

Spiritual But Not Religious? Evidence for Two Independent Dispositions

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ABSTRACT Some psychologists treat religious/spiritual beliefs as a unitary aspect of individual differences. But a distinction between mysticism and orthodox religion has been recognized by scholars as well as laypersons, and empirical studies of “ism” variables and of “spirituality” measures have yielded factors reflecting this distinction. Using a large sample of American adults, analyses demonstrate that subjective spirituality and tradition-oriented religiousness are empirically highly independent and have distinctly different correlates in the personality domain, suggesting that individuals with different dispositions tend toward different styles of religious/spiritual beliefs. These dimensions have low correlations with the lexical Big Five but high correlations with scales (e.g., Absorption, Traditionalism) on some omnibus personality inventories, indicating their relevance for studies of personality.

Beliefs about religious or spiritual phenomena have important effects on human behavior and functioning. They can provide one with a cognitive map of the world that makes it meaningful. Such worldview beliefs can fill many functions. They provide a paradigm for, among other things, how the universe began, what the purpose of life is, and how to understand injustice and death (Argyle & Beit Hallahmi, 1975); they may provide a buffer against mortality-based anxiety, enhancing a sense of safety and security (Greenberg,

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Pyszczynski, & Solomon, 1986), and they may satisfy needs for a purpose in life, anchoring a sense of what is right and wrong (Baumeister, 1991). Moreover, such beliefs connect people, enabling the sharing of a system of values and rules that is obligatory for a social group (Kuczkowski, 1993), values and rules that may be a prime guiding force for actual behavior (Mądrzycki, 1996).

Perhaps because of the way it performs these functions, religiousness appears to have some positive effects on health and longevity (Kozielecki, 1991; Powell, Shahabi, & Thoresen, 2003). These include protective effects with respect to alcohol/drug abuse (Miller, 1998). Nonetheless, there may be negative effects as well as positive ones (Koenig, 1997).

Despite their impact, religious or spiritual beliefs have long been a matter of only peripheral concern to personality psychologists (Emmons, 1999). In part, this stems from the assumption that differences in religiosity are a result of environmental rather than genetic causes and might, therefore, be the proper domain of sociologists. However, recent studies in behavior genetics suggest that religiosity (though not denominational affiliation) is substantially heritable by mechanisms independent of commonly studied personality traits (D'Onofrio, Eaves, Murrelle, Maes, & Spilka, 1999; Kendler, Gardner, & Prescott, 1997; Waller, Kojetin, Bouchard, Lykken, & Tellegen, 1990), as may be true of attitudes more generally (Olson, Vernon, Harris, & Jang, 2001). Religious experience may be associated with specific aspects of brain function (Newberg & d'Aquili, 2000; Newberg et al., 2001), and beliefs may play a physiological role in affect regulation (McGuire, Troisi, Raleigh, & Masters, 1998). Such findings erode the division between religiosity and other personality differences.

Psychologists outside the specialized discipline of psychology of religion often treat religious/spiritual beliefs as a unitary aspect of individual differences. But laypersons seem able to recognize distinct vectors in such beliefs (Zinnbauer et al., 1997). For example, one increasingly encounters phrases like "spiritual but not religious." This phrase forms the title of a recent scholarly book (Fuller, 2001) that discusses contemporary metaphysical religion and "unchurched," eclectic, and "psychological" spirituality. To a tradition-oriented adherent of a religion, such forms of spirituality may look like one is making up one's own faith or creating a personally customized worldview. Nonetheless, Fuller estimates that 20% of

Americans adhere to such unchurched spirituality, which has a long legacy in American history.

