

Going beyond self-esteem to predict life satisfaction: The Chinese case

Sylvia Xiaohua Chen, Fanny M. Cheung, Michael Harris Bond and Jin-Pang Leung
Chinese University of Hong Kong, Shatin, New Territories, Hong Kong

The present study examined three fundamental components contributing to life satisfaction among Chinese college students – who you are, how you conceive of yourself, and how you understand the world in which you function. To account for life satisfaction beyond self-esteem, we used two comprehensive measures of personality and social beliefs that have recently established their cross-cultural applicability: the Cross-Cultural Personality Assessment Inventory and the Social Axioms Survey. It was found that the personality variables tapping interpersonal relationship and social axioms tapping perceptions of social contexts were significantly related to life satisfaction over and above its relationship to self-esteem. These and other constructs were discussed as emic and possibly pancultural contributors to subjective well-being.

Key words: life satisfaction, self-esteem, social axioms, the Cross-Cultural Personality Assessment Inventory.

Introduction

The development of positive psychology has stimulated a growing interest in the studies of what constitutes people's happiness and well-being (Diener, 1984; Snyder & McCullough, 2000; Schmuck & Sheldon, 2001), and an increasing body of research has focused on what contributes to people's satisfaction with their lives (Diener & Diener, 1995; Diener *et al.*, 2002; Diener *et al.*, 2003). According to Diener (1984), high subjective well-being (SWB) is a reflection of positive thoughts and feelings about one's life, consisting of three components: frequent positive affect, infrequent negative affect, and a global sense of satisfaction with life. While positive affect and negative affect tap the emotional aspects of SWB, life satisfaction refers to a cognitive, judgmental process, which is an overall evaluation of one's life rather than a summation across specific domains (Diener *et al.*, 1985).

SWB manifests itself in these different forms of evaluating one's life, referred to as 'happiness' in layman's terms by Diener and Oishi (2003). After reviewing many studies in the literature of SWB, Myers and Diener (1995) have concluded that demographic characteristics such as age, sex, race, and income can hardly predict who is happy. Rather, psychological variables such as one's traits, close relationships, and culture provide fuller explanations for happiness.

Among the psychological factors that affect happiness, self-esteem has been consistently found to strongly predict

SWB, especially its important cognitive component of life satisfaction, in all cultures examined (Campbell, 1981; Diener & Diener, 1995). Self-esteem refers to a positive or negative orientation toward the self (Rosenberg, 1965), and reflects a sense of self-regard and self-worth. As defined by Skodol (1998), self-esteem is the 'sense of self-worth, self-respect, and self-acceptance that is usually linked to an expectation of success in life' (p. 378). The positive correlation between self-esteem and life satisfaction has not only been validated in individualistic cultures where serving oneself is given priority over serving one's groups (Diener & Diener, 1995; Lucas *et al.*, 1996; Arrindell *et al.*, 1999), but has been shown to be important in collectivistic cultures like Hong Kong as well (Leung & Leung, 1992; Kwan *et al.*, 1997; Leung & Zhang, 2000). Based on previous research on self-esteem and life satisfaction in collectivistic cultures, we hypothesize that self-esteem is still a significant predictor of life satisfaction in the Chinese context.

Nonetheless, Diener and Diener (1995) showed that the link between self-esteem and life satisfaction is relatively weaker in collectivistic cultures, where one's groups are more emphasized than the self. In collectivistic cultures, as argued by Heine *et al.* (1999), self-esteem is not as important as in Western cultures, for the need to feel good about oneself is subjected to the goal of maintaining one's interdependencies; relevant social relationships are more crucial to how one assesses one's life. In fact, Kwan *et al.* (1997) have confirmed the additive effect of harmonious interpersonal relationships to self-esteem in explaining life satisfaction among both American and Hong Kong college students. Their proposed construct, relationship harmony, refers to the balance and satisfaction in interpersonal relationships, and along with self-esteem mediates the relationship between both the five factors of personality (Costa &

Correspondence: Sylvia Chen, Department of Psychology, Chinese University of Hong Kong, Shatin, New Territories, Hong Kong, SAR, China. Email: sxhchen@psy.cuhk.edu.hk

McCrae, 1992) and also the independent and interdependent self-construals (Markus & Kitayama, 1991) on life satisfaction. Consistent with these findings, Suh (2000) has specified the role of the self in linking culture and SWB; that is, members of individualistic cultures attend more to their internal psychological attributes in making this judgment, whereas those of collectivistic cultures attend more to external social cues while evaluating SWB.

In search of instruments that stress interpersonal relationship and social context so as to tap the interdependent characteristic of collectivist cultures, we propose to use two assessment inventories that encompass such components in their scale construction: the Cross-Cultural Personality Assessment Inventory (previously named Chinese Personality Assessment Inventory; CPAI; Cheung *et al.*, 1996), and the Social Axioms Survey (SAS; Leung *et al.*, 2002; Leung & Bond, 2004). These two instruments have recently established their pancultural applicability, but have not yet been used to account for SWB.

The conceptual framework of the CPAI offers an additive cultural dimension to fundamental personality concepts. It incorporates etic components, which are operationally defined as 'universals' and 'core similarities', along with the emic approach that emphasizes 'a culture-specific orientation' (Sue, 1983, p. 584). To track this conceptual framework, the present study examines the effects of culture-specific personality dimensions as well as universal personality factors on life satisfaction, and further tests the additive power of social axioms to self-esteem and personality constructs in predicting life satisfaction.

Etic personality variables

In a meta-analysis of 137 personality traits and subjective well-being, DeNeve and Cooper (1998) suggested that personality was one of the strongest influences on SWB. As a comprehensive set of trait dimensions, personality organizes people's responses to life events and governs people's emotional responses to momentary changes in emotions. Since life satisfaction is conceptualized as a global evaluation across one's life domains regardless of momentary fluctuations in affect (Diener, 1996), personality as a set of stable traits is likely to exert a strong impact on life satisfaction.

Major personality factors have been shown to be important determinants of life satisfaction (Diener, 1984; Ramanaiah *et al.*, 1997). Four traits have been identified from the profiles of happy people: self-esteem, personal control, optimism, and extraversion (Myers & Diener, 1995). Specifically, optimism and extraversion are found to associate positively with life satisfaction (DeNeve & Cooper, 1998), indicating that optimistic and extraverted people tend to be more satisfied with their lives than pessimistic and introverted people.

