

The Implicit Life Satisfaction Measure and Its Cross-cultural Applications

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Abstract

The Implicit Association Test (Greenwald et al., 1998) was adapted to measure satisfaction with life by assessing the strength of automatic associations of "My Life" with "Good" versus "Bad" related words. A series of studies explored some psychometric as well as methodological properties of the Implicit Life Satisfaction measure (ILS). The ILS demonstrated good internal consistency and moderate temporal stability. Studies revealed that (a) the type of stimuli used for target and attribute categories influences the magnitude of the ILS effect, (b) participants could voluntarily suppress their satisfaction with life on the ILS, but not enhance it, and (c) handedness of categories did not affect the participants' performance on the ILS. Overall, the ILS measures are: (a) independent of traditional life satisfaction self-report measures, and (b) positive for most people.

For the past two decades, subjective well-being (SWB) has become an important domain in human psychology. Researchers began studying more positive and rewarding aspects of human psychology focusing on how to make people happier, more fulfilled, and more altruistic, rather than focusing solely on unhappiness and maladies, such as depression, anxiety, and unpleasant emotions (Andrews & Robinson, 1991; Diener, 1984; Seligman & Csikszentmihalyi, 2000). SWB represents people's multidimensional evaluations of their own lives, including conscious judgments of life satisfaction and affective evaluations of moods and emotions (e.g., Diener, 1984; Meyer, 1993).

SWB has been assessed in many ways by different investigators. The easiest way up to now to obtain information about a person's life has been to ask her/him to complete a self-report questionnaire. Self-report scales were originally single items with several response categories. Recognizing the weakness in the reliability of single item measures however, multi-item measures of SWB were developed. For example, the PANAS (Watson, Clark, & Tellegen, 1988) was developed to measure positive and negative emotions, and Diener and his colleagues devised the five-item Satisfaction with Life Scale (SWLS; 1995). These self-report measures have shown relatively good psychometric properties, including convergent validity (e.g., Mouton, 1996) and moderate stability (Pavot & Diener, 1993). Discriminant validity was also assessed (Lucas, Diener, & Suh, 1996).

Researchers have also been using explicit self-report measures to assess momentary states such as current mood or feelings of an individual and enduring traits, such as the average mood level or the frequency of positive and negative effects for a specific period of time (e.g., weeks or months)

(Kozma, Stone, Stones, 1990). Beyond the conventional self-report questionnaires, some researchers believe that people's emotions should be measured more frequently and over time by using the experience sampling method (e.g., Reis & Gable, 2000) and that the results aggregated over several periods ultimately provide a more accurate representation of one's quality of life.

Issues Concerning Self-Report Measures of SWB

Two issues are often raised regarding responses by participants to self-report questionnaires. First, self-report measures of SWB rely exclusively on a person's explicit conscious judgmental thoughts. For example, life satisfaction research is concerned with the conscious judgmental processes of evaluating the quality of one's life on the basis of the respondent's unique set of criteria (Shin & Johnson, 1978). Participants' reports of life satisfaction may not reflect their stable or true inner state of well-being. Rather, the reports might reflect judgments that individuals form on the spot, based on information that is temporarily accessible at one point in time, resulting in context effects (Schwarz & Strack, 1999). For example, it has been found that self-report SWB measures are affected by the factors such as the momentary mood of the respondent and the physical surroundings (Schwarz & Strack, 1991). Therefore, the way in which accessible information about an individual's life can influence the judgment depending on how it is used and how accurately the participants can pick up and formulate the accessible information that will be used to endorse global feelings of well-being (cf. Campbell, 1981).

Recently, significant evidence illustrates that individuals process information about themselves and their environment not only in an explicit (i.e., controlled or conscious) manner, but also in an implicit (i.e., automatic or non-conscious) mode (Fazio, 1990; Wilson, Lindsay, & Schooler, 2000). The respondent is not able to report on these cognitive and affective processes because the processes operate outside of subjective awareness (Nisbett & Wilson, 1977). The implicit processes are known to shape a wide variety of behavioral responses and psychological outcomes. For example, the implicit self-esteem measure (Experiment 3, Greenwald & Farnham, 2000) predicted an expected buffering (for those high in self-esteem) on two of four measures of cognitive reactions to manipulated success versus failure. An implicit measure of assessing shyness (Asendorf, Banse, & Mucke, 2002) correlated moderately with the explicit self-ratings, and uniquely predicted spontaneous (but not controlled) shy behavior. Several behavior indicators of anxiety during a stressful speech were also predicted by an implicit measure of anxiety (Egloff & Schmukle, 2002). In addition, Kim et al. (2003) reported that an implicit measure of culturally related attitudes of Korean-American young adults predicted their psychological distress.

