A SURVEY OF MEASURES OF SPIRITUAL AND TRANSPERSONAL CONSTRUCTS: PART TWO-ADDITIONAL INSTRUMENTS

Douglas A. MacDonald
Windsor, Ontario, Canada

Jeffrey G. Kuentzel
Detroit, Michigan

Harris L. Friedman
Fort Myers, Florida

This paper is the second part of a two-part literature survey aimed at providing information on measures of spiritual and transpersonal constructs. The first part was concerned specifically with reporting on updated research completed with the 20 measures previously described by MacDonald, LeClair, Holland, Alter, and Friedman (1995). This article, in contrast, provides detailed information on 10 different instruments tapping spirituality and related constructs. Four of these tests were initially mentioned in MacDonald et al., but not described. The remaining six measures were obtained through both computerized database (e.g., PsycINFO) searches completed between 1995 and 1999 as well as through informal means (e.g., authors' knowledge of a measure). These 10 measures were selected for detailed discussion based on the authors' appraisal of their potential to contribute to new lines of research. In particular, we attempted to select some of the more psychometrically sound instruments that operationalize promising theoretical and data-driven measurement models not represented in any of the measures previously reviewed. Additional measures that we found, but did not discuss, are also listed at the end of this article (see Table).

Ego Permissiveness Inventory (EPI; Taft, 1969, 1970). The BPI is a measure which reflects Taft's (1969) efforts at uncovering the dimensions of ego permissiveness, a construct which may be generally understood as being conceptually related to the notion of "regression in the service of the ego" (Kris, 1952) and broadly defined as the ability of the ego to relinquish "some of its power in order to allow the actualization of the [positive] potentialities of the pre-conscious and unconscious aspects of the personality" (Taft, 1969, p. 36). The construct was developed based upon Taft's
understanding of the positive effects on personality of the controlled release of ego functioning to non-ego (i.e., unconscious) functioning. He elected to focus only on the positive elements in his research on ego permissiveness and to exclude the more negatively interpreted regressive aspects (e.g., direct expression of sexual or aggressive impulses).

The EPI is a 72-item paper-and-pencil measure that uses a three-point response scale (no, do not know, yes). Although Taft wrote many of the items, a notable quantity of the items was derived from already existing "experience" measures which Taft ascertained reflected his notion of ego permissiveness (e.g., As, O'Hara & Munger, 1962; Shor, 1960).

Using data gathered from a sample of 254 adults, Taft factor analyzed the EPI items and obtained nine overlapping factors, the first six of which he took to represent various forms or dimensions of experience which exhibit ego permissiveness (Taft, 1970). Each of these factors can be used to organize the EPI items into nine subscales which Taft labeled as follows: Peak Experiences (F1-16 items), Dissociated Experiences (F2-12 items), Acceptance of Fantasy (F3-12 items), Belief in the Supernatural (F4-11 items), Automatic Thought (F5-8 items), Confidence in Cognitive Control (F6-9 items), Cognitive Adaptability (F7-6 items), Playfulness Versus Endogenous Arousal (F8-10 items), and Emotional Arousal from Social Sources (F9-8 items). Taft, in turn, categorized each of the factors into one of three clusters, based upon the similarity of factor content; Ego Reduction (F1, F2, F3, F4, F5), Cognitive Functioning (F6, F7) and Maintenance of Arousal Level (F8, F9). EPI subscale scores are calculated by reverse scoring negatively phrased items or items which loaded negatively in the factor analysis, and summing the item responses.

Evidence in support of the psychometric properties of the instrument is generally marginal or simply lacking. Using the Taft (1969) version of the EPI, MacDonald (1997) obtained subscale reliability coefficients ranging from .16 to .80. Additional factor analytic work suggests that the measure demonstrates some factorial validity (Taft, 1969, 1970) though inspection of these findings reveals low to moderate factor loading coefficients. It is noteworthy that after Taft (1970) reanalyzed the factor structure of the EPI, he developed somewhat different labels for the nine factors he obtained (e.g., Peak Experiences, Dissociated Experiences, Openness to Inner Experiences, Belief in the Supernatural, Emotional Extraversion, Intrinsic Arousal, Controlled Adaptability, Intellectual Control and Cognitive Regression). Moreover, Taft (1970) attempted to organize the EPI items into eight 10-item subscales (he elected to exclude the Cognitive Regression factor).

A search for empirical literature utilizing the EPI generated five articles. Diamond and Taft (1975) used the EPI to examine how ego permissiveness relates to hypnotizability and found a significant positive correlation. The BPI Dissociated Experiences subscale was seen to produce the most elevated coefficient. Busker and Marcia (1991) explored the relationship of adaptive regression in the formation of ego identity and found that EPI scores were higher for persons actively engaged in the process of identity formation. MacDonald (1997, in press) examined the association of the EPI to measures of spirituality and found the majority of its subscales to relate most markedly with
spiritual and non-ordinary experience variables. The BPI Belief and the Paranormal was seen to strongly associate with other measures of paranormal beliefs. MacDonald and Holland (1999a) looked at the relation of the EPI with a measure of complex-partial epileptic like signs and found notable correlations with most BPI subscales. Finally, Burris and Tarplay (1998) used a modified form of the BPI to help validate an In naneness scale (see below) and found significant correlations of moderate strength between the two tests. Burris and Tarplay also found the BPI scales to significantly associate with the Quest scale (Batson & Schoenrade, 1991a, 1991b).

In general, the BPI embodies an effort to delineate dimensions of experience which have direct relevance to many areas of transpersonal psychological research. In particular, it appears to be a promising measure for investigating how ego functioning and non-ordinary experiential states relate and influence one another. Nonetheless, the current lack of knowledge about its psychometric properties indicates that the BPI should be used with some caution until further research is done.

Expressions of Spirituality Inventory (ESI; Maciationald, 1997, in press). Motivation for the development of the ESI was derived from the observation that there are a fairly large number of measures of spiritual constructs (e.g., MacDonald et al, 1995 u covered more than 70 instruments), but no available means of organizing them to a coherent picture of spirituality due to differences in the operationalization of the concept. The ESI was created to provide a well designed and validated measure of spirituality that incorporates existing psychometric conceptualizations into a coherent organizational framework on which to understand and research the various elements of the construct.

