38*	0.46*	0.44*	0.08*	1.00												
(10) Emotion Coping	-0.45*	-0.33*	-0.42*	-0.37*	-0.25*	-0.39*	-0.39*	-0.07*	-0.23*	1.00											
(11) PC: Pos Reint	0.47*	0.29*	0.35*	0.48*	0.38*	0.38*	0.39*	0.05*	0.82*	-0.17*	1.00										
(12) PC: Active	0.46*	0.36*	0.35*	0.44*	0.32*	0.40*	0.37*	0.09*	0.90*	-0.20*	0.59*	1.00									
(13) PC: Planning	0.47*	0.36*	0.36*	0.44*	0.30*	0.42*	0.38*	0.08*	0.91*	-0.24*	0.57*	0.81*	1.00								
(14) EC: Venting	-0.29*	-0.22*	-0.34*	-0.17*	-0.15*	-0.19*	-0.30*	-0.02	-0.06*	0.75*	-0.09*	-0.03	-0.03	1.00							
(15) EC: Denial	-0.32*	-0.22*	-0.27*	-0.31*	-0.19*	-0.32*	-0.25*	-0.07*	-0.17*	0.75*	-0.09*	-0.16*	-0.21*	0.29*	1.00						
(16) EC: Disengage	-0.42*	-0.31*	-0.35*	-0.39*	-0.25*	-0.41*	-0.34*	-0.08*	-0.32*	0.78*	-0.21*	-0.31*	-0.34*	0.33*	0.50*	1.00					
(17) Age	0.08*	0.09*	0.15*	-0.06*	0.11*	-0.05*	0.11*	-0.06*	0.03	0.02	0.03	0.03	0.01	-0.15*	0.09*	0.14*	1.00				
(18) Gender	-0.01	-0.13*	-0.07*	0.07*	0.14*	0.00	-0.05*	-0.11*	0.04*	0.19*	0.10*	0.00	-0.01	0.24*	0.06*	0.12*	-0.03	1.00			
(19) Married	0.12*	-0.01	0.09*	0.05*	0.13*	0.16*	0.15*	0.08*	0.01	-0.11*	-0.00	0.01	0.02	-0.05*	-0.09*	-0.12*	-0.10*	-0.16*	1.00		
(20) Education	0.17*	0.07*	0.12*	0.24*	0.05*	0.19*	0.16*	0.07*	0.13*	-0.21*	0.03	0.15*	0.17*	-0.08*	-0.25*	-0.17*	-0.11*	-0.11*	0.05*	1.00	
(21) Children	0.07*	0.02	0.06*	0.01	0.10*	0.06*	0.08*	-0.00	0.03	-0.03	0.06*	0.02	-0.00	-0.07*	0.03	-0.00	0.23*	0.02	0.17*	-0.14*	1.00
(22) Income (log)	0.15*	0.09*	0.14*	0.15*	-0.00	0.16*	0.16*	0.13*	0.09*	-0.19*	0.00	0.12*	0.12*	-0.13*	-0.14*	-0.17*	-0.10*	-0.31*	0.10*	0.35*	-0.07*

^{*}N=6,061. Shows significance at the .01 level

Table 3.1: OLS Results, Self-Employment and Eudaimonic Well-being

	(1) EWB Index	(2) Self-Acceptance	(3) Purpose	(4) Growth	(5) Relations	(6) Mastery	(7) Autonomy
Self-employed	1.069***	1.018***	1.223***	1.275***	0.879***	0.474	1.546***
	(0.244)	(0.335)	(0.282)	(0.285)	(0.294)	(0.319)	(0.288)
Age	0.233***	0.195***	0.242***	0.204***	0.155**	0.373***	0.228***
	(0.052)	(0.074)	(0.062)	(0.062)	(0.062)	(0.065)	(0.063)
Age Squared	-0.002***	-0.001	-0.002***	-0.002***	-0.001	-0.002***	-0.001***
	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Gender	0.625***	0.338	1.005***	1.632***	2.569***	-0.273	-1.521***
	(0.183)	(0.259)	(0.214)	(0.211)	(0.216)	(0.230)	(0.217)
Married	1.413***	2.634***	2.141***	0.566**	2.248***	1.437***	-0.550**
	(0.196)	(0.281)	(0.231)	(0.226)	(0.232)	(0.247)	(0.223)
Education	0.401***	0.513***	0.484***	0.641***	0.223***	0.369***	0.176***
	(0.035)	(0.049)	(0.041)	(0.040)	(0.041)	(0.044)	(0.042)
Children	0.159***	0.214***	0.246***	0.167***	0.178***	0.092	0.059
	(0.050)	(0.069)	(0.059)	(0.058)	(0.060)	(0.064)	(0.059)
Income (log)	0.144***	0.208***	0.207***	0.160***	0.053	0.183***	0.050
(0)	(0.030)	(0.044)	(0.035)	(0.035)	(0.034)	(0.039)	(0.037)
N	6061	6061	6061	6061	6061	6061	6061
\mathbb{R}^2	0.073	0.082	0.082	0.086	0.070	0.066	0.038
R ² controls only	0.064	0.071	0.075	0.078	0.067	0.061	0.032