The link between optimism and life satisfaction has been examined by many investigators in subjective well-being research (Lucas *et al.*, 1996; Bourland *et al.*, 2000). When optimism is regarded as a dispositional construct, it is a strong predictor of life satisfaction (Curbow *et al.*, 1994). Conversely, its opposite pole, pessimism is found to have significant effects on depression (Chang *et al.*, 1997; Sahin *et al.*, 1998). Although cultural differences exist in unrealistic optimism, with individualistic, independent cultures higher than collectivistic, interdependent cultures (Heine & Lehman, 1995), the relation between optimism and life satisfaction has recently been found in collectivistic cultures as well (Cha, 2003), especially in Chinese culture (Chan *et al.*, 2004).

Evidence in support of extraversion and life satisfaction also abounds (Diener & Lucas, 1999; Lucas & Diener, 2000). The relation between these constructs may be explained by the fact that extraverts are closely tied to other people, and likely to elicit social support that contributes to better mental health (Lu, 1999). Lucas *et al.* (2000) found that extraversion correlated strongly with pleasant affect in a diverse sample of 39 nations, and Ashton *et al.* (2002) argued that it was social attention that represented the central feature of extraversion. Recent findings have shown that extraversion was one of the strongest and most consistent predictors of life satisfaction at the global level (Schimmack, 2003; Schimmack *et al.*, 2004).

Furthermore, there is a large body of research on the relation between locus of control and SWB (DeNeve & Cooper, 1998). In particular, internal locus of control has been found to associate with life satisfaction, whereas external locus of control with stress and depression, as the sense of control and mastery enhances physical and psychological health, and thus quality of life (Mouton & Tuma, 1988; Klonowicz, 2001; Schafer *et al.*, 2003; Wardle *et al.*, 2004). In this study, these etic traits are assessed by the CPAI-2 personality scales of Optimism versus Pessimism, Introversion versus Extraversion, and External versus Internal Locus of Control. Therefore, we predict that life satisfaction will be positively correlated with optimism, extraversion, and internal locus of control.

Cultural personality assessment

In the field of SWB, the role of culture has received increasing attention (Oishi *et al.*, 1999; Diener & Suh, 2000; Diener *et al.*, 2003). Triandis and Suh (2002) have emphasized the influence of culture on personality development, and advocated the importance of including culture-specific traits and investigating other populations different from Western samples. The five-factor model of personality has been a widely used framework to delineate personality, composed of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness (Costa

& McCrae, 1985; 1992; Digman, 1990). However, when personality was investigated in the Chinese context, Cheung *et al.* (2001b) found that the unique factor of Interpersonal Relatedness (IR) was assessed only by the indigenously developed CPAI, but not covered by the Revised NEO-Personality Inventory (NEO-PI-R; Costa & McCrae, 1992). The robustness of the IR factor was not only demonstrated in the joint factor analysis of the CPAI and the NEO-PI-R in the normative Chinese sample (Cheung *et al.*, 2001b), but by using the English version CPAI and the NEO-FFI in two English-speaking samples as well (Cheung *et al.*, 2003).

Since joint factor analyses indicated that the Openness domain was not represented in the CPAI scales (Cheung *et al.*, 2001b; 2003), the revised version, the CPAI-2 was created, adding scales related to Openness and with revised names for some scales. Factor analyses were conducted on the personality scales of the CPAI-2, whose scales loaded on four broad personality domains, namely Social Potency, Dependability, Accommodation, and Interpersonal Relatedness. Each personality domain consists of relevant personality scales to provide adequate and sufficient representation of these traits in Chinese cultural contexts.

Emic personality variables

Social Potency and Dependability in the CPAI-2 are personality domains commonly found across cultures, whereas Accommodation and Interpersonal Relatedness are culture-specific dimensions (Cheung *et al.*, 1996; Cheung *et al.*, 2001b; Cheung & Leung, 1998). The unique personality dimension identified by the CPAI is Interpersonal Relatedness, including the scales of Traditionalism versus Modernity, *Ren Qing* (relationship orientation), Social Sensitivity, Discipline, Harmony, and Thrift versus Extravagance:

The characteristics associated with these personality scales reflect a strong orientation toward instrumental relationships; emphasis on occupying one's proper place and engaging in appropriate action; avoidance of internal, external, and interpersonal conflict; and adherence to norms and traditions. (Cheung *et al.*, 2001b, p. 425)

The construct of interpersonal relatedness focuses upon one's orientation towards interpersonal interactions and social orientations, with the goal of these exchanges being to avoid interpersonal conflict and to maintain social harmony. In particular, the personality scales of Harmony, denoting one's inner peace of mind and contentment, and Social Sensitivity, measuring the extent to which individuals are sensitive to others' feelings (Cheung, 2001), are closely related to the construct of relationship harmony proposed by Kwan *et al.* (1997).

As relationship harmony was found to associate with life satisfaction positively in their Hong Kong and US samples

of college students, we predict that harmony and social sensitivity will be significantly associated with life satisfaction among Chinese college students. This line of reasoning is supported by empirical findings that close relationships with friends and family usually provide social support that buffers illness and misery (Lin *et al.*, 1979; Sommer, 1990; Russell & Cutrona, 1991), especially in collectivistic cultures (Thompson *et al.*, 2002).

Social beliefs

Although the global sense of satisfaction with life denotes a cognitive process of evaluation, the cognitive component of beliefs has rarely been explored as a pathway to life satisfaction. Myers and Diener (1995) have proposed an appraisal-based theory of happiness that recognizes the importance of three elements to happiness: adaptation, cultural worldview, and personal goals. As social beliefs represent general beliefs about how the world functions (Leung *et al.*, 2002), the present study seeks to explain life satisfaction from the perspective of one's culturally grounded view of the world and one's assessment of the general social context in which one functions by adding social beliefs into the prediction model. We suggest that life satisfaction derives not only from one's evaluation of the self, but also from how one assesses the world outside the self. This proposition is especially important in collectivistic cultures like China, as members of East Asian cultures base their SWB judgment more on external information compared with those of Western cultures (Suh, 2000).

The construct of social beliefs have been proposed by Leung *et al.* (2002) to account for a variety of social behaviors. Their construct is termed 'social axioms', defined as, 'generalized beliefs about oneself, the social and physical environment, or the spiritual world, and are in the form of an assertion about the relationship between two entities or concepts' (p. 289). Based on cross-cultural studies in 40 countries, Leung and Bond (2004) have identified a pan-cultural, five-factor structure of social axioms, viz., social cynicism, social complexity, reward for application, religiosity (previously named spirituality), and fate control.

