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A LIFE SATISFACTION MEASURE: ADDITIONAL VALIDATIONAL DATA FOR THE CONGRUITY LIFE SATISFACTION MEASURE

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ABSTRACT. Meadow *et al.* (1992) have developed a measure of life satisfaction based on judgment theory, referred to as Congruity Life Satisfaction (CLS). This paper reports the results of a major study involving six samples from different countries testing the construct validity of the CLS measure. The results of these studies provide additional validational support for the CLS measure.

INTRODUCTION

Meadow, Mentzer, Rahtz, and Sirgy (1992) have developed a measure of life satisfaction based on judgment theory, referred to as *Congruity Life Satisfaction* (CLS) measure. The measure was based on the theoretical notion of life satisfaction is a function of a comparison between perceived life accomplishments and a set of evoked standards. These standards were classified as to their derivative sources (e.g., the life accomplishments of relatives, friends, associates, past experience, self-concept of strengths and weaknesses, and average person in a similar position) and different forms (e.g., standards based on ideal, expected, deserved, minimum tolerable, and predicted outcomes). Two studies were conducted on an elderly population to ascertain the reliability and validity of the life satisfaction measure. The measure was found to be internally consistent and possessing construct validity as evidenced through (1) high and positive correlations with the Delighted-Terrible Life Satisfaction Scale; (2) significant correlations (as expected) with

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cognitive age, income, employment, education, marital status, social contact, activity, religiosity, morale, television viewership, and self-related health; and (3) nonsignificant correlations (as expected) with chronological age, gender, and parenthood.

The purpose of this paper is to report additional validational data pertaining to the Congruity Life Satisfaction (CLS) through a major study involving six samples from different countries (U.S.A., Canada, Australia, Turkey, and China) to further test the measure's construct validity.

LIFE SATISFACTION MEASUREMENT BASED ON JUDGMENT THEORY

Most of the judgment studies of life satisfaction have employed "raw" satisfaction measures; that is, self-report type measures of happiness and well-being. Judgment studies which have employed such measures of general affect treat them as dependent measures. The measures examine the relationship between a comparison state (e.g., discrepancy between some standard and actual state) and life satisfaction. That is, these efforts treat the various comparison states as independent variables. None of the judgment studies appear to have employed a measure of life satisfaction based on the generated affect from the various comparison states. Only the Neugarten *et al.* (1961) Life Satisfaction Index (LSI) incorporates the concept of a comparison state into the measure itself; however, even the LSI fails to go "far enough," since it treats the comparison in a unidimensional fashion.

In essence, judgment theories maintain that life satisfaction is directly influenced by a *variety of standards*. Hence, if a life satisfaction measure is developed which taps the degree of satisfaction experienced through judgments of *actual states* compared to a *set of specific standards*, such a measure may prove to be a fruitful development. The Neugarten *et al.* (1961) LSI measures the degree of congruence between desired and achieved goals. This measure, of course, is a step in the right direction; however, it lacks in theoretical richness, since the LSI employs a single type of standard/desired goal. Judgment theories make a case for the inclusion of a *set of standards* because life satisfaction can be

affected by a variety of comparison processes involving more than one standard.

The Congruity Life Satisfaction (CLS) measure developed by Meadow *et al.* (1992) was based on a specific judgment-type theory which identifies a set of standards used in judging personal life circumstances. This specific judgment-type theory is based on the works of Sirgy (1983; 1984a; 1984b; 1985; 1986; 1987a; 1987b; and Sirgy and Tyagi 1986), referred to as "congruity theory," and is articulated mainly in consumer psychology – more specifically, in modeling and explaining consumer satisfaction/dissatisfaction.

Congruity theory, posits that the referent state (comparison standard) evoked in any evaluation process may take a variety of forms. Examples of comparison standards that are employed in evaluation are:

- Expectations based on what one hopes for ideally
- Expectations based on what one hopes for realistically
- Expectations based on what one feels one deserves
- Expectations based on significant others
- Expectations based on what one predicts will occur
- Expectations based on what one can minimally tolerate
- Expectations based on past experience
- Expectations based on what one is told is expect
- Expectations based on what is morally acceptable

Congruity theory also posits that although the evaluation concept is situation-specific, general satisfaction/dissatisfaction directed toward the object, person, or event over time and across situations can be ascertained by summing (or averaging) evaluation outcomes (satisfaction/dissatisfaction states) from this set of comparison states involving different referent states. Therefore, in the context of life satisfaction, Meadow *et al.* argued that *general* life satisfaction (dispositional and cross-sectional) can be developed through a summative (or average) index, involving a set of judgments about one's life accomplishments using a set of different standards (referent types). If one accepts the argument involving multiple standards, then what should follow is the

selection of the appropriate standards in evaluating life's accomplishments.