Note: OLS regressions of eudaimonic well-being and self-employment. See Table 1 for variable summary statistics. Robust errors clustered at the individual level are reported in parenthesis. All models include wave fixed effects.

****p<0.01, ***p<0.05, *p<0.1

Table 3.2: OLS Results, Self-Employment and Coping

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Proble	m-Focused Copi	ng	Eme	otion-Focused (Coping	Compos	site Indexes
	Pos Reinterpret	Active	Planning	Venting	Denial	Behavioral	Problem	Emotion
	& Growth	Coping				Disengage	Coping	Coping
Self-employed	0.395***	0.583***	0.502***	0.082	-0.261***	-0.270***	1.480***	-0.451*
	(0.104)	(0.091)	(0.098)	(0.115)	(0.090)	(0.095)	(0.256)	(0.231)
Age	0.051**	0.028	0.037*	-0.078***	-0.036*	-0.066***	0.116**	-0.180***
	(0.022)	(0.020)	(0.022)	(0.027)	(0.021)	(0.022)	(0.057)	(0.054)
Age Squared	-0.000**	-0.000	-0.00Ó	0.000*	0.000**	0.001***	-0.001	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Gender	0.565***	0.170**	0.137*	1.223***	0.072	0.375***	0.870***	1.675***
	(0.075)	(0.067)	(0.073)	(0.085)	(0.064)	(0.069)	(0.191)	(0.166)
Married	-0.001	0.019	0.068	-0.087	-0.279***	-0.353***	0.087	-0.719***
	(0.080)	(0.071)	(0.077)	(0.089)	(0.073)	(0.074)	(0.203)	(0.180)
Education	0.043***	0.130***	0.153***	-0.075***	-0.194***	-0.118***	0.326***	-0.387***
	(0.015)	(0.013)	(0.014)	(0.016)	(0.012)	(0.013)	(0.037)	(0.032)
Children	0.068***	0.039*	0.009	-0.086***	-0.022	-0.059***	0.115*	-0.166***
	(0.022)	(0.020)	(0.024)	(0.024)	(0.018)	(0.019)	(0.059)	(0.046)
Income (log)	0.016	0.029***	0.039***	-0.034**	-0.018	-0.047***	0.082***	-0.098***
. 0,	(0.012)	(0.011)	(0.012)	(0.015)	(0.012)	(0.012)	(0.031)	(0.031)
N	6061	6061	6061	6061	6061	6061	6061	6061
\mathbb{R}^2	0.021	0.040	0.040	0.089	0.075	0.074	0.034	0.090
R ² controls only	0.018	0.027	0.032	0.088	0.073	0.070	0.025	0.087

Note: OLS regressions of coping strategies and self-employment. See Table 1 for variable summary statistics. Robust errors clustered at the individual level are reported in parenthesis. All models include wave fixed-effects. ****p < 0.01, ***p < 0.05, *p < 0.1

Table 4: OLS Results, Self-Employment, Coping, and Eudaimonic Well-being

(4) (1) (2)(3)Dependent Variable: EWB Index 1.069*** Self-employed 1.364*** 0.291 0.316* (0.244)(0.183)(0.182)(0.250)Age 0.233*** 0.120*** 0.115*** (0.052)(0.039)(0.039)-0.002*** -0.001* -0.001* Age Squared (0.000)(0.000)(0.000)Gender 0.625*** 0.853*** 0.759*** (0.183)(0.142)(0.145)1.413*** 1.122*** 1.122*** Married (0.196)(0.151)(0.149)Education 0.401*** 0.128*** 0.157*** (0.035)(0.027)(0.027)Children 0.159*** 0.052 0.038 (0.050)(0.039)(0.039)Income (log) 0.144*** 0.074*** 0.076*** (0.030)(0.023)(0.023)-0.353*** **Emotion Coping** (0.012)Problem Coping 0.418*** (0.011)0.643*** PC: Pos Reinterpretation (0.036)PC: Active Coping 0.346*** (0.049)PC: Planning 0.252*** (0.047)EC: Venting Emotion -0.325*** (0.026)EC: Denial -0.278*** (0.035)-0.464*** EC: Disengagement (0.034)Obs. 6061 6061 6061 6061 0.006 0.069 0.419 R-squared 0.426

Note: OLS regressions of Eudaimonic Well-being on Self-employment. See Table 1 for variable summary statistics. Robust errors clustered at the individual level are reported in parenthesis. All models include wave fixed-effects.

