

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Journal of Business Venturing

journal homepage: www.elsevier.com/locate/jbusvent

Entrepreneurship and eudaimonic well-being: Five venues for new science



Carol D. Ryff

Department of Psychology/Institute on Aging, University of Wisconsin-Madison, Madison, WI 53706, United States of America

ARTICLE INFO

Keywords:

Eudaimonic and hedonic well-being
 Entrepreneurial types
 Health
 Impact on others

ABSTRACT

Researchers in entrepreneurial studies are increasingly interested in the psychological well-being of entrepreneurs. Approaches to well-being tend to be partitioned into hedonic and eudaimonic formulations. Most entrepreneurial studies have focused on hedonic indicators (life satisfaction, happiness, positive affect). The central objective of this essay is to examine the relevance of eudaimonic well-being for understanding entrepreneurial experience. The theoretical background and key dimensions of eudaimonic well-being are described and their relevance for entrepreneurial studies is considered. Illustrative findings from prior well-being studies are examined, also with emphasis on possible extensions to entrepreneurship. Five key venues for the entrepreneurial field are then considered: (1) entrepreneurship and autonomy, viewed both as a motive (self-determination theory) and as an aspect of well-being (eudaimonic well-being theory); (2) varieties of entrepreneurship (opportunity versus necessity) and eudaimonic well-being; (3) eudaimonia in the entrepreneurial journey (beginning, middle, end); (4) entrepreneurship, well-being and health; and (5) entrepreneurs and the eudaimonia of others – contrasting virtuous and vicious types. In each topic, extant findings from entrepreneurial studies are considered and new research directions proposed. The overall aim is to be generative regarding the interplay between entrepreneurial experience and eudaimonic well-being.

Executive summary: Although there is growing research on the psychological well-being of entrepreneurs, most studies to date have focused on hedonic conceptions of well-being. However, key aspects of eudaimonic well-being (e.g., realization of personal potential, purposeful life engagement, effective management of complex environments) have received little attention even though they may be particularly relevant to entrepreneurial pursuits. To address this issue, the theoretical foundation of a widely-used eudaimonic model is briefly described along with its empirical operationalization. Illustrative findings generated with this model are noted, and their relevance for entrepreneurial studies is considered. Shifting to extant entrepreneurial research, five topical venues are then presented, beginning with a call to better distinguish the meaning and measurement of autonomy (as a core motive from self-determination theory, and as an aspect of well-being from eudaimonic theory) in studies of entrepreneurial experience. The eudaimonic well-being of different types of entrepreneurs is then considered with a primary focus on the distinction between necessity versus opportunity entrepreneurs. These particular types invoke emphasis on sociodemographic factors (e.g., educational and occupational status, income, wealth) that are known from previous research to matter in accounting for differences in reported levels of well-being. The third venue considers how eudaimonic well-being may matter over the course of entrepreneurial experience, underscoring that certain aspects of well-being may account for who chooses an entrepreneurial path while other aspects may serve as protective resources (buffers) vis-à-vis the stresses attendant to managing a self-initiated business. Still other aspects of well-being may be nurtured by the longer-term journey of business venturing. The

E-mail address: cryff@wisc.edu.

<https://doi.org/10.1016/j.jbusvent.2018.09.003>

Received 24 September 2017; Received in revised form 9 September 2018; Accepted 11 September 2018

Available online 01 October 2018

0883-9026/ © 2019 The Author. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

health of entrepreneurs is then considered as linked to experiences of well-being. New directions for objective health assessments (functional health, biomarkers, neuroscience, gene expression) are considered; all have previously been linked in population-based studies to eudaimonic well-being. Finally, the impact of entrepreneurs on the lives of others (co-workers, employees, families, communities, society) is considered via the contrast between benevolent (virtuous) versus malevolent (vicious) entrepreneurs. Promising empirical questions that follow from these observations are detailed.

From a lay perspective, the central importance of bringing eudaimonia to the field of entrepreneurial studies is that the essential core of this type of well-being involves realization of personal talents and potential. Such active pursuit of such personal excellence, in the spirit of Aristotle, is fundamental to entrepreneurship.

1. Introduction

Due to its wide-ranging relevance across scientific fields, empirical research on well-being has proliferated in recent decades (Kahneman et al., 1999; Ryan and Deci, 2001; Ryff and Singer, 2008; Ryff, 2017; Vittersø, 2016). Hedonic formulations emphasize positive life evaluations, such as life satisfaction and positive feeling states, such as happiness and positive affect. Eudaimonic formulations, in contrast, emphasize multiple facets of well-being such as purposeful engagement, realization of personal potential, autonomy, mastery, quality ties to others, and self-acceptance. Although hedonic and eudaimonic indicators are positively correlated, as would be expected given that both are assessing well-being, they have been shown to be empirically distinct (Keyes et al., 2002), and may sometimes even be at odds with each other. Purposeful striving and personal growth are demanding, if not stressful approaches to living that may not always be conducive to feelings of happiness and contentment.

Most research linking entrepreneurship to well-being has focused on hedonic well-being, especially life satisfaction. Eudaimonic ideas have been evident in entrepreneurial studies guided by self-determination theory (Ryan and Deci, 2001), which is a formulation of three innate motivational needs: autonomy, competence, relatedness. Although these have been examined in entrepreneurial studies, they do not constitute a theory of eudaimonic well-being. Thus, a key objective is explain eudaimonia, as a multidimensional approach to psychological well-being, to scholars of business venturing. The first section thus examines the conceptual and philosophical foundations of a widely-used model of eudaimonic well-being built on the integration of perspectives from clinical, developmental, existential and humanistic psychology, along with distant observations from Aristotle. These differing views converged in their emphasis on six distinct aspects of what it means to be fully functioning and well. The six dimensions are explicitly defined and their operationalization as empirical assessment tools is briefly described. Many scientific findings have grown up around this eudaimonic model, which has been largely absent in entrepreneurial studies. Conversely, although work and job stress have been present in prior studies of eudaimonic well-being, none have examined entrepreneurial experience per se. Thus, there are disconnects between the field of entrepreneurial studies and extensive research on the antecedents and consequents of eudaimonic well-being. That missing interplay is framed as opportunity – i.e., unmapped territories rich in potential for future research.

The second and primary section then forges greater exchange between entrepreneurial and eudaimonic scholarship via five topical issues, framed as venues for future research. The first venue considers prior studies of entrepreneurial autonomy and independence, which have sometimes been linked to hedonic well-being (life satisfaction). A key distinction is made between of autonomy postulated as a core need or motive in self-determination theory (Ryan and Deci, 2000a, 2000b, 2017), versus autonomy formulated as an aspect of well-being that may be fulfilled, or frustrated, by entrepreneurial pursuits. In empirical practice, the distinction between these two aspects of autonomy is often lost, although both are relevant for understanding entrepreneurial experience. The second venue addresses varieties of entrepreneurship, with a focus on the distinction between opportunity and necessity entrepreneurs. These two types are increasingly recognized as having potentially different consequences for well-being, possibly tied to pre-existing sociodemographic factors (educational status, income) between them, although further research is needed. The third venue focuses the unfolding of the entrepreneurial process in time – how it progresses from early stages to longer-term enterprises, at least for some. At the beginning, eudaimonic well-being may be useful in identifying those who choose the entrepreneurial path (i.e., selection factors) and what they portend for the tasks ahead. Once into the endeavor, eudaimonic well-being may be an important resource (moderator/buffer) vis-à-vis the challenges and stresses of entrepreneurship, and thereby, underscore the relevance of eudaimonia as a predictor of longer-term entrepreneurial success. The fourth venue calls for greater research on the health, broadly defined, of entrepreneurs via *their experiences of well-being*. These questions build on the extensive prior literature that has linked eudaimonia to health, as distilled in the first section below. The fifth topic attends to how entrepreneurs impact the eudaimonic well-being of others (employees, families, communities). These questions draw on studies of prosocial entrepreneurs as well as fundamental insights from Aristotle that evoke ideas of virtuous entrepreneurship. However, mindful that self-interest and greed may drive some new business ventures, the vicious entrepreneur is also considered. Both styles almost certainly impact the well-being of others, but how that happens is not well studied or understood. In the background of these questions are growing problems of inequality around the globe, which may be fueled by greed at the top, including among some entrepreneurs. It is suggested that entrepreneurial studies have much to contribute to research on social inequalities and health. A summary section recapitulates prior points and ends with hypotheses worthy of future inquiry.

2. A eudaimonic approach to psychological well-being

2.1. Conceptual foundations

Perhaps in response to the trauma of a world fraught with wars, numerous scholars in the middle of the last century concerned themselves with describing the upside of the human condition. Formulations came from clinical (Jahoda, 1958; Jung, 1933), developmental (Bühler, 1935; Erikson, 1959; Neugarten, 1973), existential (Frankl, 1959), humanistic (Maslow, 1968; Rogers, 1961), and social (Allport, 1961) psychology. These writings delineated numerous characteristics of what it means to be mentally healthy, psychosocially developed, purposefully engaged, self-actualized, fully functioning, and mature. No single perspective stood notably above the rest, although common themes were evident across them. These points of convergence served as the foundation for the six-dimensional model of well-being (Ryff, 1989) described herein. It is important to note that nothing in these foundational formulations overlapped with the conceptual precursors of self-determination theory, which is focused on intrinsic and extrinsic motivational processes (Ryan and Deci, 2000a, 2000b).

Reflections from Aristotle's eudaimonia were subsequently elaborated in the eudaimonic formulation of well-being (Ryff and Singer, 2008). In the *Nicomachean Ethics*, Aristotle (1925, translated by Ross), opened with this question: what is the highest of all human goods? The answer for him was eudaimonia, which he described as *activity of the soul in accord with virtue*. The key task in life is to know and live in truth with one's daimon, a kind of spirit given to all persons at birth. Eudaimonia is thus kind of personal excellence built on striving to realize one's true and best nature. It is well captured the two great imperatives of self-truth (know thyself) and striving toward excellence consistent with one's given potentialities (become what you are). These ideas deepened the philosophical significance of eudaimonic well-being.

The new model stood in marked contrast to reigning views of subjective well-being at the time that revolved around assessments of happiness, life satisfaction, and positive and negative affect (Andrews and Withey, 1976; Bradburn, 1969; Campbell, 1981; Diener, 1984; Larson, 1978). These approaches, though lacking theoretical foundations, provided useful tools for evaluating subjective well-being. In a review marking the new millennium, Ryan and Deci (2001) underscored contrasts between these differing perspectives on well-being and partitioned the field into two broad traditions, one dealing with happiness (hedonic well-being) and the other dealing with human potential (eudaimonic well-being). They placed their own work on self-determination theory, focused on core motivational needs, on the eudaimonic side, along with the above model of well-being (Ryff, 1989; Ryff and Singer, 2008), focused explicitly on the nature of well-being. Although both perspectives were concerned with realization of human potential, they were notable distinct in that self-determination theory focused on core motivational needs underlying human fulfillment, whereas eudaimonic well-being explicated the various components of what it means to be fully functioning.

Returning to the overarching distinction between hedonia and eudaimonia, subsequent analyses from a national sample of U.S.

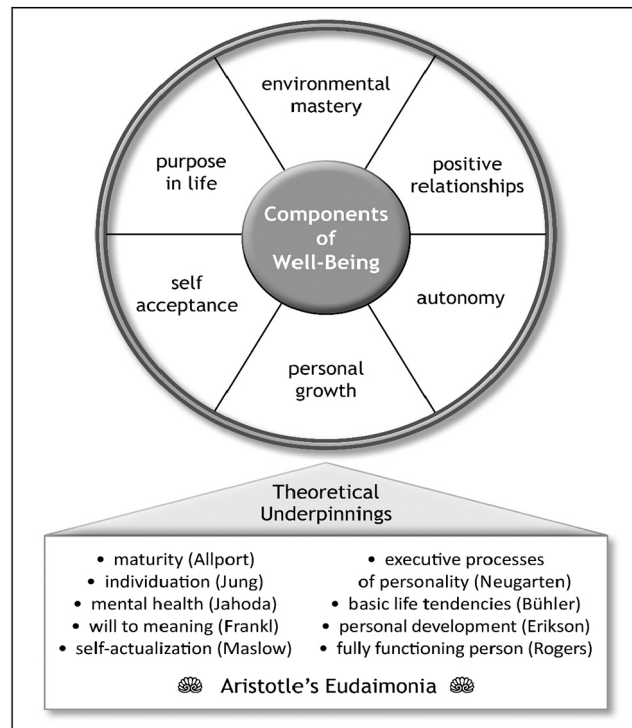


Fig. 1. Key dimensions of well-being and underlying theory.

adults that assessed both types of well-being (Keyes et al., 2002) documented the earlier assertion (Ryff, 1989) that reigning indicators of subjective (hedonic) well-being were systematically neglecting important aspects of psychological (eudaimonic) well-being. In the years that followed, extensive research has grown up around both types of well-being.

2.2. Six dimensions of eudaimonia and their relevance for entrepreneurship

Fig. 1 visually depicts the six key components of eudaimonic well-being (Ryff, 1989) and distills their theoretical underpinnings. Structured self-report scales to quantitatively measure these dimensions were generated following the construct-oriented approach to personality assessment (Jackson, 1976; Wiggins, 1973). Key to the creation of theory-driven assessment instruments is the writing of self-descriptive items based on the theory-driven definitions of each dimension (see table in Appendix). These definitions came from integration of the underlying conceptual formulations. The formal definitions distinguish between high and low scorers on each dimension, which is essential for writing positively and negatively scored items so as to control for response sets (e.g., the tendency to agree with everything). Extensive psychometric work tested the reliability and validity as well as the dimensional structure of the model (Ryff, 1989; Ryff and Keyes, 1995). Numerous subsequent studies, including in differing cultural contexts, added further evidence for the six-factor model, when adequate depth of measurement (i.e., sufficient number of items) is included (Ryff, 2014).

