

## **Reliability and Validity of the Santa Clara Strength of Religious Faith Questionnaire**

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*This study investigates the reliability and validity of the Santa Clara Strength of Religious Faith Questionnaire (SCSORF). The SCSORF and religiosity measures (i.e., Age Universal Religious Orientation Survey, Religious Life Inventory, and the God Control measure from the Belief in Personal Control Scale) were administered to three samples. Results suggest that the SCSORF is both reliable and valid.*

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The Santa Clara Strength of Religious Faith Questionnaire (SCSORF) (Plante & Boccaccini, 1997) is a 10-item scale that assesses strength of religious faith regardless of religious affiliation or denomination. Research examining the influence of religion and religious faith on human behavior has demonstrated that various positive contributions to overall mental health are attributable to religious devotion (Donahue & Benson, 1995; Ellison, 1991; Larson, Sherill, Lyons, Craigie, Thielman, Greenwold, & Larson, 1992). The SCSORF was designed in order to provide researchers and clinicians with a quick, easy to administer and score, and useful measure of strength of religious faith for use in mental health research and practice. Furthermore, because the SCSORF does not contain references to any specific religious orientation, it may be utilized with peoples of all religious affiliations.

A vast number of instruments have been developed to measure various aspects of religiousness and religiosity. Due to the number of religiosity

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and religiousness instruments in existence, the need for new questionnaires intended to measure religiosity and religiousness has been justifiably challenged. However, skeptics agree that new measures investigating religion or religious orientation should only be introduced if they add new information beyond that provided by scales currently in existence (Gorsuch, 1984; Van Wicklin, 1990). In accordance with this position, the SCSORF was designed and introduced as a measure of strength of religious faith, a domain that has heretofore been empirically neglected by investigators of religiousness and religiosity.

A variety of religious orientations or ways of being religious have been formulated and assessed. Allport and Ross (1967) designed the Religious Orientation Survey (ROS) in an attempt to distinguish between people who live their religion (intrinsic religiosity) and people who use their religion (extrinsic religiosity). Research using the ROS has shown that positive influences of intrinsic religiosity on mental health include well-being, self-esteem, personal adjustment, social adjustment (Payne, Bergin, Bielema, & Jenkins, 1991), and coping (Park, Cohen, & Herb, 1990). The Religious Life Inventory (RLI) (Batson & Ventis, 1982), which was designed as a conceptual tuning and refinement of the dimensions on the ROS, consists of four scales: external, internal, interactional, and orthodoxy. Used in conjunction with the extrinsic and intrinsic scales from the ROS, the RLI assesses three religious orientations: means (extrinsic religiosity), end (intrinsic religiosity), and quest (interactional religiosity). Research utilizing the RLI has found that the end dimension shows predominantly positive relationships with mental health (Ventis, 1995).

Although the ROS and the RLI have received a considerable amount of attention in the religiosity literature, a myriad of measures have been designed to measure various aspects of religiousness (see Hall, Tisdale, & Brokaw, 1994 for a comprehensive listing). While each has provided insight concerning various aspects of religion and religiosity, many of them are lengthy and assume that the respondent is religious. None of them were designed to assess strength of religious faith. Therefore, the role of strength of religious faith concerning psychological functioning has yet to be sufficiently examined.

In a preliminary investigation, Plante and Boccaccini (1997) found the SCSORF to have high internal reliability (Chronbach Alpha = .95) and split-half reliability ( $r = .92$ ). Using a median-split procedure to distinguish between high and low faith subjects on the SCSORF, high faith subjects were found to be less interpersonally sensitive, maintain higher self-esteem, and exhibit a greater belief in personal control than were low faith subjects. Furthermore, high scores on the SCSORF were positively correlated with perceived coping and hope, and negatively correlated with depression. Simi-

lar results have been noted in additional research conducted by Plante (Plante & Booth, under review; Plante, Lantis, & Checa, 1997). In an examination of 48 collegiate baseball players, high scores on the SCSORF were found to be correlated with a greater belief in personal control (Plante & Booth, under review). In an examination of aerobic fitness and stress responsivity among offspring of hypertensive parents, Plante, Lantis, & Checa (in press) found that high scores on the SCSORF were negatively correlated with anxiety.

