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Eudaimonic Well-being

Highlights from 25 Years of Inquiry

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20.1 Introduction

This chapter describes a eudaimonic model of well-being that is focused on realization of human potential. The theoretical and philosophical foundations of the approach are summarized, and its empirical translation is briefly described. Extensive research has grown up around this model of well-being. Broad themes are highlighted, including recent advances from MIDUS (Midlife in the US), a national longitudinal sample of adults. The first example pertains to the challenges of growing old wherein evidence documents decline in certain aspects of eudiamonia as people transition from middle to later adulthood. Among older individuals who maintain high levels of purposeful life engagement, health benefits have been documented, including extended length of life, reduced risk of multiple diseases, reduced dysregulation of physiological systems, better gene expression linked to inflammatory processes, and greater likelihood of practicing preventive health behaviors. Further health protective effects are shown in research on social inequality, where disadvantaged socioeconomic status is known to predict increased risk for poor health. Eudaimonic well-being again provides a buffer among those lacking educational advantage. Possible mechanisms involved in these salubrious findings involve studies linking eudaimonia to neuroscience and gene expression. Interventions designed to promote eudaimonia in clinical and community contexts as well as in schools are briefly summarized. A proposed direction for future research is to investigate the role of the arts, broadly defined, in nurturing meaningful, fulfilling, and socially responsible lives – i.e., the essence of eudaimonia.

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20.2 A Eudaimonic Model of Well-being

Numerous prior literatures from developmental and clinical psychology as well as existential and humanistic psychology (Allport, 1961; Bühler, 1935; Erikson, 1959; Frankl, 1959; Jahoda, 1958; Jung, 1933; Maslow, 1968; Neugarten, 1973; Rogers, 1961) sought to articulate the upside of the human experience. Collectively, these perspectives had limited scientific impact due to an absence of credible assessment tools to measure the diverse aspects of flourishing they described. This observation led to work (Ryff, 1989) that sought to (1) identify points of convergence in the above perspectives and (2) use these common themes as a foundation for development of quantitative measurement scales. The scale construction process followed the construct-oriented approach to personality assessment (Jackson, 1967, 1976; Wiggins, 1980), which begins with conceptually based definitions of the constructs to be operationalized. Self-descriptive items are then generated based on these guiding definitions. In an era of proliferating tools, many emerging from positive psychology, it is worth noting that few have clearly formulated theoretical foundations. In addition, few new tools have been subjected to rigorous empirical scrutiny required to test their reliability, validity, and dimensional structure. The above model of eudaimonic well-being came with a strong conceptual foundation and has been accompanied by extensive psychometric evaluation (summarized in Ryff, 2014). These features likely explain why the model has withstood extensive scrutiny over time and has been extensively employed across diverse domains of inquiry.

Figure 20.1 identifies the six key components of the Ryff (1989) model and, below them, summarizes theoretical underpinnings. The text below articulates how each dimension of well-being drew on multiple underlying theoretical conceptions in distilling components of optimal human functioning.

20.2.1 Autonomy

Many efforts to depict key features of positive human functioning emphasize independent, self-determining, and self-regulating qualities of the person. Self-actualizers were described as showing autonomous functioning and resistance to enculturation (Maslow). The fully functioning person was depicted as having an internal locus of evaluation (Rogers), such that one does not look to others for approval, but evaluates oneself by personal standards. Individuation was also described as involving a deliverance from convention (Jung). Life-span theories emphasized the importance of turning inward in later life (Erikson) and gaining a sense of freedom from the norms governing everyday life (Neugarten).

