Review of the Satisfaction With Life Scale

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Abstract The Satisfaction With Life Scale (SWLS) was developed to assess satisfaction with the respondent's life as a whole. The scale does not assess satisfaction with life domains such as health or finances but allows subjects to integrate and weight these domains in whatever way they choose. Normative data are presented for the scale, which shows good convergent validity with other scales and with other types of assessments of subjective well-being. Life satisfaction as assessed by the SWLS shows a degree of temporal stability (e.g., 0.54 for 4 years), yet the SWLS has shown sufficient sensitivity to be potentially valuable to detect change in life satisfaction during the course of clinical intervention. Further, the scale shows discriminant validity from emotional well-being measures. The SWLS is recommended as a complement to scales that focus on psychopathology or emotional well-being because it assesses an individuals' conscious evaluative judgment of his or her life by using the person's own criteria.

The last decade has seen a dramatic increase in research on the construct of subjective well-being (SWB; Diener, 1984; Diener & Larsen, 1993). This research has begun to provide an important complement to one of psychology's traditional goals: the understanding of unhappiness or ill-being in the form of depression, anxicty, and unpleasant emotions. The addition of a positive orientation toward the individual's subjective experience of well-being provides an additional perspective for researchers and clinicians alike.

Research has identified two broad aspects of subjective well-being: an affective component, which is usually further divided into pleasant affect and unpleasant affect (Diener, 1990; Diener & Emmons, 1984), and a cognitive component, which is referred to as life satisfaction (Andrews & Withey, 1976). When assessed, these components of SWB are at least moderately correlated, and a number of measures of SWB include both components (Chamberlain, 1988). Several researchers, however, have found separate satisfaction and affect components (Andrews & Withey, 1976;

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Judge, 1990; Liang, 1985; Stock, Okun, & Benin, 1986). These components appear to sometimes behave differently over time and to have differing relationships with other variables (Beiser, 1974; Campbell, Converse, & Rogers, 1976; DeHaes, Pennink, & Welvaart, 1987). The affective and cognitive components of SWB are not completely independent; however, the two components are somewhat distinctive and can provide complementary information when assessed separately.

Although the affective and cognitive aspects of SWB both appear to be important, researchers have focused their attention on the measurement of affective well-being, as evidenced by the number of instruments that measure affect. For example, mood and affective well-being can be assessed by the Affectometer (Kammann & Flett, 1983), the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), or the Memorial University of Newfoundland Scale of Happiness (MUNSCH; Kozma & Stones, 1980), among others. Scales to measure unpleasant affect (e.g., depression) are also widely used (e.g., Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Generally, the life satisfaction component of SWB has received less attention (Diener, Emmons, Larsen, & Griffin, 1985). Because life satisfaction frequently forms a separate factor and correlates with predictor variables in a unique way, it seems worthwhile to separately assess this construct.

Life satisfaction refers to a judgmental process, in which individuals assess the quality of their lives on the basis of their own unique set of criteria (Shin & Johnson, 1978). A comparison of one's perceived life circumstances with a self-imposed standard or set of standards is presumably made, and to the degree that conditions match these standards, the person reports high life satisfaction. Therefore, life satisfaction is a conscious cognitive judgment of one's life in which the criteria for judgment are up to the person.

Although there may be some agreement about the important components of "the good life," such as health and successful relationships, individuals are likely to assign different weights to these components (Diener et al., 1985). Individuals are also likely to have unique criteria for a good life as well, which in some cases might outweigh the common benchmarks in importance. Furthermore, individuals may have very different standards for "success" in each of these areas of their lives. Thus, it is necessary to assess an individuals' global judgment of his or her life rather than only his or her satisfaction with specific domains. This is the strategy adopted by the authors of the Satisfaction With Life Scale (SWLS; Diener et al., 1985). The SWLS items are global rather than specific in nature, allowing respondents to weight domains of their lives in terms of their own values, in arriving at a global judgment of life satisfaction. At the same time, it should be recognized that assessing respondents' satisfaction with common domains may also provide useful additional information (Frisch, Cornell, Villanueva, & Retzlaff, 1992).