The purpose of the current study is to further examine the reliability and validity of the SCSORF. The SCSORF, along with the Age Universal Religious Orientation Survey (AUROS) (Gorsuch & Venable, 1983), the external, internal, and interactional religiousness scales from the Religious Life Inventory (RLI) (Batson & Ventis, 1982), and the God Control scale from the Belief in Personal Control Scale (BPCS) (Berrenberg, 1987), were administered to three independent samples in order to further assess the reliability and validity of the SCSORF.

## METHOD

### Subjects

*Sample 1* consisted of 78 undergraduate university students (61 females, 17 males,  $M = 18.91$  years,  $SD = 2.23$  years). All of the subjects were enrolled in a General Psychology course.

*Sample 2* consisted of 35 members of a local civic group (25 females, 10 males,  $M = 47.06$  years,  $SD = 12.35$  years).

*Sample 3* consisted of 46 high school students attending a local private high school (26 females, 20 males,  $M = 16.31$  years,  $SD = 0.51$  years).

## MEASURES

*Santa Clara Strength of Religious Faith Questionnaire* (SCSORF) (Plante & Boccaccini, 1997). The SCSORF questionnaire is a 10-item measure designed by Plante in order to measure strength of religious faith. Items on the SCSORF were generated from Plante's clinical contact with religious patients. Items are scored on a 4-point scale and were designed to measure strength of religious faith regardless of denomination. Preliminary findings have indicated a coefficient alpha of .95 and a split-half reliability of .92.

*Belief in Personal Control Scale (BPCS)* (Berrenberg, 1987). The BPCS is a 45-item personality questionnaire designed to measure three dimensions of personal control: general external control, exaggerated control, and God control. The God control scale was utilized in the current study. Higher scores on this dimension relate to less belief in God as a mediator of control. Berrenberg (1987) reports a coefficient alpha of .97 for the God control factor, and a four week test-retest correlation of .93.

*Age Universal Religious Orientation Scale (AUROS)* (Gorsuch & Venable, 1983). The AUROS is a revision of the original Religious Orientation Survey (Allport & Ross, 1967) that accommodates lower levels of reading comprehension than the ROS. The AUROS measures two dimensions of religiousness: intrinsic (*I*) and extrinsic (*E*). Higher scores on the intrinsic dimension relate to a person who tends to "live his religion," and higher scores on the extrinsic dimension relate to a person who "uses his religion." Gorsuch and Venable (1983) report coefficient alphas of .73 for the intrinsic dimension and .66 for the extrinsic dimension.

*Religious Life Inventory (RLI)* (Batson & Ventis, 1982). The RLI is a 39-item instrument consisting of four scales: external, internal, interactional, and orthodoxy. Used in conjunction with the intrinsic and extrinsic dimensions from the ROS, the RLI assesses three dimensions of religious faith: means, end, and quest. Due to the incompatibility of the orthodoxy scale with the SCSORF (i.e., the SCSORF was designed to be used with people of all religious affiliations and the orthodoxy scale assesses belief in traditional Christian doctrines), only the internal, external, and interactional scales were utilized in the current study. The external dimension was designed to measure the degree to which social environment has influenced an individual's religiousness, the internal scale was designed to assess the degree to which internal needs (e.g., certainty, strength, and direction) influence an individual's religiousness, and the interactional scale was designed to assess the degree to which an individual's religion "involves an open-ended, responsive dialogue with existential questions raised by the contradictions and tragedies of life" (Batson & Ventis, 1982). Coefficient alphas are only available for the quest dimension, and range from .21 to .57 (Kojetin, McIntosh, Bridges, & Spilka, 1987; Spilka, Kojetin, & McIntosh, 1985).

## PROCEDURE

### Sample 1

Subjects agreed to participate in the study in order to receive research credits for their General Psychology course. Questionnaires were adminis-

tered in group sessions. At each session, subjects were informed of the purpose of the study and were assured of confidentiality. After signing a consent form and agreeing to participate, subjects completed the series of questionnaires.