Among the five factors of social axioms, two of them are expected to associate with life satisfaction: social cynicism and fate control. Social cynicism reflects a negative view of human nature, a biased attitude against some groups of people, a mistrust of social institutions, and a disregard of ethical means to achieve an end (Leung *et al.*, 2002). In other research paradigms, cynicism has been shown to associate with interpersonal negativity and hostility (Nowack, 1991; Plomin *et al.*, 1992), and this pattern of pessimism about social relationships is more likely to result in psychosocial deficit or vulnerability, leading to less social support across life domains, greater reported stress, and poorer mental health outcomes (Smith *et al.*, 1988). For

example, Mitchelson and Burns (1998) found that cynicism was positively correlated with negative forms of perfectionism, and in turn related to a decreased sense of overall satisfaction with life and satisfaction with self. Therefore, we predict that social cynicism is negatively related to life satisfaction.

Another factor, fate control, is a belief in the predetermination of life events along with the possibility of exercising influence over these outcomes through various practices. This is a belief constellation that seems closely tied to locus of control of reinforcement (Leung *et al.*, 2002), specifically external locus of control. Leung *et al.* (2002) distinguished the two constructs: locus of control refers to 'the belief whether one can control the events happening to oneself', whereas fate control has a broader scope including 'the additional theme that events are both predetermined and predictable' (p. 295), which combines locus of control, predictability, and fatedness.

In the SWB literature, Diener (1984) has suggested that perceived control is positively associated with life satisfaction, as the feeling of control over one's life empowers people to deal effectively with life circumstances (Lefcourt, 1991), or arises because of successful past attempts at exercising control. Based on the above theoretical conceptualization, we predict that fate control will be negatively related to life satisfaction.

In summary, the present study focuses on the cognitive evaluation of SWB by examining three major components contributing to the global sense of satisfaction with life: who you are (personality), how positively you conceive of yourself (self-esteem), and how you make sense of the world (social axioms). We aim at going beyond self-esteem to account for life satisfaction in a collectivist culture, particularly examining the effects of personality variables and social belief dimensions in the Chinese context.

Method

Participants

A total of 359 college students (172 males and 148 females, with 39 unspecified) from three universities in Wuhan, Mainland China participated in the present study. They were Chinese students originally from 25 provinces of China. Their mean age was 19.06 years ($SD = 0.94$). All were invited to participate in the study on a voluntary basis.

Instruments

Satisfaction with Life Scale (SWLS). Life satisfaction is assessed by a 6-item Likert scale, combining the SWLS (Diener *et al.*, 1985) and a global life satisfaction question. The SWLS consists of five items with a coefficient alpha

0.87, and the global measure is from the Delighted-Terrible Scale, a single-item assessment of life as developed by Andrews and Withey (1976). The Chinese version adopted by Leung and Leung (1992) was used in this study. Responses for all six items were on a 7-point scale, with 1 indicating *strongly disagree* and 7 indicating *strongly agree*. The alpha reliability coefficient for the SWLS in the current sample was 0.75.

Rosenberg's Self-Esteem Scale (SES). Rosenberg's 1965 10-item self-esteem scale was used to assess one's orientation toward the self. Its average reliability coefficient was greater than 0.80 (Rosenberg, 1965). Items were anchored with a 5-point scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The present study adopted the Chinese version used by Kwan *et al.* (1997) in their study. About half of the items were reversed to minimize the possibility of acquiescence response set. The reliability coefficient was 0.83 in this study, after excluding the item with negative item-total correlation as explained in the Results.

The Cross-Cultural Personality Assessment Inventory (CPAI-2). This study used the CPAI-2 (Cheung *et al.*, 2001a; Cheung & Cheung, 2003), which consists of 28 personality scales and three validity scales with a total of 341 items. There are four major domains of personality: Social Potency (e.g. 'When in a group of people, I am good at coming up with new ideas'), Dependability (e.g. 'Sometimes I would be depressed and in pain for no reason'), Accommodation (e.g. 'I seldom bear grudges'), and Interpersonal Relatedness (e.g. 'I try my best to maintain harmony in my family because I believe that if a family lives in harmony, all things will prosper'). Each factor contains specific personality scales at the facet level.

The average Cronbach alphas for the personality scales were 0.69 and 0.70 for the Chinese sample and the Hong Kong sample, respectively (Cheung *et al.*, 2001b). As the CPAI-2 was originally developed in Chinese, the Chinese version with simplified Chinese characters was used in this study without translation. Respondents were asked to answer each item which was a statement describing a personal characteristic or typical behavior using a *yes-or-no* format. In this study, the range of Cronbach α for the 28 CPAI-2 personality scales was 0.42 to 0.83, with an average of 0.61.

Social Axioms Survey (SAS). The SAS was developed by Leung *et al.* (2002) to measure general social beliefs with 182 items. This study used the short version of the SAS containing 25 items consisting of the five highest loading items from each of the five factors in the original Hong Kong sample (Leung *et al.*, 2002). There are five factors in both versions, viz., social cynicism (e.g. 'Powerful people tend to exploit others'), reward for application (e.g. 'One

will succeed if he/she really tries'), social complexity (e.g. 'Human behavior changes with the social context'), fate control (e.g. 'All things in the universe have been determined'), and religiosity (e.g. 'Belief in a religion makes people good citizens').

The average Cronbach alpha coefficients for the SAS dimensions were 0.76, 0.65, 0.64 and 0.60 for the Hong Kong, Venezuela, Japan, and the USA samples, respectively (Leung *et al.*, 2002). Among the three language versions developed (i.e. Chinese, English and Spanish), the Chinese version was used without translation in the present study. All the responses were made on a 5-point scale, ranging from *strongly disbelieve* (1) to *strongly believe* (5). The Cronbach α for the five SAS factors were 0.59, 0.48, 0.62, 0.42, and 0.32, respectively.

Procedure

The questionnaire sets were distributed to the participants and collected in class on a self-report basis. All participants were instructed to indicate their age, gender, province of origin, year and major of study, and affiliated university. They were also requested to read the instructions stated on the questionnaire carefully before endorsing their responses and not to discuss with others during the measurement session. In order to encourage honest responding, it was emphasized that all the responses were completely anonymous and there were no right or wrong answers to any of the questions.

Results

Preliminary analyses

Three validity scales of the CPAI-2 including Infrequency, Good Impression, and the Response Consistency Index were used to screen cases for inconsistent answers. Specifically, Infrequency assesses whether one's responses are very different from most others. Extremely high scores indicated peculiar behavior patterns opposite to the majority of the respondents, such as malingering or random responses, and were treated as invalid. Good Impression measures respondents' tendency to present favorable images. Excessively high scores suggested the attempt to exaggerate strengths and conceal weakness, thus considered invalid. The Response Consistency Index is a measure of respondents' accuracy and consistency in answering questions. Extremely low scores reflected a careless and random manner and were also regarded as invalid. Cases with more than one missing item from each scale including personality scales of the CPAI-2 were excluded. As a result, 40 cases were discarded, so that a total of 319 were entered into subsequent analyses.