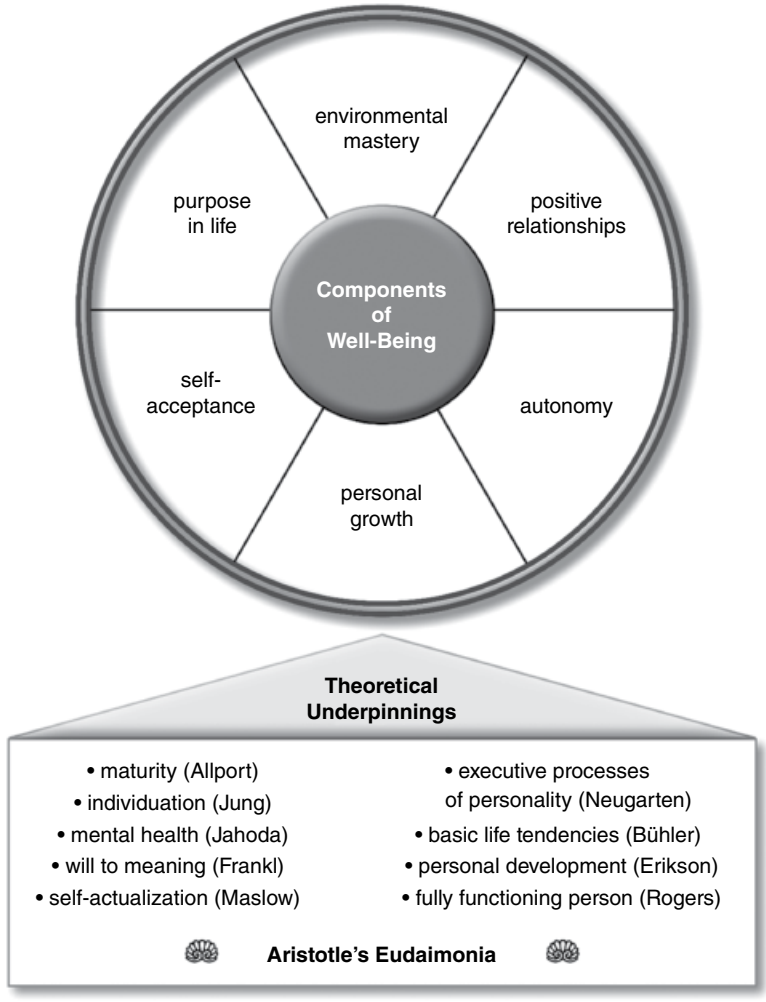

Figure 20.1 Core dimensions of psychological well-being and their theoretical foundations.

20.2.2 Environmental Mastery

Possessing the ability to choose or create environments suitable to one's psychic needs was a key characteristic of mental health (Jahoda), which reflected a kind of fit between one's outer and inner worlds. Life-span theories described the importance of being able to manipulate and control complex environments, particularly in midlife, as well as the capacity to act on and change the surrounding world through mental and physical activities

(Erikson, Neugarten). Maturity was defined as being able to extend the self into spheres of endeavor that go beyond the self (Allport). Together, these perspectives conveyed that active participation in and efforts to gain mastery of one's surrounding environment are important elements in positive psychological functioning.

20.2.3 Personal Growth

This aspect of well-being is concerned with self-realization and achieving personal potential. It thus underscores the dynamic aspects of positive functioning that are continually evolving through time. Self-actualization was centrally concerned with personal becoming (Maslow), as was positive mental health (Jahoda). Descriptions of the fully functioning person (Rogers) and what it means to be fully individuated (Jung) also emphasized ideas of realizing one's true self. Life-span theories, in addition, gave explicit emphasis to confronting new challenges and tasks at different periods of life (Erikson, Bühler, Neugarten).

20.2.4 Positive Relationships with Others

The ability to love was deemed a central feature of mental health (Jahoda). Self-actualizers were described as having strong feelings of empathy and affection for all human beings and the capacity for great love, deep friendship, and close identification with others (Maslow). Warm relating to others was seen as a central criterion of maturity (Allport). Adult developmental stage theories (Erikson) emphasized the achievement of close unions with others (intimacy) as well as having a concern for guiding and directing others (generativity). It is worth noting that philosophical accounts of the criterial goods of a well-lived life (Becker, 1992) also underscored the primacy of love, empathy, and affection.

