TESTING THE CONSTRUCT VALIDITY OF THE SULLIMAN SCALE
OF SOCIAL INTEREST

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Chris St. John, M.S.
Denton, Texas
August, 1995
TESTING THE CONSTRUCT VALIDITY OF THE SULLIMAN SCALE
OF SOCIAL INTEREST

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Chris St. John, M.S.
Denton, Texas
August, 1995

The purpose of the present study was to further explore evidence for the construct-related validity of the Sulliman Scale of Social Interest (SSSI) through the implementation of both convergent and discriminant procedures. This was done through (a) replicating St. John's 1992 study, (b) extending the findings of that study by incorporating additional psychological measures, and (c) examining SSI itself by means of principal axis factor analytic procedures. First, all nine of the relationships demonstrated between the SSSI and other variables in the St. John (1992) study were replicated in the present study. Second, in extending the findings of that study, 22 of 26 hypothesized relationships between the SSSI and other psychological measures were in the predicted direction. Third, the results of the factor analysis produced three factors labeled "contextual harmony," "positive treatment/response," and "confidence and trust." Taken together, the outcomes of both studies appear to offer some support for the SSI's construct validity and to provide possible directions for future research.
Copyright by

Chris St. John

1995
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>v</td>
</tr>
</tbody>
</table>

## Chapter

### I. INTRODUCTION

- Defining Validity
- Defining Social Interest: What Is It?
- Measuring Social Interest
- Social Interest and Its Importance in Adlerian Theory
- Research Findings
- Reasons for this Study
- Hypotheses

### II. METHOD

- Participants
- Instrumentation
- Procedure

### III. RESULTS

### IV. DISCUSSION

- Limitations
- Conclusion

## APPENDICES

### REFERENCES
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Means and Standard Deviations for Selected Variables (n = 254 Females, 157 Males)</td>
<td>86</td>
</tr>
<tr>
<td>2. Correlations Between the SSSI and Psychological Measures (n = 254 Females, 157 Males)</td>
<td>89</td>
</tr>
<tr>
<td>3. Correlations Between the SSSI and Individual Items Comprising the SAM (n = 254 Females, 157 Males)</td>
<td>91</td>
</tr>
<tr>
<td>4. Interitem Correlation Matrix for SSSI (n = 407)</td>
<td>93</td>
</tr>
<tr>
<td>5. SSSI Items and Factor Loading (n = 407)</td>
<td>107</td>
</tr>
<tr>
<td>6. SSSI Items Loading .35 or Greater on Labeled Factors</td>
<td>113</td>
</tr>
<tr>
<td>7. Final Statistics (n = 407)</td>
<td>115</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

The purpose of this proposed research is to gather validity evidence for the Sulliman Scale of Social Interest (SSSI). First, I want to examine the relationship between the SSSI and several selected variables—empathy, social contact, happiness, cooperation, and narcissism—that should correlate with it. Second, I want to perform a principal-axis factor analysis of the SSSI. As a result of these analyses, I hope to gather convergent and discriminant evidence, and, thereby, further evaluate the construct validity of the SSSI.

Defining Validity

Validity is judged to be "the most important consideration in test evaluation" (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 1985, p. 9). Fundamentally, "the validity of a test concerns what the test measures and how well it does so" (Anastasi, 1988, p. 139); in other words, "The inferences regarding specific uses of the test are validated, not the test itself" (AERA, APA, & NCME, 1985, p. 9). Moreover, Anastasi (1988) observes that all methods
used for assessing test validity attend to relationships between performance on the test in question and other independent observations about the behavior characteristics being studied. Traditionally, content-, criterion-, and construct-related procedures have been used for gathering evidence of validity. Each of these will be discussed below.

A test or measure possesses **content-related validity** "to the extent that it provides an adequate representation of the conceptual domain it is designed to cover" (Kaplan & Saccuzzo, 1982, p. 118). For example, if a student is going to be tested on the basis of lecture content, then the test he/she takes will be content valid to the degree that the test items adequately represent lecture information.

Historically, content validity and educational testing have been closely associated.

**Criterion-related validity** is indicative of the degree to which a test or measure is effective in predicting a person's performance in some specified area of interest (Kaplan & Saccuzzo, 1982). Thus, their performance on the test or measure "is checked against a criterion, that is, a direct and independent measure of that which the test is designed to predict" (Anastasi, 1988, p. 145).

One category of criterion validity evidence is **predictive validity**. Studies of predictive validity capture information regarding the future relationship between the
measure and the criterion (Kaplan & Saccuzzo, 1982). For example, performance on the GRE would be said to evidence predictive validity if it correctly estimated the performance of college students in such a well-defined task as their performance in graduate school. Concurrent validity, although serving the same purpose, acquires "prediction and criterion information simultaneously" (AERA, APA, & NCME, 1985, p. 11). An example of such would be the use of an employment screening test and the person's immediate on-the-job performance. However, criterion validity appears appropriate only when a well-defined criterion exists.

Kaplan and Saccuzzo (1982) comment that only within the last four decades have social scientists concluded that less than definitive criteria exist for most of the social and psychological constructs they would like to measure (e.g., mental health). They suggest that construct-related validity procedures may offer more appropriate means of moving forward towards more well-defined criteria:

Construct validation involves assembling evidence about what a test really means. This is done by showing the relationship between a test and other tests and measures. Each time a relationship is demonstrated, one additional bit of meaning can be attached to a test. Over a series of studies, the meaning of the
test gradually begins to take shape. (Kaplan & Saccuzzo, 1982, p. 130)

Furthermore, Cronbach and Meehl suggest that such a process is required when "no criterion or universe of content is accepted as entirely adequate to define the quality to be measured" (1955, p. 282).

Campbell and Fiske (1959) state that construct validation is, in fact, influenced both by convergent and by discriminant validity procedures. Convergent evidence is acquired when "a test correlates highly with other variables with which it should theoretically correlate" (Anastasi, 1988, p. 156). Kaplan and Saccuzzo observe that although convergent validation is not unlike criterion procedures regarding the importance of highly correlated criterion variables, a significant distinction exists: "In the case of convergent evidence for construct validity, there is no criterion to define what you are attempting to measure" (1982, p. 133). Discriminant evidence, on the other hand, is indicated when a test "does not correlate significantly with variables from which it should differ" (Anastasi, 1988, p. 156).

Although validity is regarded as a "unitary concept" (AERA, APA, & NCME, 1985, p. 9), the preceding discussion is indicative of the difficulties involved in distinguishing among the validity categories (AERA, APA, & NCME, 1985; Anastasi, 1988; Kaplan & Saccuzzo, 1982; Messick, 1988,
1989). Furthermore, Messick (1989) observes both that "validity is a matter of degree, not all or none" and that "validity is an evolving property and validation is a continuing process" (p. 13).

For the purpose of this study, and in consonance with the foregoing, convergent and discriminant validation procedures appear to be methodologically appropriate. Because no definitive criterion exists for social interest, and because its potential as a global construct needs to be considered, there is need to accumulate evidence of relationships between the SSSI and other tests and measures. Thus, it is hypothesized that convergent and discriminant evidence will be forthcoming in the form of correlations between the SSSI and other variables with which it should be theoretically related. Therefore, this study proposes the utilization of correlational and factor analytic procedures as a next step in the accumulation of convergent and discriminant evidence for the construct validity of the SSSI.

Defining Social Interest: What Is It?

As central a criterion as social interest might be, a simple definition of the concept has not always been present (Crandall, 1981). Adler's own attempts at operationally defining social interest ranged from the more simplistic notion of cooperation among individuals (Adler, 1931) to the following more elaborate definition:
It means particularly the interest in, or the feeling with, the community sub specie aeternitatis [Webster definition: Under the aspect of eternity; in its essential or universal form or nature. Spinoza]. It means the striving for a community which must be thought of as everlasting, as we could think of it if mankind had reached the goal of perfection. It is never [only] a present-day community or society, a specific political or religious formation. (Adler, 1956, p. 142)

It is little wonder that Ansbacher (1968/1991) refers to the above as being at once both the most difficult and the most distinctive concept in Individual Psychology.

"Humanistic identification" (O'Connell, 1965/1991, p. 26), "an interest in the interests of mankind" (Ansbacher, 1968/1991, p. 37), "community feeling" (Dreikurs, 1937/1991, p. 4), and "belongingness, cooperation, and responsibility towards society" (Nikelly, 1962/1991, p. 80) are examples of other translations and interpretations that have sought to clarify the meaning of gemeinschaftsgefühl. Although the preceding are indicative of diversity in translation and interpretation, common threads running throughout are calls for marked harmony in and affirmation of human existence. For the purposes of this paper, the following is offered as the most efficient definition of social interest: "The capacity to identify and transcend the limits of the self
seems to be the core of . . . social interest. . . . A value of things outside the self seems to be the glue that holds the parts [of this construct] together" (Crandall, 1981, p. 15).

Measuring Social Interest

Considering the above, it is not difficult to conceive of social interest as having been a demanding concept to measure empirically. However, since the early 1970s, the following self-administered social interest measures have been developed: (a) the Social Interest Index (SII) (Greever, Tseng, & Friedland, 1973); (b) the Social Interest Scale (SIS) (Crandall, 1975); and (c) the Sulliman Scale of Social Interest (SSSI) (Sulliman, 1973).

Greever et al. (1973) chose to operationalize social interest from the vantage point of four subscales which are based on the Adlerian theory of social interest as reflected in the following four life tasks: work, love, friendship, and self-significance. This self-administered index consists of 32 Likert-type items, with possible responses ranging from "not at all like me" to "very much like me."

The SIS (Crandall, 1975) was formulated around Ansbacher's (1968/1991) definition of social interest, namely, "a person's interest in the interests of mankind" (p. 37). Furthermore, due to Adlerian theory being value based (Ansbacher, 1968/1991), scale items were constructed with value orientation in mind. Twenty-four paired items
consisting of personality traits comprise the SIS, with the respondent choosing the trait he or she would rather manifest.

Sulliman's (1973) measure is based on what he considered were three highly agreed upon tenets of Adler's theory: (a) an interest in others; (b) a true sense of one's own worth, and (c) a feeling of being at home in the world. Participants are required to answer 50 true-false items, within which are incorporated two subscales focusing on "concern for and trust in others" and "confidence in oneself and optimism in one's view of the world" (Sulliman, 1973, p. 66).

Social Interest and Its Importance in Adlerian Theory

The theoretical construct of social interest is a cardinal proposition in Alfred Adler's theory of Individual Psychology. Originally labeled gemeinschaftsgefühl, "social interest" became the generally accepted translation (Crandall, 1981) and the one preferred by Adler (Sulliman, 1973). Adler is very straightforward as he develops the connection between mental health and social interest/cooperation (Adler, 1929, 1973). The certainty with which he regarded that connection is clear: "All failures--neurotics, psychotics, criminals, drunkards, problem children, suicides, perverts, and prostitutes--are failures because they are lacking in fellow-feeling and social interest" (Adler, 1931, p. 8).
Although no individual is ever completely deficient in social interest (Adler, 1956), it is the lack of social feeling, namely, the private/isolated frame of reference which leads to neurosis, and, in the extreme, psychosis and suicide become possibilities (Adler 1931, 1956). Not surprisingly, social adjustment becomes the goal of Individual Psychology (Adler, 1929) and social interest becomes the sine qua non of adjustment (Crandall, 1981). Conversely, maladjustment is characterized by non-cooperation and solitude (Adler, 1956). Thus, degree of social interest becomes the criterion by which mental health is defined within Adlerian theory.

Research Findings

Largely due to the development of the above measures, it seems apparent that since the 1980s empirical research has begun to demonstrate the presence of social interest in a variety of social contexts (Crandall, 1981; Watkins, in press). For example, positive correlations have been found between social interest and the following: altruism and trustworthiness (Crandall, 1982), better social adjustment (Crandall, 1981, chap. 6; Fish & Mozdzierz, 1988), happiness (Dixon, Willingham, Chandler, & McDougal, 1986; St. John, 1992), success expectancy (Fish & Mozdzierz, 1988), volunteerism (Hettman & Jenkins, 1990), high religiosity (Hsieh, 1987), religious beliefs (Tobacyk, 1983), androgyny and nurturance (Leak, Millard, Perry, & Williams, 1985),
empathy and perspective taking (St. John, 1992), marital adjustment (Markowski & Greenwood, 1984), other-centered values (Rim, 1983), friendliness (Watkins & Hector, 1990), interpersonal contact (Mozdzierz & Semyck, 1981; St. John, 1992), and high overall health and energy level (Zarski, Bubenzer, & West, 1986; Zarski, West, Gintner, & Carlson, 1987). On the other hand, research has evidenced negative correlations between social interest and the following variables: extreme response style (Crandall, 1982), anxiety and hostility (Crandall, 1984), narcissism (Joubert, 1987; Miller, Smith, Wilkinson, & Tobacyk, 1987; St. John, 1992), loneliness (Joubert, 1987), alienation from work, self, and others (Leak & Williams, 1989a), hopelessness (Miller, Denton, & Tobacyk, 1986), self-centered values (Rim, 1983), paranormal beliefs (Tobacyk, 1983), and depression (Crandall, 1984; Zarski, Bubenzer, & West, 1981).

According to Watkins (in press), some 45 social interest studies, incorporated within 38 articles, were carried out between 1981 and 1991. Only one study used the SSSI exclusively, with two others incorporating it with the SIS. The SII and SIS, whether used exclusively or in combination with each other, accounted for virtually all of the social interest research within the last dozen years.

Certainly, the SIS has found considerable support for its reliability and validity (Crandall, 1981; Watkins, in press). However, there has been some criticism of the SIS
and its relationship to clinical populations. For example, Mozdzierz, Greenblatt, and Murphy (1986, 1988), in their study of in-patient male alcoholics, found no significant correlations between the SIS and maladjustment as measured by the Minnesota Multiphasic Personality Inventory and the Psychological Screening Inventory. Also noteworthy is the finding by Peterson et al. (1985) that the SIS was apparently unable to measure significant differences between the responses of female prisoners and those of female university workers.

Criticisms of the SII have come largely in the form of research outcomes suggesting its apparent susceptibility to socially desirable response sets (Crandall, 1984; Crandall & Biaggio, 1984; Leak, 1982a, 1982b). Such susceptibility may result from the scale's complete lack of any negatively-oriented item content (Watkins, in press). Moreover, Leak (1982a, 1982b) suggests that the SII has questionable construct validity and calls for extensive refinement of item content, as does Zarski, Bubenzer, and West (1983).

With only five SSSI studies having been undertaken since 1980 (Fish & Mozdzierz, 1988; Greenblatt, Mozdzierz, & Murphy, 1984; Mozdzierz et al., 1986, 1988; St. John, 1992), and only two in the 1970s (Kaplan, 1978b; Sulliman, 1973), it is difficult to elaborate on this scale. However, along with its seeming ability to remain uncontaminated by socially desirable response sets, Mozdzierz et al. (1988)
comment that the SSSI appears "to be a promising measure of SI [that] warrant[s] further investigation" (p. 33).

Moreover, Fish and Mozdzierz (1988), encouraged by the quality of their research findings, called for the SSSI to be subjected to the stringency of further validity/reliability studies.

**Reasons for this Study**

As mentioned above, social interest research has studied a broad range of variables. However, the five that are being considered in this study have been chosen due to their being integrally related to social interest as defined by Adlerian theory and supported by empirical investigation. Moreover, by incorporating additional procedures and measures that complement measures and procedures used previously in St. John (1992), an effort will be made to further extend and round out that study's findings.

In St. John's (1992) study, the validity of the SSSI was explored by examining the relationship between participants' scores on the SSSI and their scores on measures of the following four variables: empathy, social contact, happiness, and narcissism. As had been hypothesized, statistical analysis revealed positive correlations between the SSSI and empathy, social contact, and happiness. Also, as had been predicted, narcissism was negatively correlated with the SSSI.
The purpose of the present study is to further explore evidence for the construct-related validity of the SSSI through the implementation of both convergent and discriminant procedures. First, it is my intention to replicate St. John’s (1992) study. Second, I propose to extend the results of that study by incorporating additional measures of empathy, happiness, and social contact, as well as including a measure of cooperation. Third, in addition to building on the previous study, the examination of the SSSI by means of principal-axis factor analytic procedures will serve to augment earlier validity findings.

