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Findings All Psychologists Should Know From The New Science on Subjective Well-Being

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Abstract

Recent decades have seen rapid growth in the science of subjective well-being (SWB), with 14,000 publications a year now broaching the topic. The insights of this growing scholarly literature can be helpful to psychologists working both in research and applied areas. We describe five sets of recent findings on SWB: (1) the multidimensionality of SWB; (2) circumstances that influence long-term SWB; (3) cultural differences in SWB; (4) the beneficial effects of SWB on health and social relationships; and (5) interventions to increase SWB. Additionally, we outline the implications of these findings for the helping professions, organizational psychology, and for researchers. Finally, we describe current developments in national accounts of well-being, which capture the quality of life in societies beyond economic indicators and point toward policies that can enhance societal well-being.

Findings All Psychologists Should Know From The New Science on Subjective Well-Being

The senior author began studying subjective well-being (SWB) over three decades ago with his first review of SWB appearing in *Psychological Bulletin* (Diener, 1984). At that time only a few publications a year were published on SWB.Today, a Google Scholar search for 'subjective well-being' reveals that there are over 140,000 articles that have touched on this topic; in 2015 alone, there were over 14,000 publications that mentioned SWB. The field has become vibrant and has attracted diverse scholars from psychology, economics, political science, sociology, and anthropology. Advances in the field range from cross-cultural differences in what causes SWB to developmental trajectories of SWB over the life course. And the insights of this science of SWB are increasingly being used to understand clinical phenomena, organizational outcomes, and societal quality of life.

A psychologist recently asked the senior author, "Who cares about life satisfaction? Why does it matter?" This article is meant to answer these questions by reviewing key findings about life satisfaction and other forms of SWB, and by elucidating the implications for practice in various fields. We focus on recent findings that have broad implications for scholars and researchers, as well as for practitioners, including clinical, counseling, and organizational psychologists.

Defining and Assessing Subjective Well-Being

SWB is defined as people's overall evaluations of their lives and their emotional experiences. SWB thus includes broad appraisals, such as life satisfaction and health satisfaction judgments, and specific feelings that reflect how people are reacting to the events and circumstances in their lives. Indeed, it has become abundantly clear over the last few decades that SWB is not a single unitary entity. Yet, there has been some confusion about terminology. Happiness is a loose term with many meanings and so is often avoided in the scientific literature. SWB, on the other hand, is a broad umbrella term that refers to all different forms of evaluating one's life or emotional experience, such as satisfaction, positive affect (PA), and low negative affect (NA) (see Diener, Oishi, & Lucas, 2016).

The facets of SWB are separable in factor analyses and have distinctive associations with other variables. Thus, they should be assessed individually. Life satisfaction, for example, can be assessed with self-report measures such as the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) or with even single-item measures (e.g., Cantril, 1965). PA includes the person's desirable or pleasant emotions, such as enjoyment, gratitude, and contentment; PA can be assessed with self-report scales such as the Positive and Negative Affect Schedule (PANAS; Watson, Clark, and Tellegen, 1988) or the Scale of Positive and Negative Experience (SPANE; Diener, Wirtz et al., 2010). These same scales also assess NA, such as anger, sadness, and worry.

Extensive research validates the above scales of SWB (e.g., Diener, Inglehart, & Tay, 2013). The scales correlate with other measures assessing the same concept, predict future behavior such as suicide, and correlate with non-self-report measures of well-being such as those based on informant reports or behavior. These measures of SWB also predict other closely related constructs, such as social support and meaning in life that, strictly speaking, are not considered aspects of SWB (e.g., Su, Tay, and Diener, 2014). Furthermore, researchers have begun to elucidate the processes involved in responding to the scales of SWB, as well as the biases that can affect scores on the SWB scales (see Diener et al., 2016).

Not only are the facets of SWB found to be separable when the measures are factor-analyzed, but they are also separable in terms of what influences them, and what they, in turn, influence. For example, positive emotions seem to be influenced by social relationships (Tay & Diener, 2011), and in turn they seem to raise sociability (Berry & Hansen, 1996). In contrast, negative emotions seem most related to internal and social conflicts (Stoeva, Chiu, & Greenhaus, 2002) and the perception of problems (Watson, 1998). Life satisfaction seems to be heavily influenced by factors that are chronically accessible in systematically evaluating one's life (Schimmack & Ulrich, 2005), such as health, income, and the quality of one's work. As compared to feelings, life satisfaction is more closely related to income at both the individual and nation levels (Diener, Tay, & Oishi, 2013; Kahneman & Deaton, 2010). These findings indicate that we cannot obtain a full assessment of SWB by simply measuring one facet of this larger construct; several components must be measured to provide a rounded account of SWB.

Implications for Clinical and Counseling Psychologists

Defining and conceptualizing SWB as multidimensional has important implications for clinical and counseling psychologists. Increasingly, individuals are pursuing therapy with the goal of living a more complete, fulfilling, or satisfying life (Lent, 2004) and understanding the structure of SWB can help practitioners assist patients in achieving these goals. Clinicians can benefit from a nuanced assessment of the cognitive and affective facets of SWB, with their distinct causes and consequences, and can seamlessly move into evidence-based interventions designed to affect one or more of these dimensions as is relevant to an individual's goals.

Understanding the multidimensionality of SWB and utilizing the brief, freely accessible, validated SWB measures we have presented here as a complement to common clinical assessment measures can also aid in the identification and treatment of a range of psychological disorders. Depression, for example, entails both the presence of NA and lack of PA, yet existing depression assessments focus on NA. Differentiating aspects of SWB can also help to distinguish between psychological disorders. For example, depression and anxiety disorders both feature NA, yet are differentiated in terms of PA, with a deficit in PA more characteristic of depression than most anxiety disorders (Stanton & Watson, 2014). Understanding the multidimensionality of SWB can thus provide insight into effective paths to treatment, perhaps leading to improvements in patient outcomes.

Implications for Organizational Psychologists

The field of organizational psychology has traditionally been interested in SWB. The idea that SWB is non-unitary and requires different assessments in this field has been recognized. SWB is conceptualized in domain-specific ways (e.g., job satisfaction rather than life satisfaction) and/or broken down into more discrete states (e.g., stress/anxiety rather than NA). Two perspectives have made contributions to organizational scholarship on SWB. First, the realm of job attitudes emphasizes cognitive and affective components (Hulin & Judge, 2003) by assessing job satisfaction and feelings toward one's job, respectively. Job attitudes are useful evaluative indicators of work experience and the quality of the work environment (Freeman, 1978; Herzberg, 1966). Second, occupational stress research focuses on,

negative aspects of affective SWB such as stress and anxiety (e.g., Karasek, 1979). This research stemmed from a desire to reduce ailments and mistreatments in the workplace.

Moving beyond these early workplace research perspectives, contemporary perspectives within organizational science highlight the centrality of the worker and his or her experiences in addition to organizational goals and needs (Weiss & Rupp, 2011). This led to incorporating non-work SWB in assessments of employee well-being. As a result, life satisfaction of workers is recognized as an important work factor, both influencing and being influenced by the work experience (Erdogan, Bauer, Truxillo, & Mansfield, 2012). Similarly, research on non-work domains such as leisure satisfaction (Kuykendall, Tay, & Ng, 2015) and relationship satisfaction (Cho & Tay, 2015) has increasingly been brought to the fore. These developments have further been fostered by recognition of the permeability of work and non-work domains. Organizational psychologists have also begun to study daily feelings that spill over into and extend beyond work (Weiss & Cropanzano, 1996), with an added inclusion of more positive feelings.