The ESI is the product of a two-stage factor analytic study that utilized more than 18 existing measures of spirituality and related constructs and involved more than 1,400 participants (Maciationald, 1997, in press). Simply described, the first stage entailed the completion of a series of principal axis factor analyses of 11 measures of spirituality and related constructs deemed to be representative of the spirituality test domain as per MacDonald et al., (1995)1. The aim of these analyses was to uncover a stable common factor structure that could be used as the basis for theory and instrument development. The second phase of the study focused on replicating the findings of the initial analyses using an original pool of 218 items designed to capture the content of the stage one factors. At the end of all analyses, five reliable factors were uncovered and interpreted. The factors were labeled as follows: Cognitive Orientation Towards Spirituality (i.e., n-theistic spiritual beliefs and the perception of spirituality having direct relevance to functioning), Experiential Phenomenological Dimension (i.e., spiritual experience), Existential Well-Being (i.e., positive existentiality such as meaning and purpose in life), Paranormal Beliefs (i.e., beliefs in parapsychological phenomena, spiritualism, witchcraft), and Religiousness (i.e., religious beliefs and practices).

After utilizing the original 218 items for the purposes of model development, efforts were then directed to selecting items that best represented the obtained factors. This involved a systematic item-selection procedure that relied upon the use of factor and reliability analyses of both the entire item pool and the dimensions independently. Items were retained for use if they, (a) loaded .35 or higher on the expected factor
In its current form, the ESI is composed of 98 items of which 42 are reverse worded. The positive and reverse worded items are organized in an alternating fashion throughout the test in order to counteract response bias. Two additional items are added to the end of the instrument to serve as general indicators of face validity and response validity. Respondents are provided with a five-point rating scale (0 = Strongly Disagree, 1 = Disagree, 2 = Neutral, 3 = Agree, 4 = Strongly Agree) to rate the extent to which they agree with the items. Scoring entails reverse coding negatively phrased items and then summing responses for items belonging to each dimension. Examination of the psychometric properties of the ESI has generated support of its score reliability and validity. MacDonald (1997, in press) has found that the scale score reliabilities of the ESI dimensions are acceptable with (alpha) coefficients ranging from .85 for Existential Well-Being to .97 for Cognitive Orientation Towards Spirituality. In addition, due to the item selection procedure mentioned above, corrected item-dimension total score correlations range from 0.40 to .80 for all items.

In terms of validity, MacDonald (1997, in press) found evidence of factorial, convergent, discriminant, and criterion validity. For example, results from principal axis factor analyses using both orthogonal (varimax) and non-orthogonal (oblimin) rotation (N = 938) indicate that the 98 items robustly comprise the five dimensions. Orthogonal solutions tend to show considerable overlap between the dimensions of Cognitive Orientation Towards Spirituality and Religiousness. Obliquely rotated solutions have indicated that these dimensions share a fair degree of common variance but are, nonetheless, unique factors. Intercorrelations of the ESI dimensions with a number of measures of theoretically similar constructs (e.g., instruments tapping altered states of consciousness, death transcendence, ego permissiveness, spirituality and spiritual well-being) and theoretically divergent constructs (e.g., demographic variables such as age, and sex; measures of social desirability and conventional personality constructs) produced differential patterns of association consistent with expectation (i.e., high degree of correlation between ESI and other spirituality measures; modest to low degree of association between ESI and measures of social desirability as well as demographic variables). Lastly, MacDonald (in press) found the ESI dimension scores to appropriately differ as a function of religious affiliation (i.e., persons reporting no religion obtained generally lower scores than individuals who identified having a religious affiliation but no consistent differences between religious affiliations were found), religious involvement (i.e., persons with a religious affiliation who reported an active involvement with religion scored higher on ESI dimensions than persons who were not active in their religion), and reported spiritual experience (i.e., persons reporting a spiritual experience scored higher on most ESI dimensions relative to persons who reported never having had such an experience).

The ESI has been used to investigate the relation of spirituality to a number of different aspects of psychological functioning. For instance, MacDonald (1997, in
ess), used the ESI to examine the association of spirituality to the Five Factor Model of personality as measured by the NEO Personality Inventory-Revised (NEO-PI-R; Costa & McCrae, 1992). Correlational and factor analyses revealed mild patterns of association between four of the five ESI dimensions (i.e., all but Existential Well-Being) and the five NEO-PI-R domains. In particular, Religiousness and Cognitive Orientation Towards Spirituality were most related to NEO-PI-R Agreeableness and Conscientiousness, while Experiential-Phenomenological Dimension and Paranormal Beliefs were most appreciably associated to NEO-PI-R Openness and, to a lesser extent, Extraversion. However, factor analyses using ESI item and dimension scores indicated that all dimensions, except Existential Well-Being, formed factors independent of the NEO-PI-R domains. ESI Existential Well-Being produced strong negative correlations with the NEO-PI-R Neuroticism domain. Moreover, Existential Well-Being and Neuroticism were found to represent opposite ends of a bipolar factor produced in factor analyses.

MacDonald and Holland (1999a) examined the relation of the ESI along with some other measures of spirituality, religion and non-ordinary experiences to self-reported complex-partial epileptic like signs (CPELS) and found a differential pattern of association. ESI Experiential-Phenomenological Dimension produced the most table association, followed by Paranormal Beliefs and, more distantly, Cognitive Orientation Towards Spirituality. ESI Religiousness was seen to not correlate meaningfully with CPELS and Existential Well-Being was observed to generate a mild negative correlation.

The relation of the ESI dimensions to psychopathology was assessed through correlations with the Minnesota Multiphasic Personality Inventory-2 (MacDonald & Holland, 1999b). Results indicated that all ESI dimensions, except Existential Well-Being are weakly associated to the MMPI-2 Basic Validity, Clinical, Supplementary, and Content scales. Existential Well-Being was observed to produce strong negative correlations with the majority of the MMPI-2 scales.