^{***} p<0.01, ** p<0.05, * p<0.1

Table 5: Direct and Indirect Effects of Self-Employment on Eudaimonic Well-being via Coping

	b	Bootstrapped	z	P>z	95 % Co	
Direct Effects		Std. Err.			Inte	rval
Self-employment → PC: Pos						
Reint/Growth	.325***	.116	2.80	0.005	.098	.554
Self-employment → PC: Active Coping	.639***	.099	6.46	0.000	.445	.832
Self-employment → PC: Planning	.562***	.110	5.01	0.000	.336	.769
Self-employment → EC: Venting	156	.136	-1.15	0.249	422	.111
Self-employment → EC: Denial	311***	.102	-3.04	0.002	512	111
Self-employment → EC: Disengagement	423***	.107	-3.95	0.000	632	-0.213
Self-employment → EWB	.279	.203	1.37	0.170	119	.677
Indirect Effect (via Emotional and Problem Co	ping)					
Self-employment → EWB	.918***	.174	5.25	0.000	.575	1.261
Total (Direct + Indirect) Effect						
Self-employment → EWB	1.197***	.274	4.37	0.000	.670	1.734

Note: Results based on SEM model from Figure 1. Bootstrapped errors and confidence intervals based on 10,000 replications. *** p<0.01, ** p<0.05, * p<0.1

Table 6: Supervisors vs Non-Supervisors

	(1)	(2)	(3)	(4)	(5)	(6)
	Depe	endent Varial	ole: Eudaimor	nic Well-Being	Index	
Self-employed vs wage-employed	1.069*** (0.244)					
Self-employed (supervisor) vs wage-employed (non- supervisor)		2.253*** (0.352)				
Self-employed (supervisor) vs self-employed (sole proprietor)			1.832*** (0.428)			
Self-employed (supervisor) vs wage-employed (supervisor)				1.106*** (0.352)		
Self-employed (sole proprietor) vs wage-employed (non- supervisor)					0.544 (0.333)	
Categorical (Self-employed non- supervisor = Reference) Self-employed (supervisor)						1.710*** (0.411)
Wage-employed (non- supervisor)						-0.567* (0.333)
Wage-employed (supervisor)						0.658* (0.347)
N R-squared	6061 0.069	2163 0.092	731 0.094	1612 0.061	2230 0.074	3842 0.079

Note: OLS regressions. Robust errors clustered at the individual level are reported in parenthesis. All models include the controls from our main model in table 3, including wave fixed-effects.

^{***} p<0.01, ** p<0.05, * p<0.1

Online Appendix

Table 1A: Confirmatory Factor Analysis

Technique: Structural Equation Modeling (SEM)

Method: maximum likelihood

Latent Construct: Problem Coping	Standardized Beta
PC: Pos Reint	0.654
	(0.01)
PC: Active Cope	0.901
•	(0.006)
PC: Planning	0.897
_	(0.006)
Latent Construct: Emotional Coping	, ,
EC: Venting	0.438
	(0.017)
EC: Denial	0.626
	(0.014)
EC: Disengage	0.793
	(0.014)
Latent Construct: Eudaimonic Wellbeing	
EWB: Autonomy	0.562
	(0.012)
EWB: Mastery	0.827
	(0.006)
EWB: Growth	0.764
	(0.008)
EWB: Pos Rel	0.736
	(0.008)
EWB: Purpose	0.800
	(0.007)
EWB: Self-Accept	0.872
	(0.005)
Log-likelihood	-114141
Number of observations	3667

Table 1B: Factor analysis/correlation

Method: principal-component factors

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	5.4169	3.9148	0.4514	0.4514
Factor2	1.5021	0.3005	0.1252	0.5766
Factor3	1.2016	0.41595	0.1001	0.6767
Factor4	0.7856	0.1101	0.0655	0.7422
Factor5	0.6755	0.1757	0.0563	0.7985
Factor6	0.4998	0.03687	0.0417	0.8401
Factor7	0.4629	0.04415	0.0386	0.8787
Factor8	0.4188	0.08314	0.0349	0.9136
Factor9	0.3357	0.04802	0.028	0.9416
Factor10	0.2876	0.05768	0.024	0.9655
Factor11	0.2300	0.04635	0.0192	0.9847
Factor12	0.1836	-	0.0153	1.0000