Organizations now recognize that worker SWB needs to be holistically assessed using multiple indicators. There is attention placed on ameliorating stress in workers as high negativity leads to health problems in the long run. There is also a desire to keep workers satisfied with their work in order to enhance job performance. This has led to increasing the level of autonomy given to workers and implementing job rotations to provide continued interest and engagement at work. Moreover, businesses are now trying to accommodate more flexible work plans in order to enhance the satisfaction of talented people in non-work life domains such as family and leisure. Thus, the goal of improving worker SWB has already led to many changes in the workplace. Future research revealing additional predictors and outcomes of different types of SWB will contribute to a better workplace.

Implications for Research Psychologists

Because research has established separable facets of SWB, we advise scholars looking at the causes and consequences of well-being to take a nuanced approach to conceptualizing and assessing each SWB component. Currently, research studies may focus on only one or two facets of SWB, yet authors often discuss SWB in general terms.

Additionally, to reliably assess the causes and consequences of each aspect of SWB, we recommend the use of large samples and diverse measures. With small samples, any observed differences could be due to chance and require replication; findings based on small samples, therefore, should be interpreted with caution. Currently, the number of studies with large representative samples is growing, and we are beginning to uncover what reliably leads to life satisfaction versus positive or negative feelings. However, a substantial amount of work still needs to be done to ensure reproducibility and to confirm that results are not due to the use of specific measures; and more work needs to be conducted on narrower aspects of SWB (e.g., job satisfaction, joy, contentment). Furthermore, we recommend that researchers utilize statistical methods where multiple aspects of SWB are assessed in order to parse SWB into common, unique, and error variance (e.g., bifactor models). This enables us to more cleanly delineate aspects of SWB (e.g., different domain satisfactions vs. global SWB) and their relation to specific causes/outcomes. Although there are instances where one component of SWB has been found to correlate with other variables more strongly than another component of SWB, the sample sizes and analyses are usually not adequate to fully confirm the conclusions. In short, despite the significant progress in the measurement of SWB in the past several decades, more research with sound statistical methodology is necessary to fully elucidate the structure, causes, and consequences of SWB.

Subjective Well-Being Is Influenced by Situations and Circumstances

After an initial focus in the field on the demographic predictors of SWB came an emphasis on genes, temperament, and personality as major causes—and perhaps the only long-term causes—of SWB. The claim that people adapt to conditions, both bad and good, over time (Brickman & Campbell, 1971; Brickman, Coates, & Janoff-Bulman, 1978) became a widespread belief. The authors suggested that we are on a running wheel, charging ahead to get happier, but with no actual progress. Next came the claim that levels of long-term SWB can be explained entirely by genes (Lykken & Tellegen, 1996).

However, recent evidence on genetic heritability has produced somewhat lower heritability estimates than were initially suggested. In a meta-analysis of 13 studies, Nes and Roysamb (2015) found an average heritability of .40, and much variability between studies. It is worthwhile to note that this

indicates that 40% of variability in SWB is accounted by genes but there is still the remaining 60% that is not. Importantly, heritability figures do not directly point to how much a trait can be altered by individual choices or the environment (Roysamb, Nes, & Vitterso, 2014). Heritability is not a fixed constant; rather, it is influenced by the amount of variability in the environment. In homogeneous environments heritabilities are likely to be higher compared to societies where the environment varies more across individuals. Furthermore, even factors that are highly heritable, such as height or hair color, can be influenced by environmental factors, such as diet or hair-coloring. Similarly, heritability estimates do not indicate that circumstances will not influence SWB.

Recent findings on adaptation provide further evidence against the idea that circumstances do not matter for SWB. We now know that events do influence people's SWB, and despite adaptation in some cases these changes are often permanent or last for many years (Lucas, 2007). In long-term longitudinal studies, for example, a significant proportion of respondents show changes in their levels of SWB over time (Fujita & Diener, 2005). In a meta-analysis of prospective longitudinal studies, Luhmann and colleagues (2012) found that changes in circumstances, including marriage and unemployment, continued to influence both life satisfaction and affective well-being long after they occurred. Similarly, Anusic, Yap, and Lucas (2014) found that people did not always fully adapt to events, such as unemployment and disability. Furthermore, some studies show "scarring," in which an unfortunate event continues to affect SWB even after it is remedied. Even after reemployment, for example, previously unemployed people do not always return to their pre-unemployment levels of SWB (Clark, Georgellis, & Sanfey, 2001).

Evidence showing large societal differences in SWB also point to the importance of circumstances for SWB (Helliwell, Huang, & Wang, 2016). In some cases, the differences in SWB between societies—Zimbabwe versus Denmark or Togo versus Canada—can cover almost half of the total range of the scale. Inborn temperament seems an unlikely explanation for these huge national differences in SWB. Indeed, these nation-level differences are in part explained by factors such as income, the rule of law, and income inequality rather than temperament or heritability (Diener, Diener, & Diener, 1995; Oishi, Kesebir, & Diener, 2011).

In sum, research increasingly shows that SWB is malleable at both the individual and societal level (Tay & Kuykendall, 2011). Thus, it has become abundantly clear that circumstances and the choices people make in life can, and do, influence their long-term SWB. We are no longer stuck with the fatalistic idea that nothing can be done to improve human SWB.

Implications for Clinical and Counseling Psychologists

The notion of SWB as a product of both innate factors and modifiable cognitions and behaviors is consistent with the biopsychosocial model (George, 1980) commonly recognized by clinical and counseling psychologists. The growing appreciation of individual circumstances, cognitions, and behaviors as important determinants of SWB suggests that clinical and counseling psychology can be influential in the promotion of SWB. The tools of cognitive behavioral therapy, such as identifying maladaptive thoughts and behaviors, and working with patients or clients to establish alternative ones, can be directly applied to the improvement of SWB.

As one example, consider the importance of social relationships to the experience of positive emotions (Tay & Diener, 2011). Techniques developed for use in therapeutic contexts, such as social skills training, offer the potential to learn new behaviors that will, via the enhancement of social relationships, also positively influence an individual's SWB. Importantly, the goal of such clinical techniques (i.e., cognitive restructuring) is not to develop a naïvely positive or rosy view of the world, but to facilitate a realistic and balanced perspective in accord with a patient's desire for greater SWB and personal growth. In short, the recognition by clinicians that cognitive, affective and behavioral patterns are malleable dovetails with emerging research in SWB and suggests techniques for improving SWB.

Implications for Organizational Psychologists

Situational influences also have a significant bearing on work-related SWB. The estimated contribution of genetic factors to job satisfaction is .30 (Arvey, Bouchard, Segal, & Abraham, 1989)—lower than the heritability factors of life satisfaction. This suggests that the type of work and the work environment may be particularly important for SWB at work.

Compensation is one situational factor that influences job satisfaction. The relation between salary and job satisfaction, however, is small (meta-analytic $r = .15$; Judge, Piccolo, Podsakoff, Shaw, & Rich, 2010), even when compared to the relatively small influence of income on general life satisfaction (Howell & Howell, 2008). This finding highlights the role of other aspects of work in job-related SWB. Indeed, job characteristics that fulfill psychological needs such as meaning, autonomy, and a sense of competence (Hackman & Oldham, 1976) are substantially associated with job satisfaction. Moreover, active crafting of work to fit workers' needs, as well as their abilities and preferences, also produces higher levels of job satisfaction (Tims, Bakker, & Derks, 2013; Wrzeniewski & Dutton, 2001). Finally, flexibility at work to accommodate other non-work demands (e.g., marriage and children) also significantly predicts greater job satisfaction (Scandura & Lankau, 1997).

The work context is also critical for fostering greater SWB. On the negative end, a climate of sexual harassment or ongoing stress lowers job satisfaction and increases work withdrawal and burnout (Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997; Schaefer & Moos, 1998). On the positive end, worker perceptions of a positive work climate promote higher job satisfaction (Parker et al., 2003). Such climates can be fostered through leadership and organizational policies. Supervisor interactions and supportiveness are key predictors of positive job attitudes. Indeed, unsupportive leaders create greater distress, work-family conflict, and job dissatisfaction among supervisees (Mathieu, Neumann, Hare, & Babiak, 2014). Similarly, organizational policies that attend to the needs of employees—such as the provision of flexible schedules and dependent services for workers with dependents—lower depression and job dissatisfaction among employees (Thomas & Ganster, 1995).