In keeping with Adler’s definition of empathy, namely, "To see with the eyes of another, to hear with the ears of another, to feel with the heart of another" (1956, p. 135), Crandall and Harris (1976) verified its being positively correlated with social interest. For Adler, empathy, "always depends on the degree of social interest; it is one aspect of social interest and is absolutely essential to the achievement of social living" (1956, p. 137; see Kaplan, 1986/1991). Thus, as found previously, the SSSI as a measure of social interest should correlate positively with empathy.

Number and frequency of social contacts have been found to be positively correlated with social interest (Watkins & Hector, 1990). Such a finding is accordant with Adler’s assertion that "The greatest step for his (sic) welfare and the welfare of mankind is association. Every answer,
therefore, to the problems of life must take account of this
tie. . . ." (1931, p. 6). Thus, as found previously, the
SSSI as a measure of social interest should correlate
positively with social contact.

Happiness is set forth by Adler as being a condition
evidencing social interest, the presence of which "at times
more strongly, at times less so, determines the fate, the
failure, or the possibility for happiness of a person"
(1973, p. 58). Accordingly, Dixon et al. (1986) have
produced research indicating that happiness is a positive
correlate of social interest. Thus, as found previously,
the SSSI as a measure of social interest should correlate
positively with happiness.

Kaplan (1978a) and Crandall and Harris (1976) reported
a positive relationship between social interest and
cooperation. Such a relationship is consonant with Adler's
view that "Life presents only such problems as require
ability to cooperate for their solution" (Ansbacher &
Ansbacher, 1964, p. 136) and that the "most visible sign of
social feeling" is the "capacity for cooperation and
preparation for it" (Adler, 1938, p. 284). Thus, if the
SSSI is a measure of social interest, then it should
correlate positively with cooperation.

Narcissism, to whatever degree it may be present, is
viewed as antithetical to social interest. Although a
grandiose sense of self-importance is a diagnostic feature
of narcissism (American Psychiatric Association, 1987), for Adler it was not necessarily self-preoccupation that precluded social interest: "Thereby we say that in the conception of the narcissist, the most important part has been overlooked: the permanent exclusion of others, the narrowing of the sphere of action. . . . Thus we find here a lack of social interest. . . ." (1973, p. 208; see Ansbacher, 1985). Joubert (1987), Miller et al. (1987), and Watkins and St. John (in press) have produced empirical support for such a conclusion. Thus, as found previously, the SSSI as a measure of social interest should correlate negatively with narcissism.

Certainly, the foregoing consideration of theory and research findings strongly indicates that multiple contributing variables are attendant to the social interest construct. Thus, in the interest of parsimony, it is necessary to establish what factors comprise the SSSI itself. Moreover, although Sulliman (1973) performed a factor analysis in his original study, finding that the fifty items of the SSSI loaded on two factors, none has been performed since; moreover, his population sample consisted of high school students, grades nine through twelve. Thus, performing a principal-axis analysis on the SSSI as responded to by an adult sample, would provide important validational evidence.
Therefore, in keeping with the purpose of this proposed study, namely, an examination of the evidence for the construct-related validation of the SSSI, the relevance of this study rests in its proposed ability to do the following: (a) Demonstrate the relationship of empathy, social contact, happiness, cooperation, and narcissism to social interest as measured by the SSSI, and (b) produce factor analytic evidence conforming to the construct theory underlying the SSSI. With the exception of the St. John (1992) study, all previous research findings concerning the variables of interest in this study have been demonstrated with the use of either the SIS or the SII.

**Hypotheses**

In this study, the following hypotheses will be examined: (a) social interest, as measured by the SSSI, will be positively correlated with empathy (as measured by the Interpersonal Reactivity Index [IRI] and the Paired Hands Test [PHT]); (b) social interest, as measured by the SSSI, will be positively correlated with social contact (as measured by the Berkman Social Network Index [BSNI] and the Social Activity Measure [SAM]); (c) social interest, as measured by the SSSI, will be positively correlated with the single-item happiness measure and the Oxford Happiness Inventory [OHI]; (d) social interest, as measured by the SSSI, will be positively correlated with cooperation (as measured by the Cooperativeness Scale [CS]); and
(e) social interest, as measured by the SSSI, will be negatively correlated with narcissism (as measured by the Narcissistic Personality Inventory [NPI]).

In keeping with this study's proposed use of factor analytic procedures, Tinsley and Tinsley (1987) suggest that when a factor extraction procedure is exploratory in nature, it is appropriate not to advance a priori hypotheses. Therefore, in accord with the use of a principal-axis factor analytic approach, no hypotheses concerning the factor analysis of the SSSI will be set forth.
CHAPTER II

METHOD

Participants

Three hundred undergraduate students taking classes at the University of North Texas will take part in the experiment. When recruited to participate, students will be informed that they will have an opportunity to earn extra credit points to be applied toward their course grade (see Appendix A).

Instrumentation

The Sulliman Scale of Social Interest (SSSI). The SSSI (see Appendix B) is a 50-item self-administered measure to which individuals respond by means of a true-false format. Examples of the SSSI items include: "I like to watch movies where the bad guy wins," "I have confidence in other people," and "Most people are concerned only with themselves." High SSSI scores are representative of high social interest; low SSSI scores are representative of low social interest. All items on the SSSI are summed to provide a single score. The instrument was factor analyzed (Sulliman, 1973), resulting in the identification of two factors: (a) "concern for and trust in others," and (b) "confidence in oneself and optimism in one's view of the
Internal consistency measures produced the following correlations: (a) $r = .68$ between the two factors, and (b) $r = .87$ and $r = .90$ between each factor and the entire test. Reliability of the SSSI was assessed by three different methods, with the following results: (a) Kuder-Richardson, $r = .91$; (b) split-half, $r = .90$; and (c) test-retest, $r = .93$. As a measure of concurrent validity, a biserial correlation coefficient of $r = .71$ resulted from comparisons between students' total scores and teachers' evaluations of homeroom students. Sulliman's (1973) study used a sample of males, females, blacks, and whites, from a public high school population, grades nine through twelve ($N = 452$). Studies by Mozdzierz et al. (1986, 1988) have produced findings which support the SSSI's construct validity: (a) Inverse correlations with measures of maladjustment according to the Psychological Screening Inventory ($r = -.65$ with alienation; $r = -.54$ with social nonconformity) as well as with derived scales of the Minnesota Multiphasic Personality Inventory [MMPI] ($r = -.64$ with prejudice; $r = -.54$ with maladjustment; $r = -.56$ with dependency); and (b) positive correlations with the Purpose-in-Life test score ($r = .64$) as well as with the MMPI derived scales ($r = .47$ with social responsibility; $r = .39$ with ego strength). Evidence for the construct validity of the SSSI was also found by St. John (1992), namely,
positive correlations with the IRI's Perspective taking ($r = .45$) and Empathy scales ($r = .41$), happiness ($r = .38$), the BSNI's number of close friends ($r = .29$), and a negative correlation with narcissism ($r = -.25$), as measured by the NPI.

The Interpersonal Reactivity Index (IRI). The IRI (Davis, 1980) is a multidimensional, 28-item, Likert-type questionnaire measuring individual differences in empathy (see Appendix C). Factor analysis resulted in the development of four 7-item subscales: (a) Perspective-taking (e.g., "I sometimes find it difficult to see things from the 'other guy's' point of view); (b) Fantasy (e.g., "I really get involved with the feelings of the characters in a novel"); (c) Empathic concern (e.g., "I often have tender, concerned feelings for people less fortunate than me"); and (d) Personal distress (e.g., "I am usually pretty ineffective in dealing with emergencies") (Davis, 1980). Participants respond to each item on a 5-point scale ranging from 0 ("does not describe me well") to 4 ("describes me very well"). Items within each scale are summed to provide four separate subscale scores. Test-retest reliabilities across the four scales ranged from $r = .61$ to $r = .81$.

The Paired Hands Test (PHT). The PHT (Zucker & Barnett, 1977) is a 20-item measure of the others-concept, combining both projective and objective features (see Appendix D). Twenty slides (or photographs), each comprised
of one black and one white hand in a relationship that suggests some interaction between them, are presented one at a time. The respondent selects one statement, out of five presented for each slide (or photograph), that is the closest approximation to his or her own perception about what the hands are doing. For example, "Loaning a good friend a quarter" has a more positive position on the scale than "One hand is angrily demanding money from the other." The statements were edited from a collection of verbatim statements and are scaled along a friendliness-hostility dimension using a Thurstone-type technique. The subject's summed score on the test is interpreted as being indicative of his or her others-concept, that is, the higher the score the more positive their others-concept (Barnett & Zucker, 1973, 1975, 1977, 1980). Criterion validity was demonstrated against behavioral measures, with higher-scoring respondents on the PHT tending to be more cooperative, goal-directed, and pleasant (Barnett & Zucker, 1980). Fakouri, Zucker, and Fakouri (1991) found evidence of the PHT's construct validity in a comparison of student nurses' PHT scores with instructor's empathy ratings: The students with more positive others-concepts had higher instructor empathy ratings.

The Berkman Social Network Index (BSNI). The BSNI (see Appendix E, Questions 6-8) is a 4-item self-report index requesting information from participants pertaining to four
sources of social relationships: (a) marriage, (b) contacts with close friends and relatives, (c) church membership, and (d) informal and formal group associations (Berkman & Syme, 1979). For the purposes of this study, the following friend/relative contacts questions were focused on: (a) How many close friends do you have? (b) How many relatives do you have that you feel close to? and (c) How many of these friends and relatives do you see at least once a month?

Berkman and Syme (1979) used the BSNI in a study of mortality rates within a stratified sampling of Alameda County, California, residents between the ages of 30-69 (n = 2229 males, 2496 females); neither mean age nor ethnicity was specified.

The Social Activity Measure (SAM). Questions on the SAM (Cooper, Okamura, & Gurka, 1992) were constructed to represent the following four types of social activities: (a) activities with friends, (b) organized groups, (c) parents, and (d) other relatives (see Appendix F). For each of the four activity types, questions were asked both about the frequency of the activities and the satisfaction derived by the participant from the activities. Questions can be classified into eight different, mutually exclusive categories (Cooper et al., 1992). In the development of the SAM and its subscales each of the eight activity categories was measured by one, two, or three questions. Questions within categories were first summed (after being placed on
comparable scales), and each category score was standardized to a mean of zero and a standard deviation of 1. Finally, all eight standardized category scores were summed. Both the frequency of social activity (FSAM) and satisfaction with social activity (SSAM) were created by separately summing the four categories dealing with those two aspects of social activity (Cooper et al., 1992). Furthermore, Cooper et al. report that in both studies the SAM was highly correlated with the FSAM subscale (r = .73 and r = .73) and the SSAM subscale (r = .85 and r = .80). Lower, but significant correlations were also found between the FSAM and SSAM both in Study 1 (r = .25) and in Study 2 (r = .19).

Happiness (see Appendix E, Question 9). As a measure of happiness, participants will be asked to rate on a scale of 1 to 6, from "very unhappy" to "very happy," the degree of happiness they are perceiving at this time in their lives. This single-item measure is derived from the 3-point scale of Gurin, Veroff, and Feld (1957) which was used in their study of a representative cross-section of Americans 21 years of age and older (n = 2460). Andrews and Withey (1976), suggesting that insufficient variance was accounted for in using a 3-point scale, developed a 7-point single-item measure. They offer the following evidence in support of its positive correlation with other global measures of well being: (a) r = .56 with "fair treatment by others"; (b) r = .53 with "accepted, admired by others"; and
Test-retest reliabilities range from \( r = 0.43 \) for an 8-month interval (Bradburn & Caplovitz, 1965) to \( r = 0.70 \) for a 1-month interval and \( r = 0.67 \) for a 2-year interval (Wilson, 1960). However, Diener (1984) observes that single-item measures have been criticized for (a) their difficulty in differentiating "true change from measurement error" (p. 544), (b) having less reliability over time than multi-item measures, and (c) the impossibility of capturing internal consistency data. Therefore, the following multi-item measure has been incorporated into this proposed study.

The Oxford Happiness Inventory (OHI) (see Appendix G). The OHI (Argyle, Martin, & Crossland, 1989) is a multidimensional, 29-item, self-report, Likert-type questionnaire, with participants responding to each item on a 4-point scale ranging from 0 ("unhappy, mildly depressed" to 3 ("manic"). For example, item five ranges from "I don't feel life is particularly rewarding" to "I feel that life is overflowing with rewards." The scale was developed along similar lines to the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Hock, & Erbaugh, 1961; cited in Argyle, et al., 1989), with 21 of the original items being based on reversals of BDI items. Eleven additional items were incorporated to cover aspects of subjective well-being the authors believed absent (Argyle et al., 1989). The original 32-item questionnaire was presented to a small group of
graduate students who ranked the four choice categories and judged the face validity of each item; three items were excluded as a result (Argyle et al., 1989). All items are summed to provide a single score. The authors of the OHI report a 7-week test-retest reliability ($r = .78$) and a 5-month test-retest reliability ($r = .67$). The OHI correlated with friends' ratings of happiness ($r = .43$) and Cronbach's alpha yielded a reliability coefficient of $r = .90$. Argyle and Lu's study (1990) reported a 4-month test-retest reliability coefficient ($r = .81$). They also reported the emergence of seven orthogonal factors designated as (1) Positive cognition, (2) Social commitment, (3) Positive affect, (4) Sense of control, (5) Physical fitness, (6) Satisfaction with self, and (7) Mental alertness; test-retest reliability coefficients between each pair of seven OHI factors ranged from $r = .49$ to $r = .77$. The research of Furnham and Brewin (1990) provides convergent and discriminant validation evidence for the OHI as it correlated positively with extraversion ($r = .55$), as measured by the Eysenck Personality Questionnaire (EPQ) and negatively with neuroticism ($r = .43$), as measured by the EPQ. Argyle and Lu (1990) found evidence of convergent validity as the OHI correlated positively with general assertiveness ($r = .42$), as measured by Gambrill and Richey's Assertion Inventory, and extraversion ($r = .35$), as
measured by the EPQ; discriminant evidence was shown in negative correlations between the OHI and public self-consciousness ($r = -0.27$) and social anxiety ($r = -0.35$), as measured by Fenigstein, Scheier and Buss's scale, and with neuroticism ($r = -0.45$), as measured by the EPQ. Lu and Argyle's study (1991) provides convergent evidence of validity in the form of a positive correlation between the OHI and the Cooperativeness Scale ($r = 0.26$).

The Cooperativeness Scale (CS) (see Appendix H). The CS is a multidimensional, 36-item, self-report, Likert-type questionnaire with participants responding to each item on a 5-point scale ranging from "Totally agree" to "Totally disagree." All items are summed to provide a single score (Lu and Argyle, 1991). Examples of CS items are "There is often friction between friends because they want to do different things" and "Involvement in joint projects at work is very satisfying." The authors report that scale construction began with 50 original items selected from numerous scales in the literature or made up to reflect attitudes towards cooperation and joint activities; half of the 50 items endorsed cooperation and the other half did not. The authors administered the original 50-item questionnaire to 114 adults. Readministration occurred six months later with the same sample; after item-to-scale correlations were computed for all items, 14 items were dropped, resulting in the final 36-item version. Factor
analysis with varimax rotation on both sets of data yielded factors designated as (1) Managing conflicts/negotiation, (2) Decision making, (3) Joint activities/doing things together, and (4) Group productiveness/working together. Total scale alpha coefficients were $r = .77$ and $r = .81$ for first and second administrations respectively. Subscale alpha coefficients ranged from $r = .55$ to $r = .77$ for first administration and $r = .53$ to $r = .75$ for the second. Six-month test-retest reliability for the total scale was $r = .69$, whereas for the subscales the test-retest reliability coefficients ranged from $r = .59$ to $r = .61$. Evidence of convergent validity came in the form of positive correlations with social skills ($r = .29$), as measured by the COMQ, self-esteem ($r = .19$), as measured by Rosenberg’s self-evaluating scale, extraversion ($r = .31$), as measured by the EPQ, and happiness ($r = .26$), as measured by the OHI. Discriminant evidence was found in a negative correlation with neuroticism ($r = -.14$), as measured the EPQ.