Each scale was examined for internal consistency in the current sample. One item ('I wish I could have more respect for myself') from Rosenberg's Self-Esteem Scale yielded a negative item-total correlation, an outcome that might have arisen from the complex structure of the translated sentence. Cheng and Hamid (1996) have pointed out the syntax error of this item in the translated scale of the Chinese version that conveyed equivocal meaning. Consequently, this item was excluded from further analyses.

The means, standard deviations and Cronbach alpha coefficients of life satisfaction, self-esteem, each personality scale of the CPAI-2, and each factor of social axioms are presented in Table 1. Two possible reasons might explain the low alpha in a few scales of the CPAI-2 and the SAS: First, reliability is a function of the length of a scale (Allen & Yen, 1979). The number of items in some of the CPAI-2 scales and the SAS factors is quite small, which might result in their low reliability coefficients. Second, the concepts measured by SAS factors and some CPAI-2 scales encompass a broad range of psychological phenomena, such that the intercorrelations between items might be relatively weak within a given scale. The item-total correlations in these scales (ranging from 0.02 to 0.56) and factors (ranging from 0.09 to 0.42) were all positive, indicating that the items within each of these scales were measuring the underlying construct in the same direction. Moreover, the CPAI-2 and the SAS are well-validated instruments in previous research (Cheung *et al.*, 2001b; Cheung *et al.*, 2003; Leung & Bond, 2004). For instance, Zhang and Bond (1998) found that the indigenous CPAI facets could significantly predict filial piety over and above the five factors of the NEO Five Factor Inventory (Costa & McCrae, 1992). Singelis *et al.* (2002) provided convergent and divergent validity of the SAS using measures of interpersonal trust, cognitive flexibility, locus of control, paranormal beliefs, social desirability and behavioral items.

Correlations among the variables

Table 1 also shows the Pearson correlation coefficients of life satisfaction with other variables assessed in this study.¹ As expected, self-esteem was positively associated with life satisfaction, $r_{(317)} = 0.39$, $p < 0.001$.

The correlation coefficients between life satisfaction and personality variables of the CPAI-2 varied across scales. Of these, Optimism versus Pessimism had the strongest correlation with life satisfaction, $r_{(317)} = 0.34$, $p < 0.001$, supporting our prediction. That is, optimistic people experienced more life satisfaction than pessimistic individuals. Additionally, Internal versus External Locus of Control and Extraversion versus Introversion were significantly related to life satisfaction, $r_{(317)} = 0.19$ and 0.14, respectively, $p's < 0.01$, findings which are consistent with our hypotheses.

Table 1 Means, standard deviations, reliability coefficients (α), correlations of SES, CPAI-2, and SAS with SWLS

Measure	Mean	Standard deviation	α	Correlation with SWLS
SWLS	3.12	0.96	0.75	–
SES	3.41	0.66	0.83	0.39***
CPAI-2				
I: Social Potency				0.14**
Novelty	7.03	2.40	0.73	0.03
Diversity	7.90	1.82	0.60	0.07
Divergent thinking	6.79	2.02	0.54	0.10*
Leadership	4.76	2.46	0.69	0.13*
Logical versus affective orientation	6.91	2.12	0.59	0.14**
Aesthetics	6.25	2.16	0.62	0.07
Extraversion versus introversion	4.65	2.74	0.76	0.14**
Enterprise	4.68	2.47	0.67	0.22***
II: Dependability				0.33***
Responsibility	4.59	2.48	0.69	0.27***
Emotionality	4.87	2.03	0.54	–0.22***
Inferiority versus self-acceptance	6.40	4.28	0.83	–0.33***
Practical mindedness	7.03	2.15	0.49	0.21***
Optimism versus pessimism	5.89	2.18	0.60	0.34***
Meticulousness	4.90	2.43	0.66	0.18**
Face	5.40	2.40	0.62	–0.22***
Internal versus external locus of control	5.65	2.08	0.62	0.19***
Family orientation	6.60	1.92	0.58	0.19***
III: Accommodation				0.13**
Defensiveness (Ah-Q Mentality)	2.94	2.24	0.69	–0.24***
Graciousness versus meanness	6.85	2.13	0.64	0.28***
Interpersonal tolerance	6.98	2.27	0.68	0.14**
Self versus social orientation	5.13	2.38	0.69	–0.11*
Veraciousness versus slickness	7.13	2.16	0.66	0.14**
IV: Interpersonal Relatedness				–0.00
Traditionalism versus modernity	4.41	2.37	0.53	0.02
Ren Qing (relationship orientation)	8.44	1.95	0.42	–0.01
Social sensitivity	7.14	1.99	0.50	0.19***
Discipline	4.72	2.00	0.47	–0.05
Harmony	10.23	2.17	0.52	0.17**
Thrift versus extravagance	6.61	1.99	0.56	0.01
SAS				
Social cynicism	2.95	0.61	0.59	–0.15**
Reward for application	3.65	0.61	0.62	0.14**
Social complexity	3.92	0.46	0.48	–0.14**
Fate control	2.74	0.55	0.32	0.08
Religiosity	2.61	0.55	0.42	0.04

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

CPAI, Cross-Cultural Personality Assessment Inventory (previously named Chinese Personality Assessment Inventory); SAS, Social Axioms Survey; SES, Rosenberg's Self-Esteem Scale; SWLS, Satisfaction with Life Scale.

The emic personality variables, Social Sensitivity and Harmony, also showed significant correlations with life satisfaction, $r_{(317)} = 0.19$ and 0.17 , respectively, p 's < 0.01 . Among the social axioms, social cynicism was negatively related to life satisfaction, $r_{(317)} = -0.15$, confirming one of our two hypotheses.