National economic factors can also influence job satisfaction among workers. Beyond job optimism and national wealth, lower national unemployment rates predict higher job satisfaction across 136 nations (Tay & Harter, 2013). Across Europe, nations with higher wage levels (and wage-to-effort ratios) have higher levels of job satisfaction (Pichler & Wallace, 2009; Sousa-Poza & Sousa-Poza, 2000).

In conclusion, there is now evidence linking worker SWB to controllable organizational and economic factors. Organizations can enhance job benefits/flexibility, promote positive leadership

practices, and cultivate an inclusive work climate to enhance SWB. National economic policies that focus on job creation will impinge on national worker SWB as well.

Implications for Research Psychologists

An important goal for future research investigating the effects of circumstances on SWB is to determine when people adapt to their circumstances. Although Luhmann, Lucas, Eid, and Diener (2013) found evidence for adaptation to some conditions but much less to others, we still understand little of when or why these patterns occur. For example, the processes underlying scarring—when an event continues to affect SWB even after the unfortunate event is remedied—are barely understood. Notably, many of the factors that influence SWB in the long term have a negative effect, including unemployment and severe disability (Diener, Lucas, & Scollon, 2006). This has sparked research to determine the factors that increase SWB that are similarly robust to adaptation (Lyubomirsky, Sheldon, & Schkade, 2005). Thus, fully understanding adaptation to conditions remains a large area of open scholarship.

Evidence from large cross-national studies suggests that chronic, macro-environments such as corruption, climate, and progressive taxation play a substantial role in predicting individuals' SWB (Oishi, 2012; Tay, Herian, & Diener, 2014). But some research psychologists have also focused on the effect of immediate situational factors, such as weather and moods at the time of SWB judgments (Schwarz & Clore, 1983), the effect of a preceding question (Strack, Martin, & Schwarz, 1988), and an arbitrary life event (Schwarz, Strack, Kommer, & Wagner, 1987). To our knowledge, however, very few studies have simultaneously examined the effects of macro- and micro-environments on SWB outcomes. Exploring the relative importance of macro- versus micro-environments and their interactive effects, therefore, promises to be a fruitful area for future research.

Culture and Subjective Well-Being

In the past decade, we have learned a lot about the interplay between culture and SWB (see Oishi & Gilbert, 2016; Uchida & Oishi, 2016 for reviews). In particular, psychologists have focused on three main sets of questions: 1)Is SWB composed of the same or of different components across cultures, and if

these differ, are there universals? 2)Do the causes of SWB differ across cultures, and if so, are there any universal causes? 3)Are there mean level differences between cultures, and if so, what produces these?

Culture and Concepts of Well-Being

In order for cross-cultural comparisons to be meaningful, it is important to establish the equivalence of SWB. Wierzbicka (2004) demonstrated that the threshold for being "happy" in English is much lower than other languages, such as French (heureux) and German (glücklick). English speakers can use "happy" to say, for instance, "I am happy here reading," whereas French or German speakers would not use "heureux" or "glücklick" in such a trivial context. Wierzbicka argued that English speakers are more likely to report having felt happy than French or Germans in part because the English term "happy" can be used more widely than the French or German term. Although this critique is logical and well taken, large international surveys often find that English speakers (e.g., Americans, Australians) also report being more satisfied with their lives than French and German. The key here is that the life satisfaction item does not use the controversial term "happy", suggesting that these differences are less likely to be explained by differences between languages (see Diener, 2000).

Still, Wierzbicka's critique raises an important methodological issue in cross-cultural research, and has inspired recent studies on the concepts of happiness across cultures and times. For example, Oishi, Graham, Kesebir, and Galinha (2013) conducted a dictionary analysis in 30 nations and found that in many languages (e.g., Chinese, Japanese, Turkish, Russian, and Norwegian), the primary definition of happiness was "good luck and fortune," whereas in American English this definition was denoted "archaic" in 1961. According to a content analysis of the State of the Union addresses by the same group of researchers, U.S. presidents used the terms happy and happiness when referring to favorable conditions until around 1920, but after that they stopped using happy and happiness as good luck and fortune. In the same research, a Google Ngram analysis also showed that the term "happy nation" was more frequently used in books from 1800 till around 1920 than the term "happy person," but after that "happy person" was used far more frequently than "happy nation." Likewise, American concepts of happiness are predominantly positive, whereas some people outside North America (e.g., Iranians, Indonesians,

Japanese) worry that too much happiness can bring some negative consequences (Joshanloo et al., 2014; Uchida & Kitayama, 2009). Such cultural perspectives on happiness are consistent with understanding happiness to mean good luck and fortune, which, by the very definition of "luck", suggests that a series of lucky (happy) events are likely to be followed by unlucky events. These findings demonstrate that the concept of happiness differs across cultures and historical periods.

Culture and the Composition of Subjective Well-Being

In addition to the concept of happiness, research suggests that the components of SWB vary somewhat across cultures. Low-arousal positive emotions (e.g., contentment), for example, are more valued in Pacific Rim cultures such as Japan (Tsai, Louis, Chen, & Uchida, 2007), whereas high-arousal positive emotions (e.g., excitement) are more valued in Western cultures, such as the U.S. Relatedly, PA and NA are more inversely correlated in the West than the Pacific Rim, especially among women (Schimmack, Oishi, & Diener, 2002). Beyond general PA and NA, research has also revealed cross-cultural differences in the role that specific emotions play in SWB. Pride, for example, is a greater component of SWB for the Maasai than for the Amish or Inuit (Biswas-Diener, Vitterso, & Diener, 2005). Similarly, pride is strongly associated with other positive emotions in the U.S., but not in Japan (Kitayama, Mesquita, & Karasawa, 2006) or India (Scollon, Diener, Oishi, & Biswas-Diener, 2004). Despite these cultural differences, there is also evidence for cross-cultural universality in the structure of SWB. Scollon et al. (2004), for example, found coherent clusters of PA and NA across cultures, even when considering emotions that were unique to a particular indigenous culture. Thus, research has uncovered both similarities and differences across cultures in the way PA and NA are structured.

The cognitive content of life satisfaction evaluations also seems to differ somewhat across cultures. For example, Biswas-Diener and Diener (2001) found that the item "If I could live my life over, I would change almost nothing" did not cohere with the other four items of the Satisfaction with Life Scale in some cultures (e.g., the slums of Calcutta) as well as it does in Western cultures (see also Vitterso, Biswas-Diener, & Diener, 2005). However, some universality is indicated by the fact that the other four items do seem to cohere strongly in most cultures. In sum, there seem to be both universals and

cultural differences in responses to life satisfaction questions as well as in the feelings that are experienced as pleasant or unpleasant in each culture.

Culture and the Causes of Subjective Well-Being

Although there are many interesting cross-cultural differences in the factors that predict life satisfaction, there are also many similarities. Extraversion, for instance, is associated with the frequency of PA in most cultures (Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002). Furthermore, satisfaction of autonomy, relatedness, and competence needs is positively associated with life satisfaction across diverse cultures (e.g., Church et al., 2013). Similarly, the fulfillment of the basic needs featured in Maslow's needs theory predicts higher life satisfaction across 123 countries (Tay & Diener, 2011). Finally, income and social support were shown to predict life satisfaction among various groups in Nicaragua, including sex workers, dump dwellers, and the urban and rural poor (Cox, 2012).