Meadow *et al.* have argued that referent standards used in the evaluation of life accomplishments may involve a source and a form. The *source* of a standard refers to the principal source of information on which the standard is based. The five *sources* of standards in evaluation of accomplishments are:

(1) a standard based on the life accomplishments of relatives (e.g., parents, brothers, sisters, aunts, uncles, cousins),
(2) a standard based on the life accomplishments of friends and associates,
(3) a standard based on past experience, or what one was in the past.
(4) a standard based on self-concept or perceived strengths and weaknesses, and
(5) a standard based on the average person in a similar position.

The *form* of a standard in the evaluation of life accomplishments was also argued to involve five distinct categories:

(1) a standard based ideal outcomes,
(2) a standard based on expected ("should be") outcomes,
(3) a standard based on deserved outcomes,
(4) a standard based on minimum tolerable outcomes, and
(5) a standard based on predicted outcomes.

Meadows *et al.* conducted two studies to test the construct validity of the CLS measure in an elderly population. The CLS measure was found to be internally consistent. The construct validity of the CLS measure was evidenced through: (1) significant correlations with Andrews and Withey's (1976) Delighted-Terrible Life Satisfaction Scale, (2) significant (as expected) with cognitive age, income, employment, education, marital status, social contact, activity, religiosity, morale, television viewership, and self-rated health, and (3) nonsignificant correlations (as expected) with chronological age; gender, and parenthood.

ADDITIONAL CONSTRUCT VALIDATION TESTS

The construct validity of the CLS measure will be further assessed by correlating it with a well-established general life satisfaction measure involving a diverse population (samples from different countries, of different age groups). Recall the Meadow *et al.* initial construct validation test employed an elderly population from the U.S. The focus of the present study is a more general population from different countries, including the U.S. More specifically, the following hypothesis will be tested to further ascertain the construct validity of the CLS measure.

H_1: General life satisfaction is an aggregate function of a set of life satisfaction states generated by evaluation of life accomplishments against a set of standards.

The standards are those discussed in the previous section.

In testing this hypothesis, the general life satisfaction construct will be operationally represented by the Delighted-Terrible Life Satisfaction (D-T) measure (Andrews and Withey, 1976). The aggregated life satisfaction states will be represented by the CLS measure.

Furthermore, additional validation of the CLS measure will be ascertained by empirical support for the following relationships.

H_2: There is *no* relationship between life satisfaction and chronological age (Stock *et al.*, 1983).

H_3: There is a *positive* relationship between life satisfaction and income, in that people who have higher income are more likely to be satisfied with their lives than those who have lower income (Alston *et al.*, 1974; Andrews and Withey, 1976; Bortner and Hultsch, 1970; Clemente and Sauer, 1976, Freudiger, 1980; Kimmel *et al.*, 1978; Larson, 1978; Mancini and Orthner, 1980; Riddick, 1980).

H_4: There is *no* relationship between life satisfaction and gender (Andrews and Withey, 1976; Campbell *et al.*, 1976; Goodstein *et al.*, 1960; Gurin *et al.*, 1960; Olsen, 1980; Palmore and Kivett, 1977; Sauer, 1977; Toseland and Rasch, 1979–1980).

H_5: There is a relationship between life satisfaction and marital status, in that married people are more likely to be satisfied with their lives than unmarried ones (Larson, 1978; Andrews and Withey, 1976; Gleen, 1975; Glenn and Weaver, 1979).

H_6: There is a *negative* relationship between life satisfaction and television viewership, in that those who watch more television are more likely to be dissatisfied with their lives than those who watch less television (Morgan, 1984; Rahtz, Sirgy and Meadow, 1988, 1989; Richins, 1988).

H_7: There is a *positive* relationship between life satisfaction and evaluation of standard of living or income, in that those who evaluate their standard of living income more positively are likely to be more satisfied with their lives, and vice versa (Diener, 1984).

H_8: There is a *negative* relationship between life satisfaction and materialism, in that those who are highly materialistic are likely to express higher levels of life dissatisfaction than nonmaterialistic individuals (Belk, 1985; Richins, 1988).

METHOD

Sampling

The present study involved six samples. These were:

1. U.S.A. – mail survey involving a consumer panel (N = 233)
2. U.S.A. – college students sample in which questionnaires were distributed in class (N = 234)
3. Canada – mail survey involving a random sample of urban households (N = 180)
4. Australia – questionnaires were distributed to households door-to-door (N = 249)
5. Turkey – questionnaires were distributed to households door-to-door (N = 139)
6. China – questionnaires were distributed to households door-to-door (N = 191)

The U.S.A./Consumer panel sample. Questionnaires were mailed to a survey research panel comprised of 542 households. The research panel is modeled after the University of Michigan Consumer Survey Research Center and is located in a "test market" city located in the Midwest. Two-hundred and fifty questionnaires were returned with 234 useable cases. The effective response rate was 43.1 percent. Sampling occurred in 1989.