What relevance, if any, do these eudaimonic components of well-being have for studies of entrepreneurship? Provisional answers to this question are sketched here via consideration of each of the six dimensions. Subsequent sections dig more deeply into possible synergies between the largely disconnected eudaimonic and entrepreneurial fields. The first dimension, **Autonomy**, emphasizes that one is self-determining and independent as well as able to evaluate oneself by personal standards, and if need be, to resist social pressures to think or act in certain ways. These qualities seem inherently relevant for the self-initiated, often risky, features of entrepreneurial pursuits. The first of five venues below, in fact, considers numerous entrepreneurial studies, most guided by self-determination theory that construe autonomy as a fundamental need or motive. Autonomy as a feature of well-being addresses something distinct – namely, whether such a need has been met. Both are important ways of thinking about autonomy in entrepreneurship, but in empirical practice the distinction between autonomy as a core motivational force versus an achieved aspect of well-being is rarely clearly delineated.

Environmental mastery emphasizes the sense that one can manage the surrounding environment, including making effective use of available opportunities, while also creating contexts suitable to one's personal needs and values. These qualities seem highly relevant to the well-being of entrepreneurs, who explicitly choose work pursuits that require effective management, if not exploitation, of unique opportunities. Alternatively, the absence of this aspect of well-being is about having difficulty managing daily life and not being able to effect change in the surrounding context. Such self-evaluations could capture unique aspects of entrepreneurial ill-being that may be notably distinct from reports of low life satisfaction. That is, being ineffective in managing one's contextual challenges is not equivalent to feeling dissatisfied with life, although the two may influence each other.

Personal growth is concerned with self-realization and achievement of personal potential and thus is closest in content to Aristotle's ideas about eudaimonia. Those who report this aspect of well-being see themselves as growing and expanding over time in ways that reflect ever greater self-knowledge and effectiveness. Alternatively, the absence of this aspect of well-being involves having a sense of personal stagnation and feelings of boredom with one's situation, and possibly an inability to develop new attitudes and behaviors. Both the presence and the absence of personal growth seem fundamentally important to entrepreneurial pursuits. In the best of times, the high functioning entrepreneur may perceive that s/he is effectively negotiating new challenges and tasks that are nurturing a deepened sense of growth and self-realization. In the worst of times, entrepreneurial mishaps may contribute deeply to feelings of personal stagnation (being stuck and unable to move forward).

Positive relations with others is the most universally endorsed aspect of what it means to be well. This dimension encompasses having warm, trusting ties to others, being concerned about the welfare of others, understanding the give and take of social relationships, and having the capacity for empathy and affection. Bringing this aspect of well-being to entrepreneurial studies is critically important, given that no entrepreneur succeeds or fails without connections to others. Those who bring these positive social connections to their work endeavors and to those they employ likely increase their prospects of success. Alternatively, those who lack trusting relationships, find it difficult to be open to and concerned about others, or who are unwilling to make compromises, may well have the best of their entrepreneurial plans undermined. This aspect of eudaimonic well-being thus underscores the fundamentally social features of entrepreneurial pursuits.

Purpose in life is the existential core of eudaimonic well-being, with its emphasis on viewing one's life as having meaning, direction, and goals. These qualities comprise a kind of intentionality that involves having aims and objectives for living. Life-span perspectives gave particular emphasis to creative or productive endeavors in the journey across the decades of adult life. The capacity to find meaning in the face of adversity, as emphasized by Victor Frankl, is also key. Entrepreneurial endeavors would seem to heighten the essential relevance of these aspects of well-being – without goals, purposes, and meaning, including during periods of challenge and difficulty, it is difficult to fathom an entrepreneur who is experiencing genuine well-being. In contrast, the absence of these qualities (having no sense of direction, meaning, and purpose) would seem to be a pivotal window into entrepreneurial failure.

Self-acceptance brings a potentially neglected aspect of entrepreneurial well-being. It encompasses having positive attitudes toward oneself, but drawing on the Jungian idea of the shadow, also includes the capacity to see one's bad qualities. This awareness of personal strengths and weaknesses thus goes beyond standard views of self-esteem. Applied to the entrepreneurial context, self-acceptance may be a critical asset, such that effective problem-solving and negotiating through unfolding challenges would seem to demand honest reckoning with one's self. Alternatively, those who have troubled or distorted self-perceptions may be particularly vulnerable in managing setbacks that are likely inherent in the entrepreneurial journey.

2.3. Illustrative findings from prior eudaimonic research and their relevance for entrepreneurship

The empirical scales to measure eudaimonic well-being (Ryff, 1989) have been translated to more than 35 languages and resulted in more than 750 publications (Ryff, 2018). This widespread engagement likely reflects the compelling ideas and ideals at the core of this model, which in the fashion of Aristotle, reach for the best within us. Thus, the model has likely flourished because it emerged from vital, nourishing well-springs in existential, humanistic, development and clinical psychology, along with distant philosophical wisdom. In addition, the model has broad scientific relevance and versatility, involving core aspects of living (e.g., life course development, work and family life, health and physiological processes mechanisms, neuroscience, inequality), including how these vary by cultural context. The assessment tools themselves also have unique versatility, sometimes serving as antecedent variables (does eudaimonia promote longer lives?), sometimes as consequent variables (e.g. does age or socioeconomic status predict differing levels of well-being?), and increasingly, as moderating variables (e.g., does eudaimonia buffer against the ill-health effects of life adversity?). All of these observations underscore promise of the eudaimonic model for the entrepreneurial field.

Many of the empirical findings described below are from the MIDUS (Midlife in the U.S.) national longitudinal study (<http://www.midus.wisc.edu>), created by a multidisciplinary team of scientists interested in studying human well-being and health via integrative research that puts psychological topics together with sociodemographic factors and biological and neuroscience factors (Brim et al., 2004; Ryff, 2018). The extensive scientific engagement with MIDUS data (50,000+ users and 1000+ publications) documents the interest of many contemporary researchers seeking to paint on a large integrative canvas. To date, however, there has been limited engagement from the entrepreneurial field, which is a core rationale for writing this essay.

Illustrative empirical questions and findings in this prior well-being literature are noted below, organized around multiple thematic areas (Ryff, 2014). In each, the potential relevance for the entrepreneurial field is considered. Some topics are further elaborated in the five venues that follow.

How eudaimonic well-being changes with age has been of interest from the outset. Early cross-sectional findings (Ryff, 1989) that showed age decline in the most existential and humanistic aspects of well-being – purpose in life and personal growth. Subsequent longitudinal evidence from large national studies verified midlife to old age decrements among U.S. adults (Springer et al., 2011). These losses possibly reflect the “structural lag” idea (Riley et al., 1994), which posits that social institutions lag behind the added years of life that many older adults now experience. An interesting and unexplored question is whether entrepreneurial activities in mid- and later-life might help offset these declines – that is, contribute to maintenance of purposeful engagement and continuing personal growth in later adulthood.

Associations between **personality and well-being** have been of interest. The big five model of traits have been linked to the above dimensions with numerous findings (openness is linked with personal growth, agreeableness with positive relations with others, and extraversion, conscientiousness, and neuroticism with environmental mastery, purpose in life, and self-acceptance) (Schmutte and Ryff, 1997). Comparative research from U.S. and German samples showed that personality traits rather than self-regulatory characteristics were strong predictors of well-being in both countries (Staudinger et al., 1999). Longitudinal inquiries have addressed links between early personality profiles and midlife well-being, finding that teenage extraversion was predictive of higher well-being (all dimensions) in midlife (Abbott et al., 2008). These findings are relevant for efforts to link entrepreneurial experience to eudaimonic well-being. Personality traits are sometimes included as covariates in analytic models to sharpen the focus on ways in which entrepreneurship (and not pre-existing personality characteristics, which might be construed as selection effects) matter for well-being.

Many studies have linked **family roles and experiences to well-being** (Ahrens and Ryff, 2006; Bierman et al., 2006; Greenfield, 2009; Marks et al., 2004; Schwartz et al., 2009). Greater role involvement promotes higher well-being, although the actual activities in such roles matter – i.e., helping others and having a sense of obligation to them seems to enhance purpose in life and self-acceptance as well as protect against decline when functional health problems occur. Those who are married have a well-being advantage compared to the divorced, widowed, or never married, but single women score higher on autonomy and personal growth compared to married women. Parenting seems to enhance well-being, particularly when children are flourishing. Loss of a child predicts impaired well-being, even decades later (Rogers et al., 2008). Such findings suggest that full understanding of the well-being of entrepreneurs demands knowledge of their family lives. Relevant questions are whether entrepreneurship is helping or hindering the quality of family life, and conversely, whether family life is helping or hindering entrepreneurial pursuits. This kind of work-family interface has been extensively studied in MIDUS (Grzywacz, 2000; Grzywacz and Bass, 2003; Grzywacz and Marks, 2000a, 2000b).

Comparatively little prior research has examined links between **work life and eudaimonic well-being** – a dearth that portends rich opportunities for entrepreneurial studies. Nonetheless, some illustrative findings have shown that those who saw themselves falling short of career goals reported lower purpose in life and higher depressive symptoms (Carr, 1997), whereas purpose in life and personal growth were found in other studies to contribute to career commitments (Strauser et al., 2008). Although not explicitly tied to eudaimonic well-being, findings from MIDUS have linked job insecurity to worker health (Burgard et al., 2009), night shift work to problems with sleep quality and obesity (Ko, 2013), unfairness at work to blood pressure (Ford, 2014), and examined the prevalence and correlates of workplace discrimination (Chou and Choi, 2011). All such questions may have relevance for entrepreneurial studies. Returning to the work-family interface, jobs with more autonomy, variety and substantive complexity have been shown to predict higher levels of work-to-family facilitation (Grzywacz and Butler, 2005), whereas work-to-family conflict and family-to-work enrichment have been found to be particularly salient for hedonic well-being (life satisfaction, affect balance, self-rated mental health) (Gareis et al., 2009). These patterns may be evident, perhaps to greater degrees, in contexts of entrepreneurial work experience. Finally, MIDUS researchers have emphasized differences across cohorts regarding work-family trade-offs and how they matter for

self-esteem (Carr, 2002). Such cohort-related questions could be of value for future research in entrepreneurial studies as well.

Extensive research has emerged on links between *eudaimonic well-being and health*. Prospective epidemiological inquiries have shown that those with higher levels of purpose in life at baseline subsequently had reduced risk of death (Boyle et al., 2009; Cohen et al., 2016; Hill and Turiano, 2014), reduced risk of Alzheimer's disease and mild cognitive impairment (Boyle et al., 2010), reduced risk of stroke (Kim et al., 2013a), and reduced risk of myocardial infarction among those with coronary heart disease (Kim et al., 2013b). Efforts to understand these linkages have shown that those with higher levels of purposeful engagement were more likely to engage in preventive health behaviors, such as cholesterol tests and cancer screenings (Kim et al., 2014); they also showed better functional capacities, measured objectively (Kim et al., 2017). Other studies have probed eudaimonia as a moderator that may afford protection vis-à-vis the health challenges of aging. Friedman and Ryff (2012) showed buffering effects of purpose in life and positive relations with others vis-à-vis increments in inflammatory processes tied to later-life comorbidity (having multiple chronic conditions). Similarly, sleep problems are known to increase with aging, but older women reporting higher levels of eudaimonic well-being (all dimensions except autonomy) reported lower levels of disrupted sleep (Phelan et al., 2010). Relevant questions are to what extent these health benefits of eudaimonic well-being are also evident among those who choose entrepreneurial life paths.

The neural correlates of eudaimonic well-being have been studied. Post-mortem analyses have shown that purpose in life moderated links between brain-based pathology (plaques and tangles) and levels of cognitive function while respondents were still alive. Among those with high levels of brain pathology, cognitive function was maintained in those who reported higher levels of purpose in life compared to those with comparable brain pathology but lower levels of purpose (Boyle et al., 2012). Eudaimonic well-being (personal growth, positive relations, purpose in life) has also been positively linked with insular cortex volume (Lewis et al., 2014), which is involved in a variety of higher-order functions. MIDUS has shown that those with higher levels of purpose in life had more rapid brain-based emotional recovery from negative stimuli (Schaefer et al., 2013) and further that those with higher eudaimonic well-being showed sustained activity in reward circuitry in response to positive stimuli, which was further linked with lower diurnal cortisol output (Heller et al., 2013). Together, these inquiries point to promising new directions regarding neural mechanisms that may be implicated in entrepreneurial experiences, particularly those that contribute to heightened eudaimonia along the way.

Eudaimonic and hedonic well-being have also been linked to gene expression, specifically, the conserved transcriptional response to adversity (CTRA), characterized by up-regulated expression of pro-inflammatory genes and down-regulated expression of antibody synthesis genes. A first study (Fredrickson et al., 2013) showed that high hedonic well-being was associated with unhealthy profiles (upregulated expression of pro-inflammatory genes and decreased expression of antibody synthesis genes), while high eudaimonic well-being was associated with healthy profiles (decreased expression of pro-inflammatory genes and increased expression of antibody synthesis genes). These findings were then replicated and extended (Cole et al., 2015; Fredrickson et al., 2015). Given the frequency with which hedonic well-being is examined in entrepreneurial studies, it would be useful to know if these differing profiles of gene expression tied to hedonic vs. eudaimonic well-being are also evident in samples of entrepreneurs.