Despite the universal predictors, there are also interesting differences in the predictors of SWB across cultures. For instance, self-consistency across situations is more important for SWB in individualistic than in collectivistic cultures (Suh, 2002). Researchers have also found that self-esteem is a stronger predictor of life satisfaction in individualist nations than in collectivist nations (Diener & Diener, 1995). Furthermore, affect balance—experiencing more pleasant than unpleasant emotions—is strongly associated with life satisfaction in individualist nations but not in collectivist nations (Suh, Diener, Oishi, & Triandis, 1998). In contrast, relationship harmony and norms are stronger predictors of life satisfaction among collectivist nations (e.g., Kwan, Bond, & Singelis, 1997; Suh et al., 1998). Finally, Curhan et al. (2014) found that objective social status (e.g., education level) predicted life satisfaction more strongly among Japanese than among Americans, whereas subjective social status predicted life satisfaction more strongly among Americans than among Japanese.

Researchers have begun to elucidate some of the factors that underlie the above cultural differences. For example, the U.S.–Japan differences in how much self-esteem predicts life satisfaction can be explained by differences in relational mobility (how easy it is to join new groups and leave old groups; Yuki, Sato, Takemura, & Oishi, 2013). A more general factor that could explain many of the

cultural differences in SWB is cultural congruence—the extent to which individuals fit in with the dominant culture. For instance, religious persons are happier in religious nations than non-religious nations (and vice versa, Diener, Tay, & Myers, 2011), and promotion-oriented individuals are happier in promotion-oriented nations than prevention-oriented nations (Fulmer et al., 2010). Similarly, extraverts are even happier if the culture as a whole is more extraverted (Fulmer et al., 2010).

Mean Level Differences in Subjective Well-Being Across Cultures

Mean level differences are evident between cultural groups, U.S. states, and societies (e.g., Diener & Tay, 2015; Rentfrow, Mellander, & Florida, 2009). The Maasai, Inuit, and Amish, for example, differ in overall life satisfaction and in satisfaction with specific domains in their lives (e.g., health, income), with the Maasai being the most satisfied across most domains (Biswas-Diener et al., 2005). Interestingly, cross-cultural mean differences in SWB can sometimes trump more immediate determinants of SWB. The homeless in the U.S. report lower life satisfaction than the homeless in India, even though the homeless in India have a harder time obtaining basic material needs (Biswas-Diener & Diener, 2006).

Mean-level differences between cultures in SWB need to be interpreted within the broader evidence of the predictors of the differences between nations. Income and wealth are prominent determinants of the variations in life satisfaction across nations (e.g., Diener, Kahneman, Tov, & Arora, 2010), but there are also other predictors, such as progressive taxation (Oishi, Schimmack, & Diener, 2012) and welfare spending (Flavin, Pacek, & Radcliff, 2011). Levels of social capital such as low corruption are also predictors of life satisfaction across nations over time and even controlling for income (Helliwell, Barrington-Leigh, Harris, & Huang, 2009; Tay, Herian, & Diener, 2014). Helliwell and colleagues conclude that the similarity in predictors of life satisfaction across nations suggests that mean level differences between nations are not due to differing conceptions of the good life (see however Oishi et al. 2013 for cultural differences in the concept of "happiness"). This suggests that much of the differences in SWB across cultures may be due to differences in the circumstances between countries.

Implications for Clinical and Counseling Psychologists

Applying emerging knowledge from the study of culture within the science of SWB holds the potential to inform research and practice in clinical and counseling psychology, both of which have a longstanding interest in understanding and providing care to diverse populations. The knowledge that individuals from different cultures might pursue SWB in different ways can be utilized by practitioners to avoid a one-size-fits-all treatment approach. Thus, recognizing that people from different cultures value different positive emotions (e.g., contentment vs. excitement) highlights the need for practitioners to discuss their clients' expectations and goals, and then tailor therapy accordingly. Indeed, cross-cultural evidence has called into question even basic assumptions about client SWB that practitioners may take for granted. Although people in the U.S. view positive emotions as generally desirable, for example, other cultures are more cautious about pursuing positive emotions because such emotions might bring resentment from others or be followed by negative feelings (Joshanloo et al., 2014).

The understanding that some causes of SWB are potentially "universal" while others may be more effective in specific cultural contexts can be used to shape a successful and individual therapeutic plan. For example, while the attainment of basic psychological needs is likely to promote healthy psychological functioning for individuals in a wide range of cultural contexts (Church et al., 2013), other characteristics, such as self-esteem, may promote SWB more in some cultures than others (Yuki et al., 2013). The concept of person–culture fit may also be useful to clinicians. Insofar as an individual's cognitions or beliefs differ substantially from those prevalent around them, a person may experience diminished SWB (Fulmer et al, 2010). By exploring ways to promote better person–culture fit or to help clients adjust to a lack of fit, therapists can help to remove such barriers to SWB.

Techniques to enhance SWB may also vary in their effectiveness depending on one's cultural context. In one study, a gratitude intervention was more effective among U.S. participants than among South Koreans, while performing kind acts was effective across cultures (Layous, Lee, Choi, & Lyubomirsky, 2013; Nelson et al., 2015). Although research is needed to gain a complete understanding of how and why interventions differ in effectiveness across cultures, practitioners can benefit from this growing knowledge to inform their treatment approaches.

Implications for Organizational Psychologists

In this section, we seek to discuss culture at a broad level while recognizing that in organizational research and applications, the issue of cultural differences in SWB has added layers of complexity because of the inherent multilevel nature of work within different cultures. This comprises subcultures within occupations, teams, and organizations apart from national culture. For example, expatriates' SWB depend not only on the similarity to the national culture, but also the extent to which expatriates feel that their families are adjusting to the new culture or the amount of foreign subsidiary support for expatriates (Chen, et al., 2010; Takeuchi, 2010).

Regarding the structure of SWB, research has revealed a strong degree of cross-cultural equivalence in the structure of worker SWB in both work affect (Levine et al., 2011) and job satisfaction (Candell & Hulin, 1986). At the same time, nations with more similar cultures tend to have a greater degree of equivalence in job satisfaction assessments (Liu, Borg, & Spector, 2004). Therefore, SWB constructs in the work context are comparable across nations with some small degree of cultural idiosyncrasies. This implies that worker SWB can be compared across nations and across workers in different locations within multinational firms.

There are common predictors of worker SWB but these factors appear to be moderated by culture. Research has shown that the fulfillment of fundamental basic needs predicts SWB across the world (Tay & Diener, 2011), and this is borne out in the workplace context. The fulfillment of basic needs such as autonomy, relatedness, and competence is also found to predict lower job anxiety and higher job engagement both in an American firm and in Bulgaria (Deci et al., 2001). Yet, culture can moderate the importance placed on different aspects of need fulfillment; certain needs like autonomy and achievement appear to be more salient in individualistic cultures. Autonomy at work buffers the negative effects of over-qualification only in individualist cultures but not in collectivist cultures (Wu, Luksyte, & Parker, 2015). Moreover, job level—how high up an employee is within an organization—is related to job satisfaction only in individualist countries but not in collectivist countries (Huang & Van de Vliert, 2004). By contrast, collectivistic nations place more emphasis on relational need fulfillment. Specifically, a

meta-analysis has shown that relationship fit between colleagues and supervisor is emphasized more in collectivist cultures as compared to individualist cultures (Oh et al., 2014). Similarly, agreeableness is more predictive of job satisfaction in collectivistic Asian societies as compared to individualistic ones because harmonious relations are more valued in such cultures (Templer, 2012).

To conclude, levels of worker SWB can be compared across nations. However, we also need to be sensitive to the idea that there are potential "subcultures" because workers are also nested in team and organizational contexts that have their own cultures. These may interact with national cultures in ways that require further investigation. The cultural context can uniquely influence the extent workers value some aspects of the job more than others, which in turn affect their SWB. Organizations need to provide culturally relevant rewards to workers in order to maximize worker motivation and satisfaction.