The extent of non-response bias was examined through Chi-square Goodness-of-fit tests. Subjects were representative of the population on the basis of age, income, and education ($p > 0.10$) but was disproportional on the basis of gender ($p < 0.10$). More males than females participated in the study (see Table I).

The U.S.A./College students sample. As a comparison to the data obtained from an adult U.S. population, a sample of 234 college students was also given the same survey instrument in 1990–91. These students were in attendance at a sizable university located in the same midwest geographical area as the adult U.S. sample. As can be seen from Table I, the average age was 21.5 representing the young group included in the study. Slightly more females than males participated in the study. As can be expected from a college population, the average education level was slightly less than four years of college (see Table I).

The Canada sample. The Canadian sample was gathered by using a mail survey. Vernon's Directories (1989) were used for the cities of Kitchener and Waterloo, Ontario. A random sample of 1,000 heads of household were selected, proportional to the relative populations of the two cities. Since 109 questionnaires were returned undeliverable, the 180 which were completed represent a 20.2 percent response rate. The survey was mailed under the auspices of Wilfrid Laurier University, and a postage-paid reply envelope was included. Sampling occurred during 1990. Table I shows that the average age of this sample is in the mid-forties (comparable to the U.S.A./Consumer Panel sample), and more males than females participated in the study with 2–4 years of college.

TABLE I

Demographics of the six samples involved in the study

	1 China	2 Turkey	3 Australia	4 Canada	5 U.S.A. (Consumer panel)	6 U.S.A. (College students)	All samples combined
Age	32.876	32.321	29.565	45.557	48.450	21.539	34.800
	(8.322)	(12.894)	(12.409)	(13.805)	(16.171)	(3.525)	(15.320)
Gender: Male	45.8%	43.2%	50.2%	75.8%	59.7%	43.5%	53.1%
Female	54.2%	56.8%	49.8%	24.2%	40.3%	56.5%	46.9%
Education	3.094	3.326	3.526	3.449	3.302	3.857	3.450
	(0.722)	(1.330)	(1.216)	(1.231)	(1.145)	(0.458)	(1.075)
N	191	139	249	180	233	234	1226

Note: The figures pertaining to age and education are medians and standard deviations.

Education was coded as follows: 1 = Grammar school; 2 = High school; 3 = Two year collage; 4 = Four year college; 5 = Graduate school.

The Australia sample: The Australian sample was gathered in and around Sydney, New South Wales, by students of the University of Wollongong. Of 350 questionnaires that were originally distributed, a total of 249 were returned fully completed resulting in a response rate of 71.1 percent. This high rate of response can be partly attributed to class participation grades being offered to the student interviewers. Sampling took place during October of 1991 and all questions appeared in the exact same order and with the exact same wording as they had in the original version used in the United States. Table I shows that the average age was 30 (more comparable to the China and Turkey samples than the Canada and U.S.A. samples), and an equal number of males versus females with 2–4 years of college.

The Turkey sample: Questionnaires were distributed by 25 students from the University of Istanbul. Of the 250 questionnaires that were distributed, a total of 139 were returned, resulting in a response rate of 55.6 percent. Sampling occurred during November and December of 1990. Respondents were on average 32 years of age. More females than males participated in the study, and the average education level was 2–4 years of college (see Table I).

The China sample: Data was collected in China during the summer of 1990 in the city of Shenyang. Of 300 questionnaires that were distributed door-to-door, some 191 were returned and were usable. Therefore, the response rate was 63.7 percent. The average age was 33, slightly more females than males participated in the study, and the average education level was two years of college (see Table I).

Measures

The congruity life satisfaction (CLS) measure. The CLS scale involved ten self-report items in which respondents are asked to indicate responses using a 6-point scale varying from "Very Dissatisfied" – (1) to "Very Satisfied – (6). The specific items were phrased as follows:

1. Compared to your LIFETIME GOALS, IDEALS, and WHAT YOU HAD IDEALLY HOPED TO BECOME, how satisfied are you?
2. Compared to what you feel you DESERVE TO HAVE HAPPENED TO YOU CONSIDERING ALL THAT YOU'VE WORKED FOR, how satisfied are you?
3. Compared to the ACCOMPLISHMENTS OF YOUR RELATIVES (parents, brother, sister, etc.) how satisfied are you?
4. Compared to the ACCOMPLISHMENTS OF YOUR FRIENDS AND ASSOCIATES, how satisfied are you?
5. Compared to the ACCOMPLISHMENTS OF MOST PEOPLE IN YOUR POSITION, how satisfied are you?
6. Compared to WHERE YOU'VE BEEN AND HOW FAR YOU HAVE COME ALONG (the progress you have made, the changes you have gone through, or the level of growth you have experienced), how satisfied are you?
7. Compared to WHAT YOU HAVE EXPECTED FROM YOURSELF ALL ALONG CONSIDERING YOUR RESOURCES, STRENGTHS AND WEAKNESSES, how satisfied are you?
8. Compared to WHAT YOU MAY HAVE PREDICTED ABOUT YOURSELF BECOMING, how satisfied are you?
9. Compared to WHAT YOU FEEL YOU SHOULD HAVE ACCOMPLISHED SO FAR, how satisfied are you?
10. Compared to WHAT YOU FEEL IS THE MINIMUM OF WHAT ANYONE IN YOUR POSITION SHOULD HAVE ACCOMPLISHED (AND BE ABLE TO ACCOMPLISH), how satisfied are you?

The following instructions were also included in the measure:

In this section, we would like for you to judge your feelings or level of satisfaction (dissatisfaction) toward YOURSELF AND YOUR LIFE ACCOMPLISHMENTS. Below are a set of questions involving your judgment of yourself and your life accomplishments using different sets of standards. Please circle the number that shows the level of agreement with the corresponding statement. Number 1 means the strongest level of dissatisfaction and number 6 means the strongest level of satisfaction.

1 – Very dissatisfied	3 – Somewhat dissatisfied	5 – Satisfied
2 – Dissatisfied	4 – Somewhat satisfied	6 – Very satisfied

What followed was a brief description of the items designed to tap a person's evaluation of:

Item 1 – one's life accomplishments involving a standard based on ideal outcomes,

Item 2 – the standard based on deserved outcomes,

Item 3 – the standard based on relatives,

Item 4 – the standard based on friends/associates,

Item 5 – the standard based on average persons in similar positions,

Item 6 – the standard based on past experience,

Item 7 – the standard based on self-concept of strengths and weaknesses

Item 8 – the standard based on predicted outcomes,

Item 9 – the standard based on expected outcomes, and

Item 10 – the standard based on minimum tolerable outcomes.

An overall score of general life satisfaction was computed for each respondent by summing individual satisfaction scores (items 1 through 10) and dividing by the number of items (10). Descriptive statistics of the measures are reported in Table II. The means reflect a moderately satisfied group of respondents. All of the individual evaluations involving standards based on relatives, most people, and past experience produced the highest satisfaction rates in most samples. Evaluations involving deserved and expected standards produced the lowest satisfaction scores in most samples.

The reliability and validity results of CLS are reported in the results section.

Measure of general life satisfaction. The measure of general life satisfaction selected for testing the criterion validity of the new life satisfaction measure was the Delighted-Terrible (D-T) Satisfaction Scale (Andrews and Withey, 1976). The D-T Satisfaction Scale was reported to have temporal reliability, 0.66 for a 15 minute reliability and

TABLE II

Descriptive and reliability statistics of the CLS and D-T measures

Construct	Items.	China		Turkey		Australia		Canada		USA (Consumer panel)		USA (College students)		All samples combined	
		$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$	s.d.
Congruity	Sat. – IDEAL standard	3.399	1.294	3.799	1.181	4.137	1.080	4.156	1.131	4.339	1.171	4.303	0.948	4.058	1.172
Life	Sat. – DESERVED standard	3.407	1.458	3.504	1.242	4.213	1.139	4.168	1.192	4.309	1.273	4.068	1.094	3.992	1.274
Satisfaction	Sat. – RELATIVE standard	3.937	1.401	4.609	1.084	4.738	1.113	4.697	1.168	4.760	1.219	4.624	1.021	4.575	1.202
(CLS)	Sat. – FRIENDS standard	3.418	1.353	4.333	1.056	4.536	1.109	4.472	1.151	4.597	1.063	4.487	0.993	4.333	1.188
	Sat. – MOST PEOPLE standard	3.608	1.196	4.273	1.232	4.486	1.093	4.663	1.139	4.690	1.147	4.345	0.986	4.363	1.177
	Sat. – PAST EXPERIENCE standard	3.381	1.294	4.079	1.136	4.530	1.016	4.693	1.142	4.742	1.127	4.688	1.020	4.396	1.212
	Sat. – SELF-CONCEPT standard	3.228	1.249	3.755	1.122	4.165	1.228	4.324	1.211	4.427	1.197	4.192	1.116	4.052	1.253
	Sat. – PREDICTED standard	3.386	1.358	3.971	1.182	4.141	1.214	4.212	1.302	4.384	1.304	4.219	1.078	4.076	1.278
	Sat. – EXPECTED standard	3.155	1.237	3.835	1.107	4.080	1.182	4.096	1.256	4.159	1.255	4.017	1.161	3.916	1.247
	Sat. – MINIMUM standard	3.755	1.260	4.086	1.139	4.339	1.071	4.545	1.125	4.738	1.124	4.539	0.997	4.365	1.158
	OVERALL (Average composite)	3.442	0.752	4.012	0.798	4.326	0.850	4.390	0.983	4.509	0.981	4.335	0.760	4.199	0.929
	ALPHA	0.771		0.881		0.912		0.948		0.948		0.899		0.919	
Overall (D-T)	D-T	4.774	1.097	4.609	1.342	5.032	1.213	4.944	1.111	5.137	1.058	5.180	1.110	4.982	1.162
Correlation between CLS & D-T		0.256		0.463		0.571		0.375		0.717		0.459		0.463	
	N	191		139		249		180		233		234		1226	

