13

Empirical Relationships Among Five Types of Well-Being

Seth Margolis, Eric Schwitzgebel, Daniel J. Ozer, and Sonja Lyubomirsky

Abstract

Philosophers, psychologists, economists, and other social scientists continue to debate the nature of human well-being. We argue that this debate centers around five main conceptualizations of well-being: hedonic well-being, life satisfaction, desire fulfillment, eudaimonia, and non-eudaimonic objective list well-being. Each type of well-being is conceptually different, but are they empirically distinguishable? To address this question, we first developed and validated a measure of desire fulfillment and then examined associations between this new measure and several other well-being measures. In addition, we explored associations among all five types of well-being. We found high correlations among all measures of well-being, but generally correlations did not approach unity even when correcting for unreliability. Furthermore, correlations between well-being and related constructs (e.g., demographics, personality) depended on the type of well-being measured. We conclude that empirical findings based on one type of well-being measure may not generalize to all types of well-being.

What, if anything, is inherently good—or universally valuable—for all people, such that every person should value it noninstrumentally insofar as they care about their own well-being or "happiness"? This question is among the most important that human beings ask, and, after thousands of years of contemplation, consensus still eludes us. Philosophers disagree (Alexandrova, 2017; Crisp, 2001/2017; Parfit 1984), as do psychologists (McMahan & Estes, 2011;

Seth Margolis, Eric Schwitzgebel, Daniel J. Ozer, and Sonja Lyubomirsky, *Empirical Relationships Among Five Types of Well-Being* In: *Measuring Well-Being*. Edited by: Matthew T. Lee, Laura D. Kubzansky, and Tyler J. VanderWeele, Oxford University Press (2021). DOI: 10.1093/oso/9780197512531.003.0014

Ryan & Deci, 2001), economists (MacGregor & Pouw, 2017), and ordinary research participants (Pflug, 2009).

Types of Well-Being

Philosophers standardly define well-being, in the most general sense, as what is inherently, ultimately, or noninstrumentally good for a person for that person's own sake. Although any classification of views of well-being will elide some nuances and exclude or fit poorly with some unusual or hybrid views (e.g., the hybrid view of Lauinger, Chapter 8, in this volume), we recognize five main approaches that are conceptually and might be empirically distinguishable: (1) hedonic well-being, (2) life satisfaction, (3) desire fulfillment, (4) eudaimonia, and (5) non-eudaimonic objective list well-being.

According to hedonic approaches to well-being, only pleasure and pain—or, more broadly, positively or negatively valenced emotional states—have intrinsic value (Bentham, 1780/2007; Crisp, 2006; Feldman, 2004; Mill, 1861/2003; Plato, 4th c. BCE/1961). Two other approaches emphasize the satisfaction of desires. According to life satisfaction approaches, what matters is the extent to which one is (authentically) satisfied with one's life as a whole (Neugarten, Havighurst, & Tobin 1961; Sumner, 1996). According to desire fulfillment approaches, what matters is the extent to which one's specific desires, goals, or values are fulfilled—or, alternatively, the extent to which one judges them to be fulfilled—perhaps subject to certain idealizing conditions (Brandt, 1979/1998; Dorsey, 2012; Harsanyi, 1977; Hildenbrand & Sonnenschein, 1991). Two final broad approaches emphasize the attainment of objective goods. According to eudaimonic theories, well-being is a matter of flourishing as a person, especially with respect to the types of psychological goods frequently valued by philosophers, like virtue, friendship, intelligence, and creativity (Aristotle, 4th c. BCE/2002; Kraut, 2007; Mengzi, 4th c. BCE/2008; Nussbaum, 2011). Philosophers usually describe such eudaimonic theories as "objective list" theories because in such theories well-being consists of objectively possessing such goods. In contrast, non-eudaimonic objective list approaches emphasize goods like wealth, beauty, fame, career success, long life, and having children (e.g., as expressed in Homer [8th c. BCE/1951], ancient Chinese Yangism [Knoblock & Riegel, trans., 3rd c. BCE/2000], and popular culture [The LOX, 1998]).

Thus, we recognize three conceptually distinct "subjective" approaches to well-being—hedonic, life satisfaction, and desire satisfaction—which emphasize emotional states or satisfaction of one's desires, and two more "objective" approaches—eudaimonic and non-eudaimonic—which emphasize the attainment of particular lists of goods or types of flourishing. However, because positive emotions and personal satisfaction are among the goods that plausibly belong on objective lists of well-being, and because desire-fulfillment accounts often emphasize the objective fulfillment of one's desires (rather than the subjective judgment that one's desires are fulfilled), the subjective-objective distinction is not quite as sharp as suggested by this simple portrayal.

At least in principle, these five types of well-being could diverge in individual cases. An underachieving sitcom enthusiast might have an overwhelmingly positive balance of positive to negative hedonic states but very little in way of friendship or creative productivity. A self-flagellating monk might be completely satisfied with a hedonically unpleasant, outwardly unproductive life. A universally beloved creative genius might feel painfully dissatisfied that she still falls far short of her envisioned potential. Such people might have high well-being according to one conception but low well-being according to another conception. In principle, some of the five types of well-being might even correlate negatively in some societies or for some groups of people. For example, some people who achieve substantial early fame, creative success, or desire satisfaction may experience less hedonic pleasure on average than do people with only average fame and career success or who attain their life goals more gradually.

Philosophically and conceptually, these types of well-being are distinct. Are they also empirically distinguishable?

One Well-Being or Many Well-Beings?

The variety of approaches to well-being complicates its empirical study. How can scientists investigate well-being without knowing exactly what it is? Researchers typically focus on one or a few types of well-being. For example, a large body of research (see Diener, Lucas, & Oishi, 2018, for a review) has used Diener's (1984) definition of subjective well-being, which combines hedonic well-being and life satisfaction. However, other researchers focus on eudaimonic well-being (e.g., Ryff, 2014; Ryan & Deci, 2001). Does current

knowledge about one type of well-being apply equally to other types of well-being? If yes, then the correlations among types of well-being should be roughly equal to the reliabilities of the well-being measures (i.e., the disattenuated correlations being near unity), suggesting that the different types of well-being are best conceptualized as one construct. For example, some argue that hedonic well-being and eudaimonia are empirically indistinguishable for this reason (Disaboto, Goodman, Kashdan, Short, & Jarden, 2016). Or are the types of well-being different enough that they have unique correlates? The higher the correlations between the different types of well-being, the less potential for divergent empirical results, depending on the type of measure used.

Previous research has examined these possibilities with regard to hedonic well-being, life satisfaction, and various conceptualizations of eudaimonia, but not desire fulfillment or non-eudaimonic objective list well-being. This research typically finds correlations that are moderately high, yet low enough to suggest the possibility of notably different underlying phenomena. For example, several studies have produced correlations of less than 0.6 between life satisfaction and positive or negative affect (Arthaud-Day, Rode, Mooney, & Near, 2005; Lucas, Diener, & Suh, 1996). Similarly, the six subscales of the Psychological Well-Being Scale (a common measure of eudaimonia) show only moderate correlations with hedonic well-being and life satisfaction (Ryff & Keyes, 1995), and the Questionnaire for Eudaimonic Well-Being shows correlations of around 0.5 with the Satisfaction with Life Scale and of around 0.6 with the Psychological Well-Being Scale (Waterman et al., 2010). One recent study reported correlations ranging approximately from 0.5 to 0.9 between various measures of affect, satisfaction, and well-being, including a correlation of 0.76 between the Oxford Happiness Questionnaire and the Satisfaction with Life Scale (Medvedev & Landhuis, 2018). Other investigators have found correlations from 0.48 to 0.62 among several theoretically distinct measures of psychological and social flourishing (Hone, Jarden, Schofield, & Duncan, 2014). In sum, it would seem possible to find discriminant validity among measures of hedonic well-being, life satisfaction, psychological flourishing, and eudaimonia.