There is evidence that satisfaction often forms a factor separate from affective indexes of well-being. If affect depends on appraisals, why do cognitive and affective measures form separate factors? First, people may ignore or deny negative emotional reactions while still recognizing the undesirable factors in their lives. Second, affective reactions are often responses to immediate factors and of short duration, whereas life satisfaction ratings can reflect a long-term perspective. Finally, a

person's conscious evaluation of her or his life circumstances may reflect conscious values and goals. In contrast, affective reactions may reflect unconscious motives and the influences of bodily states to a greater extent than do life satisfaction ratings. Nevertheless, there should be a degree of convergence between life satisfaction and emotional well-being because both depend on evaluative appraisals.

The SWLS is designed to assess a person's global judgment of life satisfaction, which is theoretically predicted to depend on a comparison of life circumstances to one's standards. The brief format of the SWLS means that it can be incorporated into an assessment battery with minimal cost in time. Work on the Extended Satisfaction With Life Scale by Alfonso & Allison (1992b) has indicated that the SWLS is at the reading level of the 6th to 10th grades (depending on the scoring system used) and is thus usable with most adults. The five items of the SWLS and scoring instructions are presented in the Appendix.

Characteristics of the SWLS

Item Selection

Several authors of the original scale created 48 items to reflect life satisfaction and well-being. These items were generated on the basis of the guiding theoretical principle that life satisfaction represents a judgment by the respondent of his or her life in comparison to standards. An initial factor analysis indicated that the items formed three factors: Life Satisfaction per se, Positive Affect, and Negative Affect. Ten items had loadings on the Life Satisfaction factor of 0.60 or above. This group of 10 items was further reduced to 5, to eliminate redundancies of wording and with minimal cost in terms of alpha reliability. Further information on the original development and validation of the SWLS is provided in Diener et al. (1985), the introductory report of the SWLS.

Normative Data

Normative data for the SWLS are available for diverse populations, including older adults, prisoners, individuals under inpatient care for alcohol abuse, abused women, psychotherapy clients, elderly caregivers of demented spouses, and persons with physical disabilities, as well as college student samples. In addition, some cross-cultural data are available (e.g., Arrindell, Meeuwesen, & Huyse, 1991; Balatsky & Diener, 1993; Blais, Vallerand, Pelletier, & Briere, 1989; Shao & Diener, 1992). Table 1 gives a summary of normative data for the SWLS from several samples. As can be seen in Table 1, considerable variability in life satisfaction as reported on the SWLS has been observed between and within a number of diverse populations. The group means vary from approximately 12 for an alcoholic inpatient sample to 28 for a group of older Canadians. Thus, the range of group means spans much of the possible range of the scale (from 5 to 35).

Table 1 Normative data for the satisfaction with life scale

Sample characteristics	N	M	SD
Student samples			
American college students (Diener et al., 1985, Study 1)	176	23.5	6.4
American college students[a] (Pavot et al., 1991)	130	24.5	6.3
American college students (Frisch, 1991)	271	25.2	5.8
American College Students (Smead, 1991)	358	23.0	6.4
American College Students (Pavot & Diener, 1993)	244	23.7	6.4
French-Canadian college students[b] (Blais et al., 1989)			
Men	355	23.8	6.1
Women	472	24.8	6.2
Moscow State University students[b] (Balatsky & Diener, 1993)	61	18.9	4.5
Glazov University students[b] (Balatsky & Diener, 1993)	53	16.3	4.9
Chinese students[b] (Shao & Diener, 1992)	99	16.1	4.4
Disabled students (Chwalisz, Diener, & Gallagher, 1988)	32	20.8	8.4
Disabled students (Allman & Diener, 1990)	29	24.3	7.4
Korean University students (Suh, 1993)	413	19.77	5.84
Adult samples			
Nurses and health workers (Judge, 1990)	255	23.6	6.1
Older American adults[a] (Pavot et al., 1991)	39	24.2	6.9
Older French-Canadian adults[b] (Blais et al., 1989)			
Men	77	27.9	5.7
Women	2.36	26.2	6.6
Active and contemplative religious women[c] (McGarrahan, 1991)			
Active recent nuns	64	25.1	7.2
Active older nuns	68	23.7	8.5
Contemplative recent nuns	50	23.3	7.3
Contemplative older nuns	57	23.9	9.0
Printing trade workers[d] (George, 1991)	304	24.2	6.0
Military wives and nurses (Smead, 1991)	50	25.0	6.8
Doctoral students (Allison, Alfonso, & Dunn, 1991)	50 127	25 24.3	6.8 6.2
Male prison inmates (Joy, 1990)	75	12.3	7.0