20.2.5 Purpose in Life

Having beliefs that give one a sense of purpose and meaning in life was part of positive mental health (Jahoda). The definition of maturity also included having a clear comprehension of one's purpose, which was important in contributing a sense of directedness and intentionality to life (Allport). Life-span theories depicted changing purposes or goals with different life stages, such as being creative or productive in midlife, and turning to emotional integration in later life (Erikson, Neugarten, Jung). Existential formulations, especially the search for meaning in the face of significant adversity

(Frankl), were directly concerned with the challenge of finding/creating meaning amidst suffering.

20.2.6 Self-acceptance

Having positive self-regard is a central feature of self-actualizers (Maslow), maturity (Allport), optimal functioning (Rogers), and mental health (Jahoda). Life-span theories also emphasized the importance of acceptance of self, including of one's past life (Erikson, Neugarten). The process of individuation (Jung) added important refinements to this aspect of well-being – namely, the need to come to terms with the dark side of one's self (the shadow). This form of self-acceptance is notably richer than standard views of self-esteem because it involves awareness and acceptance of personal strengths as well as weaknesses.

20.2.7 Links to Aristotle's Eudaimonia

What are the connections between the above dimensions of well-being and "eudaimonia" as written about by Aristotle over 2,000 years ago in his *Nichomachean Ethics* (350 BCE, translated by Ross, 1925)? Aristotle's aim was not to formulate the nature of human well-being, but rather to answer a fundamental question of human existence: namely, how should we live? In reaching for the "highest of all human goods achievable by human action," Aristotle spoke of happiness, but underscored that happiness was not some obvious and plain thing like pleasure, wealth, or honor. For him, the highest of all human goods was *activity of the soul in accord with virtue*. In elaborating the highest of all virtues Aristotle got to the heart of eudaimonia, which he saw as a realization of one's true potential, achieving the best within one's self. From the present era, Norton's (1976), *Personal Destinies: A Philosophy of Ethical Individualism* framed eudiamonism as an ethical doctrine in which each person is obliged to know and live in truth with his daimon, a kind of spirit given to all persons at birth. It is a journey of progressively actualizing an excellence (from the Greek *arête*) that is consistent with innate potentialities. Eudaimonia thus embodies the great Greek imperatives of self-truth (know thyself) and self-responsibility (become what you are) (Ryff & Singer, 2008).

Clear parallels are evident in the above developmental, humanistic, existential, and clinical formulations and Aristotle's characterization of eudaimonia. That said, none of these later psychological perspectives on personal development, self-actualization, maturity, individuation, fully functioning, or good mental health mentioned Aristotle. Nonetheless, the foundational thinking in his *Ethics* is there – that is, twentieth-century enactments of optimal human functioning brought ideas to science and practice that were undeniably in the spirit of Aristotle's eudiamonism.

20.3 Empirical Highlights: Eudaimonia, Life Challenges, and Health

The Ryff (1989) measures of well-being have been translated to more than 30 languages, which have led to 650 plus publications (some reviewed in Ryff, 2014). A limited subset of this work is distilled here, focused primarily on studies that have explicated the relevance of eudaimonic well-being for human health, including in contexts of challenge, as well as translational efforts to promote eudaimonia. Existential and humanistic psychology often frame encounters with adversity as catalysts that fuel deepened experiences of personal growth, self-acceptance, and self-realization. Two prominent life challenges are considered. The first addresses the losses that accompany human aging and the second examines difficulties that accompany socioeconomic disadvantage.

20.3.1 Challenges of Aging

Initial cross-sectional evidence showed older adults to have lower levels of personal growth and purpose in life compared to young and midlife adults (Ryff, 1989). Subsequent longitudinal evidence from multiple studies, including two national samples, verified that such decline in purpose and growth occurred as individuals grew older (Springer, Pudrovska, & Hauser, 2011). However, high variability was evident among older adults, which afforded unique opportunities to investigate links between well-being and health. That is, although the overall age profile showed decreasing levels of purpose and growth, some older adults were decidedly above the average for their age group. This capacity to maintain high levels of well-being was, in a series of investigations, subsequently linked with multiple benefits for health and longevity.