The Narcissistic Personality Inventory (NPI) (see Appendix I). The NPI (Emmons, 1984) is a multidimensional, 54-item, forced-choice questionnaire devised by Raskin and Hall (1979) to assess individual differences in narcissism as a personality trait. Each item consists of a pair of bipolar statements, for example: (a) "I really like to be the center of attention," and (b) "It makes me uncomfortable to be the center of attention." All items on this measure
Item analysis was conducted on each item by comparing the 20 highest overall scoring students who chose the narcissitic alternative with the 20 lowest scoring students who chose the narcissistic alternative. Eighty items met the criterion of significance at or below the .05 level. Split-half reliability ($r = .80$) was found by Raskin and Hall (1979). In a study by Emmons (1984; see Emmons, 1987) responses to the NPI were subjected to factor analysis with oblique rotation resulting in the emergence of the following four factors:

(a) Exploitativeness/entitlement, (b) Leadership/authority, (c) Superiority/arrogance, and (d) Self-absorption/self-admiration. Employing Cronbach’s alpha, internal consistencies for the full scale and each of the four factors were .86, .74, .79, .69, and .69 respectively ($n = 415$; age, gender, and ethnicity unspecified). Several studies provide evidence for the construct validity of the NPI, which Chatham, Tibbals, and Harrington (1993) suggest is "the most widely employed narcissism scale currently available in both normal and clinical samples" (p. 242). For example, Raskin and Hall (1981) studied a sample of undergraduates ranging in age from 16 to 41 years, who were enrolled in a developmental psychology class. The NPI correlated positively with the EPQ ($r = .23$). Raskin and Terry (1988), in a study using 57 college sophomores, found positive correlations between the NPI and trained
Energy level ($r = .30$), as well as negative correlations with such characteristics as Arouses nurturant feelings in others ($r = -.43$), Is concerned with own adequacy as a person ($r = -.42$), and Seeks reassurance from others ($r = -.40$). Emmons (1984), reports evidence of positive correlation ($r = .64$ between NPI scores and peer ratings of narcissism. Moreover, concurrent validation evidence has been forthcoming through numerous studies having produced positive correlations between the NPI and other narcissism measures (e.g., Chatham et al. 1993; Prifitera & Ryan, 1984; Shulman & Ferguson, 1988; Wink & Gough, 1990). Although Raskin and Terry (1988) have both revised the NPI, resulting in a 40-item measure, and have offered evidence of seven first-order components, it seemed prudent in this proposed study to utilize the original 54-item measure due to the preponderance of reliability and validity data.

The Marlowe-Crowne Social Desirability Scale (M-C SDS) (see Appendix J). The M-C SDS is a 33-item self-administered measure to which participants respond by means of a true-false format. Examples of the M-C SDS items are "I never resent being asked to return a favor" and "I have never deliberately said something that hurt someone's feelings." All items on the M-C SDS are summed to provide a single score, with higher M-C SDS scores representing a participants tendency to give socially
desirable responses. "The population from which items were drawn is defined by behaviors which are culturally sanctioned and approved but which are improbable of occurrence" (Crowne & Marlowe, 1960, p. 350). Originally, a group of 50 items, based on the foregoing criterion, as well as on the requirement that whether any item was responded to either in the desirable or in the undesirable directions, it would be with "minimal pathological or abnormal implications" (p. 350). Judges, consisting of faculty members and graduate students, were instructed to respond either true or false to the items, with said responses being from the perspective of college students. Forty-seven items were retained and, along with the Edwards Social Desirability Scale (Edwards 1957; cited in Crowne & Marlowe, 1960), were further judged to determine "the degree of maladjustment implied by socially desirable responses to the items" (p. 350). Finally, the 47-item scale was administered to introductory psychology students, and after item analysis was completed, 33 items were retained. The internal consistency coefficient ($r = .88$) was obtained using the Kuder-Richardson formula 20 to analyze the test responses of 39 students enrolled in an abnormal psychology course. A 1-month test-retest correlation of .89 was obtained based on test responses of 31 of the 39 students. Because social interest is a socially desirable trait, and, consequently, participants
may be inclined to respond to the SSSI in a socially
desirable fashion, it seems appropriate to incorporate the
M-C SDS as a measure of control regarding that concern.

Procedure

Because of time constraints and the number of measures
involved, the PHT will be administered during the group's
first testing session; the demographic information, which
also includes the BSNI and the happiness item at its end,
along with the SSSI, IRI, SAM, OHI, CS, NPI, and M-C SDS
will be administered during the group's second testing
session. To guard against order effects, the foregoing
procedures will be alternated with each group tested, and
the SSSI, IRI, SAM, OHI, CS, NPI, and M-C SDS will be
randomly ordered throughout the instrument packets.

Analysis of Results

The Pearson Product-Moment Correlation Coefficient will
be used to determine the relationships between social
interest, as measured by the SSSI, and the following: (a)
the four subscale scores of the IRI; (b) the three social
contact items of the BSNI; (c) the happiness item; (d) the
total others-concept score of the PHT, (e) the total social
activity score and the two subscale scores of the SAM; (f)
the total happiness score and the three subscale scores of
the OHI; (g) the total cooperativeness score and four
subscale scores of the CS; and (h) the total narcissism
score and the four subscale scores of the NPI. Level of
significance for correlations will be set at the .05 level. In addition, SSSI data will be analyzed using principal-axis factor solution with unities in the diagonal and with varimax rotation on all factors with latent roots of one or greater to explore the factor structure of the SSSI in a college sample.
CHAPTER III

RESULTS

Means and standard deviations for selected variables in this study are presented in Table 1 (see Appendix K). (With all measures higher scores indicate greater amounts of the particular construct being measured.) Social interest scores tended to be in the high range ($M = 88.70, SD = 7.54$), thus indicating strong endorsement of social interest tendencies as measured by the SSSI. Scores on the majority of the psychological measures (the IRI, BSNI, Happiness, PHT, SAM, and CS) were located within the medium to high ranges; exceptions were the Personal Distress scale score of the IRI, along with the OHI and NPI total scores, which tended to be in the lower ranges.

Table 2 (see Appendix K) displays the Pearson product-moment correlations between the SSSI and the other psychological measures used in this study. It was hypothesized that social interest, as measured by the SSSI, would be positively correlated with empathy (as measured by the IRI), others-concept (as measured by the PHT), social contact (as measured by the BSNI and SAM), happiness (as measured by the single-item scale and the OHI), and cooperation (as measured by the CS). It was also
hypothesized that social interest, as measured by the SSSI, would be negatively correlated with narcissism (as measured by the NPI).

All correlations were both statistically significant and in the predicted directions, with the exceptions being between the SSSI and the Personal Distress ($r = -0.21$, $p < .001$) and Fantasy ($r = 0.04$, $p > .05$) scale scores of the IRI and the Leadership/Authority ($r = 0.06$, $p > .05$) and Self-absorption/Self-admiration ($r = 0.06$, $p > .05$) subscale scores of the NPI.

The following were the strongest correlations between the SSSI and total scale scores: (a) cooperativeness ($r = 0.49$, $p < .001$), (b) happiness ($r = 0.44$, $p < .001$), (c) social activity ($r = 0.37$, $p < .001$), and (d) the single-item happiness measure ($r = 0.40$, $p < .001$). There were also moderate correlations between the SSSI and several of the subscale scores as indicated by the following: (a) exploitativeness/entitlement ($r = -0.50$, $p < .001$) (b) managing conflicts ($r = 0.42$, $p < .001$) and decision making ($r = 0.42$, $p < .001$) subscale scores of the CS, (c) enjoyment and fun in life ($r = 0.41$, $p < .001$) and satisfaction/personal achievement ($r = 0.40$, $p < .001$) subscale scores of the OHI, (d) and the frequency subscale of the SAM ($r = 0.39$, $p < .001$).

The Pearson product-moment correlations between the SSSI and the individual items comprising the SAM are located
in Table 3 (see Appendix K). All items within the Satisfaction subscale were positively and significantly correlated with the SSSI. However, although half of the individual items comprising the Frequency subscale were correlated positively and significantly with the SSSI, results indicated that frequency of visits to parents or guardians, belonging to a fraternity or sorority, and being a member of a sports team were not significantly related to social interest, as measured by the SSSI.

In keeping with the purposes of this study, the factor structure of the SSSI was explored in a college sample. Interitem correlations were computed and the resulting correlation matrix (see Appendix K) was subjected to principal axis factor analysis. The number of factors to be extracted was determined by a joint consideration of Kaiser's eigenvalue criterion and the scree plot of eigenvalues (Kim & Mueller, 1978; Tabachnick & Fidell, 1989). Using these criteria three factors emerged which were then subjected to varimax rotation. The three factors accounted for 21% of the variance. The SSSI items and their respective rotated factor loadings are presented in Table 5 (see Appendix K). Only items with loadings equal to or greater than .35 were included (Comrey & Lee, 1992). The proportion of total and common variance explained by each rotated factor is presented in Appendix K.
The 14 items loading on Factor 1 appear to involve a sense of harmony, not only with self, but also between self and others and between self and life events; thus this factor is labeled "Contextual harmony." Factor 2 is comprised of eight items that seem to focus both on treating others positively and on responding positively towards them; accordingly this factor is labeled "Positive treatment/response." Finally, an inspection of the nine items loading on Factor 3 suggests the presence of confidence and trust in the perception of others and their behavior; hence, this factor is labeled "Confidence and trust."
Adlerian theory suggests that the construct of social interest is the criterion by which mental health is defined. Attempts at measuring social interest have, in the main, involved utilization of the SIS and/or the SII. However, as has been observed, these two measures have been the objects of some criticism since their development in the early 1970s. A third measure, the SSSI, was also developed in the same period but has been employed in only five studies since 1980. Therefore, the purpose of this study was to further explore evidence for the construct-related validity of the SSSI through the implementation of both convergent and discriminant procedures.

First, it was my intention to replicate St. John's (1992) study. Second, I proposed to extend the results of that study by incorporating additional measures of empathy, happiness, and social contact, as well as including a measure of cooperation; these variables were chosen due to their being integrally related to social interest as defined by Adlerian theory and supported by previous empirical investigation. And, third, in addition to building on the previous study, the examination of the SSSI by means of
principal-axis factor analytic procedures would serve to augment earlier validity findings.

Regarding the study’s first intention, namely, a replication of St. John’s (1992) study, all nine of the relationships demonstrated in that study were replicated. The SSSI total score correlated positively with the following variables: the Perspective Taking scale of the IRI, the Empathy scale of the IRI, the number of close friends of the BSNI, the number of close relatives of the BSNI, the number of close friends and relatives seen at least once a month of the BSNI, and the general level of happiness. The SSSI total score correlated negatively with the NPI total score. Rounding out the replication findings, the SSSI total score was shown not to be significantly related to the Fantasy scale of the IRI, and the Personal Distress scale score of the IRI was correlated negatively with the SSSI total score.

In attempting to extend the findings St. John’s (1992) earlier study, only the following four of twenty-six hypothesized relationships between the SSSI and other psychological measures were not in the predicted direction: the Personal Distress and Fantasy scale scores of the IRI and the Leadership/Authority and Self-Absorption/Self-Admiration subscale scores of the NPI. Overall, although correlation coefficients were in the low to moderate range, the results reported above offer evidence largely supportive
of the hypothesized relationships between social interest, as measured by the SSSI, and empathy, others-concept, social contact, happiness, cooperativeness, and narcissism. Therefore, the convergent and discriminant evidence reported in this study appears to offer some support for the SSSI's construct validity.

The results of the factor analysis add empirical support for the use of the SSSI for measuring social interest within the bounds of the variables specified in this study as being consistent with Adlerian theory. In labeling the three factors as "contextual harmony," "positive treatment/response," and "confidence and trust," it seems apparent that the content of these factors is consistent with the two factors Sulliman identified as "concern for and trust in others" and "confidence in oneself and optimism in one's view of the world" (1973, p. 66). However, it is noteworthy that 19 of the SSSI items failed to load significantly on any of the three factors. Although five of these items approached the minimum criterion ($r = .35$), the remaining items fell substantially below it. Thus, it may be realistic to consider the possibility that these 19 items do not adequately tap into social interest (at least in college students) and that, perhaps, they either need to be omitted from the SSSI or need to be revised. For the reader's convenience, Table 6 (see
Appendix P) displays the three factors and the items of which they are comprised.

Although the factor analysis conducted by Sulliman (1973) was with a population of high school students, the factor content in the present study is in keeping with what Sulliman set forth as three highly agreed upon tenets of Adler's theory: (a) an interest in others; (b) a true sense of one's own worth; and (c) a feeling of being at home in the world. Also, the above factor analytic findings are in harmony with what was offered earlier in this paper as the most efficient definition of social interest: "The capacity to identify and transcend the limits of the self seems to be the core of . . . social interest. . . . A value of things outside the self seems to be the glue that holds the parts [of this construct] together" (Crandall, 1981, p. 15). Such findings seem to lend support to the idea that social interest can be viewed both as a global concept that is related to the specific variables used in this study and as a single factor which emphasizes the self as contextually involved/a contextual participant.

However, although the foregoing results appear to offer support for the construct validity of the SSSI as a measure of social interest, the four relationships that were not in the predicted directions need to be addressed. First, although the Personal Distress scale score of the IRI correlated negatively with the SSSI, an examination of the
scale content suggests that it measures an observer’s feelings of personal anxiety and discomfort in response to emotionality in others. Thus, in keeping with social interest as being a more other-oriented construct, a person scoring lower on such a measure of personal distress might be expected to score higher on social interest as measured by the SSSI.

Second, that the Fantasy scale score of the IRI demonstrated no relationship with the SSSI may not be that surprising considering that the scale’s content is focused on identifying with characters in movies, novels, plays, and other fictional settings. A scale measuring the tendency to transpose oneself into the fictitious roles of others may be theoretically unrelated to one measuring Adler’s concept of having a more reality based interest in and concern for the wellbeing of others. Also, it may be helpful to remember that Davis (1980) developed the IRI with four distinct aspects of empathy in mind in order to help clarify the different influences that each component has on a person’s behavior.

Third, regarding the lack of relationship between the Leadership/Authority and the Self-absorption/Self-admiration subscales of the NRI and the total scale score of the SSSI, it may be observed that the items comprising these two subscales appear to be sufficiently mixed in content between an exclusionary self-view and a healthy self-confidence so
that social interest and narcissistic responding may negate each other. That is, some participants scoring high on the SSSI may view themselves as possible leaders who would function in positions of authority and have satisfying views of self. Moreover, a closer view of the item content of these two subscales reveals that they may be less extreme for narcissistic endorsement than the Exploitativeness/entitlement and Superiority/arrogance subscales. Finally, Adler himself did not indicate that social interest could not coexist with a high regard for self, but that it was the narcissist’s "permanent exclusion of others" (1973, p. 208; see Ansbacher, 1985) which precluded social interest.

Limitations

Because of the methodological approach utilized in this study, there are some limitations which need to be addressed. First, all of the tests and measures employed in this study were self-reporting in nature. Frequently it has been observed that self-report tests and measures are subject to reporting biases which may result from respondents shading their answers to some degree, or even to outright dishonesty. However, when measuring a construct deriving from a phenomenological theory such as Adler’s, it may be less problematic as self-report measures seem necessary if the research is to tap into the participant’s particular experience. Also, the use of the PHT was an
attempt, albeit slight, to move away from the classical self-report measure.

Second, as was noted in the body of this paper, social interest has experienced a broad range of definitions. However, such a problem is not unusual in the social sciences, and is perhaps indicative of the need for construct validity studies. Third, the research findings are descriptive in nature, rather than explanatory.

Conclusion

This study has not been without its limitations, but it appears that its main purpose of further exploring evidence for the construct-related validity of the SSSI through implementation of both convergent and discriminant procedures has been fulfilled. The evidence gathered offers support for the construct validity of the SSSI as a measure of social interest. Although it has been encouraging to replicate previous findings, as well as to extend them, it seems prudent to suggest that further research endeavors be directed towards the continued refinement of the SSSI and the establishment of its place in social interest research.