Multiple regression analysis

Hierarchical multiple regression was conducted to predict life satisfaction in the most economical way possible, given the present sets of predictor variables.² In the first block, gender and age were entered to control for the effects of

Table 2 Hierarchical regression model of self-esteem, personality, and social axioms on life satisfaction

Variables	Block 1 β	Block 2 β	Block 3 β	Block 4 β
Gender	0.04	0.10	0.08	0.05
Age	0.02	0.03	0.03	0.04
Self-Esteem		0.41***	0.33***	0.32***
Social Potency			-0.07	-0.07
Dependability			0.26***	0.29***
Accommodation			0.15**	0.20**
Interpersonal Relatedness			0.05	0.06
Social Cynicism				0.01
Reward for Application				0.01
Social Complexity				-0.07
Fate Control				0.18**
Religiosity				-0.01
R^2	0.00	0.16	0.23	0.27
F change	0.30	61.01***	6.99**	2.71*
d.f.	2/316	1/315	4/311	5/306

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

demographic characteristics. Self-esteem was entered into the second block to test if it contributed significant variance to life satisfaction. Entered into the third block were the four personality factors. The fourth block contained the five factors of social axioms to test their additive effects on life satisfaction.

Regression findings showed that the overall model comprising self-esteem, personality, and social axioms explained 26.5% of the total variance in life satisfaction, $R^2 = 0.27$, adjusted $R^2 = 0.24$, $F_{12,306} = 9.21$, $p < 0.001$. Table 2 presents the regression results.

In block 1, gender or age did not have significant effects on the criterion variable, indicating that the respondents' demographic characteristics did not predict levels of life satisfaction. After controlling for demographics, self-esteem constituted a strong predictor for life satisfaction, as it contributed a significant amount of variance, $\Delta R^2 = 0.16$, $F_{3,315} = 20.57$, $p < 0.001$.

Among the four personality factors, Dependability and Accommodation were significant, p 's < 0.05 . Finally, social axioms as a block was significant, indicating that social axioms predicted life satisfaction over and above self-esteem and personality effects. Of the five dimensions, fate control had a positive relation with life satisfaction, whereas that of social cynicism did not reach significance. That is, with demographic, self-esteem and personality variables held constant, higher levels of belief in fate control led to a higher level of life satisfaction.

Discussion

Our results confirmed that self-esteem was still an important and significant predictor of life satisfaction in this

collectivist culture. However, the strength of relationship between them was only moderate in our study, $r = 0.39$, a coefficient similar in magnitude to what was found in the Hong Kong sample by Kwan *et al.* (1997), viz., $r = 0.38$. Both correlations are weaker than the strong correlation of 0.47 for the entire sample of 31 nations, as reported by Diener and Diener (1995). They found considerably stronger correlations, especially in more individualistic cultures like the USA, where, for instance, the correlation between self-esteem and life satisfaction was 0.55 in an adult sample (Campbell, 1981) and 0.54 in a sample of college students (Kwan *et al.*, 1997).

As self-esteem reflects how one evaluates the self, the extent to which one is satisfied with the self constitutes an important component of satisfaction with one's own life panculturally. The weaker link between self-esteem and life satisfaction in collectivist cultures indicates that there is more to life under this cultural logic than the self; that is, self-regard and self-worth are not as crucial in cultures that de-emphasize the self. What contributes to life satisfaction in collectivist cultures is not just psychological variables related to the self concept, but also constructs that stress interpersonal relationship and social context. The use of the CPAI-2 and the SAS has demonstrated the additive value of such predictors from Chinese personality measures and social axioms.

Due to the large number of personality scales in the CPAI-2, we examined the relations between personality traits and life satisfaction at two levels: bivariate correlational analysis at the facet level, and multiple regression analysis at the factor level. At the facet level, the correlational results supported our predictions about the relationship between life satisfaction and personality variables.

Particularly, the positive correlations of life satisfaction with extraversion and optimism were consistent with previous research. At the level of personality factors, the Dependability factor (including Responsibility, Emotionality, Inferiority vs Self-Acceptance, Practical Mindedness, Optimism vs Pessimism, Meticulousness, Face, Internal vs External Locus of Control, and Family Orientation), and the Accommodation factor (including Defensiveness (Ah-Q Mentality), Graciousness vs Meanness, Interpersonal Tolerance, Self vs Social Orientation and Veraciousness vs Slickness) significantly predicted life satisfaction over and above that predictability provided by self-esteem.

To a certain extent, these two CPAI factors are associated with some factors of the five-factor model. Dependability is related to both Neuroticism (Emotional Stability) and Conscientiousness, and Accommodation is partly related to Agreeableness (Cheung *et al.*, 2001b). Conscientiousness and agreeableness have also been shown to associate with life satisfaction positively (DeNeve & Cooper, 1998). Yet, they are different in the sense that Dependability and Accommodation not only encompass personality scales that represent etic traits, but also include indigenously derived concepts such as Face and Defensiveness (Ah-Q Mentality). The inclusion of emic characteristics captures more fine-grained personality variables that are culturally relevant in the study of Chinese people.

Etic personality variables

The correlation of optimism with life satisfaction was the strongest among the personality variables in this study. Optimism versus Pessimism assesses one's degree of positive or negative viewpoint (Cheung, 2001). It is logical to find that optimistic people have a more positive attitude towards the world and life, and are more confident about the self and the future compared with pessimistic individuals. The tendency to assess life in a positive way leads them to find life full of enjoyment, and interpret their experiences as happy, productive, and fulfilling, thereby contributing to high levels of life satisfaction. Previous studies have shown that optimism was related to positive mood and inversely related to negative moods, with the stability of optimism over time leading to positive psychological outcomes (King *et al.*, 1997). Thus, our finding of the positive association between optimism and life satisfaction has confirmed the importance of the link between the two constructs.

Interestingly, the personality scale of Responsibility also had a moderate correlation with life satisfaction, although it has rarely been linked to subjective well-being in previous research. Responsibility assesses the degree to which an individual can be relied on to carry out tasks and achieve goals (Cheung, 2001). Responsible individuals tend to plan ahead, work seriously, concentrate on their goals and show

trustworthiness to others (Bond & Forgas, 1984). Consequently, they are often more likely to achieve positive outcomes and realize their goals in interpersonal domains of life compared with those low in responsibility. In the study of positive psychology (Snyder & Lopez, 2002), responsibility has been considered to be one of the civic virtues, a socialized consequence of institutions that drive individuals to better citizenship, thereby enhancing individuals' positive subjective experience of well-being and satisfaction (Emmons & Shelton, 2002). The emergence of Responsibility as an important trait relating to life satisfaction has expanded our understanding of the dynamics underpinning one's satisfaction with life. Cross-cultural comparisons will be needed to assess if its weight in determining one's life satisfaction is greater in collectivist cultures, as has been found for interpersonal relationships by Bond and Forgas (1984).