Table 1 (continued)

Veterans Affairs hospital inpatient sample[c]			
(Frisch, 1991)	52	11.8	5.6
Dutch medical out patients[b]			
(Arrindell et al., 1991)	107	23.6	7.0
Unmarried	24	21.7	6.7
Married/long relationship	69	25.2	6.7
Divorced/separated/widowed	14	19.3	6.7
Abused women[f]			
(Fisher, 1991)	70	20.7	7.4
Clinical clients, psychological private practitioner (Friedman, 1991)			
Intake group	27	14.4	6.7
Advanced group	16	18.3	7.1
Elderly caregivers			
(Vitaliano, Russo, Young, Becker, & Maiuro, 1991)			
Time 1	79	21.2	7.7
Time 2	79	19.7	8.1

[a] *M* and *SD* are based on multiple administrations.
[b] Scale was translated into native language of respondent.
[c] Recent nuns include women with less than 15 years in their religious order, whereas older nuns include women with 15 or more years in their religious order.
[d] Members of a printing trade association. Average age of this sample was 47.4 years. Sample was approximately 96% male.
[e] Under treatment for alcohol abuse.
[f] Women who had experienced physical, sexual, or emotional abuse, seeking help at a women's shelter. Women had obtained restraining order for protection from abuser.
Note. Frisch (1991) refers to a personal communication with M. B. Frisch on January 5, 1991; Fisher (1991) refers to a personal communication with K. Fisher on November 7, 1991; Friedman (1991) refers to a personal communication with P. Friedman on November 20, 1991. Suh (1993) refers to a personal communication with M. Suh on February 15, 1993.

Scores on the SWLS can be interpreted in terms of absolute as well as relative life satisfaction. A score of 20 represents the neutral point on the scale, the point at which the respondent is about equally satisfied and dissatisfied. For example, scores between 21 and 25 represent *slightly satisfied*, and scores between 15 and 19 represent *slightly dissatisfied* with life. Scores between 26 and 30 represent *satisfied*, and scores from 5 to 9 are indicative of being *extremely dissatisfied* with life.

In terms of the means presented in Table 1, most groups fall in the range of 23–28, or the range of *slightly satisfied* to *satisfied*. This level of satisfaction is in good agreement with the frequent finding that in Western countries a preponderance of respondents report well-being above the neutral point on a variety of measures (Andrews & Withey, 1976; Campbell, Converse, & Rogers, 1976; Veenhoven, 1984, 1991). On measures of unpleasant affect, such as the Beck Depression Inventory, most individuals in nonclinical samples score at the low end, producing a highly skewed distribution in which only a few individuals are depressed. Thus, the means on the SWLS, which fall in the *slightly satisfied* to *satisfied* range for most groups, appear to reflect the widely replicated finding that nonclinical samples are above the neutral point in SWB.

Stability and Sensitivity

Stability of measurement versus sensitivity to change is a critical issue for any assessment instrument; it becomes crucial for a measure that is intended to demonstrate temporal stability on one hand, yet maintain sensitivity to change on the other. Measures of life satisfaction must demonstrate that they are reflective of more than momentary mood states in order for researchers to make inferences about life satisfaction as a relatively stable component of subjective experience over time. To be useful in an applied setting, however, it is also essential for such an instrument to be sensitive enough to detect changes in life satisfaction, such as those occurring during psychotherapy or those due to major life events (e.g., separation or divorce, and changes in employment or financial status).

The SWLS has been examined for both reliability and sensitivity. The SWLS has shown strong internal reliability and moderate temporal stability. Diener et al. (1985) reported a coefficient alpha of 0.87 for the scale and a 2-month test-retest stability coefficient of 0.82 (Study 1). Since that time, a number of other investigators have reported both internal consistency and temporal reliability data for the scale, which are shown in Table 2.