Defining Key Terms

One can find many definitions of *religiousness* in the psychological literature. There are concrete, abstract, metaphysical, prescriptive, relationship-oriented, inner-motivation-oriented, and existential-quest-oriented definitions (Zinnbauer, Pargament, & Scott, 1999). Argyle and Beit-Hallahmi (1975) defined religion as “a system of beliefs in a divine or superhuman power, and practices of worship or other rituals directed towards such a power” (p. 1). The emphasis on worship and rituals implies community activity that binds or ties people together. Indeed the word *religion* comes from Latin *religio*, derived from *ligo* meaning “to tie or bind” (etymologically related to the English word “ligament”). Definitions of *spirituality* usually put more emphasis on the individual and on subjective experience. The word comes from Latin *spiritus*, in turn from *spirare* (to breathe; Wulff, 1997). Shafranske and Gorsuch (1984) defined spirituality, broadly, as “a transcendent dimension within human experience . . . discovered in moments in which the individual questions the meaning of personal existence and attempts to place the self within a broader ontological context” (p. 231). Vaughan (1991) provided a useful, more specific, definition: “a subjective experience of the sacred” (p. 105). In line with this more specific usage, in this article we will use the more precise term *subjective spirituality*. In America, virtually all religious people call themselves spiritual, as do some nonreligious people. Subjective spirituality should be understood as a narrower and less inclusive and ambiguous notion than spirituality, one closer in meaning to the natural-language term *mysticism*.

Reports of mystical experiences are not found only among the conventionally religious. In the general population, the tendency to make such reports is correlated with the tendency to report paranormal experiences (Thalbourne & Delin, 1994). A variety of studies indicate that mystical experiences are more frequently reported by individuals who self-identify as spiritual rather than religious (Spilka, Hood, Hunsberger, & Gorsuch, 2003). We suggest, however, that the term *mystical* is more distinct in meaning from *religious* than is the term *spiritual*. “Spiritual but not religious” likely indicates mystical preferences, but because *spiritual* has more

favorable connotations in English than does *mystical*, *spiritual* is more attractive for self-description.

Tradition-Oriented Religiousness and Subjective Spirituality in Previous Literature

Reflection on these key terms influenced us to distinguish between tradition-oriented religiousness (TR) and subjective spirituality (SS). We find this distinction implicit in past scholarship and research. Zinnbauer, Pargament, and Scott (1999) made specific contrasts between (a) organized religion and personal spirituality, (b) substantive religion and functional spirituality, and (c) negative religiousness and positive spirituality. In each of these contrasts, the first term reflects TR and the second term SS.

Emmons (1999) and others (e.g., Skrzypińska, 2002, in press) have made the contrast in another way, noting that spirituality can be strongly related to religiousness, though it is not always. For Emmons, spirituality involves “a search for meaning, unity, connectedness to nature, humanity, and the transcendent” (Emmons, 1999, p. 877), thus having a strong subjective element. Religion, in contrast, provides a “faith community with teachings and narratives that enhance the search for the sacred and encourage morality” (Emmons, 1999, citing Dollahite, 1998, p. 877), thus having a strong traditionalist element. Emmons’s contrast is, we believe, more precisely expressed as one between subjective spirituality and tradition-oriented religiousness.

Empirical support for this contrast is provided by a recent study of the content of isms terms in the English language. Saucier (2000), assuming that the most important worldview-belief concepts tend to become represented in words ending in *ism*, extracted 266 such terms from an English-language dictionary and built items directly from their definitions. In a sample of 500 college students, the replicable item structures had no more than four factors. A parallel study of isms found in a Romanian-language dictionary, in Romania, replicated the four-factor structure (Krauss, in press). Two of the four factors—Alpha and Delta—are relevant here. Concepts loading most highly on Alpha emphasize individual differences in adherence to traditional and religious sources of authority; this factor is correlated substantially with conservatism and authoritarianism. Concepts loading highly on Delta emphasize unorthodox

spirituality. They involve individual differences in beliefs emphasizing intuition and spiritual experiences of a mystical nature, but including some currently fashionable superstitions. Alpha and Delta appear to encapsulate the distinction between tradition-oriented religiousness and subjective spirituality.

A set of factors corresponding to Alpha and Delta was reported by MacDonald (2000), who sought to identify the common dimensions in 11 prominent measures of religious and spiritual constructs. He found five factors: Religiousness, Cognitive Orientation Towards Spirituality (COTS), Experiential/Phenomenological (E/P), Paranormal Beliefs, and Existential Well-Being. A higher-order factor analysis found two factors. One was labeled Cognitive and Behavioral Orientation Towards Spirituality and included Religiousness and COTS. The other factor was labeled Non-Ordinary Experiences and Beliefs; capturing distinctions in previous measures of mysticism, it included E/P and Paranormal Beliefs. Existential Well-Being, whose content overlaps with Emotional Stability versus Neuroticism, did not have appreciable loadings on either higher-order factor. These two higher-order factors appear to correspond to TR and SS.