Emic personality characteristics

Among the significant correlates of life satisfaction, Harmony and Social Sensitivity are CPAI personality scales under the factor of Interpersonal Relatedness. These facets are of specific interest to Chinese culture, but not covered in previous personality inventories (Cheung *et al.*, 1996; 2001b). These personal characteristics reflect a strong orientation toward one's interpersonal relationships and a vigilant concern about one's public image. They are aligned with the emphasis on interdependence in the collectivist Chinese culture, where harmony is valued and interpersonal conflict is avoided. As high scorers of Social Sensitivity tend to be empathic and approachable, it is relatively easy for them to get along with other people and they are likely to maintain harmonious social relationships. A satisfactory social relationship therefore contributes to satisfaction in a broader domain, one's life. Although the personality scale of Harmony parallels Kwan *et al.*'s (1997) construct, relationship harmony which focuses on assessing achieved relationship with five significant others, Harmony as measured by the CPAI also taps into one's inner peace of mind and contentment in addition to one's achieved interpersonal harmony (Cheung, 2001), thereby containing both intrapersonal and interpersonal components.

Two other emic personality traits, Face and Defensiveness (Ah-Q Mentality), which are also salient in interpersonal contexts, were found to have negative associations with life satisfaction. As a dominant concept in understanding social behavior in Chinese culture, Face addresses the concern for one's image in public; Defensiveness (Ah-Q Mentality) is an indigenous measure of avoidance mechanisms (Cheung, 2001). In other words, Chinese people who are too self-protective, and over-concerned about their face tend to experience lower satisfaction with their lives. The sense of self-awareness and the need for accommodating

others elicit self-protective mechanisms and defensive maneuvering. The common characteristic of these two personality variables is a strong self-consciousness about one's public image. This attempt to avoid internal, external, and interpersonal conflict may instead create extra strain and constant demand on oneself, yielding negative outcomes on their mental health.

Social axioms

The findings from hierarchical regression demonstrated that social axioms added predictive power over and above the effects of self-esteem and personality on life satisfaction among these Chinese respondents. In other words, one's assessment of the social world 'out there' can explain variance in addition to self-evaluation as measured by self-esteem and personality in one's overall judgment about life.

Contrary to our previous hypothesis on the effects of social axioms, fate control predicted life satisfaction positively in the regression analysis, whereas its bivariate correlation was not significant. A statistical explanation may account for this finding based on suppression (i.e. relationships among independent variables that can affect their relationships with the dependent variable in multiple regression) such that the regression effects are inconsistent with individual variables acting alone.

Conceptually, however, the components of predictability and predeterminedness within the construct of fate control could account for its relationship to life satisfaction. Despite the prevalent notion in Western cultures that exerting control over life events is important to one's sense of self-worth (DeNeve & Cooper, 1998) and the previous findings in SWB research that internal locus of control related positively to life satisfaction (Diener, 1984), the current Chinese sample indicated that with other variables being held constant, the more people believed in fate control, the more likely they were to be satisfied with their lives. Given this pattern of results, as DeNeve and Cooper (1998) put it, perhaps what is most important to SWB is not simply the tendency to experience positive or negative emotions, but the tendency to attribute one's emotions, others' behaviors and life events in self-protective ways. The belief that events in one's life are predetermined by fate may incline people towards acceptance of what happens, inner peace of mind, and tranquility. This coping strategy of believing in fate may be a cultural heritage from the Chinese traditional philosophy of Daoism that promotes the acceptance of one's fate (Lee, 2003). Further studies are needed to determine if our results on fate control are specific to Chinese culture or also exist in other cultures.

The present study has revealed the importance of the three major components contributing to life satisfaction: personality, general self-concept or self-view, and world-view. Nevertheless, there is a substantial amount of vari-

ance in life satisfaction unexplained by the present model. The sources of these unexplained effects may derive from variables not covered by most personality measures. Hence, future research needs to integrate other psychological variables to provide further explanations over and above self-esteem and search beyond psychological predictors to account for the fundamental personal outcome of life satisfaction.

Acknowledgments

We are grateful to Wai Chan and Shu Fai Cheung for their valuable advice on the statistical analyses, and to the Editor, the two reviewers, and Sowan Wong for their helpful comments on earlier versions of the manuscript.

End notes

1. Some of the CPAI-2 scales are scored in a reverse direction so as to guard against the influence of an acquiescent response set. For the bi-directional scales, the first word of the title refers to high score on that scale (e.g. for Inferiority vs Self-acceptance, high score means inferiority.) The direction of individual scales was adjusted in the computation of factor scores.
2. In addition to entering personality factors into the regression analysis, we also conducted hierarchical regression using the personality scales of the CPAI-2 as predictors. As the CPAI-2 consists of 28 personality scales at the facet level, to enter all of them into the third block would have inflated the R^2 with a great number of independent variables. Hence, we selected personality variables found to correlate with life satisfaction in previous research, e.g. Optimism versus Pessimism, Introversion versus Extraversion, and External versus Internal Locus of Control, those tapping interpersonal relationship such as Harmony and *Ren Qing* (Relationship Orientation), and those indigenously developed scales such as Face and Defensiveness (Ah-Q Mentality). The regression model accounted for 31.1% of the total variance in life satisfaction, $R^2 = 0.31$, adjusted $R^2 = 0.25$, $F_{26,292} = 5.08$, $p < 0.001$. Among the personality variables, Responsibility, Defensiveness (Ah-Q Mentality), and *Ren Qing* (Relationship Orientation) were the significant contributors to life satisfaction, p 's < 0.05 , while the effect of Face was marginally significant, $p = 0.055$.

References

- Allen, M. J. & Yen, W. M. (1979). *Introduction to Measurement Theory*. Monterey, CA: Brooks/Cole.
- Andrews, F. M. & Withey, S. B. (1976). *Social Indicators of Well-Being: America's Perception of Life Quality*. New York: Plenum Press.
- Arrindell, W. A., Heesink, J. & Feij, J. A. (1999). The Satisfaction With Life Scale (SWLS): Appraisal with 1700 health young adults in The Netherlands. *Personality and Individual Differences*, 26, 815–826.