Even if well-being measures show discriminant validity, it is still possible for most correlates of each type of well-being to be very similar. For example, subjective happiness (typically considered relatively hedonic) and psychological well-being (as measured by the Psychological Well-Being Scale and often considered eudaimonic) show quite similar patterns of correlations with

social reputation, clinician judgments of personality, and social behaviors (Nave, Sherman, & Funder, 2008). However, other research has found that correlations between elements of forgiveness and well-being are different for hedonic versus other measures (Maltby, Day, & Barber, 2005). Similarly, perceived job control appears to be related to eudaimonic feelings such as engagement but not to hedonic well-being (Kopperud & Vitters, 2008).

To determine whether different types of well-being can be treated as one or whether they show important empirical differences, we conducted three studies that assess correlations between the five types of well-being and the extent to which correlations between these types of well-being and other constructs depend on the type of well-being measured. Although previous studies have compared two or three types of well-being (usually involving hedonic well-being, eudaimonia, and life satisfaction), none has compared all five types of well-being, and previous studies' choices of measures have often mapped poorly onto the philosophical conceptions.

To assess desire fulfillment, we developed a new measure (described in Study 1). For the remaining four types of well-being, we selected those measures that we judged to most accurately reflect the philosophical conceptions. We measured hedonic well-being with a modified version of the Affect-Adjective Scale, which captures positive and negative affect states (Diener & Emmons, 1984). We measured eudaimonia and life satisfaction with the Riverside Eudaimonia Scale and the Riverside Life Satisfaction Scale, respectively—measures that were developed to match philosophical definitions of these concepts, as well as to have other psychometrically desirable properties (Margolis, Schwitzgebel, Ozer, & Lyubomirsky, 2018, 2019). To assess non-eudaimonic objective list well-being, we used a measure designed to contrast conceptually with the "high-brow" objective goods that are often emphasized in eudaimonic conceptions of well-being. This was the Rich and Sexy Well-Being Scale, which measures "low-brow" lifestyle goods: wealth, sex, beauty, and social status (Margolis et al., 2019).

We also included other well-being measures that cut across the conceptual boundaries of the five views of well-being. In particular, we included a popular measure of general happiness, which does not define happiness for participants but rather lets them use their own definition (Lyubomirsky & Lepper, 1999). We also included the Psychological Well-Being Scale, which, despite sometimes being interpreted as a measure of eudaimonic well-being, appears to measure psychological well-being in general rather

than specifically the attainment of objective goods like wisdom and accomplishment (Ryff & Keyes, 1995). The Psychological Well-Being Scale is designed to measure aspects of positive functioning identified throughout the history of psychological science. Thus, those who endorse a certain type of eudaimonic perspective as it has been developed by psychologists may view these six factors as well-being itself (or a close approximation). Other thinkers who view eudaimonic flourishing in terms of an objective list of important human goods may regard the items of the Psychological Well-Being Scale as too focused on self-ratings of subjective states (such as moods and feelings of satisfaction or disappointment) rather than self-ratings of objective attainments. Furthermore, non-eudaimonic well-being theorists may view the six factors of this scale as potential causes of well-being. Last, in addition to our desire fulfillment measure, we developed a measure of desire satisfaction that blends desire fulfillment and life satisfaction.

We assessed participants using these well-being measures and typical correlates of well-being, including demographics, the Big Five, the dark triad, values, and response biases (Studies 2–4). All materials, data, and R code for this project can be accessed at osf.io/48fex.

Developing a Measure of Desire Fulfillment and Desire Satisfaction

Method

Participants

We recruited participants ($N = 252$) from Prolific Academic, a service based in the United Kingdom that connects online participants with researchers. Participants from around the world create a Prolific Academic account and can then complete surveys posted by researchers, assuming they meet the eligibility requirements. In this study, participants were eligible to participate if they spoke English as their first language. They were 18–66 years old (mean [M] = 31.1, standard deviation [SD] = 10.6) and 33% female. A majority (68%) of our participants were from the United States, 15% were from the UK, and 71% were Caucasian. A plurality (40%) of participants were employed full-time and another 27% were employed part-time.

Procedure

After reading a short description of our study and consenting, participants responded to the following prompt: "What are the 6 most important things you want in life? Take a few moments and think about these things. List these desires below."

Desire Fulfillment Score. On the next page, participants were told: "Now, for each of your desires, please rate the extent to which you believe you are fulfilling it." At this point, participants' previously listed desires were displayed, and they were instructed to rate the fulfillment of each desire on a 7-point Likert scale from "Not at all" to "Extremely." The overall "desire fulfillment" score was the average of these six ratings.

Desire Satisfaction Score. Below these ratings, participants were instructed to "please scroll up and briefly review how fulfilled your desires are." They were then asked to rate, "How satisfied are you with how fulfilled your desires are?" (from 1 = "Completely dissatisfied" to 7 = "Completely satisfied"). This constituted the "desire satisfaction" score.

Two weeks later, participants were recontacted through Prolific Academic and asked to complete the same survey again. Of the 252 participants of the initial survey, 188 (75%) completed the follow-up survey. They were compensated for each survey they completed.

Results

Reliability

The desire fulfillment ratings during the initial survey featured a McDonald's ω_t (an estimate of reliability based on the magnitude of factor loadings relative to error variances) of 0.85. When these ratings were averaged within each timepoint, the test-retest correlation was 0.78. The desire satisfaction item had a test-retest correlation of 0.75.

Correlations with Dropout

Desire fulfillment and desire satisfaction were correlated at $r = 0.77$ (95% confidence interval [CI] [0.72, 0.82], $p < 0.001$). Participants who did not return for the follow-up scored higher in initial desire fulfillment and desire satisfaction. Desire fulfillment was significantly and positively correlated with dropout ($r = 0.13$, 95% CI [.01, 0.25], $p = 0.04$), but the correlation

between desire satisfaction and dropout was not significant. ($r = 0.07$, 95% CI [−.05, 0.20], $p = 0.25$).

In an informal, post-hoc analysis of the free response fields where people listed their desires, we found that the most commonly mentioned desires involved family, happiness, health, love, money, and educational and career goals. Because spiritual goals were rarely listed, this measure likely does not tap spiritual desires or spiritual well-being (a limitation it shares with many other well-being measures: see Chapters 10, 11, and 16, all in this volume).

Brief Discussion

Both desire fulfillment and desire satisfaction scores from our measure demonstrated acceptable levels of reliability. In addition, we believe the items of each measure have face validity with respect to the targeted philosophical conceptions. With this newly developed measure of desire fulfillment, we were positioned to conduct the next set of studies, which required measures of each of the five types of well-being. Accordingly, Studies 2 through 4 examined the empirical relationships among the five types of well-being, including comparing correlations between different types of well-being and other measures. Finally, these three studies provided data on the construct validity of our desire fulfillment and desire satisfaction measures.

Studies 2–4: Empirical Comparison of Five Types of Well-Being

Method

Participants

For each of the three studies, we recruited participants from Prolific Academic. See Table 13.1 for demographic information about the participants in each study.

Procedure

In each study, participants viewed a short description of the study and consented. They then completed questionnaires and received compensation for their participation.