In some respects, the ESI may be seen as representing a significant advancement in scientific assessment of spirituality. It is a soundly developed test with reasonable reliability and validity that systematically embodies numerous constructs as embodied by several existing measures of spirituality. As such, the ESI and the five dimensional measurement model on which it is based, appear to hold potential for organizing the burgeoning but often disparate empirical literature as well as guiding future research efforts on spirituality. However, much psychometric work remains to be done with the ESI (e.g., need to examine its score stability over time and provide further information on its construct, content, and predictive validity). Further, the properties of the test need to be critically explored with participant populations different than undergraduate students.

A Survey of Measures of Spiritual and Transpersonal Constructs: Part IWo
Feelings, Reactions, and Beliefs Survey (FRBS; Cartwright & Mort, 1988; Cartwright, DeBruin, & Berg, 1991). The FRBS is a questionnaire designed to measure nine aspects of personality based on the work of Carl Rogers (e.g., Rogers, 1951, 1959, 1961, 1963, 1980, 1988). The nine characteristics can be briefly described as follows: (a) Focusing Conscious Attention (FCA) relates to "clarity in awareness of perceptions, thoughts, and feelings" (Cartwright, DeBruin, & Berg, 1991, p. 152); (b) Openness to Feelings in Relationships (OFR) is seen to reflect a part of openness to experience, and persons high in this trait are said to be sensitive and sympathetic; (c) Trust in Self as an Organism (TSO) refers to trust in one's self as a biological entity (this includes trust in one's own feelings and judgments); (d) Fully Functioning Person (FFP) is described as relating to self-acceptance and comfort with one's strengths and limitation; (e) Feeling Uncomfortable with People (FUP) is said to reflect a major form of insecurity which interferes with a person's full functioning. Persons demonstrating this characteristic dislike interpersonal and social situations; (f) Struggling with Feelings of Inferiority (SFI) pertains to insecurities around one's competence in relation to others; (g) Feeling Ambivalent in Relationships (FAR) involves self-awareness of the presence of both positive and negative feelings towards people; (h) Openness to Transcendent Experiences (OTE) involves openness to non-ordinary experiences, especially of a mystical or parapsychological nature; and (i) Religio-Spiritual Beliefs (RSB) embodies beliefs regarding religion and spirituality (Cartwright et al., 1991).

Items for the FRBS were drawn from an item pool that was designed to capture Rogerian personality concepts. "An initial set of 245 items was pretested and with the robust items retained, the final version has 130 items" (Cartwright et al., 1991, p. 151). Each of the PRBS items consists of a stem and five response options, akin to a five-point response scale (e.g., an item stem could be "My beliefs ... " and the response choices could be 1-"do not matter", 2- "have little importance", 3- "matter somewhat", 4-"matter a lot", and 5-"are all that matter"). The response options, however, vary from item to item. The test developers state that different rating scale anchors were used in order to minimize monotony for respondents. The FRBS items are unevenly divided into nine subscales corresponding to the nine aforementioned aspects of personality.

Examination of the psychometric properties of the FRBS has resulted in favorable findings. In terms of scale reliability, Cartwright, DeBruin, and Berg (1991) report Cronbach's alphas coefficients ranging from .57 to .87 for the nine subscales, Evidence in the form of convergent and criterion (known-groups) validity has also been provided for each of the subscales (see Cartwright et al., 1991). For instance, Focusing Conscious Attention (PCA) has been found to be associated with better school performance (Mori, 1987), and to significantly differ between groups of competitive skiers, police, and college students with the former two groups generating higher scores (Berg, 1987). FCA has also been shown to produce an expected positive correlation with measures of absorption (Miller & Foxworth, 1992) and attentional control. The FRBS Openness to Feelings in Relationship (OFR) subscale has been found to correlate with personality measures tapping tender-mindedness (Cartwright et al., 1991). The Trust in Self as an Organism (TSO) subscale has been observed to generate an expected negative association with a measure of control.
FRBS Fully Functioning Person (FFP) has been found to positively correlate with a measure of self-actualization and negatively relate to two tests of neuroticism. Feeling Uncomfortable with People (FUP) and Feeling Ambivalent in Relationships (AR) are negatively associated with the personality construct of extraversion and positively correlated to anxiety. FRBS Struggling with Feelings of Inferiority (SFI) has been shown to produce positive correlations with measures of anxiety. The Openness to Transcendence Experiences (OTE) subscale has been found to be positively associated with interest in parapsychology, reported transcendent experiences, and scores on a measure of belief in extrasensory perception (Cartwright, 1989; Mori, 1987). Finally, scores on the FRBS Religio-Spiritual Beliefs (RSB) subscale have been observed to be significantly higher for a group of religious devotees relative to scores of college students (Berg, 1987).

The FRBS is a unique measure in that it is the only psychometric questionnaire available that explicitly attempts to operationalize important aspects of personality seen by Rogers. As such, this test is likely to hold at least some appeal for persons who subscribe to humanistic, existential, and/or interpersonal orientations who are motivated to explore the merits and utility of Rogerian theory in a somewhat rigorous and scientific fashion. The inclusion of the OTE and RSB subscales also tends the relevance of the FRBS to the transpersonal psychological arena. In this respect, the FRBS may be a good measure to use in investigations of how spiritual experiences and beliefs impact personality and interpersonal functioning.

Immanence Scale (IS; Burris & Tarpley, 1998). Based upon their examination of how religion may contribute to, and/or be associated with, the expression of positive psychological functioning and pro-social behavior, Burris and Tarpley (1998) proposed the notion of immanence. Simply defined, immanence is seen to embody an orientation to religion which consists of three key features: motivation towards boundary transcendence (both psychological and interpersonal); "preference for a sense of presence in the moment, and acceptance as responses to potential threats" (Burris & Tarpley, 1998, p. 56); and present-centeredness. The IS was developed to serve as a formal operationalization of the immanence construct.