### Sample 2

Access to the members of a local civic group was facilitated by a member of the first author's research team. Members were informed of the purpose of the study, assured of confidentiality, and signed a consent form agreeing to participate in the study. Participants were allowed to take the questionnaires home, and completed questionnaires were collected at the proceeding week's group meeting. All but one subject returned his/her questionnaire.

### Sample 3

The series of questionnaires were presented to the high school students by their instructor during an allotted period of class time. Students were informed of the purpose of the study, assured of confidentiality, and signed a consent form agreeing to participate in the study.

## RESULTS

The mean strength of religious faith scores assessed by the SCSORF were 27.73 ( $SD = 6.70$ ) among the university students, 27.74 ( $SD = 9.34$ ) among the civic group members, and 24.89 ( $SD = 8.28$ ) among the high school students. Means and standard deviations for study variables are provided in Table I.

The SCSORF was found to have high internal reliability. Chronbach Alpha's were .94 for the university student sample, .97 for the civic group sample, and .96 for the high school sample. The SCSORF was also found to have high split-half reliability, with  $r$ 's of .90, .95, and .96 respectively.

Pearson correlation coefficients were calculated between the SCSORF and measures of religiosity for each of the three samples (see Table II). High scores on the SCSORF were consistently found to correlate positively with intrinsic religiosity on the AUROS ( $r$ 's ranged from .87 to .90), and the external ( $r$ 's ranged from .64 to .73) and internal ( $r$ 's ranged from .76 to .90) dimensions on the RLI. High scores on the SCSORF were also consistently found to correlate negatively with God control ( $r$ 's ranged from

**Table I.** Means and Standard Deviations for Study Variables by Sample

Measure	<i>n</i> = 78 Sample 1		<i>n</i> = 35 Sample 2		<i>n</i> = 46 Sample 3	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
SCSORF						
Total	27.73	6.70	27.74	9.34	24.89	8.28
BPCS						
God Control	25.24	8.60	25.51	11.61	27.43	9.22
AUROS						
Extrinsic	32.37	6.38	30.59	8.96	30.95	5.30
Intrinsic	24.68	5.97	25.03	8.71	22.73	7.41
RLI						
External	5.21	1.60	5.15	1.76	5.26	1.84
Internal	5.81	1.49	5.68	2.43	5.11	1.94
Interactional	4.84	1.45	4.22	1.58	5.00	1.61

**Table II.** Pearson Correlations for SCSORF and Study Variables

Measure	SCSORF		
	Sample 1	Sample 2	Sample 3
BPCS			
God Control	-.73**	-.92**	-.87**
AUROS			
Extrinsic	.09	.49**	.21
Intrinsic	.87**	.90**	.87**
RLI			
Internal	.76**	.90**	.63**
External	.73**	.64**	.73**
Interactional	.16	.39*	.24

\**p* < .05. ..\*\**p* < .01.

-.73 to -.92), with higher scores on this measure indicating less belief in God as a mediator of control.

A two-tailed *t*-test for independent groups was conducted for each sample in order to examine gender differences on the SCSORF. Results indicate that, in the high school sample, females exhibited higher strength of religious faith than did males ( $t(44) = 2.87, p < .01$ ). No significant gender differences were found in either the university or civic group samples.

## DISCUSSION

The SCSORF was designed as a brief and an easy-to-use measure of strength of religious faith, a construct which has heretofore avoided em-

pirical investigation, and intended to be appropriate for use with a wide variety of religious orientations.

Internal reliability and split-half reliability findings within and across samples suggest that the SCSORF is a reliable measure. Moreover, the relatively small range of SCSORF means across the samples further support the stability of the instrument. Correlations between the SCSORF and AUROS, RLI, and God Control dimension of the BPCS support the instrument's validity, and suggest that strength of religious faith, as assessed by the SCSORF, is related to, but not directly measured by, commonly utilized indices of religiousness and religiosity.