Table 13.1 Demographic information for participants in Studies 2–4

	Study 2	Study 3	Study 4
Sample size	504	303	406
Age	$M = 35.1$, $SD = 12.0$	$M = 31.9$, $SD = 11.6$	$M = 36.3$, $SD = 11.8$
Female	51%	45%	58%
From United Kingdom	79%	20%	57%
From United States	1%	69%	14%
Caucasian	82%	73%	78%
Nonreligious	46%	44%	42%
Christian	29%	31%	35%
Median education level	Undergraduate degree	Undergraduate degree	College / A Levels
Median personal income	£10,000–19,999	£10,000–19,999	£10,000–19,999
Median household income	£30,000–39,999	£40,000–49,999	£30,000–39,999
In a relationship	52%	37%	62%
Employed full-time	49%	37%	42%
Employed part-time	24%	30%	23%

Measures

Table 13.2 indicates the constructs that were measured in each study, and Table 13.3 provides reliability coefficients. See later discussion for descriptions of the measures used to assess each construct. The proportion of missing responses on these measures was very low (less than 0.5% in each study). We imputed missing data using predictive mean matching.

Five Types of Well-Being

Hedonic Well-Being. Participants completed the Affect-Adjective Scale (Diener & Emmons, 1984), which assesses positive and negative affect. The measure asks participants to rate the extent to which they typically feel specific emotions (e.g., "pleased" and "worried/anxious") on a 7-point Likert scale. The original scale had nine items, but we added three low-arousal items ("peaceful/serene," "dull/bored," and "relaxed/calm") to ensure that the scale had low arousal as well as high arousal emotions, which is important for most

Table 13.2 Constructs measured in Studies 2–4

		Study 2	Study 3	Study 4
Five types of well-being	Hedonic well-being	X	X	X
	Life satisfaction	X	X	X
	Desire fulfillment		X	X
	Eudaimonia	X	X	X
	Rich and Sexy Well-Being	X	X	X
Other types of well-being	Desire satisfaction		X	X
	Psychological well-being	X	X	
	Happiness	X	X	
Personality	Big Five traits	X	X	X
	Big Five facets	X	X	
	Dark Triad	X	X	
	Values			X
Response biases	Socially desirable responding		X	X
	Experimenter demand		X	

accounts of hedonic well-being. We computed hedonic well-being scores by reverse scoring negative affect items and then averaging all affect items.

Life Satisfaction. We measured life satisfaction with the Riverside Life Satisfaction Scale, which reflects a broader philosophical conception of life satisfaction than does the more commonly used Satisfaction with Life Scale, although the two measures are highly correlated (Margolis et al., 2018). This measure asks participants to indicate their agreement with three statements that directly endorse life satisfaction (e.g., "I like how my life is going") and three reverse-coded statements that endorse life dissatisfaction (e.g., "If I could live my life over, I would change many things"). Participants rated these items on a 7-point Likert scale.

Desire Fulfillment and Desire Satisfaction. Participants were given the measure described in Study 1.

Eudaimonia. We assessed eudaimonia with the Riverside Eudaimonia Scale, as this measure was designed to match philosophical conceptualizations of eudaimonia or objective flourishing, drawn from a review of the

Table 13.3 Reliability (McDonald's ω_t) of measures in Studies 2–4

		Study 2	Study 3	Study 4
Five types of well-being	Hedonic well-being	0.93	0.96	0.92
	Life satisfaction	0.93	0.93	0.91
	Desire fulfillment		0.85	0.83
	Eudaimonia	0.77	0.78	0.79
	Rich and Sexy well-being	0.88	0.90	0.90
Other types of well-being	Psychological well-being	0.85	0.84	
	Happiness	0.90	0.90	
Personality	Extraversion	0.87	0.88	0.60
	-Sociability	0.84	0.87	
	-Assertiveness	0.80	0.81	
	-Energy Level	0.73	0.75	
	Agreeableness	0.82	0.84	0.58
	-Compassion	0.70	0.72	
	-Respectfulness	0.71	0.73	
	-Trust	0.72	0.74	
	Conscientiousness	0.88	0.89	0.66
	-Organization	0.85	0.80	
	-Productiveness	0.78	0.77	
	-Responsibility	0.71	0.80	
	Negative emotionality	0.92	0.93	0.80
	-Anxiety	0.82	0.84	
	-Depression	0.85	0.87	
	-Emotional volatility	0.82	0.88	
	Open-mindedness	0.85	0.87	0.65
	-Aesthetic sensitivity	0.80	0.83	
	-Intellectual curiosity	0.70	0.74	
	-Creative imagination	0.75	0.78	
Dark Triad	Machiavellianism	0.80	0.82	
	Psychopathy	0.78	0.82	
	Narcissism	0.81	0.81	

(*continued*)

Table 13.3 *Continued*

		Study 2	Study 3	Study 4
Values	Conformity			0.38
	Tradition			0.41
	Benevolence			0.51
	Universalism			0.56
	Self-direction			0.42
	Stimulation			0.31
	Hedonism			0.40
	Achievement			0.36
	Power			0.57
	Security			0.37
Response biases	Socially desirable responding		0.82	0.83
	Experimenter demand		0.92	

recent philosophical literature on the topic (e.g., Hurka, 2011; Kraut, 2007; Nussbaum, 2011; Rice, 2013; see also Baril, Chapter 9, in this volume, on the difficulty of measuring eudaimonic well-being as philosophers conceive of it) and has favorable psychometric properties (Margolis et al., 2019). This measure contains five items rated on a 7-point Likert scale (e.g., "I have realized my creative, artistic, intellectual, or athletic potential").

Non-Eudaimonic Objective List Well-Being. We administered the Rich and Sexy Well-Being Scale (Margolis et al., 2019), which measures the frequency and quality of sex, personal wealth, personal beauty, and social status (e.g., "When I'm in the room, people listen to me"). The 16-item scale is rated using 7-point Likert scales.

Other Measures of Well-Being

Psychological Well-Being. Participants completed an 18-item version of the Psychological Well-Being Scale (Ryff & Keyes, 1995), which assesses six aspects of psychological flourishing (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance). Items (e.g., "In general, I feel I am in charge of the situation in which I live") were rated on a 6-point Likert scale. Although this measure is often interpreted as a measure of eudaimonic well-being, we have argued that its content is a mix of items that are eudaimonic in the standard philosophical "objective list" sense of eudaimonia, combined with items that

reflect subjective goods that may not correlate with objective flourishing (Margolis et al., 2019). For example, some of the items seem to measure life satisfaction ("When I look at the story of my life, I am pleased with how things have turned out") or negative emotion ("The demands of everyday life often get me down"). In addition, the Psychological Well-Being Scale lacks ratings of constructs often deemed important to eudaimonia (e.g., creative achievement).

Happiness. We measured self-described global happiness with the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). This measure asks participants to rate their happiness, without providing an explicit definition (e.g., that happiness is hedonic or eudaimonic), thereby allowing participants to use their own definition of happiness. For example, one item asks, "In general, I consider myself" with anchors of "not a very happy person" and "a very happy person." This 4-item measure used 7-point Likert scales. Recent evidence suggests that participants might differ in whether they construe "happiness" entirely subjectively or instead as also having an objective component (Kneer & Haybron, 2019).

Personality

Big Five Traits and Facets. In Studies 2 and 3, participants completed the Big Five Inventory–2 (i.e., BFI-2; Soto & John, 2017a). This 60-item scale measures each Big Five trait with three facets. In Study 4, we measured Big Five traits with the Big Five Inventory–2 Extra-Short (i.e., BFI-2-XS; Soto & John, 2017b), which measures each trait with three items and does not include facet subscales. Both the BFI-2 and BFI-2-XS use 5-point Likert scales and ask participants to rate the extent to which statements apply to them (e.g., "I am someone who is outgoing, sociable").