Table 1C: Rotated factor loadings

Variable	Factor1	Factor2	Factor3
Problem coping			
PC: Pos Reint		0.6945	
PC: Active Cope		0.9124	
PC: Planning		0.9169	
Emotional coping			
EC: Venting			0.6824
EC: Denial			0.8137
EC: Disengage			0.7438
Eudaimonic Wellbeing			
EWB: Autonomy	0.4316		
EWB: Mastery	0.849		
EWB: Growth	0.6762		
EWB: Pos Rel	0.8948		
EWB: Purpose	0.7413		
EWB: Self-Accept	0.8872		

Table 2A: Random Effects, Self-Employment and Coping

	(1) Pos Reinterpret & Growth	(2) Active Coping	(3) Planning	(4) Venting	(5) Denial	(6) Behavioral Disengage
Self-employed	0.212**	0.448***	0.406***	0.119	-0.138*	-0.237***
1 7	(0.086)	(0.082)	(0.089)	(0.101)	(0.084)	(0.087)
Age	0.056***	0.035*	0.050**	-0.079***	-0.040**	-0.080***
O	(0.019)	(0.018)	(0.020)	(0.024)	(0.019)	(0.020)
Age Squared	-0.000**	-0.000	-0.000**	0.000**	0.000***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Gender	0.526***	0.152**	0.121*	1.241***	0.111*	0.406***
	(0.073)	(0.066)	(0.072)	(0.082)	(0.064)	(0.068)
Married	-0.024	0.036	0.071	-0.078	-0.240***	-0.315***
	(0.072)	(0.066)	(0.070)	(0.082)	(0.069)	(0.070)
Education	0.044***	0.124***	0.140***	-0.079***	-0.192***	-0.113***
	(0.014)	(0.013)	(0.014)	(0.016)	(0.013)	(0.013)
Children	0.075***	0.040**	0.010	-0.071***	-0.020	-0.053***
	(0.021)	(0.019)	(0.023)	(0.024)	(0.018)	(0.019)
Income (log)	0.016	0.029***	0.042***	-0.017	-0.011	-0.042***
	(0.011)	(0.010)	(0.011)	(0.013)	(0.011)	(0.012)
N	6061	6061	6061	6061	6061	6061
R ² (overall)	0.03	0.04	0.04	0.09	0.08	0.07

Note: Random-effects models of coping and self-employment. See Table 1 for variable summary statistics. Robust errors clustered at the individual level are reported in parenthesis. All models include wave fixed effects. *** p < 0.01, ** p < 0.05, * p < 0.1

Table 2B: Random Effects, Self-Employment and Eudaimonic Well-being

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	EWB Index	Self-Acceptance	Purpose	Growth	Relations	Mastery	Autonomy
Self-employed	0.494**	0.514*	0.606**	0.641***	0.454*	0.318	1.046***
	(0.192)	(0.273)	(0.245)	(0.238)	(0.249)	(0.278)	(0.241)
Age	0.225***	0.151**	0.230***	0.247***	0.152***	0.358***	0.215***
	(0.043)	(0.062)	(0.054)	(0.053)	(0.054)	(0.059)	(0.053)
Age Squared	-0.002***	-0.001	-0.002***	-0.002***	-0.001	-0.002***	-0.001***
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Gender	0.358**	0.005	0.801***	1.367***	2.375***	-0.519**	-1.617***
	(0.179)	(0.252)	(0.211)	(0.207)	(0.212)	(0.226)	(0.210)
Married	1.130***	2.099***	1.853***	0.521***	1.873***	1.215***	-0.412**
	(0.170)	(0.244)	(0.213)	(0.202)	(0.209)	(0.226)	(0.199)
Education	0.383***	0.481***	0.459***	0.589***	0.234***	0.368***	0.208***
	(0.033)	(0.048)	(0.040)	(0.039)	(0.039)	(0.043)	(0.040)
Children	0.121**	0.179***	0.191***	0.115**	0.169***	0.066	0.063
	(0.048)	(0.065)	(0.058)	(0.056)	(0.057)	(0.062)	(0.056)
Income (log)	0.069***	0.099***	0.139***	0.089***	0.030	0.103***	0.032
	(0.024)	(0.037)	(0.031)	(0.030)	(0.030)	(0.035)	(0.031)
N	6061	6061	6061	6061	6061	6061	6061
R ² (overall)	0.073	0.082	0.082	0.086	0.070	0.066	0.038

Note: Random-effects regressions of eudaimonic well-being and self-employment. See Table 1 for variable summary statistics. Robust errors clustered at the individual level are reported in parenthesis. All models include wave fixed effects.