For example, a community-based epidemiological study known as MAP (Rush Memory and Aging Project) showed, after controlling for numerous covariates, that older adults with higher levels of purpose in life at baseline had reduced risk of mortality six years later (Boyle, Barnes, Buchman, & Bennett, 2009) as well as reduced risk of Alzheimer's disease and mild cognitive impairment (Boyle, Buchman, Barnes, & Bennett, 2010). Further, postmortem analyses of brain pathology (e.g., plaques and tangles) from deceased participants showed that purpose in life moderated links between brain-based pathology and levels of cognitive function while respondents were still alive. That is, among those showing high levels of brain pathology, better cognitive function was evident for those reporting higher levels of purpose in life compared to those with comparable brain pathology but with lower levels of purpose in life (Boyle et al., 2012).

Another major national longitudinal study known as HRS (Health and Retirement Study) provided prospective evidence that older adults with higher levels of purpose in life had reduced risk of stroke (Kim, Sun, Park, & Peterson, 2013) as well as reduced risk of myocardial infarction among those with coronary heart disease (Kim, Sun, Park, Kubzansky, & Peterson, 2013). This same study also found that older adults with higher levels of purposeful engagement were more likely to engage in preventive health behaviors, such as cholesterol tests and cancer screenings (Kim, Strecher, & Ryff, 2014) relative to age peers with lower levels of purpose in life. Findings from the MIDUS (Midlife in the US) national longitudinal study corroborated evidence that purpose in life reduces risk of mortality across adult life (Hill & Turiano, 2014).

Other studies have probed eudaimonic well-being as a moderating influence that affords a protective resource vis-à-vis targeted aging challenges. For example, Friedman and Ryff (2012) showed that two aspects of well-being (purpose in life and positive relations) buffered against adverse physiological consequents of later-life comorbidity (having multiple chronic conditions). Increasing profiles of health problems (e.g., hypertension, arthritis) are common with aging. Many of these conditions fuel inflammatory processes that add further risk for subsequent adverse health. Indeed, higher levels of chronic conditions were found to predict elevated levels of interleukin-6 (IL-6) and C-reactive protein (CRP), but not for everyone. Among those with high comorbidity, older adults reporting high purposeful engagement and positive relations showed lower levels of these inflammatory markers compared to those with high comorbidity who reported low purpose and low social connections. Another study focused on sleep problems, known to increase with aging, showed that in those who reported higher levels of eudaimonic well-being (all dimensions except autonomy), lower levels of disrupted sleep were evident (Phelan, Love, Ryff, Brown, & Heidrich, 2010). Both studies underscored the protective role of eudaimonic well-being vis-à-vis challenges of aging.

Viewed collectively, these aging studies offer longitudinal evidence that certain aspects of eudaimonic well-being (purpose in life, personal growth) show later life vulnerabilities. Decrements in these areas likely reflect the "structural lag" problem (Riley, Kahn, & Foner, 1994), which asserts that the added years of life many now experience are not accompanied by opportunities for meaningful roles and activities. Effectively, the surrounding social structures (in work, family, and community life) lag behind the added years of life that many now experience. Still, the evidence of later life decline in purposeful engagement coexists with notable variability in reported well-being among older adults. For those who maintain high levels of purpose in life, an array of health benefits (reduced risk for multiple disease outcomes), as well as increased longevity, are evident. Eudaimonia also offers a protective buffer against the physiological consequences of comorbidity and age-related risk for sleep disturbance. None of these scientific advances could have been demonstrated without

empirical tools to assess eudaimonic well-being (Ryff, 1989), thus underscoring the importance of bringing new theoretical constructs and measures to contemporary research.

20.3.2 Challenges of Inequality

Research on social inequality, well known in economic and health circles, shows that those with lower socioeconomic standing (educational attainment, occupational status, income) are at increased risk for diverse health problems (Adler, Marmot, McEwen, & Stewart, 1999; Marmot, 2005). Reports of well-being also reveal gradients – those with higher levels of educational attainment report higher levels of diverse aspects of eudaimonia (Ryff, 2016). The directional nature of this relationship is unclear (does educational advancement enhance well-being, or does well-being motivate educational pursuits?), though opportunities for higher education likely provide knowledge, skills, and economic resources whereby individuals can better manage their lives, pursue their goals, and make the most of their talents and capacities. But again, variability *within educational strata* is notably evident – some individuals who lack college or university degrees report high levels of eudaimonic well-being. In addition, health benefits are evident among the educationally disadvantaged who report higher eudaimonic well-being.