Dark Triad. In Studies 2 and 3, participants completed The Dirty Dozen (Jonason & Webster, 2010), which measures Machiavellianism, psychopathy, and narcissism, each with four items. Participants rated their agreement with statements such as "I have used deceit or lied to get my way" (for Machiavellianism) on a 7-point Likert scale.

Values. In Study 4, participants completed the 58-item Schwartz Values Survey (Schwartz, 1992), which asked them to rate the extent to which each value is "a guiding principle in [their lives]" on a scale ranging from −1 (opposed to my values) to 7 (of supreme importance). Items included "politeness (courtesy, good manners)" and "wealth (material positions, money)." The values were scored into 10 subscales, as described by Schwartz (1992).

The reliabilities of these subscales were generally poor (see Table 13.3). Thus, results with these values should be interpreted with caution.

Response Biases. These measures were included to verify that the scores on scales were not solely a result of socially desirable responding or experimenter demand.

Socially Desirable Responding. In Studies 3 and 4, we administered the 16-item version of the Balanced Inventory of Desirable Responding (Hart, Ritchie, Hepper, & Gebauer, 2015). Items such as "I always know why I like things" and "I am very confident of my judgments" were rated on a 7-point Likert scale with anchors of strongly disagree, disagree, slightly disagree, neither agree nor disagree, slightly agree, agree, and strongly disagree.

Experimenter Demand. In Study 3, participants completed the Perceived Awareness of the Research Hypothesis Scale (Rubin, 2016), which asks participants to rate how confident they are that they have determined the research hypotheses, with items such as "I knew what the researchers were investigating in this research." This 4-item scale uses a 7-point Likert scale.

Demographic Characteristics. Demographic information was provided by Prolific Academic. We used the following variables: age (continuous), gender (dichotomous), education (ordinal, 6 levels), relationship status (dichotomous), personal income (ordinal, 12 levels), and household income (ordinal, 12 levels). The relationship status question included several categorical responses, but we converted this variable into a dichotomous variable by scoring participants who responded "in a relationship" or "married" as a 1, and scoring those who responded as "divorced," "never married," "separated," "single," or "widowed" as a 0.

Analytic Approach

Most of our correlational analyses examine the eight measures of well-being discussed earlier. For our correlational analyses, we first correlated the relevant variables in each study. We then disattenuated those correlation matrices using McDonald's ω_t. Because our desire satisfaction measure is one item, we set its reliability coefficient to the test-retest correlation. It was important to disattenuate the correlations so that differences between correlations were not due to differences in reliability. After the correlation matrices for each study were disattenuated, we meta-analyzed the correlation matrices using a fixed-effects approach and inverse variance weighting for pooling. The disattenuated correlations were meta-analyzed over all studies that included

the measures. Thus, some disattenuated correlations are meta-analyzed over two, rather than three studies.

Results and Discussion

Relationships Between Types of Well-Being

Table 13.4 displays the meta-analytic disattenuated correlations among the eight measures of well-being. Four of these measures were included in all three studies and the other four measures were included in two studies (see Table 13.2).

Some disattenuated correlations approached 1, suggesting that the constructs were nearly indistinguishable empirically. In this case, future studies would not benefit from measuring both constructs. Instead, they could choose one measure, and results should not substantially depend on which measure is selected.

Desire satisfaction was nearly identical to desire fulfillment and life satisfaction. The correlation between desire satisfaction and desire fulfillment may have been upwardly biased because the desire satisfaction item had participants examine their responses to the desire fulfillment measure. However, the two constructs may simply be extremely similar. Likewise,

Table 13.4 Meta-analytic disattenuated correlation matrix of well-being measures[a]

		1	2	3	4	5	6	7
Five types of well-being	1. Hedonic well-being	—						
	2. Life satisfaction	0.79	—					
	3. Desire fulfillment	0.71	0.77	—				
	4. Eudaimonia	0.62	0.72	0.66	—			
	5. Rich and Sexy well-being	0.50	0.54	0.58	0.56	—		
Other types of well-being	6. Desire satisfaction	0.81	0.93	0.98	0.74	0.56	—	
	7. Psychological well-being	0.76	0.85	0.72	0.89	0.59	0.77	—
	8. Happiness	0.82	0.78	0.75	0.64	0.57	0.83	0.79

[a]All correlations are significant at $p < 0.05$.

desire satisfaction and life satisfaction may be very highly correlated because the cognitive evaluation of life satisfaction may involve assessing desire fulfillment. For example, if the life satisfaction measure prompts participants to evaluate their satisfaction with domains of their life (e.g., work, family, social), in response, participants may be examining their fulfillment of desires such as "to succeed at work" and "to have strong familial bonds." The very high correlation between desire satisfaction and life satisfaction is consistent with this cognitive process of evaluating life satisfaction.

Two of the eight measures, eudaimonia and Rich and Sexy well-being, showed relatively low correlations with other types of well-being. Eudaimonia and Rich and Sexy well-being are both more "objective" forms of well-being, with each being a potential list of objectively attained goods. Although we measured these types of well-being with subjective assessments of objective attainment, their relative objectivity might explain their relative separation from the other types of well-being. Objective attainments and subjective experience can separate for a variety of reasons, such as emotional resilience, hedonic adaptation, the relative psychological unimportance of some or all of the putative objective goods, or the adoption of "adaptive preferences" (Elster, 1983) that match what is realistically attainable. One exception to this general trend is that eudaimonia and psychological well-being were also very highly correlated, likely because they are both attempts to measure eudaimonia and contain both objective and subjective elements.

Although Rich and Sexy well-being showed relatively low correlations with other forms of well-being, these correlations were nonetheless higher than some people might expect. One possibility is that sex life, wealth, beauty, and social status are more closely related to overall life satisfaction, happiness, or other forms of well-being than people with "high-brow" views of human flourishing tend to think. Another possibility is that a generally upbeat or optimistic person may respond to both the Rich and Sexy Well-Being Scale and other measures of well-being in a relatively positive manner, inflating correlations between Rich and Sexy well-being and other well-being measures. Alternatively but not incompatibly, someone low in Rich and Sexy well-being (i.e., relatively low-status, unattractive, poor, and alone) may be dissatisfied with their life, feel that their desires are unfulfilled, lack frequent positive emotions, and be more focused on obtaining

those resources than on achieving such ends as virtue or productive creativity (cf. Maslow, 1943).