Another issue with respect to self-reports is a susceptibility to social desirability or voluntary control. Social desirability has been a major threat to the validity of self-report tests. One cannot completely rule out the effects of self-presentation or other artifacts when using self-report measures

that include self-reported SWB (Larsen & Fredrickson, 1999). Despite efforts to increase the validity of explicit self-report measures, such as controlling for such tendencies by using social desirability scales (Paulhus, 1988), only limited progress has been made in this direction, and efforts to cope with the problem of voluntary distortion or controllability of questionnaire data have met with only moderate success (Holden, Wood, & Tomashewski, 2001).

The Present Study

A primary goal of the current research is introduce a new measure of SWB, the Implicit Life Satisfaction (ILS), hoping to complement existing measures by overcoming some of the shortcomings of self-report measures. First, the implicit measure allows us to tap an implicit aspect of one's satisfaction with life that the respondent may not be consciously aware of due to the introspective limits of self-reports (Egloff & Schmukle, 2002; Greenwald & Banaji, 1995). Second, research has shown that the implicit measure is less susceptible to the social desirability effect and even voluntary distortion (Banse et al., 2001; Kim, 2003).

This paper presents a series of studies that arose from a research program that aims at testing some psychometric and methodological features of the ILS. Study 1 analyzed (a) the internal consistency and temporal stability of the ILS and (b) whether the ILS is affected by social desirability or momentary mood state. Study 2 tested to what extent the type of stimuli for the categories used in the ILS influences the participants' overall performance on the ILS. In Study 3, voluntary controllability on the ILS was tested, focusing particularly on any vulnerability to positive enhancement bias that has been the foremost concern of using self-reported SWB measures. Finally, methodological issues concerning the modification of the conventional IAT method (Greenwald et al., 1998) were tested in Study 4. In addition to the aim of producing a new measurement tool, this research also had theoretical goals for the set of studies: First, whether the implicit and explicit scales correlate, or whether they reflect independent processes; second, examination of the distinctions of scores to determine whether the implicit measures suggest that most people are happy as the explicit measures do (Diener & Diener, 1996).

Definition of Implicit Life Satisfaction

Following a concept borrowed from implicit social cognition (Greenwald & Banaji, 1995), implicit life satisfaction is defined as an individual's non-conscious or automatic evaluations of his or her life. Explicit life satisfaction, in contrast, is a conscious or controlled evaluative judgment of one's life. More elaborately, implicit life satisfaction is conceptualized as introspectively unidentified or inaccurately identified traces or representation of positive and negative life experiences that affect and are processed in one's evaluation of one's own life without conscious awareness.

Implicit Life Satisfaction Measures

(1) The standard Implicit Life Satisfaction (ILS) Measure (ILS-Global): Using the same rationales and paradigm as was used for developing various implicit measures (Asendorf et al., 2002; Banse et al., 2001; Egloff & Schmukle, 2002), the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998) was adapted to provide an implicit measure of evaluation of one's life: The evaluative attributes, GOOD and BAD, were combined with the theoretical category of MY LIFE.

The ILS-Global indirectly measures a global evaluation of a participant's life by assessing the strength of association involving pairs of concepts (i.e., MY LIFE + GOOD vs. MY LIFE + BAD). The relative ease with which a participant performs one association versus another (measured as response latencies) provides an index of the strength of the implicit/automatic association between the two pairs of concepts (Greenwald et al, 1998). For instance, if an individual has a stronger positive evaluation, than a negative evaluation, toward his or her life, the individual performs the classification task more easily and quickly when MY LIFE is paired with GOOD attributes, than when MY LIFE is paired with BAD attributes.

(2) ILS-Unique: In the first screen of the ILS-Unique test, participants were asked to type in the 7 most important domains that they selected from the domain selection form. The computer program automatically used the 7 items as the stimuli for MY LIFE category in the test. The rest of the format and procedure were the same as those for the standard ILS-Global.