The data of Table 2 can be used to address the issue of stability versus sensitivity. Over longer periods, the test-retest stability decreases to a level (0.54) that suggests that considerable change in the individual's life satisfaction may occur (Magnus, Diener, Fujita, & Pavot, 1993). Even when correcting for the alpha of the scale, these long-term stability coefficients suggest that only about half of the variance in life satisfaction can be accounted for by life satisfaction several years later.

Along with the decline of stability of the SWLS over longer periods, more specific evidence is available regarding the sensitivity of the SWLS. When viewed over longer periods, life events were found to be predictive of changes in life satisfaction as measured by the SWLS (Magnus et al., 1993). Changes in satisfaction were related to good and bad events in the subjects' lives during the past year. Data even more specific to the question of change over relatively shorter periods comes from the work of Friedman (P. Friedman, personal communication, November 20, 1991). He examined the life satisfaction of outpatient clients in a private practice in the eastern US. In one group (the intake group, $n = 27$), the life satisfaction of clients beginning therapy was measured. This level of satisfaction was then compared with

Table 2 Estimates of internal consistency and temporal reliability for the satisfaction with life scale

Sample	Coefficient alpha	Test–retest	Temporal interval
Alfonso and Allison (1992a)	0.89	0.83	2 weeks
Pavot et al. (1991)	0.85	0.84	1 month
Blais et al. (1989)	0.79–0.84	0.64	2 months
Diener et al. (1985)	0.87	0.82	2 months
Yardley and Rice (1991)	0.80, 0.86	0.50	10 weeks
Magnus, Diener, Fujita, and Pavot (1993)	0.87	0.54	4 years

that from an independent sample of clients (the advanced group, $n = 16$) who had been in therapy 1 to 2 months. The mean level of satisfaction as measured by the SWLS for the intake group was 14.4($SD = 6.72$), whereas the mean satisfaction for the advanced group was 18.3($SD = 7.09$). A t test revealed a significant difference between groups ($t = 1.77$, $p < 0.05$, one-tailed). Thus, the group that had been receiving therapy showed a significantly higher level of life satisfaction than did the group of people measured at the beginning of therapy. Friedman also administered the scale to seven clients at the beginning of outpatient therapy and again approximately 1 month into the therapy process. He found that the mean SWLS scores for these clients improved rather dramatically from 14.1($SD = 1.9$) at Time 1 to 26.9($SD = 3.6$) at Time 2, a significant increase, $t(6) = 4.01$, $p < 0.01$.

Vitaliano et al. (1991) also reported evidence that changing life conditions can lead to changes on the SWLS. They studied elderly caregivers who had a spouse diagnosed with primary degenerative dementia. The care recipients showed objective declines in functioning during the 15–18 month study. During this period, the caregivers showed a significant decline it life satisfaction, $t(78) = 2.14$, $p < 0.05$. It is interesting to note that only the SWLS changed significantly during this period of spousal decline, with measures of depression, anxiety, and suppressed anger not changing significantly. Furthermore, at both Times 1 and 2, the SWLS showed the strongest relation of any of the caregiver measures to the objective conditions of the patients ($rs = -0.48$ for Time 1 and -0.38 for Time 2). The change in the burden perceived by the caregiver also correlated with the change in life satisfaction ($r = -0.27$, $p < 0.05$). These data are important, because they demonstrate an instance when life satisfaction and affect appear to be diverging; therefore, they should be separately assessed. They also offer additional evidence of the discriminant validity of the SWLS.

In sum, the moderate temporal stability of the SWLS supports the idea that there is some long-term consistency of life satisfaction over time. Immediate factors, such as current mood and the situational context, are also likely to some degree to affect an individual's response to questions about life satisfaction and well-being (Yardley & Rice, 1991). Further, the stability coefficients for longer temporal periods are at a level that indicates that changes in life satisfaction do occur over time. And recent studies by Friedman (P. Friedman, personal communication, November 20, 1991), Vitaliano et al. (1991), and Diener, Sandvik, et al. (1991), have provided evidence that suggests that the SWLS can detect change over time, such as the increase of life satisfaction after a period of psychotherapy or the decrease in life satisfaction as one's spouse becomes more debilitated. From these findings, it can be concluded that life satisfaction has a long-term component (perhaps due to personality, stable life circumstances, or both), a moderate-term component (e.g., due to current life events or cognitive schemata), and a short-term state component (e.g., due to current mood and immediately salient life circumstances).