*** p < 0.01, ** p < 0.05, * p < 0.1

Table 3A: Balancing Diagnostics for Matching Estimates

Variable	Sample	Treated	Control	%bias	% reduction bias	t-test	p>t
Problem coping	U	39.173	37.692	25.2		6.16	0.000
	M	39.173	39.277	-1.8	93.0	-0.34	0.734
Emotional coping	U	21.856	21.978	-20.9		-2.78	0.000
	M	21.856	20.640	4.0	80.7	-0.66	0.425
Gender	U	0.3845	0.5436	-32.3		-5.80	0.000
	M	0.3845	0.4056	-4.3	86.7	-0.95	0.416
Married	U	0.8042	0.6808	28.5		4.71	0.000
	M	0.8042	0.8056	-0.3	98.9	0.42	0.947
Education	U	7.9775	7.4445	21.3		3.04	0.000
	M	7.9775	8.0324	-2.2	89.7	-0.59	0.679
Children	U	2.4676	2.4848	-1.0		0.59	0.806
	M	2.4676	2.4690	-0.1	91.8	0.78	0.986
Income (log)	U	10.605	10.375	20.8		3.22	0.000
	M	10.605	10.643	-3.5	83.2	0.34	0.486

Note. Means reported for unmatched (U) and matched (M) samples. Results show a reduction in bias for the matched samples.

Table 4A: Propensity Score Matching Estimates, Average Treatment Effect on the Treated (ATT)

	EWB	Autonomy	Mastery	Growth	Relations	Purpose	Acceptance
Self-	.035**	0.022	-0.402	0.566***	0.108	0.568***	-0.042
employed							
	(0.017)	(0.019)	(0.251)	(0.208)	(0.245)	(0.216)	(0.260)

Notes: ATT = average treatment effect on the treated. The standard errors are based on Abadie and Imbens (2009) and account for the propensity score being estimated rather than observed.

Standard errors in parenthesis. *** p < 0.01, ** p < 0.05, * p < 0.1

Table 4B: Propensity Score Matching Estimates, Average Treatment Effect on the Treated (ATT)

-	Pos	Plan	Active	Problem	Vent	Denial	Disen	Emotion
	Reint							
Self- employed	0.038*	0.091***	0.097***	0.097***	0.037**	-0.083***	-0.048***	-0.014
r	(0.020)	(0.020)	(0.020)	(0.020)	(0.019)	(0.019)	(0.019)	(0.019)

Notes: ATT = average treatment effect on the treated. The standard errors are based on Abadie and Imbens (2009) and account for the propensity score being estimated rather than observed.

Standard errors in parenthesis. *** p<0.01, ** p<0.05, * p<0.1

Table 5A: Twin Sample, Self-Employment and Coping

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Positive	Active	Planning	Problem	Venting	Denial	Behavior	Emotion
	Reint	Coping		Coping			Disen	Coping
Self-employed	0.021	0.773***	0.727*	1.522*	0.395	-0.175	-0.391	-0.136
	(0.294)	(0.298)	(0.397)	(0.819)	(0.389)	(0.397)	(0.398)	(0.917)
Age	-1.091**	-0.706	-0.554	-2.347	-0.181	-0.188	0.375	-0.016
	(0.495)	(0.585)	(0.732)	(1.717)	(0.695)	(0.347)	(0.382)	(1.116)
Age Squared	0.010**	0.007	0.005	0.022	0.001	0.003	-0.003	0.002
•	(0.005)	(0.006)	(0.007)	(0.016)	(0.007)	(0.004)	(0.004)	(0.011)
Gender	1.134***	0.204	0.318	1.653*	1.035***	0.331	1.046***	2.397***
	(0.307)	(0.320)	(0.368)	(0.881)	(0.365)	(0.373)	(0.355)	(0.832)
Married	-0.275	-0.474*	-0.180	-0.931	0.264	0.108	0.061	0.398
	(0.277)	(0.279)	(0.293)	(0.723)	(0.329)	(0.260)	(0.276)	(0.630)
Education	0.066	0.130**	0.168**	0.365**	-0.100	-0.198***	-0.078	-0.382**
	(0.064)	(0.060)	(0.067)	(0.163)	(0.074)	(0.071)	(0.068)	(0.173)
Children	0.107	0.155**	0.174**	0.436**	-0.050	-0.094	-0.167**	-0.311
	(0.077)	(0.069)	(0.078)	(0.184)	(0.094)	(0.064)	(0.080)	(0.189)
Log Income	0.051	0.061*	0.059	0.169	0.015	0.050	0.029	0.093
	(0.040)	(0.033)	(0.042)	(0.104)	(0.048)	(0.040)	(0.047)	(0.115)
Twins (Pairs)	714 (357)	714 (357)	714 (357)	714 (357)	714 (357)	714 (357)	714 (357)	714 (357)
R-squared	0.058	0.049	0.044	0.054	0.029	0.045	0.047	0.044