Implications for Research Psychologists

While the past decade has provided more information about the intersection between culture and SWB, there are several issues that require further research. First, the origins of cultural variations in predictors and concepts of happiness need to be explored more rigorously, using methods beyond simple cross-sectional correlations, including longitudinal, experimental, and experience sampling methods. This is because most research has focused on cross-national mean level differences; however, there is not a lot of information on how culture influences cognitive and affective processes underlying SWB over time.

Second, we need to learn more about how the components of SWB vary across cultures, and whether there are, nevertheless, any universals. In order to achieve this, more sophisticated measurement equivalence methodologies research needs to be applied to assess the equivalence of SWB measures across multiple nations as opposed to longstanding between-group approaches (Tay, Diener, Drasgow, & Vermunt, 2011). Third, outcomes and optimal levels of SWB (e.g., health, academic success, career success) have rarely been examined across cultures (see Koo & Suh, 2012 for an exception), making this a wide-open area for future research.

Beneficial Outcomes of SWB

For decades researchers studied SWB as an outcome, focusing on identifying causal predictors of this experience. However, researchers have shown a growing interest in exploring the downstream consequences of SWB on other outcomes. What are the outcomes of high SWB; does it affect people's health and behavior? Evidence now suggests that high SWB leads to a number of beneficial outcomes, including health and longevity, supportive social relationships, work productivity, and citizenship (for reviews, see DeNeve, Diener, Tay, and Xuereb, 2013; Diener, Kanazawa, Suh, & Oishi, 2015; Lyubomirsky, King, & Diener, 2005). There are caveats that we will mention, but the research overall suggests that SWB does not merely correlate with such beneficial outcomes, it also causes them.

Health and Longevity

One important benefit of SWB is better health and greater longevity. Happier individuals suffer less from certain infirmities and live longer on average (Diener & Chan, 2011; Lyubomirsky, King, & Diener, 2005). In longitudinal studies that have examined groups such as nuns (Danner, Friesen, & Snowdon, 2001) and psychologists (Pressman & Cohen, 2012), individuals with higher SWB have been found to live longer. Similar evidence has been found in larger and more representative samples (see Diener & Chan, 2011). The human evidence has been replicated in apes, with happier orangutans living longer than their less happy counterparts (Weiss, Adams, & King, 2011). Although sometimes the predictive effect of SWB on longevity disappears when Time 1 health is controlled (e.g., Liu et al., 2015), Time 1 health is usually assessed somewhere in middle or old age when SWB is likely already to have a large effect on health. Thus, such controls can inadvertently control away the effects of SWB.

Chida and Steptoe (2008) conducted meta-analyses of 26 prospective studies on initially healthy participants and of an additional 28 studies on people with established diseases such as HIV/AIDS. The follow-up periods of these studies ranged from 1 to 44 years. SWB was associated with reduced mortality in both sets of studies, though the effects were stronger in studies with healthy participants. Importantly, effects for PA persisted when NA was controlled, suggesting that positive components of SWB—rather than the absence of negative—partially explain these beneficial effects on health.

One reason that SWB improves health and longevity is that people higher in SWB are more likely to enact healthy behaviors such as exercising, not smoking, and wearing seat belts (for a review see Diener, Kanazawa et al., 2015). Research has also revealed the role of physiological mechanisms, with individuals with higher SWB having stronger immune and cardiovascular systems (Pressman & Cohen, 2005). Indeed, evidence suggests that positive moods—versus neutral or negative moods—predict better physiological parameters, such as cortisol, blood pressure, and immune system parameters (e.g., Barak, 2006; James, Yee, Harshfield, Blank, & Pickering, 1986; Schnall et al., 1990). In a recent review, researchers found evidence for these, as well as other mechanisms that mediate the path from SWB to health, including, health behaviors, cortisol profiles, cardiovascular health, inflammatory processes, and sleep disturbances (Steptoe, Dockray, & Wardle, 2009). These changes toward healthier physiological responses with higher SWB help explain its influence on health and longevity.

Experimental evidence provides even more direct evidence for the causal effect of SWB on health. When people are put into a good mood after a stressful experience, their cardiovascular system returns to baseline more quickly (Fredrickson & Levenson, 1998). Similarly, experimentally induced positive moods show benefits for some aspects of the immune system (Marsland, Pressman, & Cohen, 2007). Furthermore, stress-reduction techniques in experimental intervention studies tend to improve immune parameters (Kiecolt-Glaser & Glaser, 1992; Stowell, McGuire, Robles, Glaser, & Kiecolt-Glaser, 2003), as does mindfulness meditation (Davidson et al., 2003). In sum, although more research is necessary, converging evidence suggests that SWB often has a beneficial effect on health and longevity.

Social Relationships

There is substantial evidence that social relationships are a major cause of SWB (Diener & Seligman, 2002), but high SWB also improves social relationships. Married individuals, for example, are on average happier than single or divorced individuals. Although getting married has been shown to increase SWB, individuals who get married tend to have higher SWB many years before the marriage, even before meeting their future partner (Luhmann et al., 2013). This finding suggests that SWB can lead to marriage, not just the other way around. Berry and Hansen (1996) found that trait PA predicted better

social interactions in both laboratory and naturalistic settings. Experimental studies further show that positive moods lead people to feel more sociable (e.g., Cunningham, 1988) and interested in social activities (Whelan & Zelenski, 2012).

Individuals high in SWB are also more prosocial in their behavior. In experimental studies, people put in a positive mood are more cooperative and reach superior solutions in negotiation situations (e.g., Carnevale & Isen, 1986; Lawler, et al., 2000; Lount, 2010). Furthermore, higher SWB is associated with superior organizational citizenship (for a review see Tenney, Poole, & Diener 2016), bigger donations to charities (Okten, Osili, & Ozer, in prep), volunteering more (Oishi, Diener, & Lucas, 2007), and more frequent blood donations (Priller & Schupp, 2011).

Evolutionary Benefits

Because SWB increases the likelihood of beneficial outcomes, Diener, Kanazawa, and colleagues (2015) argued that being generally high in SWB should have been selected for in the process of evolution. Indeed, even in difficult circumstances, more than half of the population is likely to be above neutral on SWB measures (Diener & Diener, 1996). People living in difficult circumstances are, of course, not as happy as those in more felicitous circumstances, but nonetheless they are above the neutral point in the slightly positive range of the scales (Biswas-Diener et al., 2005). This happier-than-neutral pattern may be the result of the natural selection for happier individuals. In other words, happiness may be an evolutionary adaptation because of its downstream consequences for health, longevity, social relationships, and even fertility (Diener, Kanazawa et al., 2015).

Caveats

Although high SWB seems to benefit a number of domains of life, several cautions are in order. First, more is not always better. Just because high SWB is associated with benefits in some domains does not mean that increasingly high levels of SWB will always result in gains. Oishi and colleagues (2007) found that in achievement domains, people high in life satisfaction are more successful than those with *extremely* high satisfaction. Pressman and Cohen (2005) further suggested that highly intense and aroused positive emotions might actually be of potential harm to health. Thus, extremely high SWB might not be

needed for benefits to arise; frequent but mild positive moods may be sufficient (DeNeve et al., 2013). Second, negative moods can produce more functional responses than positive moods in some situations (Gruber, Mauss, & Tamir, 2011). Third, negative moods are normal in some situations, such as when a loved one dies, and these types of short-term moods might have long-term beneficial rather than deleterious effects. Finally, benefits of SWB are not always found, raising the issue of when and where they are likely to occur. Thus, although positive moods and life satisfaction have benefits, people need not be intensely happy all of the time. Rather, being above neutral most of the time might be most beneficial.