A more rigorous approach to temporal reliability would be to use multiple measures of life satisfaction in order to separate the amount of actual change in life satisfaction from the degree of error variance causing instability from one occasion to another. If a latent trait of life satisfaction can be established through multiple

measures at two different points in time, one can then judge the actual change in life satisfaction and the degree of change in the SWLS, and how much of the SWLS change is due to real change versus error of measurement. This is a significant issue for future research.

Factor Structure of the SWLS

Diener et al. (1985) conducted a principal-axis factor analysis on the SWLS, from which a single factor emerged, accounting for 66% of the variance of the scale. This single-factor solution has since been replicated (Arrindell et al., 1991; Blais et al., 1989; Pavot et al., 1991), and these results are shown in Table 3. The consistent factor pattern across samples was maintained despite the fact that these samples represent translations of the SWLS into French (Blais et al., 1989) and Dutch (Arrindell et al., 1991), as well as the original English-language version (Diener et al., 1985; Pavot et al., 1991). The SWLS therefore seems to measure a single dimension. The item-total correlations and factor loadings shown in Table 3 suggest that the last item is the weakest in terms of convergence with other items. This may be because most of the items refer primarily to the present, whereas the fifth item refers primarily to the past, although this interpretation will require empirical testing.

Table 3 Item means, item factor loadings, and item-total correlations for the five items of the satisfaction with life scale

	Item number				
Sample	1	2	3	4	5
	Item means and standard deviations				
Pavot et al. (1991) ($N = 244$)					
M	4.71	4.74	5.23	4.75	4.25
SD	1.47	1.52	1.52	1.75	1.86
	Item factor loadings and item-total correlations				
Diener et al. (1985)	84/75	77/69	83/75	72/67	61/57
Blais et al. (1989)	84/51	76/54	74/71	71/60	68/57
Arrindell et al. (1991)	84/73	80/67	85/75	83/72	76/64
Pavot et al. (1991)	83/71	89/80	82/71	68/55	78/66

Note. For the factor loadings/item-total correlation section, decimal points have been omitted; numbers to the left of diagonals are component loadings, numbers to the right of diagonals are item-total correlations. Item numbers are consistent with the scale as presented in the Appendix.

Construct Validity Data

Initial validity evidence comes from groups scoring lowest on the SWLS: psychiatric patients, prisoners, students in poor and turbulent countries, and abused women. Life satisfaction as we conceptualize it currently involves a comparison

with standards. So events or conditions that make the individual's circumstances better or worse will influence life satisfaction. Psychiatric patients and newly incarcerated prisoners represent groups who had suffered recent bad life events, events likely to deviate negatively from their standards. For abused women, their experience is negative in one central domain, their marriage, and their experience deviates from the ideal in our culture. For students in the countries studied, aspirations are probably higher than current conditions, a likely cause of the disquiet observed there. The data from these groups generally follow a pattern of lower satisfaction as assessed by the SWLS.

The SWLS also has been examined for its relation to an array of both self-report and external criteria in an effort to establish its validity as a measure of life satisfaction. Both Diener et al. (1985) and Pavot et al. (1991) provide considerable evidence for the convergence of the SWLS with numerous measures of subjective well-being and life satisfaction. As can be seen in Table 4, the SWLS demonstrates adequate convergence with related measures, including measures using a different methodological approach (e.g., interviewer or informant ratings) to measure life satisfaction. The modest to moderate correlations of life satisfaction using different methods compare favorably to multi-method convergence of other well-being constructs. Nevertheless, the modest size of these correlations leaves much variance unaccounted for, and points to substantial amounts of error in the measures.