Finally, growing evidence shows that *eudaimonic well-being is modifiable can be promoted* (Ruini, 2017; Ruini and Ryff, 2016; Ryff, 2014). “Well-being therapy” (Fava et al., 1998; Fava, 1999) made explicit use of eudaimonic well-being as an extension of cognitive behavioral therapy in treating major depression. Longitudinal evidence showed that relapse was prevented over a six-year period (Fava et al., 2004). Well-being therapy has also been effective in treating anxiety disorders (Fava et al., 2005; Ruini and Fava, 2009; Ruini et al., 2015), again with long-lasting effects. Outside the clinical context, Ruini et al. (2006, 2009) adapted well-being therapy for school settings with the goal of preventing the development of depression (especially among girls) during adolescence and found improvement in well-being along with reductions in distress. Further school interventions are summarized in Ruini and Ryff (2016). At the other end of the life course, a group intervention for older adults in the community (Friedman et al., 2017) showed gains in most aspects of eudaimonic well-being as well as life satisfaction, along with reductions in depressive and physical symptoms and sleep complaints. More interventions showing that eudaimonia can be promoted are detailed in Ryff (2014). As yet unknown is whether entrepreneurial experience may be a further route through which eudaimonia is enhanced.

3. Entrepreneurship and eudaimonic well-being: Five venues

Stephan's (2018) comprehensive review documents growing interest in the mental health and well-being of entrepreneurs, possibly related to the intriguing paradox that even though entrepreneurial pursuits are known to be stressful, many entrepreneurs report being happy in their work and satisfied with life. The 144 studies reviewed encompassed diverse indicators of mental distress as well as measures of hedonic well-being. The limited work on eudaimonic well-being was noted, with the observation: “This is surprising because firm performance is more likely to benefit from entrepreneur's eudaimonic well-being (thriving and activated affect) than from their hedonic well-being (life satisfaction and contentment)” (p. 34). Thus, a converging message from that review and this essay is the need to bring greater emphasis to eudaimonic well-being in formulating entrepreneurial success.

So doing will illuminate: (a) the degree to which entrepreneurs feel purposefully engaged in what they do; (b) whether they see themselves as growing and making best use of their talents and potential over time; (c) the quality of their ties to others, including employees and collaborators; (d) the sense that they are effective in managing their surrounding environments; (e) the degree to which they show knowledge and acceptance of their own strengths and weaknesses; and, of course, (f) the degree to which they view themselves as self-determined and independent. To bring greater consideration of these ideas to the entrepreneurial field, five topical venues are examined below. The first examines the link between entrepreneurship and autonomy, which is framed both as a motive and as an aspect of well-being, a distinction sometimes blurred in entrepreneurial studies. The second considers the eudaimonic well-being of different types of entrepreneurs, focused on the distinction between necessity versus opportunity entrepreneurs. The third

examines how and where eudaimonia might matter at different points in the entrepreneurial process, from initial pursuits to longer-term endeavors. The fourth considers links between entrepreneurial experiences, eudaimonic well-being, and health, broadly defined. The fifth reflects on the impact of entrepreneurs on the eudaimonic well-being of others (employees, families, communities). These queries are organized via a contrast between virtuous and vicious types of entrepreneurs. Throughout consideration of these venues, relevant prior empirical findings are considered as well as the need for new inquiries going forward.

3.1. (1) Entrepreneurship and autonomy

Entrepreneurial activity, by definition, is self-initiated and hence is fundamentally tied to ideas of autonomy and independence. It makes sense, therefore, that self-determination theory, which formulates autonomy as one of three basic human motives (along with needs for competence and relatedness), is prominent in entrepreneurial studies (Benz and Frey, 2008; Shane et al., 2003; Van Gelderen, 2016; Van Gelderen and Jansen, 2006). However, as recognized by Ryan and Deci (2001), there is a fundamental difference between conceptualizing autonomy as a core psychological need versus conceptualizing autonomy as a key feature of well-being. Both are arguably important – one captures what fuels human activity (the motivational part) and the other examine whether such core motives and needs are met (the well-being part). As will be described below, the entrepreneurial literature occasionally invokes these distinctions, sometimes ignores them, and other times blurs them.

Benz and Frey (2008) explicitly focus on the independence aspects of self-employment, which are purported to give a “higher measure of self-determination and freedom” (p.362). They argue that such independence in self-employment contributes to greater happiness than traditional employment (irrespective of income or hours worked) because people value “procedural utility” defined as the conditions and processes leading to desired outcomes. Using panel data from three European countries, they hypothesize and find that self-employed people derive higher satisfaction from their work than those employed in organizations, thus underscoring not only outcomes (presumably profit) but also the processes leading to the outcomes. The guiding formulation clearly distinguishes between needs for self-determination and freedom and how they are linked to a hedonic outcome, namely job satisfaction.

Shir et al. (in press) used a representative sample of working individuals from Sweden to investigate how active engagement in entrepreneurship impacts well-being, defined as a composite of life satisfaction, global happiness and subjective vitality. Drawing on self-determination theory, they tested a two-stage model through which autonomy mediates links between active entrepreneurial engagement and well-being via its effects on psychological competence and relatedness. Their work thus underscores individual self-organization, with autonomy at its core that is then linked to competence and relatedness to account for the well-being of entrepreneurs. This formulation was shown to be more beneficial in meeting basic needs of entrepreneurs compared to other alternatives (i.e., non-entrepreneurial work). Importantly, components from self-determination theory were assessed, not as motives, but rather as needs that *were being satisfied*.

Returning to the idea of autonomy as a start-up motive rather than a satisfied need, Van Gelderen and Jansen (2006) observed that founding and owning an independent business does not “automatically provide the owner/founder with autonomy” (p.541), given that continual efforts must be made to achieve and maintain autonomy. This observation usefully separates the entrepreneurial motivation to be autonomous from whether that need is fulfilled over time. Using qualitative methods with interviews (vignettes) from business owners/founders, they deepened understanding of whether decisional freedom was voluntarily chosen, and whether it was involuntarily lost, or temporarily sacrificed, over time, depending on phases in the business cycle and the financial performance of the business. They further partitioned entrepreneurial motivation into three submotives: (a) negative freedom tied to the dislike of having a boss and having to work within stifling organizational rules; (b) self-expression that involves working according to one's values, tastes, goals; and (c) opportunity that allows one to be in charge, to lead and direct.

These submotives may matter for different aspects of eudaimonic well-being. Self-employment that allows one to avoid requirements imposed by a boss or large organizational requirements may enhance the sense that one is living according to personal values and convictions, i.e., marching to one's own drummer (autonomy). Self-expression aspects of autonomy that involves pursuing personal goals that are in accord with one's values, likely contributes to a sense of realizing unique talents and capacities (personal growth). The opportunity to be in charge of, to lead and direct daily activities likely contributes to the sense effectively managing demands in self-created contexts (environmental mastery). Reflecting a such a nuanced view, Van Gelderen (2016) emphasizes that autonomy-oriented entrepreneurs are not necessarily individualistic, given that many make decisions in consultation with others (business partners, employees, external advisors), thus possibly contributing thereby to interpersonal aspects of well-being (positive relations with others). “Several business owners expressed the idea that running a business is as much about connectedness as autonomy” (p.561). Interestingly, both relatedness and autonomy are core motives and core components of eudaimonic well-being. This observation again underscores the need in future work to better distinguish between motives that activate and mobilize entrepreneurial pursuits from what such intentions portend for different aspects of well-being through time.

3.2. (2) Varieties of entrepreneurs: Distinguishing between opportunity and necessity

Whether different types of entrepreneurs vary in their mental health and well-being is a key question in Stephan's (2018) comprehensive review. One such distinction pertains to opportunity versus necessity entrepreneurs, which is particularly useful for thinking about implications for well-being. Opportunity entrepreneurs report higher family and health satisfaction than necessity entrepreneurs, but both types report equal dissatisfaction with the lack of leisure time (Binder & Coad, 2016; Johansson Sevä et al., 2016). Accounting for such differences invokes differing degrees of deliberate choice in self-employment as well as differences in human capital, such as educational status and wealth. Necessity entrepreneurs may grapple more with resource constraints,

particularly if their self-employment occurred in response to job loss, or lack of satisfactory work options. These starting conditions may imply different well-being consequences relative to those whose pursuits of new business ventures were not activated by economic downturns, job loss or limited work opportunities.

To examine necessity entrepreneurs, [Bensik et al. \(2017\)](#) used Gallup survey data from 2010 to 2017 to examine the hedonic well-being of self-employment borne out of necessity, indicated by lower educational status and higher financial strain. They found lower levels of reported life satisfaction compared to traditional wage earners. Similarly, [Binder \(2017\)](#) used German panel data (1984–2015) to show that self-employment (compared to traditional employment) negatively impacted life satisfaction, especially when one entered self-employment from unemployment, earned low income, or had no employees. Such contexts involve marginalized, undersized, poor performance enterprises, previously referred to as “muppets” [Nightingale and Coad \(2013\)](#). The suggestion is that worries behind one's financial situation and job security drive the compromised life satisfaction. Another example pertains to the subjective well-being of micro-credit entrepreneurs in Bangladesh ([Bhuiyan and Ivlevs, 2017](#)). Although providing small loans to poor people to start new businesses was hailed as a way of promoting livelihoods and reducing poverty, findings showed that becoming a micro-entrepreneur resulted in higher levels of worry and depression, with no effects on life satisfaction and happiness. Debt repayment obligations and loan pressures were put forth as likely mechanisms through which the micro-entrepreneur experience contributes to greater worry and depression.

Taken together, self-employment among educationally and economically disadvantaged individuals, possibly accompanied by accumulation of debt, captures a variety of entrepreneurship driven primarily by desperation. Although other necessity entrepreneurs may embark on self-employment for less dire reasons, such types were not well represented in extant studies. The larger point is that living as a muppet likely compromises numerous aspects of eudaimonia (environmental mastery, autonomy, personal growth, purpose in life, self-acceptance, relationships with others), given that previous research has extensively documented socioeconomic gradients in psychological well-being ([Ryff, 2017](#)). Put another way, necessity-driven entrepreneurship may be an occupational variant, largely unrecognized, in the larger field of inequality research, which has been extensively tied to increased risk for diverse mental and physical health problems ([Adler et al., 1999](#); [Marmot, 2005](#)). What studies of entrepreneurship bring to that larger literature is consideration of a frequently neglected subgroup – namely, self-employed individuals who work for themselves out of lack of viable alternatives.

Of importance is whether frequently observed gradients in health, driven by differences in educational and economic status, among traditionally employed individuals are paralleled by similar gradients between two types of self-employment – namely, opportunity versus necessity entrepreneurs. Further comparison of muppets with superstar entrepreneurs, including in small high-growth firms known as “gazelles” ([Henrekson and Johansson, 2010](#)), is needed as relates to well-being and health. To the extent risk-taking innovators are better educated, and possibly more optimistic, extraverted, and conscientious, it is important to know if their entrepreneurial activities enhance their eudaimonic well-being, even after adjusting for these other factors. So doing would sharpen understanding of the conditions under which entrepreneurial pursuits contribute to the realization of personal potential that is central to eudaimonia.

A further potentially useful distinction, relevant primarily in the opportunity entrepreneurial context, pertains to growth- versus independence-oriented new ventures ([Douglas, 2013](#)). Arguing that intention to start a new venture is overly generic, Douglas observes that independence-oriented firms may contribute relatively little to societal benefits (via employment creation and tax revenue generation) compared to growth-oriented firms. “To increase social welfare it is important to identify individuals who are predisposed to manage growth-oriented firms” (p.633). Guided by self-determination theory ([Gagne and Deci, 2005](#)), their focus was on entrepreneurial self-efficacy (ESC) defined as confidence to complete entrepreneurial tasks that reflect prior educational and/or business experiences. ESC was predicted to be more important for the formation of growth compared to independence intentions. The rationale was that a growth intention involves starting a new firm that will be substantially larger in subsequent time periods, whereas an independence intention is about starting a new venture that is primarily expected to allow the individual to be one's own boss, while providing sufficient income to meet his/her needs. Using a sample of MBA candidates from a business school in Thailand, [Douglas \(2013\)](#), in fact, found that attitudinal antecedents (ESC, work enjoyment, risk tolerance) differed between entrepreneurs predisposed to growth compared to independence.

In the enactment of these differing entrepreneurial intentions, it would be informative to examine implications for well-being. Hedonic aspects (happiness, life satisfaction) may have greater prominence among independence-oriented entrepreneurs focused on self-direction and self-sufficiency, whereas eudaimonic well-being (especially aspects of personal growth and environmental mastery) may be key outcomes for growth-oriented entrepreneurs. The central idea is that achieving one's vision for business growth may contribute importantly to the self-realization (personal growth) embodied Aristotle's eudaimonia.