- Ashton, M. C., Lee, K. & Paunonen, S. V. (2002). What is the central feature of extraversion? Social attention versus reward sensitivity. *Journal of Personality and Social Psychology*, *83*, 245–251.
- Bond, M. H. & Forgas, J. (1984). Linking person perception to behavior intention across cultures: The role of cultural collectivism. *Journal of Cross-Cultural Psychology*, *15*, 337–352.
- Bourland, S. L., Stanley, M. A., Snyder, A. G., et al. (2000). Quality of life in older adults with generalized anxiety disorder. *Aging and Mental Health*, *4*, 315–323.
- Campbell, A. (1981). *The Sense of Well-Being in America: Recent Patterns and Trends*. New York: McGraw-Hill.
- Cha, K. H. (2003). Subjective well-being among college students. *Social Indicators Research*, *62–63*, 455–477.
- Chan, W., Kowk, K. F. & Yeung, S. M. A. (2004). Facing challenging circumstance: Optimism and job insecurity. *Journal of Psychology in Chinese Societies*, *5*, 81–95.
- Chang, E. C., Maydeu-Olivares, A. & D’Zurilla, T. J. (1997). Optimism and pessimism as partially independent constructs: Relationship to positive and negative affectivity and psychological well-being. *Personality and Individual Differences*, *23*, 433–440.
- Cheng, S. T. & Hamid, N. P. (1996). An error in the use of translated scales: The Rosenberg self-esteem scale for Chinese. *Perceptual and Motor Skills*, *81*, 431–434.
- Cheung, F. M. (2001). *The Chinese Personality Assessment Inventory-2: Scale Descriptions*. (Available from F. M. Cheung, Department of Psychology, Chinese University of Hong Kong, Hong Kong SAR; <http://www.psy.cuhk.edu.hk/~cpaiweb/publicdocument/PublicFiles.htm>).
- Cheung, F. M. & Cheung, S. F. (2003). Measuring personality and values across cultures: Imported versus indigenous measures. In: W. J. Lonner, D. L. Dinnel, S. A. Hayes & D. N. Sattler, eds. *Online Readings in Psychology and Culture* (Unit 6, Chapter 5), (<http://www.wvu.edu/~culture/Cheung.htm>), Bellingham, Washington, USA: Center for Cross-Cultural Research, Western Washington University.
- Cheung, F. M. & Leung, K. (1998). Indigenous personality measures: Chinese examples. *Journal of Cross-Cultural Psychology*, *29*, 233–248.
- Cheung, F. M., Leung, K., Fan, R. M., Song, W. Z., Zhang, J. X. & Zhang, J. P. (1996). Development of the Chinese personality assessment inventory. *Journal of Cross-Cultural Psychology*, *27*, 181–199.
- Cheung, F. M., Leung, K., Song, W. Z. & Zhang, J. X. (2001a). *The Chinese Personality Assessment Inventory-2 (CPAI-2)*. (Available from F. M. Cheung, Department of Psychology, Chinese University of Hong Kong, Hong Kong SAR; <http://www.psy.cuhk.edu.hk/~cpaiweb/publicdocument/PublicFiles.htm>).
- Cheung, F. M., Leung, K., Zhang, J. X., et al. (2001b). Indigenous Chinese personality constructs: Is the five-factor model complete? *Journal of Cross-Cultural Psychology*, *32*, 407–433.
- Cheung, F. M., Cheung, S. F., Leung, K., Ward, C. & Leung, F. (2003). The English version of the Chinese Personality Assessment Inventory. *Journal of Cross-Cultural Psychology*, *34*, 433–452.
- Costa, P. T. Jr & McCrae, R. R. (1985). *The NEO Personality Inventory Manual*. Odessa, FL: Psychological Assessment Resources.
- Costa, P. T. Jr & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Curbow, B. & Somerfield, M. R. (1994). Personal changes, dispositional optimism, and psychological adjustment to bone marrow transplantation. *Journal of Behavioral Medicine*, *16*, 423–443.
- DeNeve, K. M. & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin*, *124*, 197–229.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*, 542–575.
- Diener, E. (1996). Traits can be powerful but are not enough: Lessons from subjective well-being. *Journal of Research in Personality*, *30*, 389–399.
- Diener, E. & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, *68*, 653–663.
- Diener, E. & Lucas, R. E. (1999). Personality and subjective well-being. In: D. Kahneman, E. Diener & N. Schwarz, eds. *Well-Being: the Foundations of Hedonic Psychology*, pp. 213–229. New York: Russell Sage Foundation.
- Diener, E. & Oishi, S. (2003). Are Scandinavians happier than Asians: Issues in comparing nations on subjective well-being. In: F. Columbus, ed. *Asian Economic and Political Issues*, *10*, pp. 1–25. Hauppauge, NY: Nova Science Publishers.
- Diener, E. & Suh, E. M. (2000). *Culture and Subjective Well-Being*. Cambridge, MA: MIT Press.
- Diener, E., Emmons, R. A., Larsen, R. J. & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*, 71–75.
- Diener, E., Lucas, R. E. & Oishi, S. (2002). Subjective well-being: The science of happiness and life satisfaction. In: C. R. Snyder & S. J. Lopez, eds. *Handbook of Positive Psychology*, pp. 463–473. London: Oxford University Press.
- Diener, E., Oishi, S. & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. In: S. T. Fiske, D. L. Schacter & C. Zahn-Waxler, eds. *Annual Review of Psychology*, Vol. 54, pp. 403–425. Palo Alto, CA: Annual Reviews.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. In: M. R. Rosenzweig & L. W. Porter, eds. *Annual Review of Psychology*, Vol. 41, pp. 417–440. Palo Alto, CA: Annual Reviews.
- Emmons, R. A. & Shelton, C. M. (2002). Gratitude and the science of positive psychology. In: C. R. Snyder & S. J. Lopez, eds. *Handbook of Positive Psychology*, pp. 459–471. London: Oxford University Press.
- Heine, S. J. & Lehman, D. R. (1995). Cultural variation in unrealistic optimism: Does the West feel more invulnerable than the East? *Journal of Personality and Social Psychology*, *68*, 595–607.
- Heine, S. J., Lehman, D. R., Markus, H. R. & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, *106*, 766–794.