The SWLS has been shown to be negatively correlated with clinical measures of distress. Blais et al. (1989) report a strong negative correlation ($r = -0.72$, $p = 0.001$) between the SWLS and the Beck Depression Inventory (Beck et al., 1961). Larsen, Diener & Emmons (1985) found a correlation of -0.31 between the SWLS and a measure of negative affect. Using a Dutch version (Arrindell & Ettema, 1986) of the Symptom Checklist-90 (SCL-90-R; Derogatis, 1977), Arrindell et al. (1991) found the SWLS to be significantly negatively correlated with all eight symptom dimensions assessed, including anxiety ($r = -0.54$), depression ($r = -0.55$), and general psychological distress ($r = -0.55$).

Table 4 Correlations of the SWLS with self-and non-self-report measures of life satisfaction and subjective well being

Sample	Andrews/ Withey Scale	Fordyce Global Scale	Interviewer ratings	Informant reports
Diener et al. (1985)	0.68	0.58	0.43	–
Larsen (1985)	0.58	0.60	–	–
Pavot et al. (1991)	–	0.82	–	0.54
Allman and Diener (1990)	0.59	0.61	–	0.58
Magnus, Diener, and Fujita (1991)	0.52	0.55	–	0.34
Frisch (1991) (VA inpatient)	0.60	0.35	0.51	–
Frisch (1991) (Student)	0.68	0.55	0.66	0.28
Pavot and Diener (1991)	–	0.45	–	0.46
Judge (1990)	–	0.55	–	0.43

Note. Frisch (1991) refers to a personal communication with M. B. Frisch on January 5, 1991.

Researchers have administered the SWLS in conjunction with measures of positive and negative affectivity. For example, Smead (1991) reported correlations of 0.44 between the SWLS and positive affect, and of −0.48 between the SWLS and negative affect, with affect measured on Watson et al.'s (1988) PANAS scales. Because the scales of the PANAS are virtually uncorrelated, the correlations of the separate subscales with the SWLS show that it does not simply measure only negative affect. George (1991) found correlations with the SWLS and the Multidimensional Personality Questionnaire (MPQ: Tellegen, 1982) of .47 for positive affectivity and −0.26 for negativity. The absolute size of these correlations, even when disattenuated for unreliability, does not support the idea that life satisfaction and affective well-being are equivalent constructs.

In terms of individual difference dimensions, the SWLS has been found to be positively correlated with extraversion and inversely correlated with neuroticism (Diener et al., 1985; Pavot & Diener, 1993), thus adding to the construct validity of the scale. Extroversion has been repeatedly found to correlated with well-being (Diener & Larsen, 1993), possibly because extroverted individuals have more sensitive reward systems. Further, neuroticism has been repeatedly found to correlate substantially with SWB (Diener & Larsen, 1993). Thus, these correlations with the SWLS support its validity.

Both marital status and health have been shown to be correlated with the SWLS (Arrindell et al., 1991). The SWLS has generally been found to be unrelated to gender and age (Arrindell et al., 1991; George, 1991; Pavot et al., 1991). Friedman (P. Friedman, personal communication, November 20, 1992) has found the SWLS to be highly correlated ($r = 0.68$) with self-esteem. Each of the above correlational patterns has been replicated with both self-report and non-self-report measures of SWB (e.g., Fujita & Diener, 1992). Thus, these correlations provide construct validity for the SWLS.

The discriminant validity of the SWLS can be approached at several levels. At the empirical level, individual difference dimensions such as affect intensity and impulsivity (Diener et al., 1985) have been found to be uncorrelated with the SWLS. Several pieces of evidence also support the discriminative power of the SWLS from measures of affective well-being.

One instance of such evidence comes from a study by Judge (1990). In a structural model. Judge allowed the covariance of the error terms of two life satisfaction measures (one being the SWLS) to be estimated separately from the hedonic measures. This produced a substantial improvement in fit, suggesting that the life satisfaction and affective measures were not adequately captured by a single latent trait. Although related, life satisfaction and affective well-being were separable.

Further, in the aforementioned study of caregivers by Vitaliano et al. (1991), the SWLS was the only scale that showed significant change when the caregiver's burden became greater. The caregivers appeared to be adapting to the change emotionally, yet they were able to recognize changes in the quality of their lives.