3.3. (3) *The entrepreneurial journey: Where is eudaimonic well-being relevant and how?*

Many in the entrepreneurial field underscore the importance of studying the entrepreneurial process as it plays out over time. For example, [Van Gelderen's \(2016\)](#) emphasized the need to understand how autonomy-driven business owners manage to attain, as well as retain or regain, a sense of autonomy as the business venture unfolds. Similarly, [Stephan's \(2018\)](#) mental health and well-being review elevated the theme of persistence – i.e., who stays with the entrepreneurial enterprise over time. Multiple studies, some longitudinal in design ([Gorgievski et al., 2010](#); [Patel and Thatcher, 2014](#); [Wincent et al., 2008](#)), were put forth as evidence that entrepreneurs with higher well-being were more likely to persist in their endeavors. Other cross-time relationships between entrepreneurial stress and psychological outcomes have focused on negative downward spirals. That is, exhausted and dissatisfied entrepreneurs reported their work to be more demanding, which subsequently led to further exhaustion and dissatisfaction (e.g.,

Örtqvist & Wincent, 2010). Experience sampling methods, guided by affect-as-information theory, have also been used to track daily affect, temporal focus, and venture effort (Foo et al., 2009). Findings showed that entrepreneurs' negative affect directly predicted entrepreneurial effort toward tasks that were required immediately, whereas positive affect predicted venture effort beyond what is immediately required. Such effects were mediated by future temporal focus. More research has been called for – there is “need to pay greater attention to dynamic processes and changeability over time in understanding entrepreneur's work and their mental health and well-being” (Stephan, 2018, p.36).

Other cross-time work dynamics have been examined via comparison of entrepreneurs with traditional employees. Cardon and Patel (2015) used matched longitudinal samples of self-employed individuals and traditional employees to assess whether occupational stress (measured subjectively and objectively via assessments of hypertension) was more often evident among entrepreneurs. Controlling for past income and prior health, self-employed individuals, in fact, experienced greater stress than employees. Further findings showing a positive impact of such stress on income of the self-employed, but a negative impact on their health (assessed in terms of health behaviors – alcohol use, smoking, physical activity, weight gain). These relationships, in turn, were moderated by positive affect, which was found to accentuate the positive effect of stress on income, while also to mitigate the negative effect of stress on health. This study illustrates richly textured science on the entrepreneurial process, guided by a formulation that entrepreneurs tolerate higher levels of stress because they care about other factors, such as autonomy, independence and self-orchestrated working conditions.

Bringing both hedonic and eudaimonic well-being into longitudinal inquiry, Hahn et al. (2012) examined the role of well-being in business owner's personal initiative (PI), which encompasses self-starting action, proactive and future oriented behavior, and overcoming barriers in goal pursuit. Two complementary models were tested to explain links between well-being and PI: the broaden-and-build theory and self-regulation as limited resource approach. Well-being outcomes included life satisfaction (hedonic) and vigor (eudaimonic). Longitudinal analyses, which controlled for gender, age, years in industry and subjective business success, showed that only vigor predicted PI (defined as task-oriented and relationship-oriented proactive behaviors). The results thus supported the self-regulation approach wherein eudaimonic well-being was the relevant affective predictor of proactive behavior.

Viewed collectively, the above studies foreshadow what eudaimonic well-being, if examined in greater depth, might contribute to understanding of the entrepreneurial process. A first observation is that well-being in extant studies is studied primarily as an outcome (consequent) of the business venture, although sometimes considered as a buffer (moderator) of entrepreneurial stress. In the non-entrepreneurial well-being literature, however, both hedonic and eudaimonic experience are often studied as antecedents, i.e., factors that predict other outcomes (e.g., morbidity, mortality, physiological risk). In this sense, aspects of eudaimonia may be particularly useful in explicating why the path of self-employment, with its attendant stresses (risks and uncertainties) is chosen by some, but not others. For those who are better educated and economically secure, the call of entrepreneurship may emerge from having higher eudaimonia well *before* the new business venture takes shape. That is, those with a pre-existing sense of autonomy, mastery, and purpose, may be more likely to embark on the entrepreneurial path. Alternatively, among that subset of necessity entrepreneurs whose self-employment reflects lack relevant alternatives, possibly tied to low socioeconomic standing, it is likely that lower well-being was evident *before* becoming self-employed. Stated otherwise, although pre-entrepreneurial well-being can be framed as a selection issue that needs to be controlled in subsequent analyses, it may also point to substantively meaningful antecedents that explicate who embarks on the self-employment path and why as well as who chooses conventional employment options.

Once into the entrepreneurial endeavor, when the realities of long working hours, complex demands, and uncertainties come to the fore – the demands and stresses of running one's own business become evident – aspects of eudaimonic well-being may emerge as important moderators of who persists over time versus terminates the new business venture. Weinberger et al. (2017), for example, distinguished between types of stressors that increase rumination (hindrance stressors) and those that offer positive signals the business is running well (challenge stressors) (Cavanaugh et al., 2000). Their conceptualization of well-being encompassed both positive feelings (hedonia) and fulfillment (eudaimonia) per Sonnentag (2015). Unfortunately, only one item captured the latter (“In this moment, I feel that daily life is filled with things that interest me”). Using multilevel analyses on lagged daily data, they found that hindrance stressors reduced entrepreneurs daily well-being because of increased rumination, whereas challenge stressors increased entrepreneurs' well-being from baseline (between-person level) by acting as a positive feedback signal that their business was running well. This richly textured work could be notably enhanced by daily experiences of core elements of eudaimonia such as having sense of purpose and meaning, feelings of mastery, and a perception of continuing self-realization and growth vis-à-vis the stresses of managing a self-initiated business. These daily experiences of eudaimonia may also predict differences in who frames daily stresses as challenges or hindrances.

A further question is what factors augur well for longer-term entrepreneurial success? Persistence, commitment, and effective problem solving are undoubtedly key assets, along with how stresses are construed. However, overarching levels of purpose, meaning, mastery, growth, and autonomy also likely nourish, and are nourished by, such qualities. Seen from this perspective, eudaimonic well-being is not just a relevant outcome in business venture studies, it may comprise critically valuable psychological resources that contribute to the long-term flourishing of some business ventures. These ideas point to feedback loops in which self-realization and growth beget further self-realization and growth via the diverse activities and challenges that define one's occupational pursuits. Seen from this perspective, the entrepreneurial life and eudaimonic well-being may be uniquely and deeply suited to each other.

3.4. (4) Entrepreneurship, eudaimonia, and health

Shepherd and Patzelt (2015) call for greater focus on the health (physical and mental) of entrepreneurs, framing such

opportunities via two broad lines of inquiry: how entrepreneurial stress, high workloads and high business risk impact the entrepreneur's health (e.g., anxiety, doctor visits), and how the health of the entrepreneur impacts subsequent entrepreneurial action. Both directional influences further considered the health of others in the orbit of the entrepreneur. Invoking growing interest in biomarkers, [Stephan \(2018\)](#) questioned whether constant exposure to high levels of numerous stressors might predispose entrepreneurs to mental disorders and diseases via physiological processes such as allostatic load ([McEwen, 2004](#)).

In reflecting about fruitful ways to bring greater focus on physical health to the entrepreneurial field, it is useful to consider how health has been studied in national longitudinal investigations such as MIDUS. A key point is that physical health is multidimensional – i.e., it is measured in multiple ways: (a) unfolding profiles of morbidity (diverse disease outcomes) and length of life (mortality); (b) functional capacities and disabilities; (c) health behaviors (drinking, smoking, exercise, diet, sleep); (d) subjective health status; and increasingly, (e) physiological assessments (stress hormones, inflammatory markers, cardiovascular risk factors, musculoskeletal health). Such “biomarkers” are often investigated as intervening mechanisms between stress exposures and morbidity and mortality. Additional inquiries have probed links between eudaimonia and brain-based assessments of emotion regulation as well as gene expression related to inflammatory processes.

Incorporating objectively measured aspects of physical health in entrepreneurial studies could alleviate some problems tied to extensive use of self-report measures to assess entrepreneurial stress, intention, and well-being. That is, respondent bias (tendency to frame things generally positively or negatively) lurks in the background of such inquiries. In the well-being literature, new findings linking subjectively reported hedonia and eudaimonia to objectively measured biomarkers ([Boehm & Kubzansky, 2012](#); [Boylan & Ryff, 2015](#); [Pressman & Cohen, 2005](#); [Stephens & Wardle, 2005](#); [Ryff, 2014](#); [Zilioli et al., 2015](#)) have added notable gravitas to the importance of subjectively-assessed well-being. In entrepreneurial studies, objective measurement of physical health (morbidity, mortality, functional capacities, biomarkers) would similarly illuminate, not only potentially important outcomes (or antecedents) to entrepreneurial activities, but also reduce problems attendant to exclusive use of self-report data.

Returning to findings on eudaimonic well-being and health (distilled in the first section above), several promising directions for entrepreneurial studies emerge. Numerous findings, built on carefully controlled analyses, underscore the health benefits of purpose in life. Those with higher profiles of purpose live longer ([Boyle et al., 2009](#); [Cohen et al., 2016](#); [Hill and Turiano, 2014](#)), and they have reduced risk of multiple outcomes: Alzheimer's disease and mild cognitive impairment ([Boyle et al., 2010](#)), stroke ([Kim et al., 2013a](#)), and myocardial infarction among those with coronary heart disease ([Kim et al., 2013b](#)). Interesting questions are whether entrepreneurs, particularly, opportunity and/or growth-oriented entrepreneurs, have higher levels of purposeful life engagement than those employed in traditional work settings. If so, a further question is whether such entrepreneurs have reduced morbidity and mortality over time compared to those who have not chosen the self-employment path. If, as suggested above, entrepreneurial pursuits truly nurture eudaimonia *because self-initiated work is a core forum for realization of personal talents and potential*, notable benefits may accrue in the physical health and longevity of the entrepreneur.

Alternatively, cross-time health profiles of necessity entrepreneurs, likely characterized by pre-existing vulnerabilities and limited alternatives, may be compromised relative to opportunity entrepreneurs, but perhaps more importantly, compared to traditional employees. Such questions are empirically worthy because they point to a neglected subgroup in ongoing research on health inequalities – namely, those who turn to self-employment out of having no other viable alternatives. Position in socioeconomic hierarchies (occupational status, education, income) is known precursors for stress exposures and psychosocial vulnerabilities ([Adler, 2009](#); [Matthews & Gallo, 2011](#)). These, in turn, contribute to health risk. Limited, if any, prior work has focused on socioeconomic hierarchies *among the self-employed*, particularly as they compare to parallel hierarchies among traditional employees. The larger question is not simply what varieties of entrepreneurial experience mean for physical health outcomes, but whether and how such linkages are stratified by socioeconomic factors.

As noted in the preceding section, eudaimonic well-being is relevant as a buffer or moderator of entrepreneurial stress. Such ideas bring to mind formulations of resilience vis-à-vis life stress. [Shepherd and Patzelt \(2015\)](#) call for more studies of psychological and emotional capabilities that build resilience among entrepreneurs. Studies from MIDUS have documented multiple varieties of resilience, defined as the capacity to maintain or regain health and well-being, in the face of life challenge ([Ryff et al., 2012](#)). Examples include cancer survivors, parents of a child with developmental disabilities, spousal loss, or experiencing socioeconomic or race-related inequality. To illustrate, [Morozink et al. \(2010\)](#) examined links between educational status and the inflammatory marker interleukin-6 (IL-6), which is implicated in multiple health problems (cardiovascular disease, cancer, Alzheimer's disease, osteoporosis). Lower levels of educational attainment predicted higher levels of IL-6, as was already known from prior findings. The more important finding was that eudaimonic well-being moderated these links. That is, low education adults who reported higher levels of purpose, growth, mastery, etc. were protected against the higher levels of IL-6 levels observed for their same education counterparts who reported lower well-being. Perhaps among some necessity entrepreneurs who lack educational advantage, there are individuals who nonetheless derive notable purpose from what they do. If so, they may show similar health protective benefits as those found above.

Other interesting possibilities for entrepreneurial research pertain to assessments of health behaviors. [Cardon and Patel's \(2015\)](#) research, discussed in topic #3 above, linked occupational stress (measured subjectively and objectively via assessments of hypertension) to physical health (measured in terms of alcohol use, smoking physical activity, weight gain). Positive affect was found to mitigate the adverse effect of stress on health compromising behaviors. In longitudinal aging research, those with higher levels of purpose in life have been found to engage in more protective health behaviors (cancer screenings, cholesterol tests, flu shots) ([Kim et al., 2014](#)). Another key health behavior – sleep – is known to show increased dysregulation with age. However, eudaimonic well-being has been found to buffer against age-related increments in sleep disturbances across time ([Phelan et al., 2010](#)). Extrapolating from these varied findings to entrepreneurial studies, relevant questions are whether the stresses of business venturing are less likely

to culminate in poor health behaviors among those with higher eudaimonic profiles. If yes, such linked patterns of eudaimonia and healthy behaviors, particularly in the face of entrepreneurial stress, may translate to reduced morbidity and mortality across time in entrepreneurs compared to traditional employees.

A final point regarding future research on the physical health of entrepreneurs underscores the unique opportunities that exist in public use studies, such as MIDUS, for investigating many of the above questions. Most of the variables and domains described above are tracked repeatedly across time. More importantly, such data are assembled self-employed as well as traditionally employed members of the sample. Although few researchers have chosen to focus on entrepreneurs in MIDUS, the study is ripe for such inquiries.

3.5. (5) Entrepreneurship and the well-being of others

Experiencing high levels of well-being (eudaimonic or hedonic) does not guarantee that one is leading a good life. Sadly, human history offers horrific examples of purposefully engaged individuals whose mission was to annihilate whole groups of other people. Pleasure can also be tied to pathological needs, such as the sadistic gratification gained from inflicting pain on others. At less extreme levels, psychologists are increasingly interested in studying the dark sides of happiness. Organizing frameworks suggest that happiness or positive emotions can be experienced to the wrong degree, or at the wrong time, or in the wrong way (Gruber et al., 2011). A recent volume (Gruber and Moskowitz, 2014) has elaborated diverse perspectives on happiness gone awry. The overarching focus in that literature, however, is on the maladaptive consequences that occur for the person experiencing too much, ill-timed, or inappropriate positive emotion. The question of how hedonia or eudaimonia gone awry might adversely impact the well-being of others has been largely ignored.