0.40 for a six month reliability (Stock, Okun, Haring and Witter, 1983). Andrews and Withey (1976) reported high convergent validity with other self-report measures of life satisfaction and nomological validity by providing empirical support for relationships between life satisfaction and external variables such as self-efficacy, marriage, and standard of living. Other positive and strong evidence of the reliability and validity of the D-T measure were reported by Larsen *et al.* (1983).

The measure is a one question self-report measure, asked twice within the instrument, with the responses coded using a 9-point scale varying from "Delighted" (1) to "Terrible" (7), with two additional categories for "Neutral" (neither satisfied nor dissatisfied) and "I Never Thought About It" which were treated as missing values in the statistical analyses. The categories of the scale varying from "Terrible" to "Delighted" are: "Terrible," "Pleased," "Mostly Satisfied," "Mixed (About Equally Satisfied and Dissatisfied)," "Mostly Dissatisfied," "Unhappy," and "Terrible." The precise item wording was phrased as follows: "How do you feel about your life as a whole?"

In all studies, the D-T scale was inserted once at the beginning of the questionnaire. Descriptive statistics of the D-T scale are reported in Table II.

Operationalization of the other measures. Eight other constructs, five demographic constructs and three behavioral constructs, were included in the questionnaire. These constructs were: age, income, gender, education, marital status, television viewership, evaluation of standard of living and income, and materialism. Table III provide summaries of the descriptive statistics of the behavioral constructs. The behavioral measures were borrowed directly from the literature (see the hypotheses section). For example, the materialism measures (Belk, 1985; Richins, 1987) were taken directly from the literature.

TABLE III

Descriptive and reliability statistics of the behavioral constructs

		China	Turkey	Australia	Canada	U.S.A. (Consumer panel)	U.S.A. (College studnets)	All sample combined
Materialism:								
(1) Belk's overall	$\bar{X}$	2.864	2.914	3.010	2.997	2.999	3.097	2.985
measure	S.D.	(0.448)	(0.393)	(0.354)	(0.447)	(0.378)	(0.333)	(0.398)
	Alpha	0.335	0.664	0.585	0.852	0.643	0.596	0.537
(2) Possessiveness	$\bar{X}$	3.384	3.612	3.710	3.637	3.677	3.701	3.442
subscale	S.D.	(0.527)	(0.497)	(0.522)	(0.510)	(0.501)	(0.450)	(0.682)
	Alpha	0.024	0.468	0.527	0.603	0.492	0.425	0.708
(3) Nongenerosity	$\bar{X}$	2.996	2.300	2.531	2.717	2.670	2.552	2.711
subscale	S.D.	(0.730)	(0.639)	(0.594)	(0.693)	(0.600)	(0.504)	(0.687)
	Alpha	0.354	0.660	0.585	0.672	0.620	0.554	0.593
(4) Envy subscale	$\bar{X}$	2.279	2.663	2.642	2.541	2.539	2.885	2.732
	S.D.	(0.638)	(0.563)	(0.575)	(0.683)	(0.592)	(0.571)	(0.704)
	Alpha	0.420	0.623	0.523	0.779	0.580	0.600	0.644
(5) Richins' measure	$\bar{X}$	3.227	3.448	3.096	2.846	2.934	3.230	3.158
	S.D.	(0.745)	(0.607)	(0.624)	(0.67)	(0.707)	(0.606)	(0.677)
	Alpha	0.564	0.728	0.660	0.760	0.731	0.700	0.597
Evaluation of:								
Standard of living	$\bar{X}$	3.957	4.328	5.036	4.729	4.991	4.710	4.676
and income	S.D.	(1.437)	(1.112)	(1.277)	(1.115)	(1.110)	(1.281)	(1.286)