The development of the IS began with the construction of 24 items designed to tap the three aspects of immanence. These items were subsequently revised to enhance clarity based upon data gathered through their informal administration to acquaintances of the test authors. Using data obtained from a sample of 129 undergraduate students, an initial reliability analysis of the 24-item measure (for which a nine-point response scale was utilized) generated a Cronbach's alpha coefficient of .77. Burris and Tarpley (1998) then refined the scale using five criteria aimed primarily at maximizing its reliability and content sampling, and minimizing its number of items. Revisions resulted in a IS-item scale which produced a Cronbach's alpha of .79, a split-half reliability coefficient of .59, and a two-week test-retest correlation of .81. Further, corrected item-total score correlations were found to range from .26 to .51. An item-level principal components analysis of the revised BC scale, along with confirmatory analyses exploring the goodness-of-fit of three different factor models, indicated that the construct of immanence could be treated as unidimensional.
Burris and Tarpley (1998) examined the validity of IS and found the instrument to produce expected differential scores across known-groups (i.e., groups of persons with varying religious affiliations). Empirical associations via correlational and regression analyses consistent with expectation were also found between the IS and measures of intrinsic, extrinsic, and quest orientations, as well as other tests of theoretically similar (e.g., ego permissiveness) and dissimilar (e.g., social desirability) constructs.

Burris and Tarpley (1998) report three studies in which the IS was utilized. In the first, a sample of 58 undergraduate students completed the IS along with measures of intrinsic, extrinsic, and quest orientations to religion. Thereafter, and unaware that the situation was staged by the researchers, participants were asked to assist their university in the evaluation of an instructor for the purposes of deciding promotion from part-time to full-time status. Participants were randomly given one of three article excerpts and were required to respond to six evaluative questions. The article excerpts differed in the type of statements they contained advocating religiously orthodox, nonsectarian, and atheistic values, respectively. Higher IS scores were found to be associated with a preference with nonsectarian and atheistic values over orthodox values.

In a second study, Burris and Tarpley (1998) correlated the IS to a measure of value types. As generally hypothesized, IS scores were seen to positively correlate with the values of self-direction, universalism, hedonism, and stimulation; and negatively with values relating to tradition, conformity, security, power, and achievement. Finally, Burris and Tarpley state the IS was correlated to measures of mental health, but report that no notable relations were uncovered.

The constructs of intrinsic and extrinsic orientation (e.g., Allport & Ross, 1967), followed by the more recently developed quest orientation (e.g., see Batson & Ventis, 1982; Batson & Schoenrade, 1991a, 1991b), have been central in guiding theory and research in the psychology of religion and in providing insight as to how people experience, understand, and live through, religion. The work of Burris and Tarpley (1998), appears to represent an important contribution (at least within the psychology of religion) to the understanding of religion by drawing attention to, and clearly defining, an orientation to religion which recognizes and is built upon a motivation towards self-transcendence. The IS seems to be a reasonably well-constructed and validated instrument that may hold promise in bringing some convergence in research developments between the subdisciplines of the psychology of religion and transpersonal psychology. The IS could be a useful measure to include in research examining differences in religious/spiritual ideology and practice and in exploring people's motivations for pursuing any given religious or spiritual system.

In response to increasing interest in holistic health and well-being, Vella-Brodrick and Allen (1995) created the MPS. The authors point out that most health assessment instruments measure ill-health, rather than well-being. A need was seen for a holistically oriented tool for assessing the well-being of mind, body and spirit. According to Vella-Brodrick and Allen (1995), a literature search could locate only one reliable and valid test that included the three domains of mental, physical and spiritual well-being.
and respondents had found this test to be too long, ambiguous, and tiring to complete (i.e., Holistic Living Inventory-HLI; Stoudenmire, Batman, Pavlov, & Temple, 1985).

To improve upon this measure, items were selected from the HLI that were reported "better received" by respondents. Items were shortened and clarified, and new items were generated, resulting in an item bank that was then reviewed by a set of undergraduate students. Feedback was provided with respect to item clarity, and the items were revised again. Additionally, items that did not elicit a wide range of responses among the students (i.e., items with low valiance) were deleted.

The resulting 66-item scale next was subjected to a series of factor analyses to further reduce the length of the test and to determine its internal structure. As a function of these analyses, 36 items were dropped, resulting in a 30-item scale. Vella-Brodrick and Allen (1995) then completed a final factor analysis of the 30-item scale on a sample of 358 adults. Principal components analysis generated three factors with nearly all items loading on their intended factors (thereby providing evidence of internal validity).

Examination of the psychometric properties of the measure using two other samples of adults was undertaken. One sample was used to examine the reliability of the MPS. Cronbach's alpha for the Mental, Physical and Spiritual subscales were .75, .81, and .85, respectively. One month test-retest reliability was assessed, and stability coefficients for the three subscales were high, ranging from .87 for the Physical subscale to .87 for the Spiritual subscale. Incidentally, while the retest correlations appear impressive, the test authors acknowledged that participant-selection procedures may have inflated the finding (data used to calculate the stability coefficient were obtained from participants who had been judged by friends and relatives to be "reliable," and therefore not as likely to drop out of the study during the test-retest interval).

A second sample was given the MPS, the General Health Questionnaire-SF (GHQ; Goldberg, 1978), and the Spiritual Well-being Scale (SWBS; Paloutzian & Ellison, 1982). Small, but significant, correlations were observed between the Mental and Physical subscales and the GHQ while the Spiritual subscale did not produce a meaningful association. The test authors felt that the low correlations were not unexpected, given differences in content between the MPS and GHQ (e.g., the latter taps mental illness, whereas the former was intended to measure mental health). The convergent validity of the Spiritual subscale was strongly supported as suggested by a large correlation with the SWBS (r = .82).

Vella-Brodrick and Allen (1995) also report what they considered to be evidence of the discriminant validity of the MPS2. College students and staff were randomly selected to identify activities perceived to be predominantly physical, mental, and spiritual, respectively. Weight training was judged to reflect a primarily physical activity; chess was selected to represent a mental activity; and prayer was perceived to reflect a predominantly spiritual activity. Vella-Brodrick and Allen (1995) then conducted a discriminant function analysis using MPS data from members of these activity groups. Using the three subscale scores as predictors, discriminant function analyses resulted in correct classification of 73.3% of the weight trainers, 86.7% of the prayer group members, and 71.4% of the chess players (overall classification accuracy was 77.3%).
Mean subscale scores were presented for the three activity groups and, as expected, the prayer group had the highest mean Spiritual score, and the chess players had the highest mean Mental score. However, the Physical subscale did not differentiate well, as the weight-trainers did not produce the highest Physical score.