Implications for Clinical and Counseling Psychologists

Helping individuals to effect positive change in their lives is a central interest for clinical and counseling psychologists. While a sense of satisfaction with one's life, greater meaning and fulfillment, and the experience of positive feelings are each rewarding and worth pursuing, the mounting evidence that SWB can be causally linked to other important life outcomes suggests that people who seek greater well-being will benefit in many ways—socially, occupationally, and in terms of greater health (Lyubomirsky, King, & Diener, 2005). These latter findings are particularly relevant to the rapidly growing field of clinical health psychology, which examines how psychological functioning and therapeutic techniques impact physical health, by highlighting the relationship between SWB, healthy behaviors, and adaptive physiological responses (Diener, Kanazawa et al., 2015). The promotion of SWB, from this perspective, is not only an end-state resulting from the process of therapy, but also a potential catalyst for greater health and growth in a number of life domains. Therefore, clinical and counseling psychologists might gain insight from research on the positive consequences of SWB as to how to best help people achieve improvements in their lives, while also playing a significantly and meaningful role in actively facilitating such positive change.

Implications for Organizational Psychologists

The extent to which workers are thriving at work can have consequences on other life domains such as family and leisure time (Ford, Heinen, & Langkamer, 2007; Judge & Watanabe, 1993; Kuykendall et al., 2015). Evidence, from an occupational stress perspective where negative emotions

leads to poorer functioning (Karasek, 1979) and the Broaden-and-Build perspective in which positive emotions promote good outcomes in organizations (Fredrickson, 2000), is mounting to suggest that worker SWB predicts other positive outcomes. We focus on two broad outcomes that are robustly associated with higher worker SWB: work outcomes and worker health.

An important question for organizations is whether workers higher in SWB are more productive. The estimated corrected meta-analytic correlation between job satisfaction and job performance is .30, which is moderately strong (Judge, Thoreson, Bono, & Patton, 2001). Providing some causal evidence, a meta-analytic review of cross-lagged relations found that positive job attitudes (e.g., job satisfaction) predicted job performance, but not the other way around (Riketta, 2008). Job satisfaction is not only associated with task performance but also lower counterproductive work behavior (e.g., stealing, gossiping; Mount, Ilies, & Johnson, 2006) and increased organizational citizenship behavior (e.g., helping co-workers, assisting supervisors when not asked; Williams & Anderson, 1991). Moreover, job satisfaction also predicts less work withdrawal behaviors (e.g., intent to quit, turnover; Podsakoff, LePine, & LePine, 2007). This implies that a lack of worker SWB can have real consequences on the bottom-line for organizations due to lower productivity and greater turnover costs. On the positive flip side, meta-analyses and large-scale studies have shown that employee SWB predicts greater customer satisfaction, productivity, and profitability in business units (Harter, Schmidt, Asplund, Killham, & Agrawal, 2010; Harter, Schmidt, & Hayes, 2002), and may even influence stock prices (Edmans, 2011).

Another critical outcome of worker SWB is improved health outcomes (Ganster & Schaubroeck, 1991) and physiological functioning (Kuykendall & Tay, 2015). Within working environments, research demonstrates that low job satisfaction and high work stress are associated with deleterious effects on health, including physical and psychological illnesses (Darr & Johns, 2008; Faragher, Cass, & Cooper, 2005). Therefore, greater worker SWB may substantially decrease healthcare and disability costs to business organizations. Overall, mounting evidence of the impact of worker SWB on organizational outcomes and worker health requires that organizations pay more attention to promoting SWB.

Implications for Research Psychologists

Despite recent advances, many research questions regarding the effects of SWB on subsequent behaviors remain unanswered. Although experimental manipulations of mood already exist, these studies do not address the effects of long-term changes in SWB on outcomes. Across all outcomes, therefore, experimental studies are needed in which researchers examine the effects of raising longer-term SWB. Another important research goal is to explore potential moderators and mediators for SWB outcomes from health to social relationships. When is SWB most likely to produce beneficial effects? What are the pathways leading from SWB to better health or social relationships? Do the effects generalize across cultures, or are they found primarily in cultures that highly value SWB?

Another important area for future research is to separately explore the effects of PA, NA, and life satisfaction on these outcomes. Although we know that PA predicts health beyond the effects of NA, we know little about how PA versus NA influences other benefits of SWB, such as social relationships. We also know little about whether PA and life satisfaction have overlapping or separate effects on outcomes. Yet another important set of questions concerns the optimal mix of each type of SWB. For instance, there are some findings that suggest that a touch of NA against a background of PA can heighten creativity in the workplace (George & Zhou, 2011). Might small amounts of NA be helpful in other domains, at least when PA predominates? Finally, researchers should examine the optimal level of each type of SWB. Following the lead of the Oishi and colleagues (2007), for example, researchers need to explore the optimal levels of SWB for beneficial outcomes beyond achievement. Furthermore, research should examine whether intense PA can be helpful, or whether primarily frequent but low intensity PA is most beneficial? Thus, questions about the effects of SWB present many opportunities for researchers.

Interventions to Raise Subjective Well-Being

Researchers have begun to apply the science of SWB in the form of evidence-based interventions designed to increase SWB. A growing literature has emerged demonstrating how brief experimental manipulations can increase SWB (Parks & Schueller, 2014; Quoidbach, Mikolajcak, & Gross, 2015). Some effective manipulations to increase SWB include cultivating gratitude through counting one's

blessings (Emmons & McCullough, 2003; Lyubomirsky, Sheldon, & Schkade, 2005; Seligman, Steen, Park, & Peterson, 2005) or expressing it through writing and sharing a gratitude letter (Boehm, Lyubomirsky, & Sheldon, 2011; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011; Seligman et al., 2005). Other activities have also been shown to increase SWB, including performing acts of kindness (Lyubomirsky, Sheldon, & Schkade, 2005; Sheldon, Boehm, & Lyubomirsky, 2012), visualizing one's best possible self in the future (Boehm et al., 2011; King 2001; Layous, Nelson, & Lyubomirsky, 2013), using one's character strengths in new ways (Seligman et al., 2005), savoring experiences (Bryant & Veroff, 2007), spending money on others (Dunn, Aknin, & Norton, 2008), interacting with strangers or "weak ties" (e.g., classmates; Epley & Schroeder, 2014; Sandstrom & Dunn, 2014a, 2014b), writing about one's positive experiences (Burton & King, 2004; Pinquart & Forstmeier, 2012), or sharing these positive experiences with others (Lambert et al., 2013). Importantly, each of these positive intervention strategies is brief, self-administered, and cost-effective (Lyubomirsky and Layous, 2013). More resource-intensive programs designed to increase SWB have also been developed, including Hope Therapy (Cheavens, Feldman, Gum, Michael, & Snyder, 2006) and Well-Being Therapy (Fava & Tomba, 2009).

Meta-analyses provide further evidence for the effectiveness of SWB interventions. Sin & Lyubomirsky (2009) examined 51 SWB intervention studies and concluded that these were, indeed, effective at enhancing SWB, $r = .29$. Boiler and colleagues (2013) conducted another meta-analysis of this literature, excluding quasi-experimental studies and employing more conservative criteria including only studies positioned strictly within the bounds of positive psychology. Even this more rigorous analysis of 39 intervention studies found similar effects: Positive interventions increased SWB, $r = .34$.

Given the diverse assortment of positive strategies shown to increase SWB, Lyubomirsky & Layous (2013) presented a positive-activity model to identify features of activities and people that constitute effective SWB interventions. First, there are several characteristics of individuals completing SWB interventions that influence the effectiveness of these programs (Lyubomirsky & Layous, 2013). Individuals benefit the most from SWB interventions when they are motivated to become happier (Lyubomirsky et al., 2011), believe that SWB is malleable (Howell, Passmore, & Holder, 2015), put more

effort in the intervention activities (Layous, Lee et al., 2013; Lyubomirsky et al., 2011), and believe these efforts will pay off (Layous, Nelson, & Lyubomirsky, 2012). Beyond these individual differences, demographic characteristics have also been shown to influence the effectiveness of SWB interventions. Participants who are older (Sin & Lyubomirsky, 2009) and from Western cultures (Boehm et al., 2011) benefit more from these strategies compared to younger participants and those from Eastern cultures.