Thus, a number of independent sources of evidence suggest the discriminant validity of the SWLS. Nevertheless, the area of discriminant validity is in need

of further exploration. For example, a confirmatory factor analysis using both self-report and informant SWLS and positive and negative affect measures would allow researchers to examine the correlation of latent satisfaction with affective SWB and to study the correlation of the SWLS with each of the three latent variables.

Response Artifacts and the SWLS

Schwarz and Clore (1983) and Schwarz and Strack (1991) have found that self-reported measures of well-being can be influenced by a number of transient factors, including the momentary mood of the respondent, the physical surroundings, and even the item that precedes the life satisfaction or well-being item on a questionnaire or survey. In a comparison of single-item versus multiple-item measures of well-being and life satisfaction (Pavot & Diener, 1991), item placement and momentary mood were found to sometimes produce a significant influence on response to single-item measures. There were no significant effects, however, for these factors found for multiple-item measures, including the SWLS.

Another frequently debated source of error is response acquiescence (Rorer, 1965). One strategy to lessen the effects of acquiescence is item reversal. The items of the SWLS are all keyed in a "positive" direction. The authors chose not to use reversed items because the degree to which acquiescence influences response may be small (Rorer, 1965), and a general acquiescence bias may not exist (Husek, 1961). Further, reverse-wording of items can confuse respondents and thereby contribute a different source of error in measurement. Nonetheless, response acquiescence is a potential problem with the SWLS, which deserves research attention.

Another potential problem for the SWLS is social desirability. Social desirability correlates with SWB scales, and it has been suggested that a large component of the variance of well-being scales is due to social desirability (Carstensen & Cone, 1983). Because of this and other similar findings, social desirability has been the subject of considerable controversy in the area of SWB research. Recent research (Diener, Sandvik, Pavot, & Gallaher, 1991) has demonstrated that when social desirability is removed from a measure of well-being, the resulting measure converges less well with peer reports of SWB. This finding suggests that social desirability may represent a substantive part of well-being and that when it is removed from such measures, valid information is lost. Botwin, Diener, & Tomarelli (1992), in a review of the social desirability literature, find no evidence that social desirability is an artifact or confound but suggest that measures of social desirability may actually include substantive personality characteristics, such as social conformity, which correlate with well-being measures. The relationship between SWB measures such as the SWLS and social desirability clearly needs to be more extensively examined with newer social desirability scales that separate the self-deception component of social desirability from the impression-management component of social desirability.

Clinical Application

The SWLS appears to have promise for use in clinical settings. It has been found that clinical and quasiclinical populations score lower on life satisfaction but also that their scores tend to increase during the course of treatment. Clearly, much more work is needed to explore which clinical populations show depressed scores on the scale and which types of problem alleviation are likely to increase scores on the scale. Evidence is reviewed in this article that indicates that life satisfaction and affective well-being are not isomorphic and that the SWLS therefore may give additional information beyond emotion or mood scales.

Cross-Cultural Use of the SWLS

The SWLS is available in several languages. Data for the French (Blais et al., 1989) and Dutch (Arrindell et al., 1991) language versions have been presented here, but versions in other languages are available, including Russian (Balatsky & Diener, 1993), Korean (Won, in progress), Hebrew (D. Shmotkin, personal communication, December 6, 1991), and Mandarin Chinese (Shao & Diener, 1992).

The existing data suggest that the SWLS has potential as a cross-cultural index of life satisfaction. Nonetheless, this issue requires substantially more exploration. It would be very helpful to have a national probability sample in which the SWLS is used so that norms for various groups such as African Americans and Latinos would be available. Further, an examination is needed in terms of the interpretation of the scale (and, indeed, the meaning of well-being) in various cultures and subcultures. For example, some of the differences between the life satisfaction of Russian and Chinese students and American student samples might be due to cultural factors rather than "real" differences in well-being and satisfaction. Although initial exploration shows the same factorial structure in different groups, a much more in-depth study would be valuable, at both the conceptual and empirical levels.