As a final point of information, Vella-Brodrick and White (1997) examined the relation of the MPS to social desirability as tapped by the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). Social desirability was found not to influence MPS total and subscale scores, even when analyses were conducted separately by gender.

The MPS appears promising as a holistically oriented measure of well-being. The initial psychometric work demonstrates reliability, but further validation is needed. Researchers considering the use of the MPS should be cognizant of the fact that the scope of the test was intentionally focused on, and limited to, the domain of positive health. For this reason, the convergent validity of the Mental and Physical subscales has not yet been established, as Vella-Brodrick and Allen (1995) could not locate other psychometrically sound measures of these constructs. The Spirituality subscale demonstrated good initial reliability and validity, but its psychometric findings await replication. Of special importance would be the use of samples from a variety of religious affiliations. Despite its possible shortcomings, which can be remedied through further psychometric studies, the MPS may be a good instrument to use in research exploring the link between spirituality and positive states of functioning.

Psychomatrix Spirituality Inventory (PSI, Wolman, 1997). Wolman (1997) notes that interest in spirituality has increased substantially in recent years. However, despite this interest, it is argued that little effort has been made to clarify what is meant by the term spirituality. The PSI was developed to serve as a tool to explore "what spirituality means to Americans today" (Wolman, 1997, p, 80). Items for the inventory were developed based upon information obtained from various professional, social, and academic sources (e.g., discussions with religious figures, academicians, and focus groups as well as friends and colleagues of the test author). As stated by Wolman (1997), the PSI is designed to focus on experiences and practices, not beliefs.

The PSI is made up of 105 items, of which 80 are self-descriptive statements and 25 are descriptors of what constitutes a spiritual person. Responses to the former group of items are completed using a four point rating scale (Never, Seldom, Often, Almost Always). A three-point scale (Not Important, Likely, Definitely) is utilized to rate the importance of the descriptors in defining a spiritual person. The items, according to Wolman (1997), embody "seven clearly differentiated categories of spiritual experience" (1' 80). These are labeled as follows: Awareness of a Higher Power; Spiritual activities or practices; Use of healing practices; Experience of physical and emotional trauma; Body awareness; Religious history; and Current religious practices. Wolman does not specify the number of items belonging to each dimension nor does he provide any specific information on how he arrived at his seven dimensional model (e.g., though it is implied that a procedure such as factor analysis was used to develop the categories, this is never expressly stated in the article). Further, he does not provide any information regarding scoring procedures.
formation concerning the basic psychometric properties of the PSI is not reported in Wolman (1997), and no other articles involving this measure were available to the authors of the present article at the time of writing this review. Wolman (1997) examined the PSI dimensions as a function of age and sex in a sample of 714 persons—predominantly well-educated adults—and found some notable trends though actual data or statistical values are provided. Women were observed to have produced higher scores on all seven PSI dimensions than men. Statistically significant differences between men and women were seen on four dimensions: Awareness of a Higher Power; Experience with spiritual activities or practices; Experience with praying practices; and Religious history. With respect to age, Wolman found a high degree of positive association between age and the PSI categories of Experience with spiritual activities or practices, Experience of physical or emotional trauma, and Body awareness.

The PSI in many respects appears to embody an exploratory "grassroots" approach to model development and, as such, may be seen as providing an interesting and refreshing alternative to the operationalization of spirituality seen in other measures. The inclusiveness and multidimensionality of the PSI are also features that contribute to its appeal. Ambiguities in the reporting of information on the PSI in terms of its characteristics and its use in statistical analyses as seen in Wolman (1997), however, do not lend to its credibility as a sound scientific assessment tool. Consistent with this, it should be kept in mind that the instrument appears to be in the initial stages of research use and, thus, would be best treated and used as an exploratory measure. At present, the PSI seems to be ideally suited for research aimed at exploring the nature and structure of the construct of spirituality with samples drawn from diverse populations. In particular, item-level factor analytic work and/or examination of its relation to other comprehensive multidimensional measures (e.g., Expressions of Spirituality Inventory; Spiritual Orientation Inventory, Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988) could prove highly illuminating in terms of furthering our understanding about the core features of spirituality.

Religious Experiences Episodes Measure (REEM, Hood, 1970, 1973). Hood (1970) noted the virtual absence of empirical research on religious experience, and in response, the REEM was developed. The test construction strategy consisted of having 51 introductory psychology students (self-identified as Christians) volunteer to write 15 written episodes that described religious experiences, which were taken fromlassie work by James (1958). Participants responded to a five-point Likert scale ranging from 1- "I have had absolutely no experience like this," to 5- "I have had an experience almost identical to this."

To assess test-retest reliability, 46 of the participants completed the scale a second time two weeks later, yielding a stability coefficient of .93. Internal consistency, estimated using the Kuder-Richardson method, was .84. Hood (1970) also informally interviewed the participants, and found that none reported having had a religious experience that had not been captured, at least to some extent, by the REEM.

To examine convergent validity, another sample of participants completed the REM and a measure of intrinsic and extrinsic religiousness (the Intrinsic-Extrinsic...
Religious Orientation Scale, IEROS; Allport and Ross, 1967). Hood (1970) compared REEM scores for intrinsically and extrinsically motivated participants, and found the former to score significantly higher than the latter. The ROS and REEM were significantly correlated ($r = .47$). Further analyses were undertaken to examine two other classifications of ROS respondents, the indiscriminately pro-religious (high on intrinsic and extrinsic religiousness) and the indiscriminately anti-religious (low on intrinsic and extrinsic religiousness). The intrinsics scored significantly higher on the REEM than both the extrinsics and the indiscriminately anti-religious, but not higher than the indiscriminately pro-religious.