Using MIDUS data, Morozink, Friedman, Coe, and Ryff (2010) documented that those with lower educational status had higher levels of the inflammatory marker interleukin-6, which is implicated in multiple disease outcomes (cardiovascular disease, cancer, Alzheimer's disease, osteoporosis). However, a moderating effect was evident among less educated adults who reported high eudaimonic well-being: those with limited education who had higher levels of multiple aspects of well-being showed lower levels of IL-6 compared to their same education counterparts reporting lower well-being. A further study (Tsenkova, Love, Singer, & Ryff, 2007) showed links between income and cross-time changes in glycosylated hemoglobin (HbAlc), a marker of glycemic control connected to Type 2 diabetes. Lower incomes predicted worse (higher) cross-time profiles of HbAlc, but measures of well-being (purpose in life, personal growth, positive affect) moderated this relationship, again underscoring the importance of psychological factors as protective resources vis-à-vis inequality. More recent work focused on longitudinal profiles of eudaimonic well-being (Ryff, Radler, & Friedman, 2015) documented notable stability over a 9- to 10-year period. However, stability comes in different varieties – some are persistently high in their levels of eudaimonic well-being across time while others are persistently low. These differing profiles illustrate cumulative processes, which predicted cross-time health change. Those with persistently high well-being showed gains in subjective health, along with better profiles in chronic conditions, health symptoms, and functional health outcomes

compared to those with persistently low well-being. Returning to the theme of buffering in contexts of inequality, persistently high well-being also moderated the link between educational status and unfolding health changes. Thus, less educated adults with persistently high well-being were protected against certain adverse health changes observed for their low education counterparts with persistently low well-being.

Ethnic minority status frequently co-occurs with low socioeconomic standing. Reported eudaimonic well-being between majority and minority groups in MIDUS has revealed interesting and counterintuitive findings. Given the joint challenges of racism and inequality, vulnerabilities in eudaimonic well-being might be expected among US Blacks compared to Whites, but the science has revealed that ethnic minority status is a positive predictor of eudaimonic well-being compared to White majority status (Ryff, Keyes, & Hughes, 2003), after controlling for various other factors. This finding suggests that the challenges of minority life may actually hone (strengthen) qualities such as purpose in life and personal growth. Additional findings from MIDUS show that US Blacks have higher rates of "flourishing" (defined as having high levels of psychological and social well-being and low levels of mental distress) compared to US Whites (Keyes, 2009). Bringing biomarkers into the tale, MIDUS investigators have shown that perceived discrimination predicts healthier profiles of diurnal cortisol (steeper diurnal decline) among African American compared to White respondents (Fuller-Rowell, Doan, & Eccles, 2012), suggesting that awareness of racism in daily life may have protective benefits for health. Together, the above findings underscore themes of resilience, despite the challenges of inequality and racism.

20.3.3 Cultural Perspectives on Well-being and Health

It is relevant to ask whether the eudaimonic model of well-being described herein has universal relevance, or represents a largely Western formulation of positive psychological functioning. Much has been written about culture and well-being in East and West (see Ryff et al., 2014, for a summary). On the one hand, ideas of purposeful life engagement have parallels with concepts such as *ikigai* in Japan, which are about what makes life worth living. A recent meta-analysis, involving over 136,265 respondents from diverse countries, showed that purpose in life, including its Japanese equivalent, *ikigai*, was associated with reduced all-cause mortality as well as reduced risk of cardiovascular events (Cohen, Bavishi, & Rozanski, 2016). Thus, the benefits for longevity and reduced heart disease following from purposeful and worthwhile living appear evident across cultural contexts.