Relationships Between Types of Well-Being and Other Measures

Correlations between types of well-being and demographic factors were generally similar across types of well-being (see Table 13.5). For example, age was weakly and positively correlated with all forms of well-being except Rich and Sexy well-being. Women scored higher than men on all types of well-being, again with Rich and Sexy well-being as the exception. As one might expect, educational attainment related most strongly to the more objective forms of well-being (i.e., eudaimonia and Rich and Sexy well-being). Being in a relationship was positively and relatively moderately correlated with all forms of well-being, but it was especially important for life satisfaction and Rich and Sexy well-being. When evaluating life satisfaction, one may assess different life domains, and romantic relationships are likely to be an important domain for many people. Thus, it is not surprising that having a partner would particularly affect life satisfaction. Similarly, high wealth, beauty, and

Table 13.5 Meta-analytic disattenuated correlations between demographics and types of well-being[a]

		Age	Female status	Education	Relationship status	Personal income	Household income
Five types of well-being	Hedonic well-being	0.12*	0.01	0.05	0.17*	0.16*	0.10*
	Life satisfaction	0.07*	0.10*	0.11*	0.29*	0.18*	0.17*
	Desire fulfillment	0.07	0.05	0.10*	0.24*	0.19*	0.18*
	Eudaimonia	0.11*	0.13*	0.16*	0.19*	0.12*	0.07*
	Rich and Sexy well-being	0.01	–0.07*	0.20*	0.30*	0.26*	0.27*
Other types of well-being	Desire satisfaction	0.12*	0.11*	0.08*	0.23*	0.20*	0.19*
	Psychological well-being	0.10*	0.09*	0.15*	0.25*	0.19*	0.16*
	Happiness	0.09*	0.03	0.07*	0.20*	0.19*	0.13*

[a] * = $p < 0.05$. Demographic variables were treated as having a reliability of 1.

status may all increase the likelihood of being in a relationship, and having a partner likely makes sexual behavior more available. Personal and household incomes were also moderately and positively correlated with well-being. However, income was especially important for Rich and Sexy well-being and relatively weakly associated with eudaimonia. We would expect income to be particularly important for Rich and Sexy well-being, given its items measuring wealth.

Mirroring previous research (Steel, Schmidt, & Shultz, 2008), the Big Five personality traits were generally highly correlated to well-being, with open-mindedness being an exception (see Table 13.6). However, these associations depended on the type of well-being. For example, although extraversion is sometimes thought to be particularly associated with hedonic well-being, extraversion showed higher correlations with eudaimonia, psychological well-being, Rich and Sexy well-being, and happiness than the other types of well-being. Eudaimonia, psychological well-being, and Rich and Sexy well-being each has a social component, which may explain their particularly high correlations with extraversion. The high correlation between extraversion and happiness suggests participants' own conceptions of happiness may include social interaction and high-arousal positive emotions. Agreeableness was moderately and positively correlated with all forms of well-being except with Rich and Sexy well-being, which was correlated to agreeableness to a lesser extent, as one might expect. Conscientiousness was particularly highly correlated with psychological well-being and relatively less correlated with Rich and Sexy well-being compared to other forms of well-being, perhaps because conscientiousness secures markers of success that are less outwardly noticed than those comprising Rich and Sexy well-being. Negative emotionality was strongly and negatively correlated with all forms of well-being, but these associations were weaker with eudaimonia and Rich and Sexy well-being perhaps due to the relative subjectivity of negative emotionality. Interestingly, open-mindedness was particularly associated with eudaimonia and psychological well-being. Previous research has suggested that open-mindedness is relatively unimportant for happiness compared to other Big Five traits. However, this finding does not extend to eudaimonic well-being. Open-mindedness may be particularly related to eudaimonia as open-mindedness could help people achieve their creative potential and even enhance feelings of meaning in life.

Table 13.6 Meta-analytic disattenuated correlations between Big Five traits and types of well-being[a]

	Five types of well-being				Other types of well-being			
	Hedonic well-being	Life Satisfaction	Desire fulfillment	Eudaimonia	Rich and Sexy well-being	Desire Satisfaction	Psychological well-being	Happiness
Extraversion	**0.48***	**0.46***	**0.44***	**0.61***	**0.63***	**0.43***	**0.68***	**0.62***
-Sociability	0.34*	0.35*	0.36*	0.45*	0.47*	0.37*	0.47*	0.48*
-Assertiveness	0.29*	0.32*	0.35*	0.44*	0.53*	0.28*	0.51*	0.36*
-Energy Level	0.61*	0.60*	0.52*	0.68*	0.56*	0.57*	0.78*	0.76*
Agreeableness	**0.43***	**0.34***	**0.31***	**0.43***	**0.14***	**0.37***	**0.50***	**0.47***
-Compassion	0.24*	0.20*	0.18*	0.40*	0.08*	0.25*	0.42*	0.30*
-Respectfulness	0.33*	0.21*	0.15*	0.29*	–0.01	0.18*	0.39*	0.32*
-Trust	0.51*	0.41*	0.41*	0.46*	0.28*	0.47*	0.49*	0.57*
Conscientiousness	**0.40***	**0.41***	**0.37***	**0.47***	**0.24***	**0.42***	**0.56***	**0.32***
-Organization	0.21*	0.23*	0.22*	0.29*	0.09*	0.25*	0.35*	0.15*
-Productiveness	0.40*	0.41*	0.29*	0.55*	0.29*	0.32*	0.63*	0.40*
-Responsibility	0.39*	0.42*	0.32*	0.41*	0.15*	0.36*	0.55*	0.35*
Negative emotionality	**–0.79***	**–0.62***	**–0.53***	**–0.47***	**–0.45***	**–0.59***	**–0.71***	**–0.79***
-Anxiety	–0.74*	–0.59*	–0.55*	–0.39*	–0.38*	–0.63*	–0.59*	–0.71*
-Depression	–0.86*	–0.79*	–0.68*	–0.61*	–0.57*	–0.79*	–0.83*	–0.90*
-Emotional Volatility	–0.55*	–0.45*	–0.42*	–0.34*	–0.27*	–0.44*	–0.55*	–0.58*
Open-mindedness	**0.12***	**0.07***	**0.07***	**0.45***	**0.21***	**0.01**	**0.36***	**0.19***
-Aesthetic sensitivity	0.05	0.04	0.01	0.34*	0.10*	0.00	0.19*	0.12*
-Intellectual curiosity	0.05	0.05	0.05	0.38*	0.17*	–0.03	0.33*	0.12*
-Creative imagination	0.23*	0.22*	0.20*	0.57*	0.29*	0.18*	0.45*	0.27*

[a] * = $p < 0.05$.

Table 13.7 Meta-analytic disattenuated correlations between Dark Triad traits and types of well-being[a]

		Machiavellianism	Psychopathy	Narcissism
Five types of well-being	Hedonic well-being	−0.13*	−0.28*	−0.17*
	Life satisfaction	−0.09*	−0.26*	−0.09*
	Desire fulfillment	−0.03	−0.26*	−0.05
	Eudaimonia	−0.11*	−0.40*	−0.02
	Rich and Sexy well-being	0.20*	−0.01	0.23*
Other types of well-being	Desire satisfaction	−0.08	−0.30*	−0.09
	Psychological well-being	−0.14*	−0.40*	−0.15*
	Happiness	−0.10*	−0.35*	−0.08*

[a] * = $p < 0.05$.

Unsurprisingly, the Dark Triad traits were negatively associated with well-being (see Table 13.7). Psychopathy was particularly detrimental for most types of well-being but, interestingly, unrelated to Rich and Sexy well-being. Perhaps the generally negative correlations between psychopathy and well-being were reduced when measuring Rich and Sexy well-being because people with psychopathic traits achieve Rich and Sexy well-being. Furthermore, Rich and Sexy well-being correlated *positively* with Machiavellianism and narcissism, while the other seven measures were either unrelated or correlated negatively. Again, possession of Dark Triad traits might be useful in obtaining wealth, beauty, sex, or the more superficial forms of social esteem. Alternatively, Machiavellian or narcissistic individuals might tend to rate themselves highly in Rich and Sexy well-being despite lacking the actual underlying traits.