TABLE III *Continued*

		China	Turkey	Australia	Canada	U.S.A. (Consumer panel)	U.S.A. (College studnets)	All sample combined
TV viewership:	$\bar{X}$	1.704	2.511	2.485	2.432	2.563	1.863	2.336
	S.D.	(1.024)	(1.286)	(1.398)	(1.297)	(1.424)	(1.306)	(1.394)
	Alpha	0.890	0.878	0.903	0.866	0.948	0.923	0.920
	N	191	139	249	180	233	234	1226

Notes:

• The materialism measures involved two measures: (1) the Belk's (1985) Materialism Scale and the Richins (1987) Materialism Scale. The Belk's measure involves three subscales: (1) possessiveness, nongenerosity, and envy. An example of an item of the Belk's measure is: "I tend to hang on to things I should probably throw out" (a possessiveness item).* Responses were tapped on a 5-point Likert-type scale. An example of an item from the Richins' measure is: "I would like to be rich enough to buy anything I want." Responses were tapped on a 5-point Likert-type scale.

• The evaluation of standard of living and income construct was measured by asking respondents: "How do you feel about your standard of living/income?" Responses were tapped using a delighted-terrible scale ("delighted" = 7, "pleased" = 6, "mostly satisfied" = 5, "mixed and neutral" = 4, "most dissatisfied" = 3, "unhappy" = 2, and "terrible" = 1; "I never thought about it" was treated as a missing value.

• The TV viewership measure was operationalized using frequency-type measures. (1) How much time did you spend watching TV yesterday? ___ hrs. (2) How much time do you usually spend watching TV everyday? ___ hrs. (3) How many hours per week do you watch TV? ___ hrs./wk. (4) On the average day, about how much time, if any, do you personally spend watching television? ___ hrs. An average (hrs./wk.) composite was computed from these four items.

RESULTS

In this section, the results of the statistical analysis are reported. The results pertaining to the construct validity of the measure (Hypothesis 1 through Hypothesis 7) are presented.

Relationship between Overall Life Satisfaction and Composite Based on Multiple Standards H_1

Hypothesis 1 posits that overall the life satisfaction as an overall wholistic judgment about one's satisfaction with life is a direct function of a set of the life satisfaction judgments generated by evaluations of life accomplishments. Table II shows a list of correlations between the Delighted-Terrible (D-T) measure and the CLS measure. The correlation pattern is generally moderate-to-high which provides support for the construct validity of the CLS measure.

Relationship between Life Satisfaction and Chronological Age H_2

No relationship was expected between life satisfaction and chronological age. Except for the Australia sample (and the pooled sample), no significant relationship between life satisfaction and chronological age was found (see Table IV). Even the Australia correlation is small. These findings provide moderate support for the construct validity of the CLS measure.

Relationship between Life Satisfaction and Income H_3

A significant relationship was expected between life satisfaction and income. The correlations between CLS and income were significant and positive in four out of the six samples. The Turkey and U.S.A. College Student sample were the exceptions. However, the Turkey correlation was directionally supportive. The U.S.A. college student sample was not supportive of the hypothesis, perhaps because college students have low incomes to begin with. All in all, the overall findings do provide moderate-to-strong support to the construct validity of the CLS measure.

TABLE IV

Correlations between CLS measure and the hypothesized demographic/behavioral constructs

	China	Turkey	Australia	Canada	U.S.A. (Consumer panel)	U.S.A. (College students)	All samples combined
Age	0.053	0.070	0.188**	−0.023	0.102	−0.015	0.106**
Income	0.209*	0.131	0.164*	0.228**	0.373**	0.013	N/A
Gender	−0.114	0.052	0.070	−0.086	−0.043	0.154*	−0.028
Martial status	−0.124	−0.072	−0.214**	−0.150*	−0.209**	−0.047	−0.076**
TV viewership	0.003	−0.022	−0.057	−0.079	−0.289**	−0.061	−0.039
Evaluation of standard of living	0.244**	0.373**	0.320**	0.447**	0.643**	0.385**	0.455**
Materialism (1)	−0.152*	−0.102	−0.309**	−0.257**	−0.305**	−0.176**	−0.065**
(2)	−0.150*	−0.180*	−0.206**	−0.241**	−0.313**	−0.199**	−0.170**
(3)	−0.060	0.202	−0.027	−0.154*	−0.044	0.005	0.020
(4)	−0.139	−0.126	−0.180**	−0.097	−0.140*	0.035	−0.101**
(5)	−0.138	−0.250**	−0.361**	−0.264**	−0.430**	−0.335**	−0.066*
N	191	135	249	180	223	234	1226

* Significant at 0.05 level; ** Significant at 0.01 level.

Relationship between Life Satisfaction and Gender H_4

No relationship was expected between life satisfaction and gender. Except for the U.S.A. College student sample, the CLS/gender correlations were all low and nonsignificant. These results provide moderate-to-strong support for the construct validity of the CLS measure.