SUMMARY OF RESULTS

University students in Australia (European and Asian Australians), United States (European, Asian, Latin, African Americans), and South Korea as well as North Korean defectors in South Korea participated in the study.

The results across four studies in this paper and other studies suggested that the ILS has interesting methodological and favorable psychometric properties. Average internal consistencies of the U. S. sample showed .80 in ranges between .75 and .94 for ILS-Global (N = 7 studies) and .82 for ILS-Unique (with range of .81 to .83, N = 3 studies). Study 1 showed moderate test-retest correlation of .41 (.52 when corrected for attenuation) for the ILS-Global, and .51 (.62 when corrected for attenuation) for the ILS-Unique for an interval of three weeks. In addition, another study (Kim & Diener, 2002) using a South Korean native sample showed an internal consistency of .75 and temporal stability of .41 on the ILS-Global.

As expected, dissociation between the explicit and implicit measures was found in Study 1, 2, and 3. Study 2 revealed that different types of stimuli indeed have a differential effect on participants' performance on the ILS. Study 3 showed that participants could voluntarily control the ILS, indicating a pattern of negative enhancement, but could not do so for positive enhancement even when they were asked to do so and were informed about how the ILS works. Study 4 showed that handedness of

categories as to whether My Life + Good is in the right key or in the left key did not affect the participants' performance on the ILS, and the participants processed My Life as a meaningful evaluative category in the ILS task.

The ILS also demonstrated (a) the construct validity showing theoretically meaningful correlation with neuroticism, optimism, and pessimism; (b) the criterion (predictive) validity by showing that the participants' ILS score correlated with PANAS and daily mood state of the participants assessed by their close friends.

Propensity to Happiness

Diener and Diener (1996) found that most people report happiness when responding to explicit self-report measure. Across several studies, majority of U.S. sample (N=409) describe themselves as more happy than unhappy on the ILS measures. And Kim and Diener (2002) also reported that more than 90 percent of Asian-American and South-Korean samples show the same pattern of implicit happiness. Overall, these results illustrate that most people seem to have a propensity to happiness both at the explicit and implicit level.

Current Research on the ILS: Ethnic and cultural differences

Applications of the ILS for the empirical understanding of SWB were also investigated. The ethnic/cross-cultural differences in SWB were tested, asking a question like "do explicit and implicit measures give the same results across different cultures?" It was found that, although European Americans indicated more satisfaction with their lives on the self-report measures than Asian Americans and East Asians (e.g., South Koreans), they did not show reliable difference on the implicit life satisfaction (ILS). However in the follow-up study, European Australians did show lower explicit life satisfaction than European Americans and indifferent results from South Koreans although the cultural differences on the explicit SWB measures were partially replicated: European Americans reported higher explicit life satisfaction than South Koreans consistently. However on the ILS, the same pattern of cultural indifference was consistently replicated.

Ethnic differences *within the U.S.* were replicated in the explicit measures of SWB when compared other ethnic minority groups with European Americans (Scollon et al., 2004). However, European Americans did not show the same pattern of higher life satisfaction on the ILS. Latin Americans were significantly higher than European Americans and were moreover the highest in the implicit life satisfaction among the ethnic American groups even though they were ranked in the second lowest in the explicit life satisfaction.

Cross-sectional investigation of potential situational influence on the explicit and implicit SWB measures by comparing North Korean defectors (*Before*) with North Korean defectors (*After*) suggested that the explicit life satisfaction is responsive to the temporal situation or context effect, but implicit life satisfaction is not.

Overall, the findings in this series of studies suggest that people's happiness apparently consists of at least two different components: One is the explicit happiness, controlled and cognitive aspects of happiness that are affected by and interact with various life events, and the other with the implicit happiness that is introspectively limited to identification and that is not consciously aware of by an individual at the moment. The next question is which measure really represents one's happiness. I suspect that the two represent multi-facets of one's happiness; both are necessary to function in our overall happiness, but play a different role. Different patterns of ethnic and cultural difference were found in the explicit and implicit aspects of life satisfaction. Future research could tell us far more about the certainty regarding these interesting questions. In conclusion, this study represents an important first step in looking at well-being in an implicit light. I encourage and anticipate future research that deals with the substantial issues that remain to be clarified from this new perspective.

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