Standard errors are in parentheses

Table 5B: Twin Sample, Self-Employment and EWB

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	EWB	Self-	Purpose	Positive	Personal	Mastery	Autonomy
	Index	Acceptance		Relations	Growth	-	-
Self-employed	1.140	0.872	0.136	0.796	2.037**	0.679	2.318**
	(0.698)	(1.047)	(0.835)	(0.904)	(0.806)	(0.977)	(0.988)
Age	-1.096	-0.255	-1.767	-0.625	-2.785**	-0.689	-0.458
	(0.872)	(1.502)	(1.314)	(0.970)	(1.243)	(1.719)	(1.147)
Age Squared	0.010	0.001	0.017	0.007	0.026**	0.007	0.005
	(0.009)	(0.015)	(0.013)	(0.010)	(0.012)	(0.016)	(0.012)
Gender	0.804	1.009	0.294	3.350***	2.263**	-0.383	-1.711
	(0.865)	(1.190)	(0.983)	(0.963)	(1.011)	(1.182)	(1.100)
Married	0.190	1.639*	0.641	1.346*	-0.564	-0.428	-1.493*
	(0.626)	(0.921)	(0.813)	(0.801)	(0.750)	(0.803)	(0.824)
Education	0.254	0.470*	0.213	0.167	0.336*	0.154	0.183
	(0.170)	(0.251)	(0.184)	(0.183)	(0.184)	(0.235)	(0.225)
Children	0.406**	0.742***	0.493**	0.274	0.318*	0.341	0.268
	(0.176)	(0.273)	(0.197)	(0.209)	(0.193)	(0.233)	(0.219)
Log Income	0.001	-0.002	0.090	0.037	-0.040	0.035	-0.113
	(0.108)	(0.167)	(0.125)	(0.111)	(0.121)	(0.142)	(0.112)
Twins (Pairs)	714 (357)	714 (357)	714 (357)	714 (357)	714 (357)	714 (357)	714 (357)
R-squared	0.030	0.047	0.026	0.054	0.058	0.008	0.031

Standard errors are in parentheses

^{***} p<.01, ** p<.05, * p<.1

^{***} p<.01, ** p<.05, * p<.1

Table 6A: Sibling Sample, Self-Employment and Coping

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Positive	Active	Planning	Problem	Venting	Denial	Behavior	Emotion
	Reint	Coping		Coping			Dis	Coping
Self-employed	0.391	0.720***	0.789**	1.900**	0.312	-0.072	-0.304	-0.038
	(0.286)	(0.259)	(0.344)	(0.753)	(0.354)	(0.334)	(0.325)	(0.782)
Age	-0.147	-0.253	-0.346*	-0.743	-0.313	0.118	0.137	-0.062
O	(0.206)	(0.176)	(0.206)	(0.545)	(0.200)	(0.149)	(0.199)	(0.415)
Age Squared	0.002	0.003*	0.004**	0.008*	0.003	-0.001	-0.001	0.001
	(0.002)	(0.001)	(0.002)	(0.004)	(0.002)	(0.001)	(0.002)	(0.004)
Gender	1.095***	0.477*	0.513*	2.082***	0.818***	-0.011	0.595**	1.399**
	(0.261)	(0.265)	(0.273)	(0.715)	(0.316)	(0.274)	(0.273)	(0.647)
Married	-0.151	-0.129	-0.014	-0.295	0.090	-0.130	-0.177	-0.244
	(0.244)	(0.249)	(0.253)	(0.641)	(0.298)	(0.225)	(0.243)	(0.565)
Education	0.123**	0.177***	0.201***	0.500***	-0.066	-0.149**	-0.082	-0.303**
	(0.060)	(0.057)	(0.060)	(0.156)	(0.063)	(0.062)	(0.059)	(0.148)
Children	0.131*	0.125**	0.165**	0.422**	-0.038	-0.093	-0.170**	-0.301*
	(0.067)	(0.062)	(0.068)	(0.166)	(0.083)	(0.058)	(0.069)	(0.161)
Log Income	0.011	0.011	0.012	0.033	-0.030	0.019	-0.028	-0.041
	(0.035)	(0.033)	(0.038)	(0.096)	(0.045)	(0.035)	(0.042)	(0.100)
Siblings (Pairs)	930 (465)	930 (465)	930 (465)	930 (465)	930 (465)	930 (465)	930 (465)	930 (465)
R-squared	0.05	0.05	0.06	0.06	0.03	0.03	0.04	0.03