Relationship between Life Satisfaction and Marital Status H_5

A significant relationship between life satisfaction and marital status was expected. Specifically, married people are expected to report greater life satisfaction than nonmarried people. Negative and significant correlations (as expected) were indicated for the Australia, Canada, and U.S.A. consumer panel samples. The China, Turkey, and the U.S.A. college student showed negative but nonsignificant correlations. The correlation from the U.S. student sample was the weakest. This is not a surprise, since college students may not regard marriage as instrumental to happiness, mostly because of their stage of life development. They may regard education and career development as significantly more salient.

Relationship between Life Satisfaction and Television Viewership H_6

A negative relationship between life satisfaction and TV viewership was expected. The pattern of correlations across all samples did not reveal the expected relationship. Only the U.S.A. consumer panel study exhibited the negative and significant correlation. However, past studies have revealed the negative relationship in the context of a U.S. population. Perhaps, the negative relationship between life satisfaction and TV viewership is an ethnocentric phenomenon, limited to the U.S.

Relationship between Life Satisfaction and Evaluation of Standard of Living and Income H_7

A strong and positive relationship between life satisfaction and evaluation of standard of living (and income) was expected. The pattern of correlations across all samples was supportive of the hypothesized relationship.

Relationship between Life Satisfaction and Materialism H_8

A negative relationship between life satisfaction and materialism was expected. This relationship was evidenced through negative correlations from most samples and most materialism constructs and measures.

DISCUSSION

The purpose of this study was to further test the validity of the Congruity Life Satisfaction (CLS) measure (Meadow *et al.*, 1992). A major study involving six samples from different countries was conducted to test the construct validity of the CLS measure. The overall results provide additional support for the construct validity of the measure.

Specifically, it was hypothesized that overall life satisfaction (as a wholistic judgment) is determined by a set of judgments concerning one's life accomplishments against a set of standards. These standards are identified in terms of source and form. Five *source standards* were identified:

1. a standard based on the life accomplishments of relatives (e.g., parents, brothers, sisters, aunts, uncles, cousins),
2. a standard based on the life accomplishments of friends and associates.
3. a standard based on past experience, or what one was in the past,
4. a standard based on self-concept or perceived strengths and weaknesses, and
5. a standard based on the average person in a similar position.

Five *form standards* were identified:

1. a standard based on ideal outcomes,
2. a standard based on expected ("should be") outcomes,
3. a standard based on deserved outcomes,
4. a standard based on minimum tolerable outcomes, and
5. a standard based on predicted outcomes.

The overall life satisfaction construct was measured using Andrews and Withey's (1976) D-T scale, whereas the set of judgments concerning one's life accomplishments (against a set of standards) was measured using the Meadow *et al.*'s CLS measure. The results provided support for this hypothesis, lending further validation support for the CLS measure.

Also, it was hypothesized that the CLS measure is likely to have construct validity given that the measure replicates a pattern of relationships with constructs uncovered by past research. Specifically, it was hypothesized that CLS should not correlate significantly with both age and gender. CLS should correlate positively and significantly with income, marital status, and evaluation of standard of living. Also, CLS should correlate negatively and significantly with television viewership and materialism. The study results were mostly supportive of these expectations, which add to the validitional repertoire of the CLS measure.

It should be noted that this research has certain limitations. These include: (1) nonequivalent sampling methods, (2) nonequivalent samples as evidenced by the sample demographics, (3) the weak correlations between the CLS and the Delighted-Terrible Scale, especially from the China sample, and (4) the low reliabilities of the materialism measures. Future research should address the noted problems in this research.

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REFERENCES

Alston, J. P., G. D. Lowe and A. Wrigley: 1974, 'Socio-economic correlates for four dimensions of self-perceived satisfaction', Human Organization 33, pp. 99–102.

Andrews, F. M. and S. B. Withey: 1976, Social Indicators of Well-being: America's Perception of Life Quality (Plenum Press, New York).

Belk, R. W.: 1985, 'Materialism: trait aspects of living in the material world', Journal of Consumer Research 12, pp. 265–280.

Bortner, R. W. and D. F. Hultsch: 1970, 'A multivariate analysis of correlates of life satisfaction in adulthood', Journal of Gerontology 25, pp. 41–47.

Campbell, A., P. E. Converse and W. L. Rodgers: 1976, The Quality of American Life (Russel Sage Foundation, New York).

Clemente, F. and W. J. Sauer: 1976, 'Life satisfaction in the United States', Social Forces 54, pp. 621-631.

Diener, E.: 1984, 'Subjective well-being', Psychological Bulletin 95, pp. 542–575.

Freudiger, P. T.: 1980, 'Life satisfaction among American women', Doctoral dissertation, North Texas State University, Dissertation Abstracts International 40, 6438A. (University Microfilms No., 80-12, 882).