Table 13.8 presents the disattenuated correlations between Schwartz Values Survey values and well-being in Study 3. Conformity, tradition, and achievement were correlated most with well-being. Interestingly, "hedonism" or "affective autonomy" (e.g., pleasure, self-indulgence, leisure) was not statistically associated with hedonic well-being. Valuing something does not ensure that one has it, and this might be especially true for positive emotions (Gilbert, 2005). Most correlations were somewhat consistent across types of well-being. However, Rich and Sexy well-being, compared to other forms of well-being, was particularly correlated with valuing stimulation, power, and

Table 13.8 Disattenuated correlations between values and types of well-being in Study 4[a]

	Five types of well-being					Other type of well-being
	Hedonic well-being	Life satisfaction	Desire fulfillment	Eudaimonia	Rich and Sexy well-being	Desire satisfaction
Conformity	0.44*	0.36*	0.40*	0.40*	0.33*	0.43*
Tradition	0.40*	0.27*	0.38*	0.32*	0.20	0.42*
Benevolence	0.25*	0.14	0.19	0.28*	0.15	0.16
Universalism	0.20	0.08	0.19	0.27*	0.12	0.18
Self-direction	0.16	0.03	0.12	0.11	0.20	0.09
Stimulation	0.24	0.14	0.10	0.24	0.38*	0.11
Hedonism	0.07	−0.10	0.07	−0.05	0.21	−0.03
Achievement	0.35*	0.20	0.33*	0.42*	0.40*	0.24
Power	0.12	0.07	0.15	0.09	0.34*	0.14
Security	0.26	0.17	0.28	0.17	0.32*	0.21

[a] * = $p < 0.05$.

security. It is not surprising that people who value stimulation, power, and security would successfully seek out sex, wealth, beauty, and status—that is, the goods of Rich and Sexy well-being. Also, unlike the other types of well-being, eudaimonia was correlated with both benevolence and universalism.

Table 13.9 displays the disattenuated correlations between response biases (i.e., socially desirable responding and experimenter demand) and types of well-being. All forms of well-being seem to be associated with socially desirable responding, suggesting that socially desirable responding may be unavoidable in well-being research. Of the eight types of well-being, Rich and Sexy well-being was least correlated with socially desirable responding, perhaps because participants felt that asserting oneself as sexy, wealthy, beautiful, and high status was tawdry or boastful. Experimenter demand was weakly associated with all types of well-being, except Rich and Sexy well-being, with which it was moderately correlated.

The Structure of Well-Being

To evaluate the structure of well-being, we examined the meta-analytic disattenuated correlations between the five types of well-being. We extracted eigenvalues of this correlation matrix, which suggested one factor (eigenvalues = 3.6, 0.6, 0.4, 0.3, 0.2). An exploratory factor analysis with oblimin rotation and two factors separated Rich and Sexy well-being, as a singleton, from the other four types of well-being. We also examined the

Table 13.9 Meta-analytic disattenuated correlations between response biases and types of well-being[a]

		Socially desirable responding	Experimenter demand
Five types of well-being	Hedonic well-being	0.49*	0.04
	Life satisfaction	0.42*	0.04
	Desire fulfillment	0.37*	0.15*
	Eudaimonia	0.48*	0.08
	Rich and Sexy well-being	0.25*	0.25*
Other types of well-being	Desire satisfaction	0.38*	0.13*
	Psychological well-being	0.50*	0.07
	Happiness	0.37*	0.06

[a] * = $p < 0.05$. Correlations with experimenter demand are not meta-analytic because this construct was only measured in Study 3.

correlations between the items of the five types of well-being. The eigenvalues of this matrix also suggested one factor (first eight eigenvalues = 15.4, 3.8, 2.2, 2.1, 1.9, 1.6, 1.3, 1.1). Exploratory factor analyses could categorize items in a systematic manner. For example, an eight-factor exploratory factor analyses with oblimin rotation formed factors with the following items: (1) desire fulfillment, (2) eudaimonia and status, (3) wealth, (4) beauty, (5) sex, (6) negative affect, (7) life satisfaction, and (8) positive affect. An exploratory bifactor analysis arranged items into the same groups. A nine-factor model did not divide the eudaimonia and status items, but a two-factor exploratory factor analysis with just those items did divide the items by the measure. However, although exploratory factor analyses can divide the well-being items systematically, the eigenvalues suggest one general well-being factor.

General Discussion

The Empirical Distinctness of the Five Types of Well-Being

Although the five types of well-being—hedonic, life satisfaction, desire fulfillment, eudaimonic, and non-eudaimonic objective list—are characterized by important conceptual differences, it is reasonable to wonder whether these types of well-being differ empirically. Previous research has only examined this question tangentially. Often types of well-being are compared within a single domain, and only a few types are considered. By contrast, we compared five types of well-being and examined correlations both between these types of well-being and between the types of well-being and several other constructs. We found that even when the correlations among the five types of well-being were disattenuated, they mostly did not approach 1. Undoubtedly, the types of well-being are highly correlated. However, the correlations are not so high as to prevent the possibility that researchers could obtain different results depending on the type of well-being measured. Indeed, we found that the typical correlates of well-being displayed different patterns of association with different types of well-being. These differences were large enough to substantially affect conclusions that one might draw about well-being based on the different measures. For example, the Big Five personality trait of open-mindedness correlated at $r = 0.01$ with desire satisfaction well-being but at $r = 0.45$ with eudaimonic well-being.

Due to the pattern of eigenvalues we found (suggesting a 1-factor model of well-being), one might wonder why different types of well-being show different patterns of association with other constructs. We think the bifactor model provides a reasonable answer. The bifactor model includes a general well-being factor but also specific factors for each type of well-being. With this structure, one would expect the pattern of eigenvalues we observed, as well as the different patterns of association we found for each type of well-being.

Because results will differ when different measures of well-being are used, research findings using one type of well-being will not necessarily hold true for other types of well-being. This possibility will need to be examined empirically. We suggest that future investigators be mindful of the similarities and differences among the different types of well-being. Discovering something new about one type of well-being provides an opportunity to extend or replicate with other types of well-being. For example, if pet ownership is found to predict hedonic well-being, researchers might examine whether there is a similar association between pet ownership and life satisfaction or eudaimonia.

Well-being scientists should consider whether their general theories of well-being (e.g., Diener & Biswas-Diener, 2008; Emmons, 1986; Lyubomirsky & Layous, 2013; Ryan & Deci, 2000; Sheldon & Elliot, 1999) apply equally to all of the types of well-being that we have identified or whether they require adjustment or clarification in light of these different conceptualizations.

A New Desire Fulfillment Measure

One separate but related research program involves desire fulfillment. Some social scientists may prefer to study this type of well-being because it theoretically reflects the types of goal pursuit in which economists and other social scientists are often interested. Accordingly, we developed a brief measure of desire fulfillment and present construct validity evidence for this measure. At least in its surface content, this measure is more directly connected than other types of well-being measures to people's specific behavioral choices and priorities and to their self-evaluated progress toward their top-priority life goals. The extent to which one's highest priority desires are fulfilled is notably distinct from the extent to which one experiences hedonic well-being and overall life satisfaction (e.g., in cases where attainment of one's goals

leaves one still unhappy and dissatisfied). It is also distinct from attaining the objective goods that society values, whether those goods are eudaimonic or non-eudaimonic. In sum, our new desire fulfillment measure aims to capture well-being in the specific sense of an individual's success in obtaining what they think they want, whether that is career, family, education, travel, living situation, wealth, personal ethical development, creative success, or anything else.

Choosing a Well-Being Measure

No one measure of well-being appears to be psychometrically superior to all the rest. Therefore, researchers' choice of well-being measure should reflect their theoretical aims. For example, because open-mindedness is particularly related to eudaimonia, an experiment that seeks to bolster open-mindedness might benefit by including a measure of eudaimonia as an outcome. Investigators interested in the antecedents and consequences of materialism may wish to focus on Rich and Sexy well-being. Other investigators might be interested in finding situations or populations where the measures diverge, such as groups with substantial eudaimonic or Rich and Sexy well-being but low hedonic well-being.