Discussion

The SWLS provides an adjunct to measures oriented toward the assessment of negative states. It assesses the positive side of the individual's experience rather than focusing on unpleasant emotions. In making a life satisfaction judgment, the SWLS emphasizes the person's own standards of evaluation. Furthermore, the respondent draws on the domains she or he finds relevant in formulating his or her judgment of global life satisfaction. Because life satisfaction judgments are at least partiallyindependent of affective measures, the SWLS is a promising instrument in terms of measuring change in subjective well-being and intervention outcomes.

Preliminary work with the SWLS reveals that life satisfaction may be a meaningful and useful psychological construct. First, the items appear to hold together in a unified factor, suggesting that there is coherence to life satisfaction. Second, life satisfaction seems to have moderate temporal stability, although it also changes in

reaction to life events. In addition, life satisfaction shows some degree of autonomy from related subjective well-being constructs such as depression. Respondents seem to show moderate convergence in self-reports of life satisfaction with interviewers and informants who are asked to judge their life satisfaction. Further, informants show good levels of agreement when they judge a target person's life satisfaction using the SWLS (Pavot et al., 1991).

Along with the above strengths, the SWLS has several limitations. First, as is true of any self-report instrument, respondents can consciously distort their response to the scale if they are motivated to do so. For this reason, it is desirable to supplement the self-reported SWLS with assessments from external sources, such as informant SWLS or interviewer ratings, whenever possible. Also, the SWLS does not measure all aspects of SWB. It is a narrow-band instrument, intended to assess the cognitive rather than affective component of SWB. Although the cognitive and affective components of subjective well-being are obviously related, scores on the SWLS cannot automatically be used as direct measures of emotional well-being. Instruments with an affective focus should be included in research designs that are intended to obtain data on the broader construct of global SWB.

Several of the strengths of the SWLS in terms of allowing respondents freedom also can be seen as liabilities in terms of an unambiguous interpretation of the test score. For example, we allow the respondent to use whatever standard she or he deems to be appropriate, but this means that we do not know to what standard the person has compared the conditions of her or his life. We leave open the possibility to weight any life domains (e.g., health, marriage, hobbies) in composing an answer, but again, this means that a person may overweight domains that happen to be salient at the time of testing. Until the cognitive processes involved in arriving at a life satisfaction judgment are known and understood, we will not fully know the meaning of high life satisfaction. Thus, a crucial aspect of developing the construct validity of the SWLS will be to understand the processes involved in arriving at a life satisfaction judgment.

Several important issues remain for future research. For example, it would be useful to develop a more comprehensive data base for the SWLS, including norms for additional clinical populations. The discriminant validity of the SWLS could be investigated in greater depth, focusing on the relationship between emotional well-being and cognitive life satisfaction. Also, the relationship between global life satisfaction and other clinical and well-being constructs should be explored further, especially using a multimethod approach.

Studies in which emotion is manipulated and the influence of this on SWLS scores would be valuable. This would yield a more rigorous answer to the question of how much the SWLS is influenced by current mood. Finally, it would be interesting to explore life satisfaction in terms of different time frames of reference: the past, the present, the future, and both shorter (e.g., several weeks) and longer (the last several years) time perspectives. The stability of these various time frames could be determined, and each could be correlated with the SWLS in order to assess the time frame used by various populations. It can be noted that some of the SWLS items seem to refer to the past (e.g., "If I lived my life over, I would. . ."), whereas others appear to refer more to the present (e.g., "The conditions of my life are excellent.").

It is unknown whether an individual might score high in one time frame and low on the other. Certain items may be more susceptible to change than others because they tend to reflect a current time frame rather than a focus on the person's whole past life. Thus, the scale may mix two different meanings of life satisfaction, and an exploration of this issue is warranted.

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Appendix: Satisfaction with Life Scale

Below are five statements with which you may agree or disagree. Using the 1–7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The 7-point scale is as follows:

1 = strongly disagree
2 = disagree
3 = slightly disagree
4 = neither agree nor disagree
5 = slightly agree
6 = agree
7 = strongly agree

_____1. In most ways my life is close to my ideal.
_____2. The conditions of my life are excellent.
_____3. I am satisfied with my life.
_____4. So far I have gotten the important things I want in life.
_____5. If I could live my life over, I would change almost nothing.

Use of the SWLS

The Satisfaction With Life Scale is in the public domain. Permission is not needed to use it.

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