Other new findings from MIDJA (Midlife in Japan), which parallels MIDUS in many measures, examined three categories of well-being: eudaimonic (assessed with personal growth, purpose in life, *ikigai*), hedonic (assessed with

life satisfaction and positive affect), and interdependent well-being (assessed with gratitude, peaceful disengagement, and adjustment). The central question was whether these types of well-being were linked to risk for Type 2 diabetes measured with glycosylated hemoglobin, HbAlc. Rates of Type 2 diabetes have increased in Japan in recent years, but most prior studies linking psychological well-being to better health have used Western samples. The results (Boylan, Tsenkova, Miyamoto, & Ryff, 2017) showed that healthy glucoregulation was evident among Japanese adults with higher levels of purpose in life and lower levels of peaceful disengagement, thus underscoring the importance of considering the sociocultural context in linking positive psychological characteristics to health.

Eudaimonia is not primarily about emotional experience, although hedonic well-being is (Ryan & Deci, 2001), and in this realm cultural differences may be more evident. Miyamoto and Ryff (2011) addressed dialectical and nondialectical emotional styles, which probed the extent to which positive and negative emotions are balanced, or one is predominant over the other. Eastern cultures emphasize the middle way and thus emphasize the experience of positive and negative emotions in balanced ways, whereas in the West, the common style is to experience high levels of positive affect and low levels of negative affect. Findings from this study showed that the balanced, dialectical emotional style was associated with fewer physical health symptoms in Japan compared to the United States. Another recent study examined links between positive affect, social connectedness, and healthy biomarkers (good cholesterol, anabolic hormones) in Japan and the United States (Yoo, Miyamoto, & Ryff, 2017). Findings show that in the United States those with greater positive affect had better cholesterol profiles (regardless of social connectedness), whereas in Japan lower levels of both biomarkers were found among those reporting high positive affect (not strongly espoused in the Eastern context) in combination with low social connectedness (which is strongly emphasized in interdependent cultures). Thus how emotion matters for health appears to vary by cultural context.

Apropos of the previously discussed US findings on aging and eudaimonia, age differences in dimensions of eudaimonic well-being have also been documented in Japan (Karasawa et al., 2011). Cross-sectional data showed the same age-related decline in purpose in life that had been documented in the United States. However, in Japan, older compared to midlife adults showed higher levels of personal growth, perhaps tied to cultural differences in later life educational opportunities, along with cultural values of filial piety. Inequality has also been investigated in Japan and linked to health (see Ryff, Miyamoto et al., 2015, for a summary). One set of findings (Curhan et al., 2014) used MIDJA and MIDUS data to examine links between position in social hierarchies (measured objectively with educational attainment and subjectively with perceived social standing) and reported well-being (eudaimonic and hedonic).

Drawing on distinctions between independent and interdependent models of the self, the prediction was that subjective social status would be a stronger predictor of well-being in the United States, whereas objective social status would be a stronger predictor of well-being in Japan. These culturally distinct predictions were supported in the empirical findings. Other recent work, not covered here given the overarching focus on eudaimonia and health, has shown cultural differences in socioeconomic status, expressions of anger, and biological health risk (Kitayama et al., 2015). Taken together, this brief summary of MIDUS and MIDJA findings underscores the importance of bringing cultural context into research on varieties of well-being (and ill-being) and how they matter for health.