Although it was suggested above that the items failing to load significantly on the three factors be considered for deletion from the SSSI, it might be important to attempt a replication of the factor analytic portion of the present study before following through on such a suggestion. Also, an avenue of exploration that might prove worthwhile would
be the utilization of the SIS, SII, and the SSSI in a factor analytic study with a view to exploring what relationships there might be among them, as well as examining the possibility of combining scale content into one instrument. Finally, although frequently difficult to implement, a multitrait-multimethod matrix study, with an emphasis on behavioral correlates, would have the potential of adding to the evidence for the construct validity of the SSSI.
APPENDIX A

INFORMED CONSENT
INFORMED CONSENT

I, (Name) ___________________________ (Soc. Sec. No.)
________________________ agree to participate in a study which examines personality variables of college students. The purpose of this study is to investigate the relationships among those personality variables. From the results of the study, the investigator hopes to derive information that will facilitate further understanding of how particular types of decisions are made.

As a participant, I understand that I will be expected to participate in approximately 90 minutes of testing. Testing will involve the filling out of questionnaires, as well as responding to a visual stimulus exercise.

I have been informed that, to maintain my anonymity, all information obtained in this study will be recorded with a code number that will allow the investigator to determine my identity. At the conclusion of this study, the key that relates my name with my assigned subject identification code will be destroyed. Providing that I remain anonymous, I agree that any data obtained from this research may be used in any way thought best for publication and education. I have also been informed that the data are being collected under experimental research conditions. Therefore, I hereby waive any future access to the data obtained.
I understand that my participation is completely voluntary and that for each half-hour of involvement in testing, I will receive one extra credit point. I also understand that there is no personal risk directly involved with this research, and that I am free to withdraw my consent and discontinue participation in this study at any time. A decision to withdraw from the study will not affect my academic standing and I will receive full credit points for the time period that I participated in the study prior to my withdrawal.

If I have any questions or problems that arise in connection with my participation in this study, I should contact Chris St. John, the principal investigator, at (214) 625-3470 or Dr. Ed Watkins, Jr., the investigator’s supervisor, at (827) 565-2671.

________________________________________  ________________________________________
Date                                        Participant’s signature

________________________________________  ________________________________________
Date                                        Investigator’s signature

THIS PROJECT HAS BEEN REVIEWED BY THE UNIVERSITY OF
NORTH TEXAS COMMITTEE FOR THE PROTECTION OF
HUMAN SUBJECTS

Telephone: 817-565-3940
APPENDIX B

SULLIMAN SCALE OF SOCIAL INTEREST
INSTRUCTIONS: This scale is comprised of fifty statements. Read each statement carefully and decide whether it is true or mostly true as applied to you or whether it is false or usually false as applied to you. If a statement is true or mostly true as applied to you, place a 1 in the blank space to the left of that statement. If a statement is false or usually false as applied to you, place a 2 in the blank space to the left of that statement. Please respond to all statements. There are no right or wrong answers on this scale. Please be honest in your responses.

1 = true or mostly true as applied to you
2 = false or usually false as applied to you

___ People are all of equal worth, regardless of what country they live in.
___ If it were not for all the bad breaks which I have had, I could really have amounted to something.
___ I often feel like I am completely alone in the world.
___ I think that most people are friendly.
___ I get angry when people do not do what I want them to do.
___ Members of my family have great concern for me.
___ I wish that everyone would leave me alone.
___ I like to watch movies where the bad guy wins.
___ If people make things difficult for me then I will try to make things even more difficult for them.
___ It seems like nothing ever changes for me.
___ A person must watch out for himself/herself because no one else will help him/her.
___ Most people only appear to be honest but do many dishonest things.
___ I don't let anyone tell me what to do.
___ I would like to make the world a perfect place in which to live because then I would be seen by others as the most important person alive.
1 = true or mostly true as applied to you
2 = false or usually false as applied to you

The world is a great place in which to live.
I like animals more than I like people.
I like to make new friends.
Some people do not deserve to live.
It seems like people are always doing bad things to me.
Most people have little respect for others.
It seems like everything I do turns out wrong.
There are some individuals whom I hate.
No one really cares about me.
Things usually work out for the best.
I would rather complete a "perfect crime" and not be caught than to complete a work of art such as a painting.
Most people are concerned only with themselves.
Sometimes I like to hurt people.
I wish that I could run away and leave everyone in the world behind me.
I am an important person in the lives of some other people.
I would like to help every person in the world.
Most people treat me more like a little kid than an adult.
Most people would take advantage of me if they could.
I am a happy person.
I care about people that I know but not about total strangers.
I sometimes like to hurt animals for no reason at all.
No one tries to understand me and my feelings.
I wish that I could destroy the world and build it back up the way that I would like it to be.
1 = true or mostly true as applied to you
2 = false or usually false as applied to you

___ People cooperate with me most of the time.
___ If something goes wrong for me, I become extremely angry.
___ There aren't very many things that I care about.
___ I hope that I get the chance to get back at some people for the bad way in which they have treated me.
___ People can't be trusted.
___ This is a great time to be alive.
___ People are not very friendly.
___ I have confidence in other people.
___ To get ahead in this world, you have to step on people along the way.
___ I hate to listen to other people's problems.
___ People are basically good.
___ There are several people whom I hate.
___ If I had control over people, I would make them do what I wanted them to do.
APPENDIX C

INTERPERSONAL REACTIVITY INDEX
IRI

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate number on the scale below: 1, 2, 3, 4, or 5. When you have decided on your answer, put the appropriate number in the blank space to the left of the item. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

ANSWER SCALE:

1 2 3 4 5

1 Does Not Describe
   2 Describe
   3 Me Well
   4 Describes Me
   5 Very Well

1 I daydream and fantasize, with some regularity, about things that might happen to me.
2 I often have tender, concerned feelings for people less fortunate than me.
3 I sometimes find it difficult to see things from the "other guy's" point of view.
4 Sometimes I don't feel very sorry for other people when they are having problems.
5 I really get involved with the feelings of the characters in a novel.
6 In emergency situations, I feel apprehensive and ill-at-ease.
7 I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.
8 I try to look at everybody's side of a disagreement before I make a decision.
9 When I see someone being taken advantage of, I feel kind of protective towards them.
10 I sometimes feel helpless when I am in the middle of a very emotional situation.
11 I sometimes try to understand my friends better by imagining how things look from their perspective.
12 Becoming extremely involved in a good book or movie is somewhat rare for me.
13 When I see someone get hurt, I tend to remain calm.
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Describe Me</td>
<td>Describes Me Very Well</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Other people's misfortunes do not usually disturb me a great deal.
- If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
- After seeing a play or movie, I have felt as though I were one of the characters.
- Being in tense emotional situations scares me.
- When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
- I am usually pretty effective in dealing with emergencies.
- I am often quite touched by things that I see happen.
- I believe that there are two sides to every question and try to look at them both.
- I would describe myself as a pretty soft-hearted person.
- When I watch a good movie, I can very easily put myself in the place of a leading character.
- I tend to lose control during emergencies.
- When I'm upset at someone, I usually try to "put myself in his/her shoes" for a while.
- When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
- When I see someone who badly needs help in an emergency, I go to pieces.
- Before criticizing somebody, I try to imagine how I would feel if I were in his/her place.
APPENDIX D

PAIRED HANDS TEST
This is a test designed to find out things about people and their ideas. There are no right or wrong answers, so you don't have to worry.

Some slides will be shown to you. In each slide are hands of two different people doing something. Your task will be to determine what the hands in the slide are doing.

Remember, there are no right or wrong answers.

You will be shown twenty slides, one at a time. As you are shown a slide, you will look at the statements written on the answer sheet you've been given. There are five statements for each slide, representing five different ideas of what the hands in the slide might be doing.

Your job is to decide which one of the statements comes closest to your own idea of what the hands are really doing.

You are now asked to look at the practice slide presented to you on the screen. After you have looked at the hands, read each one of the following statements:

**PRACTICE SLIDE**

1. Climbing a mountain; one hand in slipping and the other is refusing to help.
2. Reaching to catch a foul ball at a baseball game.
3. Trying to grab another person’s money.
4. Swatting flies to keep them from biting.
5. Sadly waving goodbye for the last time.

Now, it is time for you to decide which statement comes closest to saying what you think the hands are really doing. You should circle the number of the statement you have selected on the ANSWER SHEET.

Now, turn to the next page of the ANSWER SHEET and locate the words "SLIDE 1" written in bold type. You will be shown slide 1. After you have seen it and decided on a statement, circle your choice. Then wait for slide 2 to be shown to you. Do the same for each of the twenty slides.

From now on we will be interested in your own ideas and not what other people think. There are no right or wrong answers. Follow along silently as each statement is read aloud.
SLIDE 1

1. Loaning a good friend a ten-dollar bill.
2. Grabbing for something they both want.
3. It’s a hold-up; the robber is angrily taking a ring which the victim was hiding.
4. One hand is angrily demanding money from the other.
5. Giving a guest an appetizer at a party.

Circle one that comes closest to your first idea of what the hands are doing.

Now we are going to start going faster, because we want your first idea and don’t want you to spend a lot of time thinking about which one to choose. From now on I’ll let you read the choices silently to yourselves. I’ll show each slide for only 30 seconds, so be sure to make your choice quickly, circle your answer, and be ready for the next slide.

SLIDE 2

1. Bending a wire to repair a fence; they’re doing a good deed for a sick friend.
2. Two friends lined up for a race.
3. Reaching for a ball and shoving the other person away.
4. He doesn’t want to be handcuffed; he was caught shoplifting.
5. Helping each other pull an injured friend to safety.

SLIDE 3

1. One hand is forcing the other to pick up some broken glass.
2. One hand is measuring the other’s hand size before trying on gloves.
3. One hand is feeling the other hand; they love each other.
5. One hand is trying to push the other away; it’s an important game.
SLIDE 4

1. It's a happy meeting of two close friends.

2. Choosing up sides with baseball bat; it's friendly competition.

3. One hand is handing the other a glass of water with a dangerous drug in it.

4. Disagreeing over whose turn it is to shoot the pellet gun; it's target practice.

5. Showing a friend how to use a present he just received.

SLIDE 5

1. An older person praising a little boy for doing his work; he loves him.

2. They're fighting and one hand is attacking.

3. A clerk accepting money from a dissatisfied customer.

4. One hand is frightening the other hand very badly.

5. Getting ready to shake hands in agreement.

SLIDE 6

1. Showing a newly arrived guest where the living room is located.

2. One hand is very angry and is insisting upon an explanation.

3. Two close friends confiding in one another.

4. They're good friends and one is calling for the other to come.

5. One hand is telling the other to do something it doesn't like to do.
SLIDE 7

1. They're really enjoying mountain-climbing; one is helping the other.

2. One person is rudely refusing to dance with another person.

3. Grabbing to keep from being hit; he's angry and wants to hurt the other person.

4. One hand showing love for the other.

5. Showing a friend how to play the piano.

SLIDE 8

1. One hand is showing love for the other.

2. One hand is making the other touch a rubber snake; he's playing a trick.

3. Checking to see if the other hand is okay after bumping it.

4. Calming a friend after a frightening accident.

5. A killer placing his dead victim's body so that it looks like suicide.

SLIDE 9

1. Giving a nail to another person; they're working together.

2. Two close friends greeting each other; it's been along time.

3. The hand is angrily pulling the little hand.

4. One hand is going to crush the other until it hurts.

5. One wrestler thinks that he's stronger than the other.
SLIDE 10
1. One person is drowning; the other person is pushing the victim away.
2. Two people are sadly waving goodbye.
3. Forcing the other person to leave.
4. A host giving a guest another glass of water; he's very courteous.
5. Helping a friend climb a hill.

SLIDE 11
1. Two people joining hands to carry an injured friend.
2. One hand is asking for help; the other refuses.
3. They're checking the weather.
4. One is attacking; the other is giving a hard karate chop.
5. One is bothering and the other is saying "stop it."

SLIDE 12
1. They're ready to clasp hands; it's a gymnastic exhibition.
2. One person is fleeing from the other in fear.
3. Sharing the last of his drink with someone.
4. Changing a tire; they're rolling the old one away.
5. There's a dollar on the ground and they're both grabbing for it.
SLIDE 13
1. They're about to compare coins; they're gambling.
2. One person is trying to steal the ball; he's cheating.
3. Giving a painful chop to the other; he's furious.
4. They're both trying to retrieve the ball; each wants it first.
5. Two good friends looking at the rings they exchanged with each other.

SLIDE 14
1. Crushing the other's fingers.
2. A friend is pulling out a splinter to make it feel better.
3. Stopping the other from taking something; they're both angry.
4. A helpful nurse is seeing if the accident victim's finger is broken.
5. Getting the other person to calm down; he's annoyed at him.

SLIDE 15
1. A professional baseball player kindly showing a young boy how to pitch.
2. They're pulling a cord; it's part of their work in the post office.
3. Trying to outbid each other at an auction.
4. Throwing the other out of the game for cheating.
5. Working together to set up camp.
SLIDE 16

1. One is giving change to the other.
2. Two angry people; they’re each trying to get it.
3. They’re trading stamps.
4. It’s an ancient torture.
5. Giving a ring to show love.

SLIDE 17

1. It’s a fight. One has a gun and the other’s going to hit him.
2. Putting water on a friend’s burned finger to ease the pain.
3. One person is angrily accusing the other of stealing.
4. Showing a stranger the best route to take on a map.
5. One person is going to frighten another who’s sleeping.

SLIDE 18

1. One hand is pulling the other off balance.
2. Two hands holding each other in gesture of love.
3. Policeman working to keep back a crowd; they’re doing their duty.
4. They’re scooping up water to carry back to some thirsty friends.
5. It’s a fight; one is really hurting the other.
SLIDE 19
1. Two children rescuing their favorite kitten from a tree.
2. Two friends cheering for their teams to win.
3. They’re swimming and one hand is rudely going to dunk the other under water.
4. Two people replacing lightbulbs.
5. Raising their hands in fright; a friend has scared them with a mask.

SLIDE 20
1. They just insulted each other and they’re both angry.
2. Two friends making something together; it’s their hobby.
3. Two friends working together to repair a house.
4. Looking to see what is cooking; sternly being told "no."
5. Referees signalling at a ballgame.
BIOGRAPHICAL DATA

Please fill in the blanks or check the alternative that best describes you.

1. Your age: __________

2. Your sex (check one): ( ) Male = 1 ( ) Female = 2

3. Ethnic status (check one):
( ) American Indian/Alaskan Native = 1 ( ) Asian American = 4
( ) Black, Non-Hispanic American = 2 ( ) Hispanic American = 5
( ) White, Non-Hispanic American = 3 ( ) Other = 6

4. Marital status (check one):
( ) Single = 1 ( ) Married = 3 ( ) Separated = 5
( ) Divorced = 2 ( ) Widow/Widower = 4 ( ) Other = 6

5. Year in school (check one):
( ) Freshman = 1 ( ) Sophomore = 2 ( ) Junior = 3 ( ) Senior = 4 ( ) Other = 5

6. Friends and relatives (check one):
How many close friends do you have? (People that you feel at ease with, can talk to about private matters, and can call on for help.)
( ) none = 1 ( ) 1 or 2 = 2 ( ) 3 to 5 = 3 ( ) 6 to 9 = 4 ( ) 10 or more = 5

7. How many relatives do you have that you feel close to?
( ) none = 1 ( ) 1 or 2 = 2 ( ) 3 to 5 = 3 ( ) 6 to 9 = 4 ( ) 10 or more = 5

8. How many of these friends or relatives do you see at least once a month?
( ) none = 1 ( ) 1 or 2 = 2 ( ) 3 to 5 = 3 ( ) 6 to 9 = 4 ( ) 10 or more = 5

9. Using the scale below, circle the number that corresponds to your general level of happiness:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very unhappy</td>
<td>Quite unhappy</td>
<td>Slightly unhappy</td>
<td>Slightly happy</td>
<td>Quite happy</td>
<td>Very happy</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX F

SOCIAL ACTIVITY MEASURE
SAM

Please fill in the blanks or check the alternative that best describes you.