Glenn. N. D. and C. N. Weaver: 1979, 'A note on family situation and global happiness', Social Forces 57, pp. 960–967.

Goodstein, J., A. Zautra and D. Goodhart: 1982, 'A test of the utility of social indicators for behavioral health service planning', Social Indicators Research 10, pp. 273–295.

Gurin, G., J. Veroff and S. Feld: 1960, Americans View Their Mental Health (Basic Books, New York).

Kimmel, D. C., K. F. Price and J. W. Walker: 1978, 'Retirement choice and retirement satisfaction', Journal of Gerontology 33, pp. 575–585.

Larson, R.: 1978, 'Thirty years of research on the subjective well-being of older Americans', Journal of Gerontology 33, pp. 109–125.

Mancini, J. A. and D. K. Orthner: 1980 'Situational influences on leisure satisfaction and morale in old age', Journal of the American Geriatrics Society 28, pp. 466–471.

Meadow, H. L., J. T. Mentzer, D. R. Rahtz and M. J. Sirgy: 1992, 'A life satisfaction measure based on judgment theory', Social Indicators Research 26(1), pp. 23–59.

Morgan, M.: 1984, 'Heavy television viewing and perceived quality of life', Journalism Quarterly 61, pp. 499–504, 740.

Neugarten, B. L., R. J. Havighurst and S. S. Tobin: 1961, 'The measurement of life satisfaction', Journal of Gerontology 16, pp. 134–143.

Olsen, J. K.: 1980, 'The effect of change in activity in voluntary associations on life satisfaction among people 60 and over who have been active through time',

Doctoral dissertation, University of Maryland, Dissertation Abstracts International 40, 5211A. (University Microfilms No. 80-07, 107).

Palmore, E. and V. Kivitt: 1977, 'Change in life satisfaction: a longitudinal study of persons aged 46–70', Journal of Gerontology 32, pp. 311–316.

Rahtz, D. R., M. J. Sirgy and H. L. Meadow, 1988, 'Elderly life satisfaction and television viewership: replication and extension', in S. Shapiro and H. H. Walle (eds.) 1988 AMA Winter Educator's Conference – Marketing: A Return to the Broader Dimensions (American Marketing Association, Chicago, IL), pp. 409–413.

Rahtz, D. R., M. J. Sirgy and H. L. Meadow: 1989, 'The elderly audience: correlates of television orientation', Journal of Advertising 18, pp. 9–20.

Richins, M. L.: 1988, 'Media, materialism, and human happiness', in S. Shapiro and H. H. Walle (eds.), 1988 AMA Winter Educator's Conference – Marketing: A Return to the Broader Dimensions (American Marketing Association, Chicago, IL), pp. 352–356.

Riddick, C. C.: 1980, 'The life satisfaction of retired and employed older women: a reexamination of the disengagement theory', Doctoral dissertation. Pennsylvania State University, Dissertation Abstracts International 41, 2327A. (University Microfilms No. 80-24, 483).

Sauer, W.: 1977, 'Morale of the urban aged: a regression analysis by race', Journal of Gerontology 32, pp. 600–608.

Sirgy, M. J.: 1983, Social Cognition and Consumer Behavior (Praeger, New York).

Sirgy, M. J.: 1984a, Marketing as a Social Behavior: A General Systems Theory (Praeger, New York).

Sirgy, M. J.: 1984b, 'A social cognition model of consumer satisfaction/dissatisfaction', Psychology and Marketing 1, pp. 27–44.

Sirgy, M. J.: 1985, 'Using self-congruity and ideal congruity to predict purchase behavior', Journal of Business Research 13, pp. 196–206.

Sirgy, M. J.: 1986, Self-Congruity: Toward a Theory of Personality and Cybernetics (Praeger, New York).

Sirgy, M. J: 1987a, 'Toward a general systems theory of social behavior: A psychocybernetic perspective', Systems Research 4, pp. 93–110.

Sirgy, M. J.: 1987b, 'A social cognition model of consumer problem recognition', The Journal of the Academy of Marketing Science 15, pp. 53–61.

Sirgy, M. J. and P. Tyagi: 1986, 'An attempt toward an integrated theory of consumer psychology and decision-making', Systems Research 3, pp. 161–175.

Spreitzer, E. and E. E. Snyder: 1974, 'Correlates of life satisfaction among the aged', Journal of Gerontology 29, pp. 454–458.

Stock, W. A., M. A. Okun, M. J. Haring and R. A. Witter: 1983, 'Age and subjective well being: a meta-analysis', in R. J. Light (ed.), Evaluation Studies: Review Annual (Sage, pp. 279–302).

Toseland, R. and J. Rasch: 1979–1980, 'Correlates of life satisfaction: an AID analysis', International Journal of Aging and Human Development 10, pp. 203–211.

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