As a prelude to considering the issues, it is relevant to remember John Stuart Mill's (1893/1989) timeless insight that happiness will not be achieved if pursued as an end in its right; rather, happiness is a by-product of other more noble deeds. In the entrepreneurial context, these more noble deeds presumably include caring about more than one's own self-gratification and profit as the business creator. Clearly, profit is required for long-term viability, but also needed are concerns for other matters, such as the happiness and self-realization of one's employees and the impact of the business on the environment and community in which it is embedded. At an even higher level, may be the importance of a reflective mindset that envisions new business ventures as vehicles for helping build good and just societies, while also taking care of the planet.

With these thoughts in mind, this section differentiates between two kinds of entrepreneurs via contrast of an ideal type with its malevolent counterpart. The terms virtuous versus vicious are chosen, not just for their alliterative appeal, but because they imply a *stance toward others*. Virtue, as elaborated in Aristotle's *Ethics*, is fundamentally tied to how one functions in the community within which one is embedded, whereas vicious evokes a way of behaving toward others that brings damage and harm. It is important to underscore that virtuous and vicious types exist not just in the entrepreneurial world, but in the business and occupational world more generally. That is, there are socially responsible corporate heads and socially responsible entrepreneurs, just as there are self-serving, rapacious titans in the banking and investment world and greedy entrepreneurs orchestrating new business ventures. The central point in elevating these contrasts is not to moralize, but rather to draw attention to the *impact of these types of leaders on the eudaimonia of others* (see Ryff, 2018). Stated otherwise, in both the traditional business world and in the entrepreneurial field, it is critical to address the how the actions, motives, and priorities of those at the top impact the well-being of those who sit below them in pervasive societal hierarchies.

Before considering these contrasting types, it is useful to note that the entrepreneurial field has previously distinguished between productive, unproductive, and destructive entrepreneurs (Baumol, 1990) as well as between varieties of new enterprises (hero, robber, catalyst, failure) (Davidsson and Wiklund (2001)). These contrasting types also focus on broader impacts for the economy as well as for society. Victim entrepreneurs who do well by doing good (Williams and Shepherd, 2016) have also been studied. These differing conceptions will be noted below where relevant.

3.5.1. Virtuous entrepreneurs

The idea of the virtuous entrepreneur signals a return to Aristotle's fundamental concerns with virtue ethics. What does virtue ethics mean for the field of entrepreneurial studies? Blackburn and McGhee (2007) explore this question, drawing extensively on Aristotle as well as the work of MacIntyre (1984). Working from a holistic conception of human flourishing that includes social as well as economic benefits, they distilled three overarching virtues of the excellent/virtuous entrepreneur. These include creativity, beneficence, and integrity. These core virtues are then supported by other specific virtues, which include courage, self-confidence, toughness, and self-reliance. Unfortunately, such qualities lack clear operational definitions and thus do not appear in contemporary research on entrepreneurship and well-being. However, it is noteworthy that similar formulations are emerging in the new field of positive organizational scholarship (Cameron et al., 2008), which emphasizes how optimal organizations foster human strengths (virtue, gratitude, courage, positive emotions, empowerment, meaning) among their employees. Related studies on "work happiness" (Williams et al., 2016) have focused on positive facets of organizational climate and structure as well as positive employee attitudes that are nurtured by opportunities for training and mentoring.

Returning to entrepreneurial studies, it is relevant to consider the work of Williams and Shepherd (2016) on victim entrepreneurs who "do well by doing good." This study examined entrepreneurial action as a vehicle for personal transformation for the individual, particularly as it pertains to overcoming adversity. The focus was on the Black Saturday bushfire disaster in Victoria, Australia (2009). Using lengthy witness statements from 89 individuals impacted by the bushfire, they carried out comprehensive content and coding analysis to conclude that positive links between pre-disaster human capital and post-disaster functioning (behavioral, emotional,

assumptive) were mediated by venture creation. For those who did not create ventures, human capital was negatively related to post-disaster functioning. Although not investigated, such venture creation presumably also had beneficial effects on others struggling to recover from the disaster. Relatedly, [Stephan \(2018\)](#) raised the idea of *crossover effects* to address how the mental health and well-being of entrepreneurs may matter for their stakeholders (e.g., customers, suppliers, investors, board members). Further avenues for future research included study of *collective outcomes*, which considered impacts of entrepreneurial pursuits on business climates or trust in a community. Social entrepreneurship may also lead to philanthropy, perhaps guided by the assumption that happy, self-realized business owners are those more likely to care about enhancing the well-being of others.

Nonetheless, it has been noted that prosocial motivation in for-profit entrepreneurship may come with costs tied to the conflicts or tensions between helping others versus maintaining the commercial viability of a firm ([Kibler et al., 2017](#)). Invoking self-determination theory, prior work showed that intrinsic motivation in employment nurtured prosocial motives to improve employees' well-being ([Gagne and Deci, 2005](#); [Grant, 2008](#)), albeit in conventional organizational employment contexts. In the entrepreneurial context, however, findings showed a *negative impact* on the entrepreneur's life satisfaction when prosocial motivation was high, with further evidence showing that this effect was mediated by stress. The outcomes were framed as the “dark side” of prosocial motivation, which may be good for society, but bad for the well-being of the entrepreneur. Importantly, they noted that this negative effect of prosocial motivation disappeared when autonomy at work was high. Overall, this study usefully broadened the purview of entrepreneurial research to encompass possibly competing priorities between caring about others versus caring about the success of the business.

Nonetheless, it is open to question whether prosocial motivation is properly framed as “external to the entrepreneur” (p.40). Relatedness is, in fact, a basic human need in self-determination theory, along with competence and autonomy – all are framed as inherently intrinsic motives. As such, a hypothesis worthy of investigation is whether eudaimonic well-being, particularly aspects related to purposeful life engagement, personal growth, positive relations with others, and self-acceptance, show positive links to entrepreneurial concerns for improving employees' well-being. That is, bringing eudaimonia to such inquiries could reveal patterns of effects *opposite* to those observed for hedonic well-being (life satisfaction) in high-stress entrepreneurial pursuits. Such thinking is responsive to John Stuart Mill's observation the route to true happiness requires attending to more noble deeds than one's personal happiness, or in entrepreneurial work, an exclusive focus on profit-making.

Collectively, these perspectives offer new directions in what constitutes entrepreneurial success. Productive and heroic entrepreneurs ([Baumol, 1990](#); [Davidsson and Wiklund, 2001](#)) have been characterized as leading enterprises that contribute positively to the economy or society. Caring about impact of the business on the well-being of others is fundamental to formulating the virtuous entrepreneur. Such thinking calls for specification of the *relevant others* that need to be considered. Employees within the new business venture are an obvious focus, but also important are how entrepreneurs impact their own families and the communities in which they reside. The impact of entrepreneurs on the broader functioning of society, in good economic times and bad, is equally worth illuminating.

3.5.2. Vicious entrepreneurs

Accompanying the need to better understand the impact of virtuous, prosocial entrepreneurs on others, is the need to grapple with what is arguably the true dark side of self-initiated business venturing – namely, the version driven by self-interest and greed played out at the expense of others. Such a focus on the broader consequences of greed at the top of economic hierarchies relates to new science on the *forces against eudaimonia* ([Ryff, 2017, 2018](#)). The central question therein is how privileged elites in some contexts may undermine the well-being of those who work below them – i.e., disadvantaged segments of society. The relevance of these ideas for entrepreneurial studies is considered below.

As discussed in #4 above, extensive research has linked position in socioeconomic hierarchies to health. Most of this literature has focused on costs borne by those in lower status positions. Far less is known about the characteristics (motivations, behavior) of those in high status positions, some of whom, by their actions may undermine the eudaimonic well-being and health of others who work under their authority and purview. Greed and self-interest at the top may thus be key influences fueling growing problems of inequality, now evident on a global scale ([Boushey et al., 2017](#); [Graham, 2017](#); [Piketty, 2014](#); [Reese, 2017](#); [Wang and Murnighan, 2011](#)). Historically, it is worth noting that even [Smith \(1981/1776\)](#), whose *Wealth of Nations* distilled the case for self-interest and capitalism, recognized the problem of greed, which he depicted as the limitless appetites of the vain and insatiable (see [Wright, 2005](#)). For Smith, prudent and virtuous self-interest was fundamentally distinct from greed and selfishness. Reaching back still further to the late middle ages, Dante's poetic masterpiece, *The Divine Comedy*, included sins of greed and gluttony, along with fraud and dishonesty, in his nine circles of hell (Dante/Longfellow/Amari-Parker 2006). The ancient Greeks were also explicitly concerned about problems of greed and injustice ([Balot, 2001](#)), which they saw as violating virtues of fairness and equality and thereby, contributing to civic strife. Both the ancient Greeks and Romans called for public criticism and censuring of greed.

Underscoring the current urgency of these issues, [Reese \(2017\)](#) depicts the growing problem of “dream hoarding” in America and links it with elitism within educational institutions that serve as machines of inequality. Similarly, [Graham \(2017\)](#) draws attention to increasing segments of U.S. society who do not believe in their own futures (the optimism gap) and do not invest strategies to achieve the American dream. Beyond the U.S., [Mishra \(2017\)](#) brings a rich historical perspective to current worldwide strife (characterized by nationalism, racism, inequality), arguing that such turmoil involves ever more intense levels of anger among those excluded from the freedom, stability, and prosperity experienced by an increasingly select few.

How to engage with these social and political issues scientifically? An opening question is what sits behind greed? From a psychoanalytic perspective, [Nikelly \(2006\)](#) suggests that the etiology of selfish gratification derived from amassing wealth and the worship of money through fraudulent and deceptive tactics reflects unmet emotional needs. Empirical evidence from motivational

psychologists studying “the dark side of the American Dream” (Kasser and Ryan, 1993) has shown that those motivated primarily by extrinsic factors (financial success) have lower well-being and adjustment compared to those motivated by less materialistic values. Experimental studies have further documented that those with higher social class standing show increased entitlement and narcissism (Piff, 2014) and are more likely to behave unethically than lower-class individuals (Piff et al., 2012). The sense of power has been found to mediate links between high social class standing and selfishness (Dubois et al., 2015). Together, these works illustrate how psychologists are linking class differences to the concomitants of privilege: sense of entitlement, selfishness, and unethical behavior.

Alternatively, and more benignly, economists have focused on “values-based organizations” wherein core objectives (motivations) are intrinsically tied to ideals greater than profit and material incentives (Bruni and Smerilli, 2009). These factors are then used to illuminate why organizations flourish, or deteriorate, assessed in terms of who stays or exits from the organization over time. In the public policy arena, the meaning of civil society and its import for praxis in health and social care is being re-examined (Scambler et al., 2014), with the accompanying concern that a new “class/command dynamic” has led to oligarchic rule and resistance to the traditional health and social care commitments. Similarly, Tomatis (2005) examined the forces working against the primary prevention of cancer, particularly exposures to carcinogenic and chemical pollutants. Included are perverse combinations of factors: extreme poverty in certain countries, the irreducible selfishness of rich countries, and the greed of multinational corporations. To face these contemporary challenges, Tomatis calls for a rediscovery of ethical principles.

Returning to entrepreneurial studies, it is useful to revisit Baumol's (1990) historical look at productive, unproductive, and destructive activities. Although entrepreneurs often follow the constructive, innovative script that is typically assumed, others have “a parasitical existence that is actually damaging to the economy” (p.3). This type converges with what Davidsson and Wiklund (2001) referred to as the robber enterprise. In considering the allocation of entrepreneurial types across time, Baumol underscores the payoffs that society does or does not offer for such activities. Although ancient Rome was known for its sophisticated technological developments, most of these were not disseminated or put into widespread usage. Watermills were created, for example, but were not used due to the abundance of slave labor to carry water. In addition, although the Roman reward systems offered wealth and privilege to those who engaged in commerce and industry, such gains were offset by attendant losses in prestige. Alternatively, Imperial China reserved its most substantial rewards in wealth and prestige for those who climbed knowledge ladders pertaining to Confucian philosophy and calligraphy. Such career paths were lengthy and incurred accumulation of debts. Once privileged appointments were attained, they were unfortunately enacted with corrupt and rapacious activities inflicted on those lower in the hierarchy. A further instance pertained to the Middle Ages during which wealth and power were pursued primarily through military pursuits. Violent activities frequently inspired innovation, such as the introduction of the stirrup as a requisite for effective cavalry tactics. Warfare was thus undertaken for multiple reasons, including economic gain. Unproductive (parasitical) entrepreneurship has also taken less violent forms, such as rent-seeking, which was prominent for centuries and gradually replaced military activity as a primary source of wealth and power. To understand these changes, Baumol repeatedly invoked “rules of the game” – namely, what societies value and encourage, or discourage and prohibit, sometimes via legal systems.