1. How many really close friends do you have? _____

2. Are you happy with the number of close friends you have? ( ) No=1 ( ) Yes=2

3. Are you happy with how often you get together with a close friend or friends? ( ) No=1 ( ) Yes=2

4. Generally, how well do you get along with your close friend or friends?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>extremely well</td>
</tr>
</tbody>
</table>

5. How often do you visit parents or guardians?

( ) Every day=1
( ) More than once a week=2
( ) Once a week=3
( ) More than once a month=4
( ) Once a month=5
( ) Once or twice a semester=6
( ) Once or twice a year=7
( ) Once a year or less=8
( ) Never=9

6. Generally, how well do you get along with your parents or guardians?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>extremely well</td>
</tr>
</tbody>
</table>

7. Do you regularly visit with relatives other than your parents? ( ) No=1 ( ) Yes=2

8. Are you happy with how often you visit with your relatives? ( ) No=1 ( ) Yes=2

9. Generally, how well do you get along with your relatives?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>extremely well</td>
</tr>
</tbody>
</table>

10. Are you a member of a sports team? ( ) No=1 ( ) Yes=2

11. Are you a member of a church? ( ) No=1 ( ) Yes=2

12. Do you belong to a fraternity or a sorority? ( ) No=1 ( ) Yes=2

13. Are you involved with other activities or organizations on or off campus? ( ) No=1 ( ) Yes=2

14. Are you happy with sports, church, greek (fraternity or sorority), and other group affiliations that you have? ( ) No=1 ( ) Yes=2
APPENDIX G

OXFORD HAPPINESS INVENTORY
On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel happy.
   1 I feel fairly happy.
   2 I am very happy.
   3 I am incredibly happy.

2. 0 I am not particularly optimistic about the future.
   1 I feel optimistic about the future.
   2 I feel I have so much to look forward to.
   3 I feel that the future is overflowing with hope and promise.

3. 0 I am no more satisfied than I used to be.
   1 I am more satisfied with some things now.
   2 I am much more satisfied with many things nowadays.
   3 I am totally satisfied with everything.

4. 0 I feel I am not especially in control of my life.
   1 I feel at least partly in control of my life.
   2 I am in control most of the time.
   3 I feel that I am in total control of all aspects of my life.

5. 0 I don’t feel life is particularly rewarding.
   1 I feel life is rewarding.
   2 I feel that life is very rewarding.
   3 I feel that life is overflowing with rewards.

6. 0 I don’t feel particularly pleased with the way I am.
   1 I am pleased with the way I am.
   2 I am very pleased with the way I am.
   3 I am delighted with the way I am.

7. 0 I never have a good influence on events.
   1 I occasionally have a good influence on events.
   2 I often have a good influence on events.
   3 I always have a good influence on events.

8. 0 I get by in life.
   1 Life is good.
   2 Life is very good.
   3 I love life.

9. 0 I am no more interested in other people than usual.
   1 I am interested in other people now.
   2 I am very interested in other people nowadays.
   3 I am intensely interested in other people.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>0</td>
<td>I do not find it easy to make decisions.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I find it fairly easy to make some decisions.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I find it easy to make most decisions.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>I can make all decisions very easily.</td>
</tr>
<tr>
<td>11.</td>
<td>0</td>
<td>I can work as well as before.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I find it easier to get started at doing things.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I find no effort at all to do things.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>I feel able to take anything on.</td>
</tr>
<tr>
<td>12.</td>
<td>0</td>
<td>I don't tend to wake up feeling more rested than I used to.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I sometimes wake up feeling more rested than I used to.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I frequently wake up feeling more rested than I used to.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Nowadays I always wake up feeling more rested than I used to.</td>
</tr>
<tr>
<td>13.</td>
<td>0</td>
<td>I don't feel more energetic than usual.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I feel fairly energetic.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I feel very energetic.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>I feel I have boundless energy.</td>
</tr>
<tr>
<td>14.</td>
<td>0</td>
<td>I don't think things have a particular &quot;sparkle.&quot;</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I find beauty in some things.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I find beauty in most things.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>The whole world looks beautiful to me.</td>
</tr>
<tr>
<td>15.</td>
<td>0</td>
<td>I am no more mentally alert than usual.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I feel more mentally alert than usual.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I feel much more mentally alert than before.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>I have never felt so mentally alert as I do nowadays.</td>
</tr>
<tr>
<td>16.</td>
<td>0</td>
<td>I do not think I am more healthy than usual.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I am more healthy than usual.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I feel very healthy nowadays.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>I feel on top of the world.</td>
</tr>
<tr>
<td>17.</td>
<td>0</td>
<td>I do not have particularly warm feelings towards others.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I have some warm feelings towards others.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I have very warm feelings towards others.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>I love everybody.</td>
</tr>
<tr>
<td>18.</td>
<td>0</td>
<td>I do not have particularly happy memories of the past.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I have some happy memories of the past.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Most past events seem to have been happy.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>All past events seem extremely happy.</td>
</tr>
<tr>
<td>19.</td>
<td>0</td>
<td>I am never in a state of joy or elation.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>I sometimes experience joy and elation.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>I often experience joy and elation.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>I am constantly in a state of joy and elation.</td>
</tr>
</tbody>
</table>
20. 0 There is a gap between what I would like to do, and what I have done.
   1 I have done some of the things I wanted.
   2 I have done many of the things I wanted.
   3 I have done everything I ever wanted.
21. 0 I can't organize my time, there always seems to be too much or too little of it.
   1 I can organize my time fairly well.
   2 I can organize my time very well.
   3 My time is perfectly organized so that I can fit in all the things I want to do.
22. 0 I do not have fun with other people.
   1 I sometimes have fun with other people.
   2 I often have fun with other people.
   3 I always have fun with other people.
23. 0 I do not have a cheerful effect on others.
   1 I sometimes have a cheerful effect on others.
   2 I often have a cheerful effect on others.
   3 I always have a cheerful effect on others.
24. 0 I do not have any particular sense of meaning and purpose in my life.
   1 I have a sense of meaning and purpose.
   2 I have a great sense of meaning and purpose.
   3 My life is totally meaningful and purposive.
25. 0 I do not have particular feelings of commitment and involvement.
   1 I sometimes become committed and involved.
   2 I often become committed and involved.
   3 I am always committed and involved.
26. 0 I do not think the world is a good place.
   1 I think the world is a fairly good place.
   2 I think the world is a very good place.
   3 I think the world is an excellent place.
27. 0 I rarely laugh.
   1 I laugh fairly often.
   2 I laugh a lot.
   3 I am always laughing.
28. 0 I don't think I look attractive.
   1 I think I look fairly attractive.
   2 I think I look very attractive.
   3 I think I look exceptionally attractive.
29. 0 I do not find things amusing.
   1 I find some things amusing.
   2 I find most things amusing.
   3 I am amused by everything.
APPENDIX H

COOPERATIVENESS SCALE
**INSTRUCTIONS:** The following statements inquire about your viewpoint in a variety of settings. For each statement, indicate how much you agree or how much you disagree with it by selecting the appropriate number to the right of that particular statement. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

<table>
<thead>
<tr>
<th></th>
<th>1 agree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 totally disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>It is usually difficult for quite different people to collaborate in teams.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>I enjoy individual games more than team ones.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>Team members usually pull together, rather than seeking individual glory.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Other members of leisure groups are often difficult to get on with.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Most forms of leisure are better done in groups.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>Group leisure activities, like choirs, orchestras, theatricals and folk dancing, are often tiresome and irritating.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>It is difficult for leaders to take decisions if their subordinates are allowed to participate in them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>Better decisions are taken if subordinates participate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9.</td>
<td>It is a bore trying to take account of the views of subordinates.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>Leaders ought to make up their own minds, and not waste too much time consulting people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>To go on a trip with friends makes one less free and mobile.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12.</td>
<td>There is often friction between friends because they want to do different things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13.</td>
<td>It is more fun doing things with friends than alone.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---------------------</td>
</tr>
<tr>
<td>14.</td>
<td>It is usually best if one partner in a relationship is the boss.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15.</td>
<td>Family members always enjoy doing things together.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>It isn’t possible to allow children a full say in decisions affecting them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>It is difficult to prevent friction in families.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>Too much time is spent in school on team &quot;projects.&quot;</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19.</td>
<td>I like to cooperate with other students over academic work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20.</td>
<td>When I am among my colleagues/classmates, I do my own thing without minding about them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21.</td>
<td>Classmates’ assistance is indispensable to getting a good result in college.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22.</td>
<td>Social clubs often have a lot of internal friction and clashes between individuals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23.</td>
<td>It is fun taking part in running a social club.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24.</td>
<td>Social clubs are the best way to spend leisure.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25.</td>
<td>It is often difficult working together with other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26.</td>
<td>It is more enjoyable to be responsible for your own efforts at work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27.</td>
<td>Involvement in joint projects at work is very satisfying.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28.</td>
<td>It is often more productive to work on your own.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>29.</td>
<td>Team work is always the best way of getting results.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>30.</td>
<td>If the group is slowing me down, it is better to leave it and work alone.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>31.</td>
<td>It is difficult to arrive at an agreed decision, in groups.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>32.</td>
<td>Negotiations and committees are often difficult and tense.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>33.</td>
<td>Decisions taken by groups are better than those taken by individuals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>34.</td>
<td>A lot of time is wasted arguing about things in committees.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>35.</td>
<td>I love spending time on committees.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>36.</td>
<td>All decisions should be taken by committees rather than by individuals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX I

NARCISSISTIC PERSONALITY INVENTORY
Narcissistic Personality Inventory

Instructions. This questionnaire consists of a number of pairs of statements with which you may or may not identify. Consider this example: A. "I like having authority over people," versus B. "I don't mind following orders." Which of these two statements is closer to your own feelings about yourself? If you identify more with "liking to have authority over people" than with "not minding following orders," then you would choose option A.

You may identify with both "A" and "B." In this case, you should choose the statement which seems closer to your personal feelings about yourself. Or, if you do not identify with either statement, select the one which is least objectionable or remote. In other words, read each pair of statements and then choose the one that is closer to your own feelings. Indicate your answer by circling either an "A" or a "B" below. Do not skip any items.

1. A. I am a fairly sensitive person.
   B. I am more sensitive than most other people.

2. A. I have a natural talent for influencing other people.
   B. I am not good at influencing people.

3. A. Modesty doesn't become me.
   B. I am essentially a modest person.

4. A. Superiority is something that you acquire with experience.
   B. Superiority is something that you are born with.

5. A. I would do almost anything on a dare.
   B. I tend to be a fairly cautious person.

6. A. I would be willing to describe myself as a strong personality.
   B. I would be reluctant to describe myself as a strong personality.

7. A. When people compliment me, I sometimes get embarrassed.
   B. I know that I am good because everybody keeps telling me so.

8. A. The thought of ruling the world frightens the hell out of me.
B. If I ruled the world, it would be a much better place.

9. A. People just naturally gravitate towards me.
   B. Some people like me.

10. A. I can usually talk my way out of anything.
     B. I try to accept the consequences of my behavior.

11. A. When I play a game, I don't mind losing once in a while.
     B. When I play a game, I hate to lose.

12. A. I prefer to blend in with the crowd.
     B. I like to be the center of attention.

13. A. I will be a success.
     B. I'm not too concerned about success.

14. A. I am no better nor worse than most people.
     B. I think I am a special person.

15. A. I am not sure if I would make a good leader.
     B. I see myself as a good leader.

16. A. I am assertive.
     B. I wish I were more assertive.

17. A. I like having authority over other people.
     B. I don't mind following orders.

18. A. There is a lot that I can learn from other people.
     B. People can learn a great deal from me.

19. A. I find it easy to manipulate people.
     B. I don't like it when I find myself manipulating people.

20. A. I insist on getting the respect that is due me.
     B. I usually get the respect that I deserve.

21. A. I don't particularly like to show off my body.
     B. I like to display my body.

22. A. I can read people like a book.
     B. People are sometimes hard to understand.

23. A. If I feel competent I am willing to take responsibility for making decisions.
     B. I like to take the responsibility for making decisions.
24. A. I am at my best when the situation is at its worst.
     B. Sometimes I don't handle difficult situations too well.

25. A. I just want to be reasonably happy.
     B. I want to amount to something in the eyes of the world.

26. A. My body is nothing special.
     B. I like to look at my body.

27. A. Beauty is in the eyes of the beholders.
     B. I have good taste when it comes to beauty.

28. A. I try not to be a show off.
     B. I am apt to show off if I get the chance.

29. A. I always know what I am doing.
     B. Sometimes I'm not sure of what I am doing.

30. A. I sometimes depend on people to get things done.
     B. I rarely depend on anyone else to get things done.

31. A. I'm always in perfect health.
     B. Sometimes I get sick.

32. A. Sometimes I tell good stories.
     B. Everybody likes to hear my stories.

33. A. I usually dominate my conversations.
     B. At times I am capable of dominating a conversation.

34. A. I expect a great deal from other people.
     B. I like to do things for other people.

35. A. I will never be satisfied until I get all that I deserve.
     B. I take my satisfactions as they come.

36. A. Compliments embarrass me.
     B. I like to be complimented.

37. A. My basic responsibility is to be aware of the needs of others.
     B. My basic responsibility is to be aware of my own needs.

38. A. I have a strong will to power.
     B. Power for its own sake doesn't interest me.
39. A. I don’t very much care about new fads and fashions.  
   B. I like to start new fads and fashions.

40. A. I am envious of other people’s good fortune.  
   B. I enjoy seeing other people have good fortune.

41. A. I am loved because I am lovable.  
   B. I am loved because I give love.

42. A. I like to look at myself in the mirror.  
   B. I am not particularly interested in looking at myself in a mirror.

43. A. I am not especially witty or clever.  
   B. I am witty and clever.

44. A. I really like to be the center of attention.  
   B. It makes me uncomfortable to be the center of attention.

45. A. I can live my life in any way I want to.  
   B. People can’t always live their lives in terms of what they want.

46. A. Being an authority doesn’t mean that much to me.  
   B. People always seem to recognize my authority.

47. A. I would prefer to be a leader.  
   B. It would make little difference to me whether I am a leader or not.

48. A. I am going to be a great person.  
   B. I hope I am going to be successful.

49. A. People sometimes believe what I tell them.  
   B. I can make anyone believe anything I want them to.

50. A. I am a born leader.  
   B. Leadership is a quality that takes a long time to develop.

51. A. I wish someone would someday write my biography.  
   B. I don’t like people to pry into my life for any reason.

52. A. I get upset when people don’t notice how I look when I go out in public.  
   B. I don’t mind blending into the crowd when I go out in public.
53. A. I am more capable than other people.
    B. There is a lot that I can learn from other people.

54. A. I am much like everybody else.
    B. I am an extraordinary person.
APPENDIX J

MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE
INSTRUCTIONS: Listed below are thirty-three statements concerning personal attitudes and traits. Read each statement carefully and decide whether it is true or mostly true as applied to you or whether it is false or usually false as applied to you. If a statement is true or mostly true as applied to you, circle "T." If a statement is false or usually false as applied to you, circle "F." Please respond to all statements. There are no right or wrong answers on this scale. Please be honest in your responses.