While correlations between the SCSORF and measures of religiousness varied somewhat across samples, high scores on the SCSORF appear to be associated with certain measures relative to others. Significant relationships were noted between the SCSORF and indices of intrinsic and extrinsic religiousness in the current investigation. Although intrinsic and extrinsic religiousness were originally operationalized to be bipolar dimensions of religiousness, positive correlations between the two dimensions are commonly obtained and have been attributed to indiscriminate pro-religious responding by subjects (Allport & Ross, 1967).

For each of the three samples, the strongest positive correlation was noted between the SCSORF and the intrinsic religiousness scale of the AUROS. Strong positive correlations were also noted between the SCSORF and the internal dimension of the RLI. Because both of these measures were designed as indices of intrinsic religiousness, findings suggest that people who score high on the SCSORF tend to maintain religious beliefs consistent with intrinsic religiousness.

Interestingly, high scores on the SCSORF correlated strongly with the RLI external dimension, but not with the AUROS extrinsic dimension. Although the SCSORF was not specifically created to reflect any existing religiosity dimension, it was suspected that intrinsic and extrinsic religiousness would correlate positively with the SCSORF. However, we were surprised to find that one measure associated with extrinsic religiousness (RLI external) correlated significantly across all samples with the SCSORF, while the other (AUROS extrinsic) only correlated significantly with the SCSORF for one sample. The reason for this unexpected discrepancy is unclear, but may be influenced by the age of the groups sampled.

Extrinsic religiosity is usually associated with people who "use" their religion. For example, people who go to church for more social than spiritual reasons, or people who maintain religious beliefs mainly for the purpose of relief and protection tend to "use" their religion (Allport & Ross, 1967). The RLI external scale was designed to measure the influence of social environment on an individual's personal religion, which is only one

of the dimensions of extrinsic religiousness. Due to the existence of "youth groups," which are designed to foster church involvement among younger members by providing church sponsored social activities, it is likely that people involved in such groups (typically adolescents and young adults) may score higher on the RLI external scale than the AUROS extrinsic scale. Therefore, in younger populations, a high score on the RLI external scale may not necessarily be an indication of extrinsic religiousness in the same sense that the AUROS reflects extrinsic religiousness, but may be more reflective of their church's views concerning adolescent members' religious involvement. Thus, scores on the two measures may differ substantially given the social nature of an individual's religiousness.

In the current study, SCSORF scores from both university and high school students correlated significantly with the RLI external dimension and not with the AUROS extrinsic dimension, while SCSORF scores from the adult population correlated significantly with both measures. It appears that age may be a moderator of the relationship between RLI means and AUROS extrinsic scores, and, thus, age influences extrinsic religiousness, and its relationships as assessed by the RLI.

Findings also indicated that strength of religious faith was related to God Control. High scores on the SCSORF were strongly correlated with God Control. It is likely that people who are high in strength of religious faith (e.g., score high on the SCSORF) not only look to God as a mediator of control, but also strongly believe that God can be successfully enlisted in the achievement of outcomes. Thus, people with strong religious faith may simply have more confidence in God's efficacy as a mediator of events than do people with less faith.

The interactional dimension of the RLI correlated significantly with the SCSORF in the high school sample. The interactional scale was designed in order to reflect quest, or, the extent to which a person questions and maintains an open mind concerning his/her religious beliefs (Batson, 1976). It is likely that people who maintain strong religious faith are confident in, and content with, their religious beliefs, and, therefore, do not consider their beliefs extremely malleable. Therefore, high scores on the SCSORF should not be expected to correlate strongly with the RLI interactional scale. However, psychometric inconsistencies of the interactional scale in past research suggest that it may not presently be a valid measure (Hall et al., 1994). Furthermore, the significant correlation obtained in the current study may simply be the result of indiscriminant pro-religious responding by subjects in the high school sample.

While a gender difference was noted for the SCSORF in the high school sample, with females scoring higher than males, means from the other two samples suggest that there is not a consistent gender disparity

concerning SCSORF scores. Future research should address the possibility of gender differences and should include larger, more diverse samples. Test-retest reliability as well as divergent and convergent validity still need to be evaluated. Furthermore, utilization of the SCSORF among both research and clinical samples would also be useful in further evaluating the psychometric properties of the SCSORF.

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