What is the import of these wide-ranging literatures for contemporary entrepreneurial studies? A first point is that some relevant questions are already under consideration. Stephan's (2018) review pointed to research on creative entitlement and ethical behavior (Vincent et al., 2013), suggesting that entrepreneurs with high well-being in innovative firms might engage in unethical behavior because they feel unique, invincible, or above the law. Whether such invincibility fuels greedy self-interest is a useful empirical question that could be studied via behavioral priorities and choices, such as the magnitude of differences across entrepreneurs in the share of business profits distributed among employees versus kept for themselves. Does employee well-being differ vis-à-vis generous versus selfish sharing plans? The central question is whether disproportionate allocation of profit the entrepreneurs at the top relative to the salaries of workers below translates to more stressed, unhappy, and unhealthy employees? Drawing on psychological studies described above, such inquiries could usefully bring additional facets of greed (extrinsic motivation, sense of entitlement, narcissism, need for power, selfishness) – viewed from multiple vantage points (the entrepreneur, his/her employees) – to the fore, thereby elaborating a configuration of qualities that operationalize the vicious entrepreneur.

To reiterate, the call is to shine a spotlight on the *consequences for others* of self-serving vs. beneficent entrepreneurs. Such queries signal new directions in scientific research that bring empirically-tractable questions to problems of greed, long ago seen by the ancient Greeks and Romans worthy of public censure. In our era, public censuring might be fruitfully approached by assembling scientific evidence on the consequences of greed at the top for the well-being and health of those below.

4. Summary and worthy hypotheses

Extensive ground has been covered in this essay, all aimed at building bridges between the literature on eudaimonic well-being and the field of entrepreneurial studies. After describing the theoretical foundations of a widely-used model of eudaimonic well-being, prominent questions in that research were briefly distilled so as to consider their relevance for entrepreneurial studies. Five separate venues for new research were then put forth. The first called for greater clarity, conceptually and empirically, in how autonomy is studied. One direction tied to self-determination theory articulates autonomy as a core motive that fuels entrepreneurial endeavors, while another approach views autonomy as an aspect of eudaimonic well-being that may be nurtured, or compromised, by entrepreneurial activities. Both are meaningful lines of inquiry. Indeed, they constitute distinct, but related angles on entrepreneurship – first, what motivational forces mobilize the entrepreneurial path and subsequently, whether such work nurtures a sense of being self-directed and autonomous. Bringing clarity to these as distinct questions will require theory-based assessment tools in future research.

A second venue focused on the distinction between opportunity versus necessity entrepreneurs, which previous studies have

shown differ in hedonic well-being. Whether these two types as well as growth-oriented versus independence-oriented entrepreneurs show distinct profiles of eudaimonic well-being was considered. These questions brought to the fore sociodemographic profiles (educational status, income, wealth) that often differ between opportunity and necessity entrepreneurs, and are also known predictors of differences in eudaimonic well-being. This observation called for greater interplay between studies of social inequalities in well-being and the entrepreneurial field, which is not prominently focused on issues of inequality. Similarly, population-based studies of well-being (eudaimonic and hedonic) rarely, if ever, examine comparisons between entrepreneurs and conventional employees though extant datasets easily lend themselves to such questions. These ideas constitute open and promising territory for future research.

How eudaimonic well-being matters at different points in the entrepreneurial process was a third venue. A key message was that distinct aspects of eudaimonic well-being may be valuable for understanding how the entrepreneurial journey plays out over time. At the outset is whether there are a priori differences in well-being (perhaps levels of autonomy and mastery) that *precede* the decision to pursue the entrepreneurial path. Those with already higher levels of these aspects of well-being may be more likely to embark on new self-initiated business pursuits. Once into the work, when the stresses and demands of managing the venture become palpable, other features of well-being (perhaps levels of purpose and self-acceptance) may be important protective resources (buffers) in minimizing the extent to which high stress compromises other aspects of mental or physical health. Over the longer term, central questions are whether entrepreneurship deepens the sense of personal growth and possibly quality of ties to others. Such queries parallel what is evident in prior well-being studies – namely, eudaimonia is conceptualized in diverse ways: sometimes investigated as an antecedent, or outcome variable, and other times as a moderator (buffer) between other antecedents and outcomes. The larger point is that no single conceptual model best captures how to make effective use of eudaimonia; rather, there are multiple possibilities.

The fourth venue drew on the large prior literature linking eudaimonic and hedonic well-being to health, arguing that many advances therein are relevant for entrepreneurial research as well. Drawing on findings from MIDUS and related studies, numerous avenues for broadening health assessments in entrepreneurial studies were considered, particularly objective indicators of functional health as well as diverse assessments of physiological regulation or dysregulation, brain-based assessments of emotional regulation, and gene expression. Health behaviors already appear in some entrepreneurial studies (smoking, drinking, exercise), but these can be richly expanded as well, for example, with objective measures of sleep quality and duration. One interesting hypothesis, considered in the final section below, is that the entrepreneurial path, despite the stresses involved, may be good for life-long health.

The fifth venue called for greater attention to how entrepreneurs impact the well-being (and possibly health) of others. To activate thinking in these directions, a contrast between the virtuous and the vicious entrepreneur was invoked, with distant input from philosophy and history, including in entrepreneurial studies. Socially responsible entrepreneurship is already part of the literature, but there is need for greater elaboration, conceptually and empirically, of how entrepreneurs *impact others*. This is a call to broaden the purview beyond the individual entrepreneur, him or herself, so as to encompass a concern for co-workers and employees, if not families, communities, and even societies. Relatedly, decades of social inequalities research have documented compromised health and well-being among disadvantaged segments of society, but surprisingly little work has focused on behaviors and actions of those who sit atop prominent hierarchies and their consequences for those below. This observation may extend to the entrepreneurial field in instances when the entrepreneur at the top has an all-consuming preoccupation with profit.

To close this wide-ranging journey, a handful of provocative hypotheses worthy of future testing are put forth. They are global and broad in scope, and intended to integrate many of the preceding reflections in this essay.

Hypothesis 1. Entrepreneurs age better psychologically than traditional employees. This proposition calls for investigation of whether entrepreneurs are spared the age-related declines (particularly in purpose in life and personal growth) that have been documented in multiple longitudinal studies of aging. The central idea is that self-initiated entrepreneurial life, notwithstanding the challenges involved, may contribute fundamentally to a sustained sense of purpose and growth across the decades of adult life.

Hypothesis 2. Entrepreneurs have better health compared to traditional employees. This prediction extends the preceding hypothesis. If entrepreneurs benefit from sustained eudaimonia as they age, they would also be expected to reap the health benefits (reduced morbidity and mortality, better physiological regulation, better brain function, healthier gene regulation) previously documented for older adults who remain purposefully engaged in life. An intriguing possibility is that some of the cases in prior studies of purpose and good health may individuals who in their current or past lives were entrepreneurs.

Hypothesis 3. Entrepreneurs are uniquely resilient vis-à-vis work stress. Extensive prior research has linked stress exposures, often in contexts of inequality, to poorer health and dysregulated physiology. However, prior findings have also documented that among those with high psychosocial resources (multiple aspects of eudaimonia), such adverse effects are buffered against. Extrapolating to the entrepreneurial context, those who derive high eudaimonia from their business venturing pursuits are hypothesized to show similar patterns, thereby illustrating resilience in the face of work-related stress because they are doing work that deeply and intrinsically meaningful to them.

Hypothesis 4. The above benefits redound to virtuous (not vicious) entrepreneurs. To the extent that the entrepreneurial life nurtures eudaimonic well-being, resilience in the face of stress, and thereby, good health, those most likely to show these salubrious effects embody a style of entrepreneurship that is beneficent – i.e., concerned with how their business creation matters for the well-being and health of others, including co-workers, employees, family members, and the surrounding community. That is, numerous varieties of good follow from the virtuous entrepreneur.

Hypothesis 5. Virtuous entrepreneurs improve society. This hypothesis combines all of the above predictions to assert that entrepreneurship, when virtuously enacted, makes for better societies, defined as ever greater numbers of individuals who have opportunities to make the most of themselves, their talents, and their lives. Clearly, an ideal formulation, but good societies need to aim high and have visions of how to get there. The entrepreneurial path may be an essential part of the story.

Funding sources

The MIDUS baseline study was supported by the John D. and Catherine T. MacArthur Foundation Research Network on Successful Midlife Development. Longitudinal extensions of MIDUS have been supported by grants for the National Institute on Aging (P01-AGO20166; U19-AGO51426). The biological research has been further supported by the following grants: M01-RR023942 (Georgetown), M01-RR0865 (UCLA) from the General Clinical Research Centers Program, and UL1TR000427 (University of Wisconsin) from the National Center for Advancing Translational Sciences (NCATS National Institutes of Health).

Appendix A. Definitions of theory-guided dimensions of well-being

Autonomy

High scorer: Is self-determining and independent; able to resist social pressures to think and act in certain ways; regulates social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.

Low scorer: Is concerned about expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways.

Environmental mastery

High scorer: Has a sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; able to choose or create contexts suitable to personal needs and values.

Low scorer: Has difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world.

Personal growth

High scorer: Has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing his or her potential; sees improvement in self and behavior over time; is changing in ways that reflect more self-knowledge and effectiveness.

Low scorer: Has a sense of personal stagnation; lacks sense of improvement or expansion over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviors.

Positive relations with others

High scorer: Has warm, satisfying, trusting relationships with others; is concerned about the welfare of others; capable of strong empathy, affection, and intimacy; understands give and take of human relationships.

Low scorer: Has few close, trusting relationships with others; finds it difficult to be warm, open, and concerned about others; is isolated and frustrated in interpersonal relationships; not willing to make compromises to sustain important ties with others.

Purpose in life

High scorer: Has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.

Low scorer: Lacks a sense of meaning in life; has few goals or aims; lacks sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning.

Self-acceptance

High scorer: Possesses a positive attitude toward the self; acknowledges and accepts multiple aspects of self, including good and bad qualities; feels positive about past life.

Low scorer: Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different than what he or she is.

References

- Abbott, R.A., Croudace, T.J., Ploubidis, G.B., Kuh, D., Richards, M., Huppert, F.A., 2008. The relationship between early personality and midlife psychological well-being: evidence from a UK birth cohort study. *Soc. Psychiatry Psychiatr. Epidemiol.* 43 (9), 679–687. <https://doi.org/10.1007/s00127-008-0355-8>.
- Adler, N.E., 2009. Health disparities through a psychological lens. *Am. Psychol.* 64, 663–673.
- Adler, N.E., Marmot, M.G., McEwen, B.S., Stewart, J., 1999. *Socioeconomic Status and Health in Industrialized Nations: Social, Psychological, and Biological Pathways*. vol. 896 New York Academy of Sciences, New York.
- Ahrens, C.J.C., Ryff, C.D., 2006. Multiple roles and well-being: sociodemographic and psychological moderators. *Sex Roles* 55 (11–12), 801–815. <https://doi.org/10.1007/s11199-006-9134-8>.
- Allport, G.W., 1961. *Pattern and Growth in Personality*. Holt, Rinehart, & Winston, New York.
- Andrews, F.M., Withey, S.B., 1976. *Social Indicators of Well-Being: America's Perception of Life Quality*. Plenum Press, New York, NY.
- Aristotle, 1925. *The Nicomachean Ethics* (W. D. Ross, Trans.). Oxford University Press, New York.
- Balot, R.K., 2001. *Greed and Injustice in Classical Athens*. Princeton University Press, Princeton, NJ.
- Baumol, W.J., 1990. Entrepreneurship: productive, unproductive, and destructive. *J. Bus. Ventur.* 11, 3–22.
- Bensik, P., Chuluun, T., Graham, C., 2017. Entrepreneurs out of necessity? Entrepreneurship and subjective well-being. In: Paper Presented at Workshop on Entrepreneurship and Well-Being, Steninge, Sweden, June 2–3, 2017.