T = true or mostly true as applied to you
F = false or usually false as applied to you

T  F  1. Before voting I thoroughly investigate the qualifications of all the candidates.
T  F  2. I never hesitate to go out of my way to help someone in trouble.
T  F  3. It is sometimes hard for me to go on with my work if I am not encouraged.
T  F  4. I have never intensely disliked anyone.
T  F  5. On occasion I have had doubts about my ability to succeed in life.
T  F  6. I sometimes feel resentful when I don't get my way.
T  F  7. I am always careful about my manner of dress.
T  F  8. My table manners at home are as good as when I eat out in a restaurant.
T  F  9. If I could get into a movie without paying and be sure I was not seen I would probably do it.
T  F  10. On a few occasions, I have given up doing something because I thought too little of my ability.
T  F  11. I like to gossip at times.
T  F  12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
T  F  13. No matter who I'm talking to, I'm always a good listener.
T  F  14. I can remember "playing sick" to get out of something.
T  F  15. There have been occasions when I took advantage of someone.
T  F  16. I'm always willing to admit it when I make a mistake.
T  F  17. I always try to practice what I preach.
T  F  18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.
T  F  19. I sometimes try to get even rather than forgive and forget.
T  F  20. When I don't know something I don't at all mind admitting it.
T  F  21. I am always courteous, even to people who are disagreeable.
T  F  22. At times I have really insisted on having things my own way.
T  F  23. There have been occasions when I felt like smashing things.
T  F  24. I would never think of letting someone else be punished for my wrong-doings.
T  F  25. I never resent being asked to return a favor.
T  F  26. I have never been irked when people expressed ideas very different from my own.
T  F  27. I never make a long trip without checking the safety of my car.
T  F  28. There have been times when I was quite jealous of the good fortune of others.
T  F  29. I have almost never felt the urge to tell someone off.
T  F  30. I am sometimes irritated by people who ask favors of me.
T  F  31. I have never felt that I was punished without cause.
T  F  32. I sometimes think when people have a misfortune they only got what they deserved.
T  F  33. I have never deliberately said something that hurt someone's feelings.
APPENDIX K

TABLES
Table 1
Means and Standard Deviations for Selected Variables
(n = 254 Females, 157 Males)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20.94</td>
<td>4.35</td>
</tr>
<tr>
<td>SSSI total score</td>
<td>88.70</td>
<td>7.54</td>
</tr>
<tr>
<td>IRI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fantasy scale score (IRIF)</td>
<td>23.18</td>
<td>5.70</td>
</tr>
<tr>
<td>Perspective-Taking scale score (IRIP)</td>
<td>22.97</td>
<td>4.58</td>
</tr>
<tr>
<td>Empathic Concern scale score (IRIE)</td>
<td>25.70</td>
<td>4.88</td>
</tr>
<tr>
<td>Personal Distress scale score (IRID)</td>
<td>17.71</td>
<td>4.40</td>
</tr>
<tr>
<td>BSNI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of close friends</td>
<td>3.23</td>
<td>.90</td>
</tr>
<tr>
<td>Number of close relatives</td>
<td>3.02</td>
<td>1.08</td>
</tr>
<tr>
<td>Number of close friends and relatives seen at least once a month</td>
<td>3.10</td>
<td>1.07</td>
</tr>
<tr>
<td>Happiness</td>
<td>4.70</td>
<td>.93</td>
</tr>
<tr>
<td>PHT total score</td>
<td>93.36</td>
<td>11.25</td>
</tr>
<tr>
<td>SAM total score</td>
<td>37.46</td>
<td>4.01</td>
</tr>
<tr>
<td>Frequency subscale (FSAM)</td>
<td>13.18</td>
<td>2.27</td>
</tr>
<tr>
<td>Satisfaction subscale (SSAM)</td>
<td>24.27</td>
<td>2.84</td>
</tr>
<tr>
<td>OHI total score</td>
<td>42.84</td>
<td>13.25</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>Subscale</th>
<th>CS Score Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction/Personal Achievement subscale (OHISPA)</td>
<td>7.13</td>
<td>3.09</td>
</tr>
<tr>
<td>Vigor and Good Health subscale (OHIVGH)</td>
<td>5.73</td>
<td>3.10</td>
</tr>
<tr>
<td>Enjoyment and Fun in Life subscale (OHIEFL)</td>
<td>9.05</td>
<td>2.45</td>
</tr>
<tr>
<td>CS total score</td>
<td>114.41</td>
<td>13.68</td>
</tr>
<tr>
<td>Managing Conflicts subscale (CSMC)</td>
<td>31.13</td>
<td>5.57</td>
</tr>
<tr>
<td>Decision Making subscale (CSDM)</td>
<td>40.48</td>
<td>5.46</td>
</tr>
<tr>
<td>Joint Activities subscale (CSJA)</td>
<td>20.22</td>
<td>3.37</td>
</tr>
<tr>
<td>Group Productivities subscale (CSGP)</td>
<td>22.58</td>
<td>3.97</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscale</th>
<th>NPI Score Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploitativeness/Entitlement subscale (NPIEXP)</td>
<td>13.95</td>
<td>3.97</td>
</tr>
<tr>
<td>Leadership/Authority subscale (NPILEAD)</td>
<td>13.64</td>
<td>2.79</td>
</tr>
<tr>
<td>Superiority/Arrogance subscale (NPISUP)</td>
<td>18.62</td>
<td>2.52</td>
</tr>
<tr>
<td>Self-absorption/Self-admiration subscale (NPISELF)</td>
<td>15.72</td>
<td>2.60</td>
</tr>
<tr>
<td>NPI total score</td>
<td>75.02</td>
<td>8.44</td>
</tr>
<tr>
<td>M-C SDS total score</td>
<td>47.98</td>
<td>5.38</td>
</tr>
</tbody>
</table>

**Note.** SSSI = Sulliman Scale of Social Interest; IRI = Interpersonal Reactivity Index; BSNI = Berkman Social Network Index; PHT = Paired Hands Test; SAM = Social Activity Measure; OHI = Oxford Happiness Inventory; CS = Cooperativeness Scale; NPI = Narcissistic Personality Inventory; M-C SDS = Marlowe-Crowne Social Desirability
Scale. Possible range of scores for SSSI is 50 to 100; IRI score range is 7 to 35 on the Fantasy, Perspective-Taking, Empathic Concern, and Personal Distress scale scores; BSNI score range is 1 to 5 for number of close friends, number of close relatives, and number of close friends and relatives seen at least once a month; Happiness score range is 1 to 6; PHT range of scores is 26 to 131; SAM score range is 21 to 40; CS range of scores is 36 to 180; OHI score range is 0 to 116; NPI range of scores is 54 to 108; and, M-C SDS range of scores is 33 to 66. With all measures, higher scores indicate greater amounts of the construct.
Table 2

Correlations Between the SSSI and Psychological Measures (n = 254 females, 157 Males)

<table>
<thead>
<tr>
<th>Measures</th>
<th>SSSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRI</td>
<td></td>
</tr>
<tr>
<td>IRIP</td>
<td>.25**</td>
</tr>
<tr>
<td>IRIE</td>
<td>.25**</td>
</tr>
<tr>
<td>IRIF</td>
<td>.04</td>
</tr>
<tr>
<td>IRID</td>
<td>-.21**</td>
</tr>
<tr>
<td>BSN I</td>
<td></td>
</tr>
<tr>
<td>Number of close friends</td>
<td>.23**</td>
</tr>
<tr>
<td>Number of close relatives</td>
<td>.28**</td>
</tr>
<tr>
<td>Number of close friends and relatives seen at least once a month</td>
<td>.19**</td>
</tr>
<tr>
<td>Happiness</td>
<td>.40**</td>
</tr>
<tr>
<td>PHT total score</td>
<td>.30**</td>
</tr>
<tr>
<td>SAM total score</td>
<td>.37**</td>
</tr>
<tr>
<td>FSAM</td>
<td>.16*</td>
</tr>
<tr>
<td>SSAM</td>
<td>.39**</td>
</tr>
<tr>
<td>OHI total score</td>
<td>.44**</td>
</tr>
<tr>
<td>OHISPA</td>
<td>.40**</td>
</tr>
<tr>
<td>OHIVGH</td>
<td>.24**</td>
</tr>
<tr>
<td>OHIEFL</td>
<td>.41**</td>
</tr>
</tbody>
</table>

(Table continues)
CS total score  .49**
CSMC  .42**
CSDM  .43**
CSJA  .33**
CSGP  .23**
NPI total score  -.14*
NPIEXP  -.50**
NPILEAD  .06
NPISUP  .17**
NPISELF  .06
M-C SDS total score  .30**

*p < .01.  **p < .001

Note:  SSSI = Sulliman Scale of Social Interest; IRI = Interpersonal Reactivity Index; BSNI = Berkman Social Network Index; PHT = Paired Hands Test; SAM = Social Activity Measure; OHI = Oxford Happiness Inventory; CS = Cooperativeness Scale; NPI = Narcissitic Personality Inventory; M-C SDS = Marlowe-Crowne Social Desirability Scale.
Table 3

Correlations between the SSSI and Individual Items Comprising the SAM (n = 254 Females, 157 Males)

<table>
<thead>
<tr>
<th>SAM items</th>
<th>SSSI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfaction subscale:</strong></td>
<td></td>
</tr>
<tr>
<td>Are you happy with the number of close friends you have?</td>
<td>.18***</td>
</tr>
<tr>
<td>Are you happy with how often you get together with a close friend or friends?</td>
<td>.13**</td>
</tr>
<tr>
<td>Generally, how well do you get along with your close friends or friend?</td>
<td>.29***</td>
</tr>
<tr>
<td>Generally, how well do you get along with your parents or guardians?</td>
<td>.29***</td>
</tr>
<tr>
<td>Are you happy with how often you visit your relatives?</td>
<td>.14**</td>
</tr>
<tr>
<td>Generally, how well do you get along with your relatives?</td>
<td>.36***</td>
</tr>
<tr>
<td>Are you happy with sports, church, greek (fraternity or sorority), and other group affiliations that you have?</td>
<td>.29***</td>
</tr>
<tr>
<td><strong>Frequency subscale:</strong></td>
<td></td>
</tr>
<tr>
<td>How many really close friends do you have?</td>
<td>.24***</td>
</tr>
<tr>
<td>How often do you visit parents or guardians?</td>
<td>.06</td>
</tr>
</tbody>
</table>

(Table Continues)
Do you regularly visit with relatives other than your parents? \( .14^{**} \)
Are you a member of a sports team? \( -.00 \)
Are you a member of a church? \( .11^* \)
Do you belong to a fraternity or sorority? \( .06 \)
Are you involved with other activities or organizations on or off campus? \( .23^{***} \)