Second, a number of features of the interventions themselves have also been identified as constituents of an effective SWB intervention. Meta-analytic results suggest that SWB interventions of a longer duration were increasingly more effective (Boiler et al., 2013; Sin & Lyubomirsky, 2009). However, striking the balance for maximum potency might depend on the activity of interest (Lyubomirsky, Sheldon, and Schkade, 2005).

Third, variety is also an essential component of effective SWB interventions, functioning to stave off hedonic adaptation (Sheldon et al., 2012). Building variety within an activity as well as the inclusion of a number of different activities in a single intervention program can facilitate greater sustained effects on SWB. In one study of pain, which is reduced by PA, participants were randomly assigned to engage in zero, two, four, or six positive activities. Regardless of the variety of activities, all participants were prescribed the same total dosage: Participants completed an activity just as often in the two activities group as the six activities group, but these activities were more varied in the six activities group and completed a greater number of times in the two activities group. Compared to participants in the zero-activity control condition, those who engaged in four or six activities, reported less pain at follow-up time points up to six months later (Hausmann, Parks, Youk, & Kwoh, 2014). These findings point to a role for including a variety of activities in intervention programs to cultivate lasting improvements in SWB.

Finally, encouraging habit development and continued practice of SWB activities is an important factor in sustaining the effects of interventions. In several studies, participants who continued to practice SWB activities following the intervention experienced greater SWB compared to those who did not (Lyubomirsky et al., 2011; Seligman et al., 2005; Sheldon & Lyubomirsky, 2006). Thus, continued practice enables initial boosts to SWB to last over time.

Lyubomirsky and Layous (2013) also point to the importance of person–activity fit for successful SWB interventions. Cross-cultural research, for example, has shown that certain activities are more beneficial for some people than others. Whereas U.S. participants benefitted from both kindness and gratitude activities, participants from South Korea did not similarly benefit from a gratitude intervention as this activity conflicts with their dialectical culture (Layous, Lee et al., 2013). In another study, participants' preference for each of six different SWB activities predicted the likelihood of completing that exercise (Schuller, 2010). In short, a fit between the person and the activity is crucial in facilitating engagement and sustained effort, and thus maximizing the potential of positive activities to promote sustainable changes in SWB.

Implications for Clinical and Counseling Psychology

The existing research on interventions that can enhance SWB provide several compelling avenues through which practitioners can help individuals achieve gains in SWB. Indeed, many of these techniques are amenable to the therapeutic context and can be readily incorporated into a counseling or treatment plan. It is worth making a distinction, however, between treatments with the goal of alleviating problematic symptoms or moderate-to-severe mental illness versus those interventions intended to boost SWB among non-seriously-ill populations. Most interventions in the area of SWB are of the latter variety, and while some—such as positive psychotherapy (PPT)—have been successfully implemented in samples experiencing mild depression (Seligman et al., 2005; Seligman, Rashid, & Parks, 2006), most have not (Sin & Lyubomirsky, 2009). Currently, practitioners can draw on the existing SWB research to help patients and clients who are not experiencing serious mental illness or who are pursuing therapy for reasons of personal growth or greater SWB. Future research is needed to examine whether SWB interventions can also be applied to treat mental illness.

To establish comprehensive treatments that are ready for use by clinical and counseling psychologists, additional research is needed that tests the effectiveness of SWB interventions using randomized clinical trials with community-based, non-student samples. In other words, development of evidence-based treatments for SWB is paramount. Moreover, demonstrating both short-term and long-

term effectiveness is critical to render these techniques ready for widespread dissemination. One multi-site randomized clinical trial testing an evidence-based treatment program for individuals seeking greater SWB is currently underway (Kushlev, Heintzelman, Lutes, Wirtz, Oishi, & Diener, 2016). This novel well-being treatment program incorporates a number of small-scale intervention activities into a multi-construct program, delivered either in-person or online. To evaluate the initial effectiveness of the program, the authors are examining a range of psychological, biological, and social outcomes across an initial treatment period (3 months) and follow-up (6 months), with the ultimate goal of determining whether such an intervention to enhance SWB can produce clinically meaningful change in diverse populations.

Implications for Organizational Psychologists

From an organizational standpoint, there are many potential gains from enhancing the SWB of workers. There now exists evidence for the effectiveness of several SWB interventions applied specifically in organizational context. One such type of intervention is loving-kindness meditation, which involves a meditative contemplation of positive feelings toward oneself, family members, and others (Salzberg, 1995). In one study of university staff and faculty, a loving-kindness meditation workshop for six weeks was shown to produce positive effects a week after the end of the workshop (Kok et al., 2013). Compared to a waitlist control group, the intervention group felt more positive emotions, which in turn enhanced social connections and predicted a marker of cardiac health (i.e., vagal tone). In addition, a field study of working adults showed that ongoing practice of loving-kindness meditation continued to enhance positive emotions across 8 weeks and led to greater life satisfaction compared to a waitlist control (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). Finally, workers who practiced mindfulness meditation that incorporated loving-kindness meditation showed significantly higher job satisfaction after 10 working days compared to waitlist controls (Hülsheger, Alberts, Feinholdt, & Lang, 2013).

Other types of interventions have also been implemented in organizations. One notable example is an expressive writing intervention where individuals write about their deepest thoughts and feelings. Compared to control participants, workers who engaged in an expressive writing exercise over three days

felt more positive emotions and experienced other positive outcomes (e.g., lowered workplace incivility) in a two-week follow-up assessment (Kirk, Schutte, & Hine, 2011). Another notable example is an online intervention program that incorporated 8 weeks of assignments focusing on goal-setting, resource-building, and happiness. Compared to the control group, the active treatment group showed significant increases in positive feelings (Ouweneel, Le Blanc, & Schaufeli, 2013).

Many interventions have also focused on alleviating stress and providing stress management techniques. Meta-analyses of occupational stress-based management interventions show moderate to large effect sizes in reducing stress (d = .53; Richardson & Rothstein, 2008). An examination of work-place resilience interventions, including health promotion, positive psychology, and stress-based interventions, to enhance SWB found a smaller meta-analytic effect size of d = .25 in assessments occurring less than 1 month post-intervention; critically, the effect sizes were non-significant when examined more than one month post-interventions (Vanhove, Herian, Perez, Harms, & Lester, 2015). Although a follow-up of the participants from one of the loving-kindness meditation intervention mentioned above showed that the gains in positive feelings held 15 months later (Cohn & Fredrickson, 2010), most studies in the meta-analysis did not show such lasting effects (Vanhove et al., 2015).

Overall, because workplace interventions have been generally shown to be effective, organizations can implement activities and practices that can boost worker SWB. However, given findings suggesting that these gains are short-lived, organizations need to create ways for workers to continue such interventions to reap the most benefits. The work time allocated to these interventions may be worthwhile in the long run as workers with higher SWB will likely be healthier and more productive.

Implications for Research Psychologists

Existing intervention studies have provided insight into a number of important questions for the basic science of SWB. For example, evidence on SWB interventions suggests that a substantial portion of SWB is due to intentional activities, thoughts, and behaviors. (Lyubomirsky, Sheldon, & Schkade, 2005). Importantly, unlike genetic predispositions and life circumstances, behavior can be modified more easily, suggesting that behavior is a key mechanism through which people can pursue greater SWB in their lives.

Relatedly, the role of variety in the success of SWB intervention (Sheldon & Lyubomirsky, 2012) informs our understanding of the nature of hedonic adaptation and of the ways to combat it.