20.3.4 Probing Neural and Genetic Mechanisms

The neural correlates of eudaimonic well-being are receiving increased scientific attention. An initial study using electrophysiological indicators showed that adults reporting higher levels of eudaimonic well-being showed greater left than right superior frontal activation in response to emotion stimuli (Urry et al., 2004), after adjusting for reported levels of hedonic well-being. A recent MIDUS study showed that those with higher levels of purpose in life had more rapid brain-based emotional recovery (measured in terms of eyeblink response) from negative stimuli (Schaefer et al., 2013). Other studies have used functional magnetic resonance imaging (fMRI). Van Reekum et al. (2007) examined amygdala activation in response to negative (compared to neutral) stimuli, finding that those who were faster to evaluate negative information showed increased left and right amygdala activation. These patterns varied, however, depending on composite profiles of eudaimonic well-being. Those with higher eudaimonia were slower to evaluate such information, and they showed reduced amygdala activation as well as increased ventral anterior cingulate cortex activity, possibly recruited in response to aversive stimuli. In recent MIDUS findings, neural responses to positive stimuli were examined (Heller et al., 2013) showing links between sustained activity in reward circuitry (ventral striatum and dorsolateral prefrontal cortex) and higher eudaimonic well-being (composite) – effectively those with sustained activation of reward circuitry in response to positive stimuli had higher eudaimonia. In addition, the nexus between sustained reward circuitry and eudaimonia was linked with lower diurnal cortisol output (measured 4 times a day across 4 days). Together, these outcomes underscore the interplay between brain mechanisms, subjective experiences of well-being, and stress hormones. Finally, eudaimonic well-being (personal growth, positive relations, purpose in life) has been linked with insular cortex volume (Lewis, Kanai, Rees, & Bates, 2014). Those with higher well-being have greater volume of right insular cortex grey matter, which is involved in a variety of higher-order functions. Overall, these brain-based

inquiries have begun to explicate underlying neural mechanisms that underlie reported experiences of eudaimonia (see Ryff, Heller, Schaefer, van Reekum, & Davidson, 2016, for a more detailed summary of findings on purposeful engagement, healthy aging, and the brain).

Recent research has linked well-being (hedonic and eudaimonic) to gene expression, focused on CTRA (conserved transcriptional response to adversity). CTRA is 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 divergent transcriptome profiles for hedonic versus eudaimonic well-being. Specifically, high hedonic well-being was associated with CTRA up-regulation (increased expression of pro-inflammatory genes and decreased expression of antibody synthesis genes). In contrast, those high in eudaimonic well-being showed CTRA down-regulation (i.e., decreased expression of pro-inflammatory genes and increased expression of antibody synthesis genes). These patterns were independent of demographic, health, and behavioral risk factors. Eudaimonia thus appeared to convey health-related benefits related to gene expression that were not evident for hedonia. A subsequent study, using more detailed measures of eudaimonic well-being (Fredrickson et al., 2015), showed reduced CTRA expression for all but one of the six dimensions of well-being, again after adjusting for demographic characteristics, health-related confounders, and RNA indicators of leukocyte subset distribution. Another recent investigation (Cole et al., 2015) found CTRA expression to be up-regulated in association with loneliness, but again, down-regulated in association with eudaimonic well-being. Such findings suggest the potential utility of targeting health risks associated with social isolation by promoting meaning and purpose in life.

In sum, the work described in this section underscores new strides in illuminating the neural substrates of eudaimonic well-being as well as how it is linked to gene expression involved in inflammatory processes. These studies carry research on eudaimonia to mechanistic levels that are essential for understanding how subjective experiences of personal growth and self-realization matter for human health.

20.4 The Promotion of Eudaimonia to Improve Lives

Growing evidence suggests that eudaimonic well-being is modifiable (Ruini & Ryff, 2016; Ryff, 2014). Before considering relevant examples, it should be emphasized that the lack of well-being increases subsequent risk for mental illness (Keyes, 2002), and further that cross-time gains in well-being predict cross-time declines in mental illness (Keyes, Dhingra, & Simoes, 2010). Thus, awareness is growing that promoting positive mental health has important public health significance. In treating mental health problems, it has further

become clear that full recovery involves more than the reduction of symptoms or absence of psychological distress; it must also include the promotion of experiences of well-being (Fava, Ruini, & Belaise, 2007; Ruini & Fava, 2012).

One prominent example is "well-being therapy" (Fava, 1999; Fava, Rafanelli, Cazzaro, Conti, & Grandi, 1998), which makes explicit use of eudaimonic well-being. Conceived as an addition to cognitive behavioral therapy, the overarching goal is to promote positive psychological experiences for patients as a way of preventing relapse of major depression. The intervention requires keeping daily diaries of positive happenings, which then become the focus of therapy wherein patients learn how to enrich awareness of such experiences by linking them to related dimensions in the Ryff model of well-being, and importantly, to prevent premature curtailment of these experiences. Initial finds documented improved remission profiles among those who received well-being therapy, and longitudinal follow-up further showed that relapse was prevented over a six-year period (Fava et al., 2004). Well-being therapy was also found to be effective in treating anxiety disorders (Fava et al., 2005; Ruini, Albieri, & Vescovelli, 2015; Ruini & Fava, 2009), again with long-lasting effects.