Outside psychology, scholars describing diverse religions have noted a distinction between mystical schools of thought on the one hand and more orthodox trends on the other (e.g., Sabatier, 1905; Schuon, 1953), fundamentalism being in many respects an attempt to reassert orthodoxy. For example, in Islam, Sufism represents a mystical school, whereas Islamic orthodoxy is better represented in the Salifi or Wahhabi schools of practice. In Judaism, the mystical Kaballa contrasts with various orthodox schools. Zen is an especially mystical form of Buddhism.

The terms *esoteric* and *exoteric* are sometimes used to capture these distinctions (Schuon, 1953). According to Schuon, exoteric religion emphasizes form and tends toward literalistic dogmas, a claim to exclusive possession of the truth, sentimentality, and an emphasis on morality and personal salvation (which serves individual interest, such as reward or relief in an afterlife), couched in ways that make it attractive to a majority of people. Esoteric religion, in contrast, is more metaphysical, contemplative, oriented to knowledge, wisdom, and unification with divinity, and toward the spirit and not the letter of religious teachings. A similar distinction was made by Sabatier (1905) between authority- and spirit-focused approaches to religion.

The terms *esoteric* and *exoteric* should not be confused with the terms *intrinsic* and *extrinsic* used by Allport (1959). These do not concern belief but rather motivation: Intrinsic have high commitment to religious activities and beliefs, treating religion as an end in itself; extrinsics use religion as a means to desired personal ends (e.g., status, comfort). Intrinsic and extrinsic distinguish two ways of being religious and are concepts that were envisaged to describe individual differences within religious populations; indeed, the distinction has been problematic to apply outside such populations (e.g., Burris, 1994). TR and SS, in contrast, are dimensions applicable to general population samples, although one might conceivably identify both intrinsic and extrinsic among individuals high in either dimension.

Hypotheses

We made the empirical conjecture that the distinction between mystical and orthodox forms of belief corresponds to that often made between the terms *spiritual* and *religious* and with individual differences in important psychological variables. We set out to investigate two questions: Is the division of religious/spiritual beliefs into two independent dimensions a psychometric reality? And are the correlates with psychological variables so distinct and substantial that psychologists should be paying attention to these dimensions?

Our hypotheses all follow from an overarching conception of the difference between TR and SS. TR involves a reliance on trusted sources of authority (such as scriptures or a church) that are a shared reference point for a group of individuals—these sources providing clarity but also an impetus for conformity. SS is a more subjectivist and individualized approach that involves more reliance on private imagination and intuition, more egalitarianism, more nonconformism, and more of a questioning attitude toward status-quo collective norms.

A first hypothesis was that in English the term *spiritual* differs from the term *religious* in a way that corresponds to the contrast between SS and TR. This is in line with empirical findings of Zinnbauer et al. (1997), that is, religiousness being relatively more highly associated with authoritarianism, orthodoxy, and church attendance; spirituality being relatively more associated with mystical experiences and New Age beliefs and practices. We also hypothesized that the term *mystical* would correspond more

closely to the SS side of the contrast, and that responses to the single adjectives *mystical* and *religious* would be approximately orthogonal in self-ratings and would correspond with the two higher-order factors of spirituality found by MacDonald (2000). We further hypothesized that these two sets of orthogonal distinctions would correspond to that orthogonal distinction between Alpha and Delta factors emerging in analyses of isms terms (Krauss, in press; Saucier, 2000). If all these initial hypotheses were supported, it would be possible to conceive of two latent, highly independent dimensions having three sets of indicators, one set from the adjectival lexicon, one based on factors from spirituality measures, and one based on factors from isms concepts.

In line with our overarching conception, we formed a variety of hypotheses regarding how TR and SS would diverge with respect to substantive associations with other variables.

We hypothesized that TR (and not SS) would be related to the following: individual differences in traditionalism, authoritarianism, collectivism, and impression management; attitudes emphasizing the power of divinity hierarchically exercised (e.g., by a supernatural God through miracles); believing it important to respect whatever represents the sources of such divine authority (e.g., scriptures, religious rules, and leaders) while not respecting those whose beliefs or behavior go against such authority (e.g., evolutionists, gays, feminists); and, behaviorally, high engagement in religious practices and low levels of drug and alcohol use.