Although a great deal of progress has been achieved, many questions remain to be addressed within this intervention framework. One important area for future research, as mentioned above, is to examine the duration of SWB intervention effects. While some existing studies show lasting effects in follow-ups of several months (e.g., Seligman et al., 2005), additional work with longer follow-ups is needed. Furthermore, researchers should continue to examine aspects of interventions (e.g., facilitating continued practice of skills) that might help to sustain initial gains in SWB. Future work might also examine the influence of these intervention strategies on a broad array of aspects of life that have been shown to follow from SWB. Does intervening to increase SWB also have downstream effects on health, relationships, prosocial behaviors, and cognitive outcomes such as creativity? Answers to these questions could bolster other experimental and longitudinal evidence that aims to tease apart the causal direction in the relationships between SWB and other positive aspects of life (Lyubomirsky, King, & Diener, 2005). Finally, future work could further test the effectiveness of multi-dimensional interventions that include a range of SWB activities (e.g., Hausmann et al., 2014) compared to the traditional single-activity approach. Does a more multimodal intervention program produce greater effects on SWB and other important outcomes? Are these effects lasting?

National Accounts of Well-Being to Build Better Societies

The 21st century has ushered in a new era of assessing national prosperity—one that goes far beyond the overall output of a nation's economy, traditionally measured by indicators such as General Domestic Product (GDP), and takes into account the overall SWB of its citizens (Diener & Seligman, 2004). In the past several decades, governments and international organizations have begun systematically assessing the SWB of people across the world. By comparing the SWB of citizens between countries and within countries over time, researchers have revealed valuable insights into the economic and social policies that make for a happier nation (for a recent review, see Diener, Oishi, & Lucas, 2015).

Comparisons of SWB between countries have shown that people are happier in nations that are

economically developed, whose governments are efficient and relatively less corrupt, and where the rule of law, human rights, and political freedoms are well protected (Diener et al., 1995; Diener, Kahneman et al., 2010; Helliwell, et al., 2014; Radcliff, 2013; Tay, Herian, & Diener, 2014). These findings are far from surprising, of course, but they speak to the validity of SWB as an overall indicator of a nation's prosperity. Within-country analyses over time have also produced important findings about how economic conditions and policies influence SWB. Between 1972 and 2008, for example, SWB of Americans was higher when income inequality was low than when income inequality was high; this effect held even after controlling for household income (Oishi et al., 2011). Notably, in the same period that income inequality grew (1972–2008), the GDP of the U.S. (adjusted for inflation) almost tripled. This highlights the insufficiencies of GDP as an indicator of the overall prosperity of a nation and its citizens.

The science of SWB has also revealed insights about hotly debated policies and societal conditions. For example, progressive taxation—taxing richer individuals at a higher rate than poorer individuals—has been shown to predict higher SWB. Across 57 nations, people living in countries with more progressive taxation reported greater life satisfaction and more positive emotions than individuals in countries with less progressive taxation (Oishi et al., 2012). Importantly, this relationship held even after controlling for national GDP and income inequality and individual-level differences in age, sex, and other demographics. These between-nation findings are also supported by within-country analyses over time. In the late 1970s, individuals in the U.S. in the lowest income bracket paid 70% less in taxes than those in the highest income bracket; in the late 1980s, this difference had shrunk to 13%. Using such within-country variation in progressive taxation between 1972 and 2008, researchers are finding that individuals in the lower income brackets experience greater SWB when progressive taxation is high (Oishi, in prep; Oishi & Diener, 2014). Importantly, greater progressive taxation over the same period had no significant deleterious effect on the happiness of middle and high-income individuals. This suggests that taxing the rich more than the poor may be a sound policy for raising the overall SWB of a nation's citizens.

The association of progressive taxation with SWB across nations can largely be explained by citizens' satisfaction with public services (e.g., healthcare quality) which are enabled by these policies

(Oishi et al., 2012). Indeed, citizens in countries that provide better healthcare coverage have higher SWB (Boarini, Comola, Smith, Manchin, & de Keulenaer, 2012). Beyond health, nations with more generous social welfare policies also tend to be happier (Radcliff, 2013). For example, SWB is higher in countries where citizens can rely on greater unemployment benefits. Importantly, such support seems to benefit the employed and the unemployed (Di Tella, MacCulloch, & Oswald, 2003). Similarly, more generous parental leave policies have also been associated with higher SWB. In Germany, for example, a 2007 expansion of benefits for parents was associated with a subsequent increase in parental SWB (Myrskyla & Margolis, 2013). Finally, the poor, but not the rich, report higher SWB in Denmark than in the U.S., pointing to the possible importance of income support programs, which are greater in Denmark.

Strong environmental and urban zoning policies that reduce pollution and increase green space also predict higher SWB (Luechinger, 2009; MacKerron & Mourato, 2009). Respondents to the U.S. General Social Survey, for example, reported greater SWB when surveyed on days with lower air pollution within their local area (Levinson, 2012). In addition, experimental, quasi-experimental, and longitudinal studies show that people living in areas with more green space tend to have higher SWB (Hartig, Evans, Jamner, Davis, & Garling, 2003; Velarde, Fry, & Tveit, 2007). In one particularly large-scale study, MacKerron and Mourato (2013) combined GPS data with over 1 million ESM survey reports from over 20,000 participants across the UK. Controlling for a number of potential confounds, the authors found that participants were happier when they were outdoors in all green or natural habitats compared to when they were in urban environments. One reason, though not the only one, for these beneficial effects may be that communal green spaces facilitate social interactions with neighbors (Kuo, Sullivan, Coley, and Brunson, 1998), which are associated with SWB (Sandstrom & Dunn, 2014a; b).

Overall, the evidence seems to suggest that many politically liberal policies—progressive taxation, greater income equality, more generous welfare state—predict higher SWB. While data can hardly be blamed for having political affiliations, the evidence does point to the conclusion that SWB is higher in societies that care for the disadvantaged. The existing evidence does, however, also support policies that are normally associated with a more conservative political agenda. Government efficiency,

for example, is associated with higher SWB both in cross-national analyses and within-country analyses over time (Helliwell, et al., 2014). In addition, individuals tend to become happier after marriage even after controlling for pre-marriage happiness (Anusic et al., 2014; Yap, Anusic, & Lucas, 2012). These findings suggest that policies that support family values and encourage the formation of stable family units could further improve the SWB of citizens. The new science of SWB can thus help societies transcend political biases and adopt a data-driven approach to policies that make citizens happier. Still, more research using rigorous research methods, including experimental, quasi-experimental, and longitudinal methods, is needed to translate research into policy. We encourage researchers across the subdisciplines of psychology, from environmental psychologists to prejudice researchers, to leverage national SWB data to examine the effectiveness of policies and interventions on citizens' SWB.

In 1968, Robert Kennedy gave a speech in which he observed that GDP "measures everything… except that which makes life worthwhile" (John F. Kennedy Presidential Library and Museum). Reflecting Kennedy's prescient sentiment, governments today are moving towards a more holistic assessment of the prosperity of their nations. The new science of national SWB is producing invaluable insights into the social policies and economic conditions that truly make for a happy nation.

Conclusions

Some psychologists may see SWB as an area of research that is separate from their own. This perception is misguided because this is an area that can be studied from many angles, across the subdisciplines of psychology. Furthermore, the scientific findings on SWB can be used in many of the applied fields of the behavioral sciences. The effects of SWB on downstream behavior are particularly relevant to many areas of the discipline, as are recent interventions to raise SWB. The fact that SWB is not unitary, but is a multidimensional concept also has a number of implications for many areas of psychology. Thus, we hope that in the years ahead, knowledge of the science of SWB will become more integrated into the diverse subdisciplines of psychology and beyond.

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