A great deal of well-being research has focused on the composite construct of subjective well-being (see Diener et al., 2018, for a review). Prioritizing a certain form of well-being can accelerate progress because all findings using the same construct can be integrated. However, research using well-being composites—whether they represent subjective or other forms of well-being—may miss important differences among the constituent types of well-being. Researchers may need to unpack their composites to examine the different types of well-being separately. Indeed, research on hedonic well-being often examines positive and negative affect separately (e.g., Larsen & Ketelaar, 1991; McNiel & Fleeson, 2006; Steel et al., 2008) because the two are not opposite ends of the same spectrum (Diener & Emmons, 1984).

Limitations and Future Directions

Our studies were limited by the exclusive use of online samples, which constrains the generalizability of our findings, and the use of

subjective self-report measures. Such measures seem uniquely appropriate for assessing life satisfaction and possibly desire fulfillment, to the extent that these constructs involve cognitive evaluations. We look forward to the development of improved measures of hedonic, eudaimonic, and objective list well-being. For example, experience sampling methods (ESM) may provide the best measure of hedonic well-being. By capturing affect in the moment, ESM is less impacted by memory biases than self-report measures that require participants to recall and aggregate their feelings over days, weeks, or longer. With novel tools such as smartwatches, smarthomes, and wearable technologies, hedonic well-being may soon be measured continuously, more objectively, and without input from the participant. Relatively objective measures are also superior to subjective measures for assessing eudaimonic and objective list well-being as these types of well-being involve the objective properties of one's life. For example, knowledgeable informants could rate whether an individual has reached her creative or intellectual potential (eudaimonic well-being) or is attractive and high-status (Rich and Sexy well-being). However, such quasi-objective measures will often be either unavailable or too expensive in many research contexts. In addition, our results may have been different if we used a different conceptualization of non-eudaimonic objective list well-being (see, e.g., Fletcher, 2013).

Philosophical Implications

To endorse a measure of well-being is to take a philosophical stand. If a researcher claims to measure "well-being" *in general* by means of an instrument that measures life satisfaction *specifically*, that researcher is implicitly treating life satisfaction as the best available index of what constitutes a human life that is going well. However, as Haybron (2007) has argued, a person with low expectations or who has the virtues of gratitude or fortitude might feel entirely satisfied with a life that is not in fact going well by the standards of a different philosophical theory of human well-being. To the extent that different types of well-being fail to correlate, such concerns are not merely in-principle or limited to a few marginal cases. Different conclusions drawn from different measures of well-being can lead to major differences in recommended public policy and major differences in the assessment of people's lives.

A central aim of positive psychology is the empirical study of how to promote human well-being. But unless investigators know what human well-being is, they do not know what they are studying. Scientists might attempt to duck the philosophical issue by hoping for tight correlations between all of types of well-being, such that it matters little which type is measured, but that hope is ill-founded. As a fallback approach, a scientist might create a composite measure that blends all types of well-being into a single construct, but to do so means to adopt a different sort of philosophical commitment, to a kind of even-handed pluralism (for some thoughtful defenses of well-being pluralism, see Bishop, 2015; Diener, 1984; Seligman, 2011; VanderWeele, 2017). There is no such thing as a value-free measure of human flourishing. We are all philosophers.

To conclude, if social scientists seek to study and promote human well-being, they should illuminate the philosophical value commitments that are implicit in the choice to measure it one way rather than another, and they should vigorously debate which measure or measures are best for which empirical and policy purposes.

About the Authors

Seth Margolis recently completed his Ph.D. in Psychology at the University of California, Riverside. He worked with Dr. Sonja Lyubomirsky in her Positive Activities and Well-Being Laboratory. His research focuses on well-being measurement, quantitative methodology, and personality interventions that boost well-being.

Eric Schwitzgebel is Professor of Philosophy at University of California, Riverside. His books include *Describing Inner Experience? Proponent Meets Skeptic* (with Russell T. Hurlburt; MIT Press, 2007), *Perplexities of Consciousness* (MIT Press, 2011), and *A Theory of Jerks and Other Philosophical Misadventures* (MIT Press, 2019). His research explores the limits of self-knowledge, the nature of attitudes, moral psychology, methodological limitations in the study of consciousness, and the relationship between intellectual moral reflection and real-world moral choice.

Daniel J. Ozer is Professor of Psychology at the University of California, Riverside. He is a past President of the Association for Research in Personality and the author of *Consistency in Personality: A Methodological Framework* (Springer, 1986). His research in personality assessment, structure, and scale construction includes the study of personality traits, personal goals, and daily behavior.

Sonja Lyubomirsky is Distinguished Professor and Vice Chair in the Department of Psychology at the University of California, Riverside, where she has been recognized with the Faculty of the Year (twice) and Faculty Mentor of the Year Awards. Dr. Lyubomirsky's

research focuses on how to increase happiness and positive emotions, with a focus on expressing gratitude, practicing kindness, and boosting connection as interventions. She is the author of *The How of Happiness* (Penguin, 2008) and *The Myths of Happiness* (Penguin, 2013), translated in 36 countries. She has received many honors, including the Diener Award for Outstanding Midcareer Contributions in Personality Psychology, the Christopher J. Peterson Gold Medal, the Distinguished Research Lecturer Award, and a Positive Psychology Prize.

Author Note

This research was supported by a grant from Happiness and Well-Being: Integrating Research Across the Disciplines, Saint Louis University. Additional support was provided by the John Templeton Foundation and by the Lee Kum Sheung Center for Health and Happiness. The views expressed in this chapter represent the perspectives of the authors and do not reflect the opinions or endorsement of any organization. We have no known conflict of interest to disclose. Correspondence concerning this chapter should be directed to Seth Margolis, Department of Psychology, 900 University Ave., Riverside, CA, 92521 (sethmmargolis@gmail.com).

References

Alexandrova, A. (2017). *A philosophy for the science of well-being*. New York: Oxford University Press.

Aristotle (4th century BCE/2002). *Nicomachean ethics.* (C. J. Rowe & S. Broadie, Trans.). New York: Oxford University Press.

Arthaud-Day, M. L., Rode, J. C., Mooney, C. H., & Near, J. P. (2005). The subjective well-being construct: A test of its convergent, discriminant, and factorial validity. *Social Indicators Research, 74*, 445–476.

Bentham, J. (1780/2007). *Introduction to the principles of morals and legislation*. Minelo, NY: Dover.

Bishop, M. A. (2015). *The good life*. Oxford: Oxford University Press.

Brandt, R. B. (1979/1998). *A theory of the good and the right*. Amherst, NY: Prometheus.

Crisp, R. (2001/2017). Well-being. *Stanford encyclopedia of philosophy* (Fall 2017 Edition). https://plato.stanford.edu/archives/fall2017/entries/well-being.

Crisp, R. (2006). *Reasons and the good.* Oxford: Oxford University Press.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542–575.

Diener, E., & Biswas-Diener, R. (2008). *Happiness: Unlocking the mysteries of psychological wealth*. Hoboken, NJ: Blackwell Publishing.

Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of Personality and Social Psychology, 47*, 1105–1117.

Diener, E., Lucas, R. E., & Oishi, S. (2018). Advances and open questions in the science of subjective well-being. *Collabra: Psychology, 4*, 15.