- King, K. B., Rowe, M. A., Kimble, L. P. & Zerwic, J. J. (1997). Optimism, coping and long-term recovery from coronary artery surgery in women. *Research in Nursing and Health*, 21, 15–26.
- Klonowicz, T. (2001). Discontented people: Reactivity and locus of control as determinants of subjective well-being. *European Journal of Personality*, 15, 29–47.
- Kwan, V. S. Y., Bond, M. H. & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology*, 73, 1038–1051.
- Lee, Y. T. (2003). Daoistic humanism in ancient China: Broadening personality and counseling theories in the 21st century. *Journal of Humanistic Psychology*, 43, 64–85.
- Lefcourt, H. M. (1991). Locus of control. In: J. P. Robinson, P. R. Shaver & L. R. Wrightsman, eds. *Measures of Personality and Social Psychological Attitudes*, pp. 413–500. San Diego, CA: Academic Press.
- Leung, K. & Bond, M. H. (2004). Social axioms: A model of social beliefs in multi-cultural perspective. In: M. P. Zanna, ed. *Advances in Experimental Social Psychology*, Vol. 36, pp. 119–197. San Diego, CA: Elsevier Academic Press.
- Leung, J. P. & Leung, K. (1992). Life satisfaction, self-concept, and relationship with parents in adolescence. *Journal of Youth and Adolescence*, 21, 653–665.
- Leung, J. P. & Zhang, L. W. (2000). Modeling life satisfaction of Chinese adolescents in Hong Kong. *International Journal of Behavioral Development*, 24, 99–104.
- Leung, K., Bond, M. H., de Carrasquel, S. R., et al. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology*, 33, 286–302.
- Lin, N., Simeone, R. S., Ensel, W. M. & Kuo, W. (1979). Social support, stressful life events, and illness: A model and an empirical test. *Journal of Health and Social Behavior*, 20, 108–119.
- Lu, L. (1999). Personal or environmental causes of happiness: A longitudinal analysis. *Journal of Social Psychology*, 139, 79–90.
- Lucas, R. E. & Diener, E. (2000). Personality and subjective well-being across the life span. In: D. Molfese & V. J. Molfese, eds. *Temperament and Personality Development Across the Life Span*, pp. 211–234. Mahwah, NJ: Lawrence Erlbaum.
- Lucas, R. E., Diener, E. & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, 71, 616–628.
- Lucas, R. E., Diener, E., Grob, A., Suh, E. M. & Shao, L. (2000). Cross-cultural evidence for the fundamental features of extraversion. *Journal of Personality and Social Psychology*, 79, 452–468.
- Markus, H. R. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Mitchelson, J. K. & Burns, L. R. (1998). Career mothers and perfectionism: Stress at work and at home. *Personality and Individual Differences*, 25, 477–485.
- Mouton, P. Y. & Tuma, J. M. (1988). Stress, locus of control, and role satisfaction in clinic and control mothers. *Journal of Clinical Child Psychology*, 17, 217–224.
- Myers, D. G. & Diener, E. (1995). Who is happy? *Psychological Science*, 6, 10–19.
- Nowack, K. M. (1991). Psychosocial predictors of health status. *Work and Stress*, 5, 117–131.
- Oishi, S., Diener, E. F., Lucas, R. E. & Suh, E. M. (1999). Cross-cultural variations in predictors of life satisfaction: Perspectives from needs and values. *Personality and Social Psychology Bulletin*, 25, 980–990.
- Plomin, R. S., Scheier, M. F., Bergeman, C. S., Pedersen, N. L., Nesselroade, J. R. & McClearn, G. E. (1992). Optimism, pessimism and mental health: A twin/adoption analysis. *Personality and Individual Differences*, 13, 921–930.
- Ramanaiah, N. V., Detwiler, F. J. & Byravan, A. (1997). Life satisfaction and the five-factor model of personality. *Psychological Reports*, 80, 1208–1210.
- Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton, NJ: Princeton University Press.
- Russell, D. W. & Cutrona, C. E. (1991). Social support, stress, and depressive symptoms among the elderly: Test of a process model. *Psychology and Aging*, 6, 190–201.
- Sahin, N. H., Batiguen, A. D. & Sahin, N. (1998). Reasons for living and their protective value: A Turkish sample. *Archives of Suicide Research*, 4, 157–168.
- Schafer, T., Riehle, A., Wichmann, H. E. & Ring, J. (2003). Alternative medicine and allergies: Life satisfaction, health locus of control and quality of life. *Journal of Psychosomatic Research*, 55, 543–546.
- Schimmack, U. (2003). Affect measurement in experience sampling research. *Journal of Happiness Studies*, 4, 79–106.
- Schmuck, P. & Sheldon, K. M. (2001). *Life Goals and Well-Being: Towards a Positive Psychology of Human Striving*. Kirkland, WA: Hogrefe & Huber.
- Shimmack, U., Oishi, S., Furr, R. M. & Funder, D. C. (2004). Personality and life satisfaction: A facet-level analysis. *Personality and Social Psychology Bulletin*, 30, 1062–1075.
- Singelis, T. M., Hubbard, C., Her, P. & An, S. (2002). Convergent validation of the Social Axioms Survey. *Personality and Individual Differences*, 34, 269–282.
- Skodol, A. E. (1998). Personality and coping as stress-attenuating or -amplifying factors. In: B. P. Dohrenwend, ed. *Adversity, Stress, and Psychopathology*, pp. 377–389. New York: Oxford University Press.
- Smith, T. W., Pope, M. K., Sanders, J. D., Allred, K. D. & O’Keeffe, J. L. (1988). Cynical hostility at home and work: Psychosocial vulnerability across domains. *Journal of Research in Personality*, 22, 525–548.
- Snyder, C. R. & Lopez, S. J. (2002). *Handbook of Positive Psychology*. London: Oxford University Press.
- Snyder, C. R. & McCullough, M. E. (2000). A positive psychology field of dreams: ‘If you build it, they will come . . .’. *Journal of Social and Clinical Psychology*, 19, 151–160.
- Sommer, G. (1990). Social support as a tool to promote mental health. *Community Mental Health in New Zealand*, 5, 41–48.
- Sue, S. (1983). Ethnic minority issues in psychology: A reexamination. *American Psychologist*, 38, 583–592.
- Suh, E. M. (2000). Self, the hyphen between culture and subjective well-being. In: E. Diener & E. M. Suh, eds. *Culture and Subjective Well-Being*, pp. 63–86. Cambridge, MA: MIT Press.

- Thompson, S., Manderson, L., Woelz-Stirling, N., Cahill, A. & Kelaheer, M. (2002). The social and cultural context of the mental health of Filipinas in Queensland. *Australian and New Zealand Journal of Psychiatry*, 36, 681–687.
- Triandis, H. C. & Suh, E. M. (2002). Cultural influences on personality. In: S. T. Fiske, D. L. Schacter & C. Zahn-Waxler, eds. *Annual Review of Psychology*, Vol. 53, pp. 133–160. Palo Alto, CA: Annual Reviews.
- Wardle, J., Steptoe, A., Gullis, G., *et al.* (2004). Depression, perceived control, and life satisfaction in University students from Central-Eastern and Western Europe. *International Journal of Behavioral Medicine*, 11, 27–36.
- Zhang, J. & Bond, M. H. (1998). Personality and filial piety among college students in two Chinese societies: The added value of indigenous constructs. *Journal of Cross-Cultural Psychology*, 29, 402–417.

Copyright of Asian Journal of Social Psychology is the property of Blackwell Publishing Limited and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.