Standard errors are in parentheses

Table 6B: Sibling Sample, Self-Employment, and EWB

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	EWB	Self-	Purpose	Positive	Personal	Mastery	Autonomy
	Index	Acceptance		Relations	Growth		
Self-employed	1.335**	1.376	0.678	1.105	2.005***	0.659	2.185**
	(0.674)	(1.008)	(0.829)	(0.864)	(0.727)	(0.877)	(0.856)
Age	-0.307	-0.205	-0.333	-0.272	-0.594	-0.483	0.047
	(0.381)	(0.490)	(0.470)	(0.439)	(0.552)	(0.539)	(0.470)
Age Squared	0.004	0.003	0.004	0.004	0.006	0.007	0.001
•	(0.003)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)
Gender	0.866	0.451	0.863	3.199***	2.091***	-0.380	-1.026
	(0.667)	(0.917)	(0.778)	(0.744)	(0.795)	(0.906)	(0.820)
Married	0.918	2.304***	1.565**	1.835**	0.026	0.506	-0.729
	(0.587)	(0.833)	(0.738)	(0.717)	(0.680)	(0.764)	(0.744)
Education	0.354**	0.647***	0.312*	0.231	0.482***	0.299	0.150
	(0.152)	(0.220)	(0.174)	(0.172)	(0.165)	(0.202)	(0.182)
Children	0.421***	0.757***	0.476***	0.291	0.366**	0.292	0.342*
	(0.162)	(0.234)	(0.180)	(0.191)	(0.180)	(0.210)	(0.197)
Log Income	-0.034	-0.051	0.070	-0.016	-0.087	0.006	-0.127
	(0.093)	(0.139)	(0.111)	(0.098)	(0.108)	(0.118)	(0.095)
Siblings (Pairs)	930 (465)	930 (465)	930 (465)	930 (465)	930 (465)	930 (465)	930 (465)
R-squared	.07	.08	.06	.07	.1	.03	.09

Standard errors are in parentheses

^{***} p<.01, ** p<.05, * p<.1

^{***} p<.01, ** p<.05, * p<.1

Table 7A: Supervisors and Problem-Focused Coping

Table 7A. Supervisors and	(1)	(2)	(3)	(4)	(5)	(6)
	De	ependent Var	iable: Problen	n-Focused Co	ping	
Self-employed vs wage-employed	1.480*** (0.256)					
Self-employed (supervisor) vs wage-employed (non- supervisor)		2.361*** (0.379)				
Self-employed (supervisor) vs self-employed (sole proprietor)			1.279*** (0.457)			
Self-employed (supervisor) vs wage-employed (supervisor)				1.366*** (0.388)		
Self-employed (sole proprietor) vs wage-employed (non- supervisor)					1.176*** (0.339)	
Categorical (Self-employed non- supervisor = Reference) Self-employed (supervisor)						1.209*** (0.446)
Wage-employed (non- supervisor)						-1.168*** (0.340)
Wage-employed (supervisor)						-0.107 (0.361)
N R-squared	6061 0.069	2163 0.092	731 0.094	1612 0.061	2230 0.074	3842 0.079

Note: OLS regressions. Robust errors clustered at the individual level are reported in parenthesis. All models include controls for age, age squared, gender, marital status, children, personal income, and wave fixed-effects.
*** p<0.01, ** p<0.05, * p<0.1

Table 7B: Supervisors and Emotion-Focused Coping

.	(1)	(2)	(3)	(4)	(5)	(6)
	De	ependent Var	iable: Emotio	n-Focused Co	ping	
Self-employed vs wage-employed	-0.451* (0.231)					
Self-employed (supervisor) vs wage-employed (non- supervisor)		-1.153*** (0.316)				
Self-employed (supervisor) vs self-employed (sole proprietor)			-1.107*** (0.400)			
Self-employed (supervisor) vs wage-employed (supervisor)				-0.688** (0.318)		
Self-employed (sole proprietor) vs wage-employed (non-supervisor)					0.026 (0.330)	
Categorical (Self-employed non- supervisor = Reference) Self-employed (supervisor)						-1.150*** (0.390)
Wage-employed (non- supervisor)						-0.019 (0.328)
Wage-employed (supervisor)						-0.498 (0.334)
N R-squared	6061 0.069	2163 0.092	731 0.094	1612 0.061	2230 0.074	3842 0.079

Note: OLS regressions. Robust errors clustered at the individual level are reported in parenthesis. All models include controls for age, age squared, gender, marital status, children, personal income, and wave fixed-effects.
*** p<0.01, ** p<0.05, * p<0.1