Disabato, D. J., Goodman, F. R., Kashdan, T. B., Short, J. L., & Jarden, A. (2016). Different types of well-being? A cross-cultural examination of hedonic and eudaimonic well-being. *Psychological Assessment, 28*, 471–482.

Dorsey, D. (2012). Subjectivism without desire. *Philosophical Review, 121*, 407–442.

Elster, J. (1983). *Sour grapes*. Cambridge: Cambridge University Press.

Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology, 51*, 1058–1068.

Feldman, F. (2004). *Pleasure and the good life: Concerning the nature, varieties, and plausibility of hedonism*. Oxford: Oxford University Press.

Fletcher, G. (2013). A fresh start for the objective-list theory of well-being. *Utilitas, 25*, 206–220.

Gilbert, D. (2005). *Stumbling on happiness*. New York: Random House.

Harsanyi, J. (1977). Morality and the theory of rational behavior. *Social Research, 44*, 623–656.

Hart, C. M., Ritchie, T. D., Hepper, E. G., & Gebauer, J. E. (2015). The Balanced Inventory of Desirable Responding Short Form (BIDR-16). *Sage Open, 5*, 1–9.

Haybron, D. (2007). Life satisfaction, ethical reflection, and the science of happiness. *Journal of Happiness Studies, 8*, 99–138.

Hildenbrand, W., & Sonnenschein, H. (Eds.). (1991). *Handbook of mathematical economics*. Amsterdam: North-Holland.

Homer (8th century BCE/1951). *The Iliad* (R. Lattimore, Trans.). Chicago: University of Chicago.

Hone, L. C., Jarden, A., Schofield, G. M., & Duncan, S. (2014). Measuring flourishing: The impact of operational definitions on the prevalence of high levels of wellbeing. *International Journal of Wellbeing, 4*, 62–90.

Hurka, T. (2011). *The best things in life*. Oxford: Oxford University Press.

Jonason, P. K., & Webster, G. D. (2010). The Dirty Dozen: A concise measure of the dark triad. *Psychological Assessment, 22*, 420–432.

Kneer, M., & Haybron, D. M. (2019). Happiness and well-being: Is it all in your head? Evidence from the folk. www.researchgate.net/publication/ 337494445_Happiness_and_Well-Being_Is_It_All_in_Your_Head_Evidence_from_the_Folk

Knoblock, J., & Riegel, J. K. (3rd century BCE/2000). "Yangist" chapters. In *The annals of Lü Buwei*. Stanford, CA: Stanford University Press.

Kopperud, K. H., & Vitters, J. (2008). Distinctions between hedonic and eudaimonic well-being: Results from a day reconstruction study among Norwegian jobholders. *Journal of Positive Psychology, 3*, 174–181.

Kraut, R. (2007). *What is good and why*. Cambridge, MA: Harvard University Press.

Larsen, R. J., & Ketelaar, T. (1991). Personality and susceptibility to positive and negative emotional states. *Journal of Personality and Social Psychology, 61*, 132–140.

LOX, The. (1998). *Money, power & respect*. New York: Bad Boy Records.

Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology, 71*, 616–628.

Lyubomirsky, S., & Layous, K. (2013). How do simple positive activities increase well-being? *Current Directions in Psychological Science, 22,* 57–62.

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research, 46*, 137–155.

Maltby, J., Day, L., & Barber, L. (2005). Forgiveness and happiness. The differing contexts of forgiveness using the distinction between hedonic and eudaimonic happiness. *Journal of Happiness Studies, 6*, 1–13.

Margolis, S., Schwitzgebel, E., Ozer, D. J., & Lyubomirsky, S. (2019). A new measure of life satisfaction: The Riverside Life Satisfaction Scale. *Journal of Personality Assessment, 101,* 621–630.

Margolis, S., Schwitzgebel, E., Ozer, D. J., & Lyubomirsky, S. (2020). *Developing measures of "objective" well-being.* Manuscript submitted for publication.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*, 370–396.

McGregor, J. A., & Pouw, N. (2017). Towards an economics of well-being. *Cambridge Journal of Economics, 41*, 1123–1142.

McMahan, E. A., & Estes, D. (2011). Hedonic versus eudaimonic conceptions of well-being: Evidence of differential associations with self-reported well-being. *Social Indicators Research, 103*, 93–108.

McNiel, J. M., & Fleeson, W. (2006). The causal effects of extraversion on positive affect and neuroticism on negative affect: Manipulating state extraversion and state neuroticism in an experimental approach. *Journal of Research in Personality, 40*, 529–550.

Medvedev, O. N., & Landhuis, C. E. (2018). Exploring constructs of well-being, happiness and quality of life. *Peer Journal, 6* (E4903). doi:10.7717/peerj.4903.

Mengzi (4th century BCE/2008). *Mengzi*. (B. W. Van Norden, Trans.). Indianapolis, IN: Hackett.

Mill, J. S. (1861/2003). *Utilitarianism*. In M. Warnock (Ed.), *Utilitarianism and on liberty* (pp. 181–235). Malden, MA: Blackwell.

Nave, C. S., Sherman, R. A., & Funder, D. C. (2008). Beyond self-report in the study of hedonic and eudaimonic well-being: Correlations with acquaintance reports, clinician judgments and directly observed social behavior. *Journal of Research in Personality, 42*, 643–659.

Neugarten, B. L., Havighurst, R. J., & Tobin, S. S. (1961). The measurement of life satisfaction. *Journal of Gerontology, 16*, 134–143.

Nussbaum, M. (2011). *Creating capabilities: The human development approach*. Cambridge, MA: Harvard University Press.

Parfit, D. (1984). *Reasons and persons*. Oxford: Oxford University Press.

Pflug, J. (2009). Folk theories of happiness: A cross-cultural comparison of conceptions of happiness in Germany and South Africa. *Social Indicators Research, 92*, 551–563.

Plato (4th century BCE/1961). Protagoras. In E. Hamilton & H. Cairns (Eds.), *The collected dialogues of Plato* (W. K. C. Guthrie, Trans.). Princeton, NJ: Princeton University Press.

Rice, C. M. (2013). Defending the objective list theory of well-being. *Ratio, 26*, 196–211.

Rubin, M. (2016). The Perceived Awareness of the Research Hypothesis Scale: Assessing the influence of demand characteristics. *Figshare*. https://doi.org/10.6084/m9.figshare.4315778.v2.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141–166.

Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics, 83*, 10–28.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*, 719–727.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology, 25*, 1–65.

Seligman, M. E. (2011). *Flourish*. New York: Free Press.

Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76*, 482–497.

Soto, C. J., & John, O. P. (2017a). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology, 113*, 117–143.

Soto, C. J., & John, O. P. (2017b). Short and extra-short forms of the Big Five Inventory–2: The BFI-2-S and BFI-2-XS. *Journal of Research in Personality, 68*, 69–81.

Steel, P., Schmidt, J., & Shultz, J. (2008). Refining the relationship between personality and subjective well-being. *Psychological Bulletin, 134*, 138–161.

Sumner, L. W. (1996). *Welfare, happiness, and ethics*. Oxford: Oxford University Press.

VanderWeele, T. J. (2017). On the promotion of human flourishing. *Proceedings of the National Academy of Sciences of the United States of America*, *114*, 8148–8156.

Waterman, A. S., Schwartz, S. J., Zamboanga, B. L., Ravert, R. D., Williams, M. K., Bede Agocha, V., . . . Brent Donnellan, M. (2010). The Questionnaire for Eudaimonic Well-Being: Psychometric properties, demographic comparisons, and evidence of validity. *Journal of Positive Psychology, 5*, 41–61.