Hood (1970) concluded that the REEM held promise on the basis of this initial study. It was demonstrated to be reliable, and some evidence for validity was seen. It was shown that religious experience and personal religious orientation covary, such that intrinsically religious people are more likely than extrinsically religious people to report having had religious experiences. Hood also elaborates on the finding that intrinsically religious persons could not be differentiated from indiscriminately pro-religious participants on the basis of REEM scores. This latter group endorses all statements concerning religion, however incompatible, simply because they refer to religion (i.e., indicative of a response set). A problem with the REEM, then, is that it does not appear able to identify persons with this pro-religion response set.

Several additional studies further addressed the psychometric properties and utility of the REEM. Hood (1973) examined the association between reported religious experience and hypnotic susceptibility as assessed by the Harvard Group Scale of Hypnotic Susceptibility (Shor & Orne, 1962) and observed a significant positive correlation ($r = .36$). Hood (1974) completed two studies exploring the relation of the REEM to indices of psychological health. In the first, a sample of undergraduates completed the REEM and Barron's (1953) Ego Strength Scale (Es) from the MMPI and a significant negative correlation ($r = -.31$) was obtained. However, Hood (1974) noted that Es contains six items that have religious content. After these items were removed, the correlation between the Es and the REEM dropped to -.16 (statistically nonsignificant). In the second study reported by Hood (1974), the Index of Psychic Inadequacy (Stark, 1971) and the REEM were administered to 114 participants. Seventy-one participants were classified as high in psychological strength on the basis of their Index of Psychic Inadequacy scores, whereas 43 were classified as low. The groups differed significantly in terms of their mean REEM scores, such that participants higher in psychological strength were more likely to report religious experiences. The REEM and Index of Psychic Inadequacy (scored so that high scores reflect psychological strength) correlated significantly ($r = .29$). Hood argued that these findings, taken together with others (such as the relationship between intrinsic motivation and religious experiences) indicate that religious experiences are more likely to be signs of healthy development than of psychopathology.

The REEM is an interesting instrument in that it is heavily based upon the work of William James. As such, this assessment tool may hold appeal for researchers who are motivated to explore the implications of James' ideas and observations about religious experience for varying aspects of functioning. The fact that the measure is short and relatively easy to utilize also lends to its potential usefulness in research.
Unfortunately, interest in the REEM seems to have waned; we were unable to locate copies using the measure published later than the mid-1970's. The instrument also appears to be in need of more rigorous psychometric research (e.g., determination of factor structure, validation with diverse populations, study of effects of response sets).

The Royal Interview for Religious and Spiritual Beliefs (RIRSB; King, Speck & Thomas, 1995). King, Speck, and Thomas (1995) argue that measurement of religious beliefs has been limited by the use of narrow constructs and measures (e.g., frequency of religious observance), and that most existing measures are biased in favor of Judea-Christian faiths over other world religions. They also criticize the assumption voiced in the religion literature that a person who does not profess a recognized religious faith has no spiritual discernment or need. King et al. report on the development and standardization of an interview that attempts to address these limitations.

Instrument development began with the generation of interview items. Ideas for items were obtained through literature reviews and through the applied experience of one of the test authors (e.g., one author relied on experience gained as a hospital chaplain in designing interview items). Care was taken to ensure that the interview would capture religious, spiritual, and philosophical beliefs that were not confined to any particular religious creed or school of thought. A preliminary version was tested in a sample of 300 patients admitted to the acute medical unit of the Royal Free Hospital in London, England. For many of the interview items, patients were given an 11-point rating scale to assist in formulating their responses. The interview was refined during this initial study, although no data are presented as to how this refinement took place.

The final version, comprised of 20 questions, takes a branching format, such that the interviewer is guided by the responses given by the respondent. Respondents answer questions about their religious and/or spiritual beliefs, and philosophy of life. They also rate the strength and importance of their beliefs. Finally, questions are asked about common views on the link between belief and illness, as well as the respondent's impressions of a link between particular beliefs and illness. Two scales are derived from some of the 20 interview questions. One scale was designed to assess belief in a spiritual force (5 items), while the other is a "philosophical" scale (4 items), intended to capture the respondents philosophy of life.

The Royal Free Interview for Religious and Spiritual Beliefs was standardized on a sample comprised of hospital staff, general practice patients, and religious persons (e.g., chaplains, nuns, a group of observant Moslem staff, and the like). Forty-five percent of the staff participants and 47% of the patients reported that they had a religious faith, and men and women were equally so inclined. Three-quarters of the respondents indicated Christianity as their faith. Seventy-one percent of the staff reported a spiritual belief of any kind, as did 75% of the patients. The patients scored significantly higher than the staff on the spirituality scale, whereas the groups did not differ on the philosophy scale.

The staff and patient samples were combined for the purposes of analyzing reliability and validity. The alpha coefficient for the philosophical and spiritual scales were .66 and .81, respectively. Most of the hospital staff was re-interviewed one week after the initial interview.
later, and test-retest coefficients were reported for each question for which a rating-scale response is given. These ranged from .76 to .93. Kappa coefficients were used for categorical variables, and these values were acceptably high. One-week test-retest values for the philosophical and spiritual scales were .91 and .95, respectively.

Due to the fact that King, Speck and Thomas (1995) administered no other test instruments to their sample, few indicators of validity were available. Some evidence for validity was seen in a correlation of .41 between frequency of religious practice and the spiritual scale score. The mean spiritual scale score for the sample of religious persons was significantly higher than that of the staff and patients combined sample.

The authors describe several limitations of their study. They suggest that the content of the Royal Free Interview for Religious and Spiritual Beliefs may be limited because the questions were not derived directly from a comprehensive survey of spiritual and religious beliefs and practices. Additionally, the number of non-Christian participants in the development study was small. The need for further validation work is acknowledged.

The philosophical scale was included as a means for capturing the beliefs of non-religious individuals, and measuring "philosophy of life" was not a primary aim of the study. As such, King, Speck and Thomas (1995) suggest that the philosophy items could be omitted by researchers or clinicians who are interested in using the interview. No evidence for the validity of these items was presented, and the internal reliability of the philosophical scale was low. Nevertheless, the authors point out that the use of these items would allow for nonreligious persons to express their life view.