\*\( p < .05 \). \**p < .01\). \***p < .001\).
Table 4

*Interitem Correlation Matrix for SSSI (n = 407)*

<table>
<thead>
<tr>
<th></th>
<th>SSSI1</th>
<th>SSSI2</th>
<th>SSSI3</th>
<th>SSSI4</th>
<th>SSSI5</th>
<th>SSSI6</th>
<th>SSSI7</th>
<th>SSSI8</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSI1</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI2</td>
<td>.11465</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI3</td>
<td>.10849</td>
<td>.18881</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI4</td>
<td>.12009</td>
<td>.10121</td>
<td>.27974</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI5</td>
<td>.04882</td>
<td>-.00070</td>
<td>.07781</td>
<td>.00221</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI6</td>
<td>.12937</td>
<td>.04706</td>
<td>.13039</td>
<td>.12398</td>
<td>.00834</td>
<td>1.00000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI7</td>
<td>.08045</td>
<td>.14791</td>
<td>.30796</td>
<td>.24017</td>
<td>.09368</td>
<td>.10190</td>
<td>1.00000</td>
<td></td>
</tr>
<tr>
<td>SSSI8</td>
<td>.06777</td>
<td>.06199</td>
<td>.07623</td>
<td>.12465</td>
<td>-.00254</td>
<td>.00817</td>
<td>.14370</td>
<td>1.00000</td>
</tr>
<tr>
<td>SSSI9</td>
<td>.15955</td>
<td>.02331</td>
<td>.16681</td>
<td>.07073</td>
<td>.26417</td>
<td>.06145</td>
<td>.09012</td>
<td>.19867</td>
</tr>
<tr>
<td>SSSI10</td>
<td>.08842</td>
<td>.17964</td>
<td>.30784</td>
<td>.20097</td>
<td>.07809</td>
<td>.01053</td>
<td>.26102</td>
<td>.06165</td>
</tr>
<tr>
<td>SSSI11</td>
<td>.17485</td>
<td>.10542</td>
<td>.32135</td>
<td>.21157</td>
<td>.13301</td>
<td>.18336</td>
<td>.16568</td>
<td>.14926</td>
</tr>
<tr>
<td>SSSI12</td>
<td>.12795</td>
<td>.06019</td>
<td>.08485</td>
<td>.15339</td>
<td>.19268</td>
<td>.00785</td>
<td>.19469</td>
<td>.10527</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI1</th>
<th>SSSI2</th>
<th>SSSI3</th>
<th>SSSI4</th>
<th>SSSI5</th>
<th>SSSI6</th>
<th>SSSI7</th>
<th>SSSI8</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSI13</td>
<td>0.05019</td>
<td>0.02388</td>
<td>0.12909</td>
<td>0.11339</td>
<td>0.02532</td>
<td>0.13874</td>
<td>0.17281</td>
</tr>
<tr>
<td>SSSI14</td>
<td>-0.01050</td>
<td>0.12527</td>
<td>0.09380</td>
<td>0.02480</td>
<td>0.01112</td>
<td>0.02505</td>
<td>0.11649</td>
</tr>
<tr>
<td>SSSI15</td>
<td>0.03694</td>
<td>0.09650</td>
<td>0.20692</td>
<td>0.18101</td>
<td>0.10784</td>
<td>0.09670</td>
<td>0.14504</td>
</tr>
<tr>
<td>SSSI16</td>
<td>-0.01795</td>
<td>0.13302</td>
<td>0.15315</td>
<td>0.12422</td>
<td>0.00414</td>
<td>0.03922</td>
<td>0.13032</td>
</tr>
<tr>
<td>SSSI17</td>
<td>0.06942</td>
<td>-0.03064</td>
<td>0.13696</td>
<td>0.15182</td>
<td>0.08762</td>
<td>-0.03382</td>
<td>0.13832</td>
</tr>
<tr>
<td>SSSI18</td>
<td>0.14157</td>
<td>0.07560</td>
<td>0.02815</td>
<td>0.02857</td>
<td>0.12930</td>
<td>0.00798</td>
<td>0.02376</td>
</tr>
<tr>
<td>SSSI19</td>
<td>0.09297</td>
<td>0.18225</td>
<td>0.32852</td>
<td>0.24633</td>
<td>0.12349</td>
<td>0.02545</td>
<td>0.35703</td>
</tr>
<tr>
<td>SSSI20</td>
<td>0.08668</td>
<td>0.12195</td>
<td>0.19017</td>
<td>0.17519</td>
<td>0.17572</td>
<td>0.02162</td>
<td>0.13397</td>
</tr>
<tr>
<td>SSSI21</td>
<td>-0.01004</td>
<td>0.19383</td>
<td>0.32521</td>
<td>0.12858</td>
<td>0.08524</td>
<td>0.05672</td>
<td>0.31631</td>
</tr>
<tr>
<td>SSSI22</td>
<td>0.12509</td>
<td>0.08609</td>
<td>0.09012</td>
<td>0.11163</td>
<td>0.23919</td>
<td>-0.04351</td>
<td>0.15401</td>
</tr>
<tr>
<td>SSSI23</td>
<td>0.15080</td>
<td>0.10687</td>
<td>0.29193</td>
<td>0.15261</td>
<td>0.06096</td>
<td>0.18946</td>
<td>0.56991</td>
</tr>
<tr>
<td>SSSI24</td>
<td>0.10289</td>
<td>0.09736</td>
<td>0.25799</td>
<td>0.24584</td>
<td>0.03029</td>
<td>0.11813</td>
<td>0.16687</td>
</tr>
<tr>
<td>SSSI25</td>
<td>0.09620</td>
<td>0.08791</td>
<td>0.11540</td>
<td>0.07684</td>
<td>0.11458</td>
<td>-0.02705</td>
<td>0.07167</td>
</tr>
<tr>
<td>SSSI26</td>
<td>0.13930</td>
<td>0.08838</td>
<td>0.18654</td>
<td>0.20898</td>
<td>0.06011</td>
<td>0.04341</td>
<td>0.11544</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI1</th>
<th>SSSI2</th>
<th>SSSI3</th>
<th>SSSI4</th>
<th>SSSI5</th>
<th>SSSI6</th>
<th>SSSI7</th>
<th>SSSI8</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSI27</td>
<td>.13217</td>
<td>.04780</td>
<td>.12667</td>
<td>.10635</td>
<td>.26132</td>
<td>.06183</td>
<td>.19657</td>
</tr>
<tr>
<td>SSSI28</td>
<td>.09423</td>
<td>.15594</td>
<td>.34450</td>
<td>.15322</td>
<td>.04098</td>
<td>.17445</td>
<td>.37535</td>
</tr>
<tr>
<td>SSSI29</td>
<td>.11795</td>
<td>.03789</td>
<td>.20029</td>
<td>.20132</td>
<td>-.00991</td>
<td>.10797</td>
<td>.21279</td>
</tr>
<tr>
<td>SSSI30</td>
<td>.18069</td>
<td>-.05625</td>
<td>.00961</td>
<td>.07352</td>
<td>.09505</td>
<td>.06321</td>
<td>-.00586</td>
</tr>
<tr>
<td>SSSI31</td>
<td>.00285</td>
<td>.15305</td>
<td>.18789</td>
<td>.07846</td>
<td>.10162</td>
<td>.11008</td>
<td>.15798</td>
</tr>
<tr>
<td>SSSI32</td>
<td>.05452</td>
<td>.16412</td>
<td>.21982</td>
<td>.15089</td>
<td>.17199</td>
<td>.07921</td>
<td>.24680</td>
</tr>
<tr>
<td>SSSI33</td>
<td>.08078</td>
<td>.07201</td>
<td>.45822</td>
<td>.25987</td>
<td>.08042</td>
<td>.14702</td>
<td>.36343</td>
</tr>
<tr>
<td>SSSI34</td>
<td>.07216</td>
<td>.01652</td>
<td>.06290</td>
<td>.08810</td>
<td>.06817</td>
<td>-.04752</td>
<td>.09884</td>
</tr>
<tr>
<td>SSSI35</td>
<td>.04272</td>
<td>.09818</td>
<td>.02099</td>
<td>.03964</td>
<td>.10402</td>
<td>.03616</td>
<td>.19531</td>
</tr>
<tr>
<td>SSSI36</td>
<td>.09040</td>
<td>.05298</td>
<td>.34576</td>
<td>.27950</td>
<td>.01397</td>
<td>.05141</td>
<td>.38683</td>
</tr>
<tr>
<td>SSSI37</td>
<td>.04883</td>
<td>.10704</td>
<td>.14433</td>
<td>.06853</td>
<td>.12637</td>
<td>.05735</td>
<td>.14896</td>
</tr>
<tr>
<td>SSSI38</td>
<td>.08002</td>
<td>.10541</td>
<td>.34926</td>
<td>.32034</td>
<td>.06046</td>
<td>.01074</td>
<td>.32685</td>
</tr>
<tr>
<td>SSSI39</td>
<td>.05664</td>
<td>.04146</td>
<td>.21193</td>
<td>.09800</td>
<td>.33836</td>
<td>.06128</td>
<td>.14998</td>
</tr>
<tr>
<td>SSSI40</td>
<td>.10993</td>
<td>.02948</td>
<td>.17682</td>
<td>.19822</td>
<td>-.02381</td>
<td>.15448</td>
<td>.23586</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI9</th>
<th>SSSI10</th>
<th>SSSI11</th>
<th>SSSI12</th>
<th>SSSI13</th>
<th>SSSI14</th>
<th>SSSI15</th>
<th>SSSI16</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSI11</td>
<td>1.8083</td>
<td>1.4081</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI12</td>
<td>1.0878</td>
<td>1.4453</td>
<td>1.8116</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI13</td>
<td>1.7230</td>
<td>0.9628</td>
<td>1.2444</td>
<td>0.0724</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI14</td>
<td>0.0321</td>
<td>0.0208</td>
<td>0.0847</td>
<td>0.1164</td>
<td>0.0419</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>SSSI15</td>
<td>0.0158</td>
<td>0.2529</td>
<td>0.2142</td>
<td>0.0841</td>
<td>0.1632</td>
<td>-0.0089</td>
<td>1.0000</td>
</tr>
<tr>
<td>SSSI16</td>
<td>0.0037</td>
<td>0.2108</td>
<td>0.0394</td>
<td>0.0448</td>
<td>0.1169</td>
<td>-0.0297</td>
<td>0.1487</td>
</tr>
<tr>
<td>SSSI17</td>
<td>0.0065</td>
<td>0.1552</td>
<td>-0.0600</td>
<td>0.0878</td>
<td>0.1097</td>
<td>-0.0180</td>
<td>0.0446</td>
</tr>
<tr>
<td>SSSI18</td>
<td>0.1722</td>
<td>0.0877</td>
<td>0.0934</td>
<td>0.0738</td>
<td>0.0173</td>
<td>0.0959</td>
<td>-0.0101</td>
</tr>
<tr>
<td>SSSI19</td>
<td>0.1008</td>
<td>0.3509</td>
<td>0.1834</td>
<td>0.1093</td>
<td>0.1499</td>
<td>0.0717</td>
<td>0.1425</td>
</tr>
<tr>
<td>SSSI20</td>
<td>0.1391</td>
<td>0.1705</td>
<td>0.2254</td>
<td>0.2654</td>
<td>0.1043</td>
<td>0.1207</td>
<td>0.1553</td>
</tr>
<tr>
<td>SSSI21</td>
<td>0.1467</td>
<td>0.3752</td>
<td>0.1407</td>
<td>0.1407</td>
<td>0.0979</td>
<td>-0.0173</td>
<td>0.2265</td>
</tr>
<tr>
<td>SSSI22</td>
<td>0.2812</td>
<td>0.1445</td>
<td>0.1173</td>
<td>0.1626</td>
<td>0.0713</td>
<td>0.1644</td>
<td>0.0442</td>
</tr>
<tr>
<td>SSSI23</td>
<td>0.1427</td>
<td>0.2089</td>
<td>0.0877</td>
<td>0.0824</td>
<td>0.1626</td>
<td>0.1077</td>
<td>0.0433</td>
</tr>
<tr>
<td>SSSI24</td>
<td>0.0180</td>
<td>0.2668</td>
<td>0.1255</td>
<td>0.0906</td>
<td>0.0371</td>
<td>-0.0448</td>
<td>0.2331</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI9</th>
<th>SSSI10</th>
<th>SSSI11</th>
<th>SSSI12</th>
<th>SSSI13</th>
<th>SSSI14</th>
<th>SSSI15</th>
<th>SSSI16</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSI25</td>
<td>0.15742</td>
<td>0.05641</td>
<td>0.15913</td>
<td>0.18190</td>
<td>0.05807</td>
<td>0.18153</td>
<td>-0.04363</td>
</tr>
<tr>
<td>SSSI26</td>
<td>0.15916</td>
<td>0.20921</td>
<td>0.25901</td>
<td>0.23901</td>
<td>0.14326</td>
<td>0.14013</td>
<td>0.10244</td>
</tr>
<tr>
<td>SSSI27</td>
<td>0.18875</td>
<td>0.04894</td>
<td>0.09258</td>
<td>0.18695</td>
<td>0.08765</td>
<td>0.01986</td>
<td>0.07249</td>
</tr>
<tr>
<td>SSSI28</td>
<td>0.11885</td>
<td>0.29399</td>
<td>0.25889</td>
<td>0.13885</td>
<td>0.15608</td>
<td>0.06305</td>
<td>0.18433</td>
</tr>
<tr>
<td>SSSI29</td>
<td>0.03900</td>
<td>0.07060</td>
<td>0.11446</td>
<td>0.04361</td>
<td>0.13321</td>
<td>0.02645</td>
<td>0.11738</td>
</tr>
<tr>
<td>SSSI30</td>
<td>0.17429</td>
<td>0.03059</td>
<td>0.00120</td>
<td>0.06194</td>
<td>0.11003</td>
<td>-0.09310</td>
<td>-0.01610</td>
</tr>
<tr>
<td>SSSI31</td>
<td>0.19144</td>
<td>0.20304</td>
<td>0.04820</td>
<td>0.16588</td>
<td>0.04411</td>
<td>0.10935</td>
<td>0.16829</td>
</tr>
<tr>
<td>SSSI32</td>
<td>0.24270</td>
<td>0.27038</td>
<td>0.27312</td>
<td>0.18781</td>
<td>0.15769</td>
<td>0.08710</td>
<td>0.21193</td>
</tr>
<tr>
<td>SSSI33</td>
<td>0.12446</td>
<td>0.28658</td>
<td>0.18432</td>
<td>0.14800</td>
<td>0.10716</td>
<td>0.03571</td>
<td>0.20253</td>
</tr>
<tr>
<td>SSSI34</td>
<td>0.23057</td>
<td>0.03029</td>
<td>0.06245</td>
<td>0.04632</td>
<td>0.16772</td>
<td>0.08687</td>
<td>0.01174</td>
</tr>
<tr>
<td>SSSI35</td>
<td>0.07083</td>
<td>0.10166</td>
<td>0.01855</td>
<td>0.11903</td>
<td>0.06199</td>
<td>0.02528</td>
<td>0.03351</td>
</tr>
<tr>
<td>SSSI36</td>
<td>0.05848</td>
<td>0.37717</td>
<td>0.18615</td>
<td>0.23757</td>
<td>0.11617</td>
<td>0.09196</td>
<td>0.21425</td>
</tr>
<tr>
<td>SSSI37</td>
<td>0.15492</td>
<td>0.21543</td>
<td>0.16089</td>
<td>0.14606</td>
<td>0.14681</td>
<td>0.10332</td>
<td>0.16777</td>
</tr>
<tr>
<td>SSSI38</td>
<td>0.13432</td>
<td>0.28226</td>
<td>0.10735</td>
<td>0.12679</td>
<td>0.06697</td>
<td>0.09357</td>
<td>0.17530</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI9</th>
<th>SSSI10</th>
<th>SSSI11</th>
<th>SSSI12</th>
<th>SSSI13</th>
<th>SSSI14</th>
<th>SSSI15</th>
<th>SSSI16</th>
</tr>
</thead>
<tbody>
<tr>
<td>.25807</td>
<td>.25555</td>
<td>.16205</td>
<td>.18452</td>
<td>.13280</td>
<td>.06392</td>
<td>.04918</td>
<td>.03303</td>
</tr>
<tr>
<td>.01225</td>
<td>.13391</td>
<td>.17460</td>
<td>.09402</td>
<td>.11852</td>
<td>.02753</td>
<td>.10238</td>
<td>.08277</td>
</tr>
<tr>
<td>.35422</td>
<td>.13255</td>
<td>.19455</td>
<td>.21653</td>
<td>.13694</td>
<td>.11422</td>
<td>.00541</td>
<td>.00274</td>
</tr>
<tr>
<td>.21256</td>
<td>.23379</td>
<td>.31159</td>
<td>.38806</td>
<td>.24456</td>
<td>.05275</td>
<td>.22890</td>
<td>.08712</td>
</tr>
<tr>
<td>.05198</td>
<td>.25103</td>
<td>.20120</td>
<td>.12144</td>
<td>.11398</td>
<td>.08397</td>
<td>.42314</td>
<td>.22082</td>
</tr>
<tr>
<td>.13548</td>
<td>.28648</td>
<td>.24804</td>
<td>.24083</td>
<td>.17258</td>
<td>.10558</td>
<td>.22448</td>
<td>.24328</td>
</tr>
<tr>
<td>.15647</td>
<td>.20844</td>
<td>.22364</td>
<td>.18909</td>
<td>.18993</td>
<td>.04906</td>
<td>.23650</td>
<td>.06284</td>
</tr>
<tr>
<td>.30451</td>
<td>.15576</td>
<td>.22758</td>
<td>.19823</td>
<td>.14401</td>
<td>.10351</td>
<td>.10887</td>
<td>-.04935</td>
</tr>
<tr>
<td>.16446</td>
<td>.07967</td>
<td>.11803</td>
<td>.16056</td>
<td>.09769</td>
<td>-.00519</td>
<td>-.02149</td>
<td>.02761</td>
</tr>
<tr>
<td>.12779</td>
<td>.10530</td>
<td>.16914</td>
<td>.19799</td>
<td>.12201</td>
<td>.04159</td>
<td>.25390</td>
<td>.11772</td>
</tr>
<tr>
<td>.28084</td>
<td>.06251</td>
<td>.10800</td>
<td>.16584</td>
<td>.04361</td>
<td>.12148</td>
<td>-.03239</td>
<td>-.02721</td>
</tr>
<tr>
<td>.22525</td>
<td>.17940</td>
<td>.15514</td>
<td>.21547</td>
<td>.11269</td>
<td>.11470</td>
<td>.10592</td>
<td>-.02653</td>
</tr>
<tr>
<td>SSSI17</td>
<td>SSSI18</td>
<td>SSSI19</td>
<td>SSSI20</td>
<td>SSSI21</td>
<td>SSSI22</td>
<td>SSSI23</td>
<td>SSSI24</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>SSSI17</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI18</td>
<td>0.08650</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI19</td>
<td>0.05658</td>
<td>-0.01768</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI20</td>
<td>0.06612</td>
<td>0.10456</td>
<td>0.21808</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI21</td>
<td>0.00920</td>
<td>0.01728</td>
<td>0.22640</td>
<td>0.20113</td>
<td>1.00000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI22</td>
<td>0.12226</td>
<td>0.23700</td>
<td>0.14938</td>
<td>0.23483</td>
<td>0.05405</td>
<td>1.00000</td>
<td></td>
</tr>
<tr>
<td>SSSI23</td>
<td>0.09380</td>
<td>0.00076</td>
<td>0.28821</td>
<td>0.06233</td>
<td>0.21728</td>
<td>0.10276</td>
<td>1.00000</td>
</tr>
<tr>
<td>SSSI24</td>
<td>0.09415</td>
<td>0.03598</td>
<td>0.15501</td>
<td>0.08963</td>
<td>0.26614</td>
<td>0.09725</td>
<td>0.07394</td>
</tr>
<tr>
<td>SSSI25</td>
<td>0.05953</td>
<td>0.19376</td>
<td>0.07211</td>
<td>0.24404</td>
<td>0.06997</td>
<td>0.15845</td>
<td>0.06963</td>
</tr>
<tr>
<td>SSSI26</td>
<td>0.01917</td>
<td>0.12791</td>
<td>0.19314</td>
<td>0.43406</td>
<td>0.17649</td>
<td>0.12530</td>
<td>0.07270</td>
</tr>
<tr>
<td>SSSI27</td>
<td>0.12266</td>
<td>0.13221</td>
<td>0.12976</td>
<td>0.15363</td>
<td>0.10120</td>
<td>0.24118</td>
<td>0.11939</td>
</tr>
<tr>
<td>SSSI28</td>
<td>0.20454</td>
<td>0.03514</td>
<td>0.35741</td>
<td>0.21162</td>
<td>0.22898</td>
<td>0.11971</td>
<td>0.30537</td>
</tr>
<tr>
<td>SSSI29</td>
<td>0.24260</td>
<td>0.02931</td>
<td>0.11942</td>
<td>0.10190</td>
<td>0.13556</td>
<td>-0.00664</td>
<td>0.17160</td>
</tr>
<tr>
<td>SSSI30</td>
<td>0.16385</td>
<td>0.15630</td>
<td>0.01983</td>
<td>0.07121</td>
<td>0.04061</td>
<td>0.13963</td>
<td>-0.00551</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI17</th>
<th>SSSI18</th>
<th>SSSI19</th>
<th>SSSI20</th>
<th>SSSI21</th>
<th>SSSI22</th>
<th>SSSI23</th>
<th>SSSI24</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSI31</td>
<td>.09582</td>
<td>.02815</td>
<td>.16459</td>
<td>.13245</td>
<td>.18921</td>
<td>.10166</td>
<td>.09516</td>
</tr>
<tr>
<td>SSSI32</td>
<td>.08872</td>
<td>.06399</td>
<td>.24433</td>
<td>.27936</td>
<td>.20091</td>
<td>.11963</td>
<td>.15958</td>
</tr>
<tr>
<td>SSSI33</td>
<td>.20558</td>
<td>.06048</td>
<td>.29192</td>
<td>.19411</td>
<td>.36111</td>
<td>.14489</td>
<td>.40024</td>
</tr>
<tr>
<td>SSSI34</td>
<td>.08144</td>
<td>-.00221</td>
<td>.06216</td>
<td>.03544</td>
<td>-.00811</td>
<td>.17811</td>
<td>.13254</td>
</tr>
<tr>
<td>SSSI35</td>
<td>.13445</td>
<td>.06946</td>
<td>.06036</td>
<td>.07307</td>
<td>.16463</td>
<td>.03208</td>
<td>.11905</td>
</tr>
<tr>
<td>SSSI36</td>
<td>.18278</td>
<td>.01818</td>
<td>.26291</td>
<td>.15464</td>
<td>.28533</td>
<td>.12496</td>
<td>.33307</td>
</tr>
<tr>
<td>SSSI37</td>
<td>.06219</td>
<td>.12156</td>
<td>.15675</td>
<td>.15352</td>
<td>.13809</td>
<td>.10874</td>
<td>.13360</td>
</tr>
<tr>
<td>SSSI38</td>
<td>.15940</td>
<td>.01904</td>
<td>.34461</td>
<td>.10856</td>
<td>.27819</td>
<td>.14788</td>
<td>.21775</td>
</tr>
<tr>
<td>SSSI39</td>
<td>-.01736</td>
<td>.00224</td>
<td>.23682</td>
<td>.18414</td>
<td>.20732</td>
<td>.18559</td>
<td>.10374</td>
</tr>
<tr>
<td>SSSI40</td>
<td>.07204</td>
<td>.06818</td>
<td>.21570</td>
<td>.12491</td>
<td>.13380</td>
<td>.08255</td>
<td>.21775</td>
</tr>
<tr>
<td>SSSI41</td>
<td>.10113</td>
<td>.19341</td>
<td>.37932</td>
<td>.16607</td>
<td>.11978</td>
<td>.33437</td>
<td>.14730</td>
</tr>
<tr>
<td>SSSI42</td>
<td>.05295</td>
<td>.08513</td>
<td>.27828</td>
<td>.34683</td>
<td>.26322</td>
<td>.21081</td>
<td>.16140</td>
</tr>
<tr>
<td>SSSI43</td>
<td>.14151</td>
<td>.07403</td>
<td>.26166</td>
<td>.19203</td>
<td>.24649</td>
<td>.07884</td>
<td>.19706</td>
</tr>
<tr>
<td>SSSI44</td>
<td>.18791</td>
<td>.06189</td>
<td>.23082</td>
<td>.28767</td>
<td>.23566</td>
<td>.13765</td>
<td>.20065</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI17</th>
<th>SSSI18</th>
<th>SSSI19</th>
<th>SSSI20</th>
<th>SSSI21</th>
<th>SSSI22</th>
<th>SSSI23</th>
<th>SSSI24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI45</td>
<td>0.10573</td>
<td>0.05842</td>
<td>0.16961</td>
<td>0.31630</td>
<td>0.09137</td>
<td>0.16310</td>
<td>0.18514</td>
</tr>
<tr>
<td>SSSI46</td>
<td>0.07122</td>
<td>0.22424</td>
<td>0.14127</td>
<td>0.17691</td>
<td>0.04836</td>
<td>0.25021</td>
<td>0.12499</td>
</tr>
<tr>
<td>SSSI47</td>
<td>0.11900</td>
<td>0.07595</td>
<td>0.00068</td>
<td>0.09632</td>
<td>0.02711</td>
<td>0.07274</td>
<td>0.16175</td>
</tr>
<tr>
<td>SSSI48</td>
<td>0.12943</td>
<td>0.10949</td>
<td>0.18331</td>
<td>0.16302</td>
<td>0.04698</td>
<td>0.09901</td>
<td>0.18781</td>
</tr>
<tr>
<td>SSSI49</td>
<td>0.04287</td>
<td>0.19347</td>
<td>0.10568</td>
<td>0.19298</td>
<td>0.07863</td>
<td>0.57517</td>
<td>0.16674</td>
</tr>
<tr>
<td>SSSI50</td>
<td>0.00550</td>
<td>0.11462</td>
<td>0.10898</td>
<td>0.11994</td>
<td>0.12320</td>
<td>0.14470</td>
<td>0.07156</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI25</td>
<td>SSSI26</td>
<td>SSSI27</td>
<td>SSSI28</td>
<td>SSSI29</td>
<td>SSSI30</td>
<td>SSSI31</td>
<td>SSSI32</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI25</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI26</td>
<td>0.13985</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI27</td>
<td>0.21017</td>
<td>0.04696</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI28</td>
<td>0.04141</td>
<td>0.21333</td>
<td>0.13697</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI29</td>
<td>0.04388</td>
<td>0.07362</td>
<td>0.00815</td>
<td>0.17971</td>
<td>1.00000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI30</td>
<td>0.07573</td>
<td>0.01175</td>
<td>0.17382</td>
<td>0.03468</td>
<td>0.17161</td>
<td>1.00000</td>
<td></td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI33</th>
<th>SSSI34</th>
<th>SSSI35</th>
<th>SSSI36</th>
<th>SSSI37</th>
<th>SSSI38</th>
<th>SSSI39</th>
<th>SSSI40</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI39</td>
<td>0.14049</td>
<td>0.08371</td>
<td>0.09286</td>
<td>0.17939</td>
<td>0.14876</td>
<td>0.13388</td>
<td>1.00000</td>
</tr>
<tr>
<td>SSSI40</td>
<td>0.22290</td>
<td>0.06839</td>
<td>0.25037</td>
<td>0.22178</td>
<td>0.14142</td>
<td>0.15920</td>
<td>0.07510</td>
</tr>
<tr>
<td>SSSI41</td>
<td>0.15758</td>
<td>0.12002</td>
<td>0.23469</td>
<td>0.14572</td>
<td>0.27972</td>
<td>0.22969</td>
<td>0.20303</td>
</tr>
<tr>
<td>SSSI42</td>
<td>0.26234</td>
<td>0.09109</td>
<td>0.11758</td>
<td>0.27880</td>
<td>0.25182</td>
<td>0.15090</td>
<td>0.17938</td>
</tr>
<tr>
<td>SSSI43</td>
<td>0.32433</td>
<td>0.08351</td>
<td>0.18269</td>
<td>0.21800</td>
<td>0.22650</td>
<td>0.25918</td>
<td>0.02453</td>
</tr>
<tr>
<td>SSSI44</td>
<td>0.24200</td>
<td>0.10443</td>
<td>0.12205</td>
<td>0.34322</td>
<td>0.14215</td>
<td>0.22615</td>
<td>0.17144</td>
</tr>
<tr>
<td>SSSI45</td>
<td>0.23263</td>
<td>0.07321</td>
<td>-0.01582</td>
<td>0.18048</td>
<td>0.12864</td>
<td>0.16435</td>
<td>0.09789</td>
</tr>
<tr>
<td>SSSI46</td>
<td>0.15418</td>
<td>0.19207</td>
<td>0.08153</td>
<td>0.12266</td>
<td>0.15290</td>
<td>0.11468</td>
<td>0.14933</td>
</tr>
<tr>
<td>SSSI47</td>
<td>0.11075</td>
<td>0.22225</td>
<td>0.19479</td>
<td>0.15955</td>
<td>0.10535</td>
<td>0.09379</td>
<td>0.04106</td>
</tr>
<tr>
<td>SSSI48</td>
<td>0.16376</td>
<td>0.06346</td>
<td>0.06492</td>
<td>0.11792</td>
<td>0.14583</td>
<td>0.14378</td>
<td>0.03971</td>
</tr>
<tr>
<td>SSSI49</td>
<td>0.14993</td>
<td>0.13854</td>
<td>0.06241</td>
<td>0.14795</td>
<td>0.13624</td>
<td>0.08210</td>
<td>0.12490</td>
</tr>
<tr>
<td>SSSI50</td>
<td>-0.00102</td>
<td>0.11539</td>
<td>0.15931</td>
<td>0.13091</td>
<td>0.32186</td>
<td>0.13639</td>
<td>0.21140</td>
</tr>
</tbody>
</table>