- Benz, M., Frey, B.S., 2008. Being independent is a great thing: subjective evaluations of self-employment and hierarchy. *Econ. Des.* 75, 362–383.
- Bhuiyan, M.F., Ivlevs, A., 2017. Micro-entrepreneurship and subjective well-being: evidence from Bangladesh. In: Paper Presented at Workshop on Entrepreneurship and Well-Being, Steninge, Sweden, June 2–3, 2017.
- Bierman, A., Fazio, E.M., Milkie, M.A., 2006. A multifaceted approach to the mental health advantage of the married: assessing how explanations vary by outcome measure and unmarried group. *J. Fam. Issues* 27 (4), 554–582. <https://doi.org/10.1177/0192513X05284111>.
- Binder, M., 2017. Are Muppets Happy? Worries About Business Mediate One's Well-Being Loss From Self-Employment. Paper presented at Conference on Entrepreneurship and Well-being, Steninge, Sweden, June 2–3.
- Binder, M., Coad, A., 2016. How satisfied are the self-employed? A life domain view. *J. Happiness Stud.* 17, 1009–1033.
- Blackburn, M., McGhee, P., 2007. The virtuous entrepreneur: new ventures and human flourishing. *Int. J. Entrep. Innov.* 1–25 (Paper 31-2007).
- Boehm, J.K., Kubzansky, L.D., 2012. The heart's content: the association between positive psychological well-being and cardiovascular health. *Psychol. Bull.* 138, 655–691.
- Boushey, H., Delong, B., Steinbaum, M. (Eds.), 2017. *After Picketty: The Agenda for Economics and Inequality*. Harvard University Press, Cambridge, MA.
- Boylan, J.M., Ryff, C.D., 2015. Psychological well-being and metabolic syndrome: Findings from the Midlife in the United States National Sample. *Psychosom. Med.* 77, 548–558.
- Boyle, P.A., Barnes, L.L., Buchman, A.S., Bennett, D.A., 2009. Purpose in life is associated with mortality among community-dwelling older persons. *Psychosom. Med.* 71 (5), 574–579. <https://doi.org/10.1097/PSY.0b013e3181a5a7c0>.
- Boyle, P.A., Buchman, A.S., Barnes, L.L., Bennett, D.A., 2010. Effect of a purpose in life on risk of incident Alzheimer disease and mild cognitive impairment in community-dwelling older persons. *Arch. Gen. Psychiatry* 67 (3), 304–310. <https://doi.org/10.1001/archgenpsychiatry.2009.208>.
- Boyle, P.A., Buchman, A.S., Wilson, R.S., Yu, L., Schneider, J.A., Bennett, D.A., 2012. Effect of purpose in life on the relation between Alzheimer disease pathologic changes on cognitive function in advanced age. *JAMA Psychiat.* 69 (5), 499–506. <https://doi.org/10.1001/archgenpsychiatry.2011.1487>.
- Bradburn, N.M., 1969. *The Structure of Psychological Well-Being*. Aldine, Chicago, IL.
- Brim, O.G., Ryff, C.D., Kessler, R.C., 2004. The MIDUS national survey: An overview. In: Brim, O.G., Ryff, C.D., Kessler, R.C. (Eds.), *How Healthy Are we?: A National Study of Well-Being at Midlife*. University of Chicago Press, Chicago, IL, pp. 1–34.
- Bruni, L., Smerilli, A., 2009. The value of vocation: the critical role of intrinsically motivated people in values-based organizations. *Rev. Soc. Econ.* 67, 271–288.
- Bühler, C., 1935. The curve of life as studied in biographies. *J. Appl. Psychol.* 43, 653–673. <https://doi.org/10.1037/h0054778>.
- Burgard, S.A., Brand, J.E., House, J.S., 2009. Perceived job insecurity and worker health in the United States. *Soc. Sci. Med.* 69 (5), 777–785. <https://doi.org/10.1016/j.socscimed.2009.06.029>.
- Cameron, K.S., Dutton, J.E., Quinn, R.E. (Eds.), 2008. *Positive Organizational Scholarship: Foundations of a New Discipline*. Berrett-Koehler, San Francisco, CA.
- Campbell, A., 1981. *The Sense of Well-Being in America*. McGraw-Hill, New York, NY.
- Cardon, M.S., Patel, P.C., 2015. Is stress worth it? Stress-related health and wealth trade-offs for entrepreneurs. *Appl. Psychol. Int. Rev.* 64, 379–420.
- Carr, D., 1997. The fulfillment of career dreams at midlife: does it matter for women's mental health? *J. Health Soc. Behav.* 38, 331–344. <https://doi.org/10.2307/2955429>.
- Carr, D., 2002. The psychological consequences of work-family tradeoffs for three cohorts of men and women. *Soc. Psychol. Q.* 65 (2), 103–124.
- Cavanaugh, M.A., Boswell, W.R., Roehling, M.V., Boudreau, J.W., 2000. An empirical examination of self-reported work stress among U.S. managers. *J. Appl. Psychol.* 85, 65–74.
- Chou, R., Choi, N., 2011. Prevalence and correlates of perceived workplace discrimination among older workers in the United States of America. *Ageing Soc.* 31 (6), 1051. <https://doi.org/10.1017/S0144686X10001297>.
- Cohen, R., Bavishi, C., Rozanski, A., 2016. Purpose in life and its relationship to all-cause mortality and cardiovascular events: a meta-analysis. *Psychosom. Med.* 78 (2), 122–133. (2015/12/03). <https://doi.org/10.1097/psy.0000000000000274>.
- Cole, S.W., Levine, M.E., Arevalo, J.M.G., Ma, J., Weir, D.R., Crimmins, E.M., 2015. Loneliness, eudaimonia, and the human conserved transcriptional response to adversity. *Psychoneuroendocrinology* 62, 11–17. <https://doi.org/10.1016/j.psyneuen.2015.07.001>.
- Davidsson, P., Wiklund, J., 2001. Levels of analysis in entrepreneurship research: current research practice and suggestions for the future. *Entrep. Theory Pract.* 25, 81–100.
- Diener, E., 1984. Subjective well-being. *Psychol. Bull.* 95, 542–575.
- Douglas, E.J., 2013. Reconstructing entrepreneurial intentions to identify predisposition for growth. *J. Bus. Ventur.* 28, 633–651.
- Dubois, D., Rucker, D.D., Galinsky, A.D., 2015. Social class, power, and selfishness: when and why upper and lower class individuals behave unethically. *J. Pers. Soc. Psychol.* 108, 436–449.
- Erikson, E.H., 1959. Identity and the life cycle: selected papers. *Psychol. Issues* 1, 1–171.
- Fava, G.A., 1999. Well-being therapy: conceptual and technical issues. *Psychother. Psychosom.* 68, 171–179. <https://doi.org/10.1159/000012329>.
- 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. *Psychol. Med.* 28 (2), 475–480.
- Fava, G.A., Ruini, C., Rafanelli, C., Finos, L., Conti, S., Grandi, S., 2004. Six-year outcome of cognitive behavior therapy for prevention of recurrent depression. *Am. J. Psychiatr.* 161 (10), 1872–1876.
- Fava, G.A., Ruini, C., Rafanelli, C., Finos, L., Salmaso, L., Mangelli, L., Sirigatti, S., 2005. Well-being therapy of generalized anxiety disorder. *Psychother. Psychosom.* 74 (1), 26–30. <https://doi.org/10.1159/000082023>.
- Foo, M.D., Uy, M.A., Baron, R.A., 2009. How do feelings influence effort? An empirical study of entrepreneurs' affect and venture effort. *J. Appl. Psychol.* 94, 1086–1094.
- Ford, M.T., 2014. Perceived unfairness at work, social and personal resources, and resting blood pressure. *Stress. Health* 30 (1), 12–22. <https://doi.org/10.1002/smi.2491>.
- Frankl, V.E., 1959. *Man's Search for Meaning: An Introduction to Logotherapy*. Beacon Press, Boston, MA.
- Fredrickson, B.L., Grewen, K.M., Coffey, K.A., Algoe, S.B., Firestone, A.M., Arevalo, J.M.G., ... Cole, S.W., 2013. A functional genomic perspective on human well-being. *Proc. Natl. Acad. Sci. U. S. A.* 110 (33), 13684–13689. <https://doi.org/10.1073/pnas.1305419110>.
- Fredrickson, B.L., Grewen, K.M., Algoe, S.B., Firestone, A.M., Arevalo, J.M.G., Ma, J., Cole, S.W., 2015. Psychological well-being and the human conserved transcriptional response to adversity. *PLoS One* 10 (3), 17. <https://doi.org/10.1371/journal.pone.0121839>.
- Friedman, E.M., Ryff, C.D., 2012. Living well with medical comorbidities: a biopsychosocial perspective. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 67 (5), 535–544. <https://doi.org/10.1093/geronb/gbr152>.
- Friedman, E.M., Ruini, C., Foy, R., Jaros, L., Sampson, H., Ryff, C.D., 2017. Lighten UP! A community-based group intervention to promote psychological well-being in older adults. *Ageing Ment. Health* 21 (2), 199–205. <https://doi.org/10.1080/13607863.2015.1093605>.
- Gagne, M., Deci, E., 2005. Self-determination theory and work motivation. *J. Organ. Behav.* 26, 331–362.
- Gareis, K.C., Barnett, R.C., Ertel, K.A., Berkman, L.F., 2009. Work-family enrichment and conflict: additive effects, buffering, or balance? *J. Marriage Fam.* 71 (3), 696–707. <https://doi.org/10.1111/j.1741-3737.2009.00627.x>.
- Gorgievski, M., Bakker, A., Schaufeli, W., Van der Veen, H., Giesen, C., 2010. Financial problems and psychological distress: investigating reciprocal effects among business owners. *J. Occup. Organ. Psychol.* 83, 513–530.
- Graham, C., 2017. *Happiness for all? Unequal Hopes and Lives in Pursuit of the American Dream*. Princeton University Press, Princeton, NY.
- Grant, A.M., 2008. Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *J. Appl. Psychol.* 93, 48–58.
- Greenfield, E.A., 2009. Felt obligation to help others as a protective factor against losses in psychological well-being following functional decline in middle and later life. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 64 (6), 723. <https://doi.org/10.1093/geronb/gbp074>.
- Gruber, J., Moskowitz, J.T. (Eds.), 2014. *Positive Emotion: Integrating the Light Sides and Dark Sides*. Oxford University Press, New York, NY.