No other published study employing the Royal Free Interview for Religious and Spiritual Beliefs could be located, despite mention made by authors in the development and validation article of ongoing research pertaining to the topic of health and spiritual beliefs. Clearly, much more supportive psychometric work is needed before researchers and clinicians could use this interview with confidence. The factor structure of the interview is not known, and there is little evidence of convergent validity and none of discriminant validity. Strengths of the Royal Free Interview for Religious and Spiritual Beliefs include its broad consideration of beliefs associated with spirituality, religion, and life philosophy. Additionally, the use of an interview format with responses rating scales for respondents might provide better data than the typical questionnaire method because respondents might conceivably be more actively engaged in the process of exploring their beliefs when interacting with an interviewer. On the other hand, expectancy effects may present more significant problems in the face-to-face interview than under the condition of anonymity offered by questionnaire methods.

*Spiritual Assessment Inventory (SAI; Hall & Edwards, 1996).* Hall and Edwards (1996) describe previous attempts by other researchers to create scales that could be used by pastoral counselors and clinicians working with religious clients, but contend that these attempts have generally resulted in tests that are psychometrically inadequate. Other scales are argued to be limited because their development was not sufficiently informed by theory. The SAI was developed to address the psychometric and theoretical limitations seen in existing instruments.
Hall and Edwards (1996) layout an explicit theoretical framework upon which to base the SAI. They subscribe to the relational view of theology, which emphasizes the relationship between God and humanity, love (a relational construct), and relations among human beings. The authors offer psychological perspective in terms of object relations theory, which addresses dynamic aspects of key interpersonal relationships (e.g. child-parent). Object relations theory provides a method for examining the process of psychological maturation, and Hall and Edwards (1996) argue that a parallel can be drawn with the process of spiritual growth.

Hall and Edwards (1996) propose that two dimensions are needed to assess the individual's relationship with God. First, an "awareness" dimension is required to determine the extent to which the respondent is aware of God in his or her daily life. The second dimension of "quality" is needed to assess the quality of the respondent's relationship with God. Hall and Edwards suggest that these two dimensions should be related, but distinct.

Items were written to reflect the hypothesized two dimensions of relationships with God. A five-point rating scale anchored by the phrases "not true of me" and "true of me" was designed. The Quality dimension items were constructed to assess three developmental levels of relationship with God from an object relations perspective (instable, grandiose, and realistic acceptance). The Awareness items were intended to capture the respondent's level of awareness of the presence of God in his or her life. An original set of 40 items was administered to a sample of university students, and then intercorrelated and subjected to an exploratory factor analysis. Using the principal axis method with oblique rotation, three factors emerged. Only those items loading above .30 on either of the first two factors were retained. Twenty-one items remained, 13 for the Awareness factor and eight for the Quality factor.

Next, new items were added and original items were modified. A Defensiveness/Disappointment factor was designed in response to data from the realistic acceptance items. The revised scale consisted of 63 items and was administered to a sample of 400 students from two universities. Another exploratory factor analysis yielded five factors. Twenty items were dropped because of factor loadings below .30. The factor analysis was repeated, and five factors emerged again. The five factors (labeled Instability, Defensiveness/Disappointment, Awareness, Realistic Acceptance, and Grandiosity) corresponded to the intended theoretical framework, and may be seen providing some evidence in support of factorial validity.

Examination of the psychometric properties of the SAI factors generated largely supportive results. Cronbach's alpha was found to range from .52 for the Grandiosity factor to .91 for the Defensiveness factor. Two-week test-retest coefficients were shown to range from .56 for Grandiosity to .94 for the Instability factor. Evidence of validity has been shown through the production of expected factor intercorrelations as well as through observed correlations with measures of theoretically similar and dissimilar constructs. In terms of the latter, Hall and Edwards (1996) explored the degree of association between the five SAI factors and the four scales of the Bell Object Relations Inventory (BORI; Bell, Billington, & Becker, 1986) and found a pattern of intercorrelations generally consistent with expectation.
One of the three quality dimensions (Instability) related significantly and in the predicted direction to all four of the BORI subscales, and another quality dimension (Realistic Acceptance) performed nearly as well. The quality dimension of Grandiosity did not correlate significantly with any BORI subscale, however, and suggests that more psychometric refinement is needed for this factor.

Hall, Brokaw, Edwards, and Pike (1998) examined the relation of the SAI, to the BORI, and the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960). The association between the SAI and the BORI was observed to largely replicate the findings of Hall and Edwards (1996). Further, the SAI dimensions of Awareness and Quality did not meaningfully associate with the MCSDS, an indication that SAI scores are relatively unaffected by the socially desirable response set.

The SAI is a new instrument and, as such, has not been used extensively in published research. Although the initial validation work reported by Hall and Edwards (1996) and Hall et al., (1998) is supportive, more data from diverse samples are needed to fully establish its psychometric properties. Nonetheless, the fact that the SAI is a strongly theory-driven measure which is short and seemingly relatively easy to use allows for strong arguments for its use in research. This instrument appears to be especially suited for investigations aimed at exploring spirituality from the perspective of psychoanalytic (object-relations) theory. Investigators should be aware, however, that the SAI appears to be based in a Judeo-Christian view of spiritual maturity. As such, use of the SAI with persons who subscribe to different spiritual and religious systems, should be done with some caution.

Spiritual Well-Being Questionnaire (SWBQ; Moberg, 1984). Development of the SWBQ was prompted by a need seen in the late 1970s and early 1980s to devise scientifically sound instruments of spiritual well-being to evaluate various aspects of institutional religion (e.g., growth or decline of church, intensity of faith in a given religious tradition), and to assess the relevance of religion and spirituality to people’s overall quality of life. Based upon his understanding of the available theory and research, Moberg (1984) proposed that spiritual well-being should be understood as a multidimensional construct that includes, but extends, upon religiousness. Moberg set out to devise indices that embodied multiple facets of the concept which could be used to bring more saliency to the import of spiritual well-being for psychological and social functioning.