Outside the clinical context, promoting eudaimonia may play an important role in prevention of mental illness and psychological distress in the broader population. A promising context for such efforts in adolescence is the school. Ruini, Belaise, Brombin, Caffo, and Fava (2006) adapted well-being therapy for school settings with the goal of preventing the development of depression, especially among adolescent girls. Comparison of students receiving the intervention with an attention-placebo group revealed significant improvements in personal growth, along with reductions in distress (Ruini et al., 2009). Another controlled investigation in schools showed that well-being therapy produced significant improvements in autonomy and friendliness, whereas an anxiety management intervention ameliorated anxious and depressive symptoms (Tomba et al., 2010). Further school interventions are summarized in Ruini and Ryff (2016).

At the other end of the life course, the promotion of eudaimonia among older adults in the community has been of interest in a program known as Lighten Up! (Friedman et al., 2015). Later life comes with many challenges (loss of roles, loss of significant others, health events) that may increase vulnerability to depression. This program, conducted over a period of eight weeks, involves discussion of the importance of well-being in later life, the sharing of positive memories, and engagement in exercises designed to promote eudaimonia as well as to deal with difficult life challenges. Pre-post comparisons for the initial pilot study showed gains in most aspects of eudaimonic well-being and life satisfaction as well as reductions in depressive and physical symptoms and sleep complaints. These improvements were particularly evident among individuals with lower levels of eudaimonic well-being prior to the intervention. This work has been expanded to include further groups of older adults in multiple community contexts.

More interventions in clinical and community contexts are detailed in Ryff (2014). Collectively, such work shows that eudaimonic well-being can be promoted, thus pointing to important new directions in research translation and public health education. Thanks to contemporary science and practice, the possibility of promoting ever wider experiences of eudaimonia for ever larger segments of society is becoming increasingly viable.

20.5 A Future Direction: Eudaimonia and the Arts

In the interest of broadening current science and deepening its relevance for human betterment, an avenue for future work brings the arts and humanities into research on eudaimonia. This direction converges with increasing emphasis given to the arts in medical training and in therapy, health care, and community life, exemplified by the new field of "health humanities" (Crawford, Brown, Baker, Tischler, & Abrams, 2015) as well as a report from the Royal Society for Public Health in the United Kingdom, entitled *Arts, Health, and Well-being Beyond the Millennium* (Royal Society and Public Health Working Group, 2013). The report detailed benefits of the humanities (philosophy, theology, literature, music, poetry, film) for human health and public policy. Within the arts and humanities, there is also growing interest in demonstrating the value of these fields for nurturing well-lived lives and good societies via identification of key ideals and the preservation of meaning-making practices of culture (Edmundson, 2004, 2015; Small, 2013). In addition, from the world of museums, there is growing interest among directors and curators in making their holdings of greater interest and relevance to the general public (MiD Magasin, 2015). These activities are probing in new ways how encounters with all varieties of the arts can provoke and impact those who partake of them (see also de Botton, 1997; de Botton & Armstrong, 2013). Finally, within psychology and the field of education, there is heightened interest in how music, literature, the visual arts, and drama contribute to diverse aspects of well-being (Lomas, 2016) as well as how an educational training in early adulthood that is rich in exposure to the arts and humanities contributes to self-realization and life-long experiences of personal growth and meaning (Nussbaum, 2010; Ryff, 2016). These ideas signal a return to insights from John Dewey about how to educate children (Dewey, 1899) as well as about how we experience art and how it matters in our lives (Dewey, 1934). Taken together, these diverse initiatives suggest that the time has come for the social and behavioral sciences, along with the biomedical and health sciences, to broaden the purview of their own endeavors. Bringing the arts and humanities into such pursuits will illuminate external inputs that nurture experiences of eudaimonic well-being.

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