(Table continues)
<table>
<thead>
<tr>
<th>SSSI41</th>
<th>SSSI42</th>
<th>SSSI43</th>
<th>SSSI44</th>
<th>SSSI45</th>
<th>SSSI46</th>
<th>SSSI47</th>
<th>SSSI48</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI41</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI42</td>
<td>.26108</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI43</td>
<td>.13089</td>
<td>.25742</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI44</td>
<td>.20986</td>
<td>.37855</td>
<td>.26689</td>
<td>1.00000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI45</td>
<td>.14921</td>
<td>.44876</td>
<td>.24382</td>
<td>.30643</td>
<td>1.00000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSSI46</td>
<td>.27225</td>
<td>.21305</td>
<td>.18807</td>
<td>.11428</td>
<td>.20072</td>
<td>1.00000</td>
<td></td>
</tr>
<tr>
<td>SSSI47</td>
<td>.15205</td>
<td>.14562</td>
<td>.05106</td>
<td>.16859</td>
<td>.12732</td>
<td>.13458</td>
<td>1.00000</td>
</tr>
<tr>
<td>SSSI48</td>
<td>.15551</td>
<td>.28869</td>
<td>.29853</td>
<td>.28989</td>
<td>.24314</td>
<td>.20618</td>
<td>.21541</td>
</tr>
<tr>
<td>SSSI49</td>
<td>.33910</td>
<td>.21280</td>
<td>.00505</td>
<td>.10361</td>
<td>.14431</td>
<td>.24576</td>
<td>.15287</td>
</tr>
<tr>
<td>SSSI50</td>
<td>.27970</td>
<td>.20928</td>
<td>.12586</td>
<td>.07664</td>
<td>.07438</td>
<td>.30507</td>
<td>.15768</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SSSI49</th>
<th>SSSI50</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSI49</td>
<td>1.00000</td>
</tr>
<tr>
<td>SSSI50</td>
<td>.18183</td>
</tr>
</tbody>
</table>

106
<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am a happy person. (33)</td>
<td>0.62247</td>
<td>0.14718</td>
<td>0.07968</td>
</tr>
<tr>
<td>I wish that everyone would leave me alone. (7)</td>
<td>0.61997</td>
<td>0.22057</td>
<td>0.03211</td>
</tr>
<tr>
<td>No one tries to understand me and my feelings. (36)</td>
<td>0.56650</td>
<td>0.11433</td>
<td>0.18189</td>
</tr>
<tr>
<td>No one really cares about me. (23)</td>
<td>0.54774</td>
<td>0.21540</td>
<td>-0.07649</td>
</tr>
<tr>
<td>I often feel like I am completely alone in the world. (3)</td>
<td>0.53327</td>
<td>0.08790</td>
<td>0.20788</td>
</tr>
<tr>
<td>People cooperate with me most of the time. (38)</td>
<td>0.49695</td>
<td>0.16764</td>
<td>0.07952</td>
</tr>
<tr>
<td>I wish that I could run away and leave everyone in the world behind me. (28)</td>
<td>0.47554</td>
<td>0.13177</td>
<td>0.19903</td>
</tr>
<tr>
<td>It seems like nothing ever changes for me. (10)</td>
<td>0.44854</td>
<td>0.06622</td>
<td>0.28402</td>
</tr>
<tr>
<td>It seems like people are always doing bad things to me. (19)</td>
<td>0.44557</td>
<td>0.11937</td>
<td>0.23205</td>
</tr>
</tbody>
</table>

(Table continues)
This is a great time to be alive. (43)  .43993  .02126  .30149
It seems like everything I do turns out wrong. (21)  .43360  .04424  .21958
People are not very friendly. (44)  .39762  .12030  .39323
Things usually work out for the best. (24)  .39367  -.01793  .17634
I think that most people are friendly. (4)  .38854  .06645  .26829
I am an important person in the lives of some other people. (29)  .35511  .03376  .05202
There aren’t very many things that I care about. (40)  .34304  .10969  .09743
I like to make new friends. (17)  .28595  .14177  -.04472
I like animals more than I like people. (16)  .28097  -.07402  .10168
Members of my family have great concern for me. (6)  .18832  .00868  .08029
I don’t let anyone tell me what to do. (13)  .18725  .14715  .17398
Most people treat me more like a little kid than an adult. (31)  .18468  .13898  .16355

(Table continues)
There are several people whom I hate. (49)
I hope that I get the chance to get back at
some people for the bad way in which they have
treated me. (41)
There are some individuals who I hate. (22)
If people make things difficult for me then I
will try to make things even more difficult
for them. (9)
Sometimes I like to hurt people. (27)
To get ahead in this world, you have to step
on people along the way. (46)
If I had control over people, I would make them
do what I wanted them to do. (50)
I get angry when people do not do what I want
them to do. (5)
I would rather complete a "perfect crime" and not be caught than to complete a work of art such as a painting. (25)

Some people do not deserve to live. (18)

I care about people that I know but not about total strangers. (34)

I hate to listen to other people's problems. (47)

I like to watch movies where the bad guy wins. (8)

I would like to help every person in the world. (30)

If something goes wrong for me, I become extremely angry. (39)

People are all of equal worth, regardless of what country they live in. (1)

<table>
<thead>
<tr>
<th></th>
<th>.01972</th>
<th>.34212</th>
<th>.15317</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-.03351</td>
<td>.32158</td>
<td>.09897</td>
</tr>
<tr>
<td></td>
<td>.08825</td>
<td>.31327</td>
<td>-.02976</td>
</tr>
<tr>
<td></td>
<td>.12737</td>
<td>.30847</td>
<td>.02455</td>
</tr>
<tr>
<td></td>
<td>.11498</td>
<td>.28533</td>
<td>.06365</td>
</tr>
<tr>
<td></td>
<td>.04151</td>
<td>.28514</td>
<td>-.03325</td>
</tr>
<tr>
<td></td>
<td>.13847</td>
<td>.26859</td>
<td>.21452</td>
</tr>
<tr>
<td></td>
<td>.10672</td>
<td>.24335</td>
<td>.08723</td>
</tr>
</tbody>
</table>

(Table continues)
I sometimes like to hurt animals for no reason at all. (35)  
I wish that I could destroy the world and build it back up the way that I would like it to be. (37)  
I would like to make the world a perfect place in which to live because then I would be seen by others as the most important person alive. (14)  
People can't be trusted. (42)  
Most people have little respect for others. (20)  
Most people are concerned only with themselves. (26)  
A person must watch out for himself/herself because no one else will help him/her. (11)  
I have confidence in other people. (45)  

(Table continues)
Most people would take advantage of me if they could. (32)  
The world is a great place in which to live. (15)  
Most people only appear to be honest but do many dishonest things. (12)  
People are basically good. (48)  
If it were not for all the bad breaks which I have had, I could really have amounted to something. (2)  

Note: Item numbers are in parentheses.
Table 6
SSSI Items Loading .35 or Greater on Labeled Factors

Factor 1: Contextual harmony
I often feel like I am completely alone in the world. (3)
I think that most people are friendly. (4)
I wish that everyone would leave me alone. (7)
It seems like nothing ever changes for me. (10)
It seems like people are always doing bad things to me. (19)
It seems like everything I do turns out wrong. (21)
No one really cares about me. (23)
Things usually work out for the best. (24)
I wish that I could run away and leave everyone in the world behind me. (28)
I am an important person in the lives of some other people. (29)
I am a happy person. (33)
No one tries to understand me and my feelings. (36)
People cooperate with me most of the time. (38)
This is a great time to be alive. (43)

Factor 2: Positive treatment/response
I get angry when people do not do what I want them to do. (5)
If people make things difficult for me then I will try to make things even more difficult for them. (9)
There are some individuals who I hate. (22)
Sometimes I like to hurt people. (27)
I hope I get the chance to get back at some people for the bad way in which they have treated me. (41)
To get ahead in this world, you have to step on people along the way. (46)
There are several people whom I hate. (49)
If I had control over people, I would make them do what I wanted them to do. (50)

Factor 3: Confidence and trust
A person must watch out for himself/herself because no one else will help him/her. (11)
Most people only appear to be honest but do many dishonest things. (12)
The world is a great place in which to live. (15)
Most people have little respect for others. (20)
Most people are concerned only with themselves. (26)
Most people would take advantage of me if they could. (32)
People can't be trusted. (42)
People are not very friendly. (44)
I have confidence in other people. (45)
Table 7

**Final Statistics (n=407)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Pct of Var</th>
<th>Cum Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSSI1</td>
<td>.07822</td>
<td>1</td>
<td>7.37526</td>
<td>14.8</td>
<td>14.8</td>
</tr>
<tr>
<td>SSSI2</td>
<td>.06523</td>
<td>2</td>
<td>2.16322</td>
<td>4.3</td>
<td>19.1</td>
</tr>
<tr>
<td>SSSI3</td>
<td>.33531</td>
<td>3</td>
<td>1.12676</td>
<td>2.3</td>
<td>21.3</td>
</tr>
</tbody>
</table>
REFERENCES