Table 8A: Literature Review

Authors	Coping Measures	Findings
Patel, Wolfe, & Williams, 2019	Problem- and emotion-focused coping	Problem-focused coping decreases the allostatic load of the self-employed, while emotion-focused coping does not have a significant effect on the allostatic load.
Corner, Singh, & Pavlovich, 2017	Problem- and emotion-focused coping	Problem- and emotion-focused coping both help promote emotional and psychological functioning after experiencing business failure.
Byrne & Shepherd, 2015	Problem- and emotion-focused coping	The self-employed who use both problem- and emotion-focused coping were the most effective in handling business failure.
Uy, Foo, & Song, 2013	Active and avoidance coping	Active and avoidance coping in combination, positively affect psychological well-being in the long term, but not in short term.
Patzelt & Shepherd, 2011	Problem- and emotion-focused coping	Problem- and emotion-focused coping moderate the negative relationship between self-employment and negative emotions, such that the self-employed experiences less negative emotion when using either type of coping.
Drnovšek, Örtqvist, & Wincent, 2010	Problem- and emotion-based coping	Problem-based coping positively affects well-being and performance, while emotion-based coping does not affect either well-being or performance.
Örtqvist, Drnovšek, & Wincent, 2007	Reactive role behavior and passive role behavior	Reactive role behavior is positively related to venture performance, while passive role behavior is not significantly related to venture performance.
Singh, Corner, & Pavolvich, 2007	Problem- and emotion-focused coping	Problem-focused coping positively affects the financial management skills of the self-employed, while emotion-focused coping positively affects their self-knowledge increase.

Note: Table adopted from Sutter, Huiqing, Lerman, and Nikolaev (working paper).

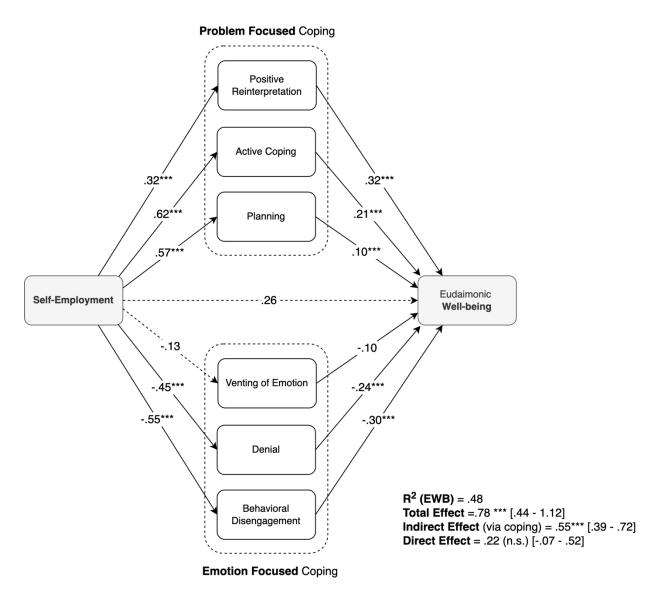


Fig 1A: Main Model, Accounting for Personality Traits (Big Five)

Note. N = 6,061. Robust standard errors are clustered at the individual level to account for autocorrelation of the error term across waves. We allow the residuals of all coping mediators to be correlated. The model includes controls for age, age squared, gender, marital status, children, and personal income, and the Big Five Personality Traits (extraversion, agreeableness, openness, conscientiousness, and neuroticism). R^2 (Overall) = .43. Total effect (self-employment) = .78***; indirect effect (self-employment via coping strategies) = .55*** p < 0.01, ** p < 0.05, * p < 0.05

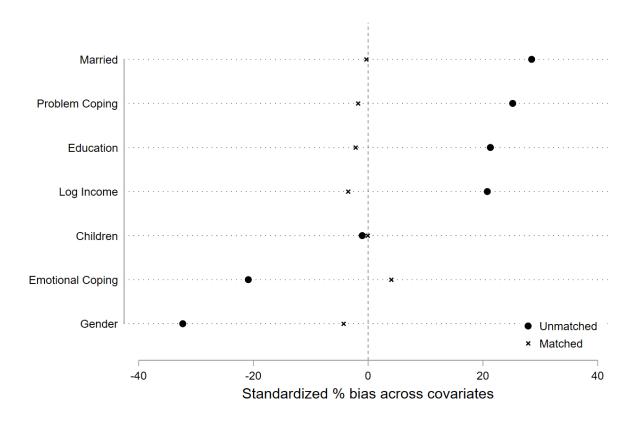


Fig 2A: Standardized % Bias Note. The results show bias across the covariates prior to matching but no bias after the matching process.