Construction of the SWBQ began with the administration of an 82-item questionnaire to 1,081 American and Swedish respondents. Some of the items used were taken from previous research (e.g., Gallup poll items), while several of original questions were created to represent various aspects and correlates of spiritual well-being based on Moberg’s (1984) analysis of construct and reading of the literature. Thirty-seven items employed a dichotomized response format while 45 items utilized a rating scale format.

Moberg (1984) elected not to use the dichotomous variables in statistical analyses (apparently due to the fact that they violated many basic assumptions of parametric statistics). Instead, he relied upon a logical analysis of the 37 items to create...
tree indices relating to involvement in political, religious, and charitable activities, respectively. The remaining 45 items, conversely, were seen as generating data enable to conventional statistical procedures. Consequently, Moberg submitted data from these items to several factor analyses. Factors were retained for interpretation only if they were reliably found in analyses for 4 subsamples (i.e., American Evangelical Christians, American non-Evangelical Christians, Swedish Evangelical Christians, and Swedish non-Evangelical Christians), and the combined total sample.

At the end of the analyses, Moberg (1984) arrived at seven factors that contained n table and reliable factor loading coefficients. Labels for each of the indices were derived by Moberg's inspection of the content of items belonging to each factor. The indices consist of Christian Faith, Self-Satisfaction, Personal Piety, Subjective Spiritual Well-Being, Optimism, Religious Cynicism, and Elitism. For most items, responses are provided using a six-point response scale. However, the Personal Piety Index, along with one item from the Christian Faith Index, utilize a forced-choice multiple-choice response format. Index scores can be calculated by summing relevant item responses.

Investigations into the psychometric properties of the SWBQ have been minimal but suggest that the indices may be reliable and valid measures of spiritual-well-being. MacDonald (1997) examined the internal consistency of the seven SWBQ factor indices and found reliability (alpha) coefficients ranging from .30 for Elitism to .88 for Christian Faith. In terms of validity, Moberg (1984) found the 10 indices to significantly intercorrelate, which he interpreted as supporting the view of spiritual well-being as a multidimensional construct. Moberg also demonstrated that the SWBQ indices could be used to successfully predict rank-ordered group differences between Evangelical Christians, other Christians, and other non-religious persons. Finally, and supportive of convergent validity, Moberg (1984) found the SWBQ Self-Satisfaction index to correlate highly with measures of existential well-being, and the SWBQ Christian Faith and Personal Piety indices have been shown to strongly relate to measures of religious well-being. MacDonald (1997, in press), used the SWBQ factor indices, along with a number of other conceptually similar measures, to aid in the validation of the Expression of Spirituality Inventory (see above) and found a largely analogous pattern of findings as Moberg (1984). That is, SWBQ Self-Satisfaction associated most notably with scales tapping existential well-being, while Christian Faith and Personal Piety, followed somewhat distantly by Subjective Spiritual Well-Being, significantly correlated to measures of spiritual and religious beliefs and practices.

The SWBQ is an instrument which attempts to embrace and reflect the complexity of spiritual well-being as a scientific construct. As such, this measure offers a perspective on spiritual well-being that is unique and more inclusive than those operationalized in other similar scales. Of course, the SWBQ indices are in need of considerable psychometric research. Also, the measure is somewhat delimited due to its elusive incorporation of Judea-Christian religious notions and values. Nonetheless, the SWBQ appears to hold some promise for any research that explores the relation of spiritual well-being to attitudes, values, and behaviors.
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<tr>
<th>Name of Instrument/Constructs Assessed</th>
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<tr>
<td>Checklist of Effects of Experiences and Index of Changes Resulting From Experiences (relates to paranormal and spiritual experience)</td>
<td>Kennedy and Kanthamani (1995)</td>
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<td>Experience Inquiry</td>
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<td>Spiritual Leadership Qualities Inventory</td>
<td>Townsend and Wichern (1984)</td>
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*Mentioned in MacDonald et al., 1995 but updated reference information is provided here*
CONCLUSION

In reviewing these various instruments, it is our hope that researchers in the spiritual and transpersonal domain will come to further appreciate the range of extant tools available currently in the field. It is our opinion that none of the instruments reviewed in this article, or its accompanying paper, is sufficiently based in research to use without appropriate cautions. Nonetheless, for science to progress in a cumulative fashion, there must be efforts toward the standardization of methods. It is now incumbent on future researchers to begin to use the available tools, rather than continue to generate new ones, whenever possible. This is not to delimit serious researchers from devising new measures if there is an appropriate justification (i.e., if there is a new construct that requires measurement in order to test a theory or for some practical application). However, there is an existing instrument for a construct that can fit the needs of a given research project, then we strongly encourage researchers to utilize that measure, as it will facilitate the cumulative progress of the field. Hopefully, our efforts in this regard will sensitize the field to these concerns and provide a basis from which more systematic empirical investigation can occur in the field.

NOTES

* In case the reader is interested, the instruments used in stage one factor analyses included the Spirituality Assessment Scale (Howden, 1992), Index of Core Spiritual Experience (Kass, Friedman, Leserman, Zuttermeister, & Benson, 1991), Emotion Grasping Orientation (Knoblauch & Falconer, 1986), Self Expansiveness Level Form (Friedman, 1983), Spiritual Orientation Inventory (Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988), Transpersonal Orientation to Learning (apiro & Fitzgerald, 1989), Mystical Experiences Scale (Hood, 1975), Intrinsic Religious Motivation Scale (Hoge, 1972), East-West Questionnaire (Gilgen & Cho, 1979), Peak Experiences Scale (Mathes et al, 1982), and the Paranormal Beliefs Scale (Tobacyk & Milford, 1983).

The ability of the MPS to correctly classify persons who are presumably physically, mentally and spiritually healthy is closer to the notion of concurrent validity (a type of criterion-related validity) than to discriminant validity (absence of correlation between a test and other measures with which it is not related theoretically; see Anastasi, 1988, pp. 144–146).

REFERENCES


A Survey of Measures of Spiritual and Transpersonal Constructs: Part Two