- Gruber, J., Mauss, I.R., Tamir, M., 2011. A dark side of happiness? How, when, and why happiness is not always good. *Perspect. Psychol. Sci.* 6, 222–233.
- Grzywacz, J.G., 2000. Work-family spillover and health during midlife: is managing conflict everything? *Am. J. Health Promot.* 14 (4), 236–243. <https://doi.org/10.4278/0890-1171-14.4.236>.
- Grzywacz, J.G., Bass, B.L., 2003. Work, family, and mental health: testing different models of work-family fit. *J. Marriage Fam.* 65 (1), 248–262.
- Grzywacz, J.G., Butler, A., 2005. The impact of job characteristics on work-to-family facilitation: testing a theory and distinguishing a construct. *J. Occup. Health Psychol.* 10 (2), 97–109. <https://doi.org/10.1037/1076-8998.10.2.97>.
- Grzywacz, J.G., Marks, N.F., 2000a. Reconceptualizing the work-family interface: an ecological perspective on the correlates of positive and negative spillover between work and family. *J. Occup. Health Psychol.* 5 (1), 111–126. <https://doi.org/10.1037/1076-8998.5.1.111>.
- Grzywacz, J.G., Marks, N.F., 2000b. Family, work, work-family spillover, and problem drinking during midlife. *J. Marriage Fam.* 62 (2), 336–348.
- 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. *Enterp. Theory Pract.* 36, 97–114.
- Heller, A.S., van Reekum, C.M., Schaefer, S.M., Lapate, R.C., Radler, B.T., Ryff, C.D., Davidson, R.J., 2013. Sustained ventral striatal activity predicts eudaimonic well-being and cortisol output. *Psychol. Sci.* 24 (11), 2191–2200. <https://doi.org/10.1177/0956797613490744>.
- Henrekson, M., Johansson, D., 2010. Gazelles as job creators: a survey and interpretation of the evidence. *Small Bus. Econ.* 35, 227–244.
- Hill, P.L., Turiano, N.A., 2014. Purpose in life as a predictor of mortality across adulthood. *Psychol. Sci.* 25 (7), 1482–1486. <https://doi.org/10.1177/0956797614531799>.
- Jackson, D.N., 1976. *Jackson Personality Inventory Manual*. Research Psychologists Press, Goshen, NY.
- Jahoda, M., 1958. *Current Concepts of Positive Mental Health*. Basic Books, New York.
- Johansson Seva, I., Larsson, D., Strandh, M., 2016. The prevalence, characteristics and well-being of "necessity" self-employed and "latent" entrepreneurs: Findings from Sweden. *Int. J. Entrep. Small Bus.* 28, 58–77.
- Jung, C.G., 1933. *Modern Man in Search of a Soul* (W. S. Dell & C. F. Baynes, Trans.). Harcourt, Brace & World, New York.
- Kahneman, D., Diener, E., Schwarz, N. (Eds.), 1999. *Well-Being: The Foundations of Hedonic Psychology*. Russell Sage Foundation, New York.
- Kasser, T., Ryan, R.M., 1993. A dark side of the American dream: correlates of financial success as a central life aspiration. *J. Pers. Soc. Psychol.* 65, 410–422.
- Keyes, C.L.M., Shmotkin, D., Ryff, C.D., 2002. Optimizing well-being: the empirical encounter of two traditions. *J. Pers. Soc. Psychol.* 82 (6), 1007–1022. <https://doi.org/10.1037/0022-3514.82.6.1007>.
- Kibler, E., Wincent, J., Kautonen, G., Cacciottik, M., Obschonka, M., 2017. Wellbeing and the dark side of prosocial motivation in for-profit entrepreneurship. In: Paper Presented at Workshop on Entrepreneurship and Well-Being, Steninge, Sweden, June 2–3, 2017.
- Kim, E.S., Sun, J.K., Park, N., Peterson, C., 2013a. Purpose in life and reduced stroke in older adults: the health and retirement study. *J. Psychosom. Res.* 74 (5), 427–432. <https://doi.org/10.1016/j.jpsychores.2013.01.013>.
- Kim, E.S., Sun, J.K., Park, N., Kubzansky, L.D., Peterson, C., 2013b. Purpose in life and reduced risk of myocardial infarction among older U.S. adults with coronary heart disease: a two-year follow-up. *J. Behav. Med.* 36 (2), 124–133. <https://doi.org/10.1007/s10865-012-9406-4>.
- Kim, E.S., Strecher, V.J., Ryff, C.D., 2014. Purpose in life and use of preventive health care services. *Proc. Natl. Acad. Sci. U. S. A.* 111 (46), 16331–16336. <https://doi.org/10.1073/pnas.1414826111>.
- Kim, E.S., Kiwachi, I., Chen, Y., Kubzansky, L., 2017. Association between purpose in life and objective measures of physical function in adults. *JAMA Psychiat.* 74, 1039–1045.
- Ko, S.B., 2013. Night shift work, sleep quality, and obesity. *Am. J. Lifestyle Med.* 3 (2), 110–116.
- Larson, R., 1978. Thirty years of research on the subjective well-being of older Americans. *J. Gerontol. A Biol. Sci. Med. Sci.* 33, 109–125. <https://doi.org/10.1093/geronj/33.1.109>.
- Lewis, G.J., Kanai, R., Rees, G., Bates, T.C., 2014. Neural correlates of the "good life": eudaimonic well-being is associated with insular cortex volume. *Soc. Cogn. Affect. Neurosci.* 9 (5), 615–618. <https://doi.org/10.1093/scan/nst032>.
- MacIntyre, A., 1984. *After Virtue*. University of Notre Dame Press, Notre Dame, IN.
- Marks, N.F., Bumpass, L.L., Jun, H., 2004. Family roles and well-being during the middle life course. In: Brim, O.G., Ryff, C.D., Kessler, R.C. (Eds.), *How Healthy Are We?: A National Study of Well-Being at Midlife*. University of Chicago Press, Chicago, IL, pp. 514–549.
- Marmot, M., 2005. Social determinants of health inequalities. *Lancet* 365 (9464), 1099–1104. [https://doi.org/10.1016/s0140-6736\(05\)71146-6](https://doi.org/10.1016/s0140-6736(05)71146-6).
- Maslow, A.H., 1968. *Toward a Psychology of Being*, 2nd ed. Van Nostrand, New York.
- Matthews, K.A., Gallo, L.C., 2011. Psychological perspectives on pathways linking socioeconomic status and physical health. *Annu. Rev. Psychol.* 62, 501–530.
- McEwen, B.S., 2004. Protection and damage from acute and chronic stress: Allostatic and allostatic overload and relevance to the pathophysiology of psychiatric disorders. *Ann. N. Y. Acad. Sci.* 1032, 1–7.
- Mishra, P., 2017. *Age of Anger: A History of the Present*. Farrar, Straus, and Giroux, New York.
- Morozink, J.A., Friedman, E.M., Coe, C.L., Ryff, C.D., 2010. Socioeconomic and psychosocial predictors of interleukin-6 in the MIDUS national sample. *Health Psychol.* 29 (6), 626–635. <https://doi.org/10.1037/a0021360>.
- Neugarten, B.L., 1973. Personality change in late life: a developmental perspective. In: Eisdorfer, C., Lawton, M.P. (Eds.), *The Psychology of Adult Development and Aging*. American Psychological Association, Washington, DC, pp. 311–335.
- Nightingale, P., Coad, A., 2013. Muppets and gazelles: political and methodological biases in entrepreneurship research. *Ind. Corp. Chang.* 23, 113–143.
- Nikelly, A., 2006. The pathogenesis of greed: causes and consequence. *Int. J. Appl. Psychoanal. Stud.* 3, 65–78.
- Örtqvist, D., Wincent, J., 2010. Role stress, exhaustion, and satisfaction: A cross-lagged structural equation modeling approach supporting Hobfoll's loss spirals. *J. Appl. Soc. Psychol.* 40, 1357–1384.
- Patel, C., Thatcher, S.M.B., 2014. Sticking it out: individual attributes and employment and persistence in self-employment. *J. Manag.* 40, 1932–1979.
- Phelan, C.H., Love, G.D., Ryff, C.D., Brown, R.L., Heidrich, S.M., 2010. Psychosocial predictors of changing sleep patterns in aging women: a multiple pathway approach. *Psychol. Aging* 25 (4), 858–866. <https://doi.org/10.1037/a0019622>.
- Piff, P.K., 2014. Wealth and the inflated self: class, entitlement, and narcissism. *Personal. Soc. Psychol. Bull.* 40, 34–43.
- Piff, P.K., Stancato, D.M., Côté, S., Mendoza-Denton, R., Keltner, D., 2012. Higher social class predicted increased unethical behavior. *Proc. Natl. Acad. Sci.* 109, 4086–4091.
- Piketty, T., 2014. *Capital in the Twenty-First Century*. Belknap Press, Cambridge.
- Pressman, S.D., Cohen, S., 2005. Does positive affect influence health? *Psychol. Bull.* 131, 925–971.
- Reese, R.V., 2017. *Dream hoarders: How the American upper middle class is leaving everyone else in the dust, why that is a problem, and what to do about it*. Brookings Institution Press, Washington, D.C.
- Riley, M.W., Kahn, R.L., Foner, A., 1994. *Age and Structural Lag*. Wiley, New York.
- Rogers, C.R., 1961. *On Becoming a Person*. Houghton Mifflin, Boston, MA.
- Rogers, C.H., Floyd, F.J., Seltzer, M.M., Greenberg, J., Hong, J., 2008. Long-term effects of the death of a child on parents' adjustment in midlife. *J. Fam. Psychol.* 22 (2), 203–211. <https://doi.org/10.1037/0893-3200.22.2.203>.
- Ruini, C., 2017. *Positive Psychology in the Clinical Domains: Research and Practice*. Springer, Cham, Switzerland.
- Ruini, C., Fava, G.A., 2009. Well-being therapy for generalized anxiety disorder. *J. Clin. Psychol.* 65 (5), 510–519. <https://doi.org/10.1002/jclp.20592>.
- Ruini, C., Ryff, C.D., 2016. Using eudaimonic well-being to improve lives. In: Wood, A.M., Johnson, J. (Eds.), *The Wiley Handbook of Positive Clinical Psychology: An Integrative Approach to Studying and Improving Well-Being*. Wiley-Blackwell, Hoboken, NJ, pp. 153–166.
- Ruini, C., Belaise, C., Brombin, C., Caffo, E., Fava, G.A., 2006. Well-being therapy in school settings: a pilot study. *Psychother. Psychosom.* 75 (6), 331–336. <https://doi.org/10.1159/000095438>.
- Ruini, C., Ottolini, F., Tomba, E., Belaise, C., Albierti, E., Visani, D., ... Fava, G.A., 2009. School intervention for promoting psychological well-being in adolescence. *J. Behav. Ther. Exp. Psychiatry* 40 (4), 522–532. <https://doi.org/10.1016/j.jbtep.2009.07.002>.

- Ruini, C., Albieri, E., Vescovelli, F., 2015. Well-being therapy: state of the art and clinical exemplifications. *J. Contemp. Psychother.* 45, 129–136. <https://doi.org/10.1007/s10879-014-9290-z>.
- Ryan, R.M., Deci, E.L., 2000a. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am. Psychol.* 55, 68–78. <https://doi.org/10.1037//0003-066X.55.1.68>.
- Ryan, R.M., Deci, E.L., 2000b. Intrinsic and extrinsic motivations: classic definitions and new directions. *Contemp. Educ. Psychol.* 25, 54–67. <https://doi.org/10.1006/ceps/1999.1020>.
- Ryan, R.M., Deci, E.L., 2001. On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annu. Rev. Psychol.* 52, 141–166. <https://doi.org/10.1146/annurev.psych.52.1.141>.
- Ryan, R.M., Deci, E.L., 2017. *Self-determination theory: Basic needs in motivation, development, and wellness*. The Guilford Press, New York.
- Ryff, C.D., 1989. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *J. Pers. Soc. Psychol.* 57 (6), 1069–1081. <https://doi.org/10.1037/0022-3514.57.6.1069>.
- Ryff, C.D., 2014. Psychological well-being revisited: advances in the science and practice of eudaimonia. *Psychother. Psychosom.* 83 (1), 10–28. <https://doi.org/10.1159/000353263>.
- Ryff, C.D., 2017. Eudaimonic well-being, inequality, and health: recent findings and future directions. *Int. Rev. Econ.* 64, 159–178.
- Ryff, C.D., 2018. Well-being with soul: science in pursuit of human potential. *Perspect. Psychol. Sci.* 13, 242–248.
- Ryff, C.D., Keyes, C.L.M., 1995. The structure of psychological well-being revisited. *J. Pers. Soc. Psychol.* 69 (4), 719–727. <https://doi.org/10.1037/0022-3514.69.4.719>.
- Ryff, C.D., Singer, B.H., 2008. Know thyself and become what you are: a eudaimonic approach to psychological well-being. *J. Happiness Stud.* 9 (1), 13–39. <https://doi.org/10.1007/s10902-006-9019-0>.
- Ryff, C., Friedman, E., Fuller-Rowell, T., Love, G., Miyamoto, Y., Morozink, J., ... Tsenkova, V., 2012. Varieties of resilience in MIDUS. *Soc. Personal. Psychol. Compass* 6 (11), 792–806. <https://doi.org/10.1111/j.1751-9004.2012.00462.x>.
- Scambler, G., Scambler, S., Speed, E., 2014. Civil society and the Health and Social Care Act in England and Wales: theory and praxis for the twenty-first century. *Soc. Sci. Med.* 123, 210–216.
- Schaefer, S.M., Boylan, J.M., van Reekum, C.M., Lapate, R.C., Norris, C.J., Ryff, C.D., Davidson, R.J., 2013. Purpose in life predicts better emotional recovery from negative stimuli. *PLoS One* 8 (11), e80329. <https://doi.org/10.1371/journal.pone.0080329>.
- Schmutte, P.S., Ryff, C.D., 1997. Personality and well-being: reexamining methods and meanings. *J. Pers. Soc. Psychol.* 73 (3), 549–559. <https://doi.org/10.1037/0022-3514.73.3.549>.
- Schwartz, C.E., Keyl, P.M., Marcum, J.P., Bode, R., 2009. Helping others shows differential benefits on health and well-being for male and female teens. *J. Happiness Stud.* 10 (4), 431–448. <https://doi.org/10.1007/s10902-008-9098-1>.
- Shane, S., Locke, E.A., Collins, C.J., 2003. Entrepreneurial motivation. *Hum. Resour. Manag. Rev.* 13, 257–279.
- Shepherd, D.A., Patzelt, H., 2015. The “heart” of entrepreneurship: the impact of entrepreneurial action on health and health on entrepreneurial action. *J. Bus. Ventur. Insights* 4, 22–29.
- Shir, N., Nikolaev, B.N., Wincent, J., 2018. Entrepreneurship and well-being: the role of psychological autonomy, competence, and relatedness. *J. Bus. Ventur. (in press)*.
- Smith, A., 1981/1776. An inquiry into the nature and causes of the wealth of nations. In: Campell, R.H., Skinner, A.S. (Eds.), *Two Volumes*. Liberty Press, Indianapolis, IN (Reprinted by) (1981/1776).
- Sonnentag, S., 2015. Dynamics of well-being. *Annu. Rev. Organ. Psych. Organ. Behav.* 2, 261–293.
- Springer, K.W., Pudrovskaja, T., Hauser, R.M., 2011. Does psychological well-being change with age? Longitudinal tests of age variations and further exploration of the multidimensionality of Ryff's model of psychological well-being. *Soc. Sci. Res.* 40 (1), 392–398. <https://doi.org/10.1016/j.ssresearch.2010.05.008>.
- Staudinger, U.M., Fleeson, W., Baltes, P.B., 1999. Predictors of subjective physical health and global well-being: similarities and differences between the United States and Germany. *J. Pers. Soc. Psychol.* 76 (2), 305–319. <https://doi.org/10.1037/0022-3514.76.2.305>.
- Stephan, U., 2018. Entrepreneurs' mental health and well-being: a review and research agenda. *Acad. Manag. Perspect.* 32, 290–322.
- Stephens, A., Wardle, J., 2005. Positive affect and biological function in everyday life. *Neurobiol. Aging* 26, 108–112.
- Strauser, D.R., Lustig, D.C., Çiftçi, A., 2008. Psychological well-being: its relation to work personality, vocational identity, and career thoughts. *J. Psychol.* 142 (1), 21–35. <https://doi.org/10.3200/JRPL.142.1.21-36>.
- Tomatis, L., 2005. Primary prevention of cancer in relation to science, sociocultural trends, and economic pressures. *Scand. J. Work Environ. Health* 31, 227–232.
- Van Gelderen, M., 2016. Entrepreneurial autonomy and its dynamics. *Appl. Psychol. Int. Rev.* 65, 541–567.
- Van Gelderen, M.W., Jansen, P.G.W., 2006. Autonomy as a startup motive. *J. Small Bus. Enterp. Dev.* 13, 23–32.
- Vincent, L.C., Emich, K.J., Goncalo, J.A., 2013. Stretching the moral gray zone. *Psychol. Sci.* 24, 595–599.
- Vitterso, J. (Ed.), 2016. *Handbook of Eudaimonic Well-Being*. Springer, New York, NY.
- Wang, L., Murnighan, J.K., 2011. On greed. *Acad. Manag. Ann.* 5, 279–316.
- Weinberger, E., Wach, D., Stephan, U., Wegge, J., 2017. A new perspective on stressors and their consequences for entrepreneurs' psychological well-being. In: Paper Presented at Workshop on Entrepreneurship and Well-Being, Steninge, Sweden, June 2–3, 2017.
- Wiggins, L.M., 1973. *Panel Analysis: Latent Probability Models for Attitude and Behavior Processes*. Jossey-Bass, Oxford, England.
- Williams, T.A., Shepherd, D.A., 2016. Victim entrepreneurs doing well by doing good: venture creation and well-being in the aftermath of a resource shock. *J. Bus. Ventur.* 31, 142–387.
- Williams, P., Kern, M.L., Waters, L., 2016. Inside-out-outside-in: a dual approach process model to developing work happiness. *Int. J. Well-being* 6, 30–56.
- Wincent, J., Örtqvist, D., Drnovsek, M., 2008. The entrepreneur's role stressors and proclivity for a venture withdrawal. *Scand. J. Manag.* 24, 232–246.
- Wright, J.B., 2005. Adam Smith on greed. *J. Priv. Enterp.* 21, 46–58.
- Zilioli, S., Slatcler, R., Ong, A.D., Gruenewald, T.L., 2015. Purpose in life predicts allostatic load ten years later. *J. Psychosom. Res.* 79, 451–457.