We hypothesized that SS (and not TR) would be related to the following: individual differences in absorption, fantasy-proneness, dissociation, private self-consciousness, eccentricity, (low) social-dominance orientation, and individualism (especially of an egalitarian variety); attitudes emphasizing the power of nonhierarchical supernatural forces (e.g., magic, witchcraft, astrology, fate); believing it is important to respect those aligned with such forces (e.g., enlightened persons and psychics); and, behaviorally, high engagement in environmentalist practices and the pursuit of personal creative achievement.

We hypothesized that “personality” scales designed to capture both religious and spiritual tendencies (e.g., self-transcendence) would correlate with both TR and SS. Correlated in opposite directions with TR and SS would be some other variables, including those related to conformity (vs. nonconformity), favoring (vs.

questioning) of norms, hierarchical relations of authority, and the contrast between collectivism and individualism.

Religiousness appears to be generally independent of the Big Five (Piedmont, 1999; Saucier & Goldberg, 1998). However, a trend in previous studies (reviewed by Saroglou, 2002) indicates that religiosity is correlated, although quite modestly, with the Big Five factors of Agreeableness and Conscientiousness. We suggest that such relations depend on the content of the religiousness measure, in particular how much the measure emphasizes TR as compared to SS. We hypothesized that TR would be related to Agreeableness and Conscientiousness but that SS would be associated instead with Openness to Experience (and with its lexical-factor counterpart, Imagination/Intellect).

METHOD

Participants

The sample consisted of those 375 members of the Eugene-Springfield community sample who completed all measures described below and included 160 men and 215 women, with an average age of 51.23 (standard deviation 12.4) at first recruitment in 1993 (by way of response to a mailing sent to area homeowners). Most measures administered to this sample have involved personality and not beliefs. Those used in this study were administered between 1993 and 2002.

Responses to a multiple-choice question about denominational affiliation were available for 358 of the respondents (the other 17 respondents had not returned an entire survey questionnaire containing this item). Of the 358, 44% indicated a Protestant affiliation, 9% Catholic, and 2% each for Mormon and Jewish. Corresponding exactly to Fuller's (2001) estimate for "unchurched spirituality" in America, 20% endorsed "spiritual, but not affiliated with a conventional religion." Another 6% endorsed "other," and 16% endorsed a "none" option. Participants were included in analyses regardless of their category and degree of religious affiliation.

The cross-time stability of religious attitudes in older adults is quite high. For example, in this sample the retest correlation between self-description responses to the single adjective *Religious* in 1993 and 1996 was an impressive .80—higher than is typically expected for personality items and scales. And, as will be seen, response to this single item in 1993 correlated nearly .80 with a nonadjectival index of religiosity administered 9 years later.

Measures

Adjectives. The term *Religious* (from the 1993 administration, which had a higher *N* than that of 1996) was used (1–9 rating scale), as were the terms *Mystical* and *Spiritual* (administered in 2002, with a 1–7 rating scale). The term *Religious* was not readministered in 2002.

ESI items. Items from MacDonald's (2002) Expressions of Spirituality Inventory (ESI) were used, except for the omission of items from this measure's well-being scale, a fairly conventional measure of Neuroticism (of which we had other measures), whose items lack explicit spiritual or religious content. The remaining 24 items, all of which included explicit mention of spiritual or religious content, were factor analyzed by two methods (principal components and maximum likelihood extraction, in either case with both oblimin and varimax rotation), extracting two factors, which were extremely similar across methods. Because of our interest in retaining exact factor scores, we relied henceforth on the oblimin-rotated components, which correlated .36. As expected, these two dimensions corresponded well to TR and SS. The two components were interpreted as Religiousness (with content referencing attending services and the cognitive importance and effects of religion in one's life) and Spiritual Experiences (with content referencing experiences that are mystical, transcend space and time or the usual sense of self, and also paranormal beliefs regarding psychokinesis, ghosts, predicting the future, leaving one's body, and communicating with the dead).

Alpha and Delta isms factors. Saucier (2004) described the development of the Survey of Dictionary-Based Isms (SDI), which consists of 48 item clusters (of roughly four items each) centered around one or more isms concepts found in an English-language dictionary. When these 48 item clusters were factor analyzed, in the same community sample used here, four obliquely rotated factors were virtually orthogonal and nearly identical to the four varimax factors, which corresponded well to the four factors from earlier studies of dictionary-based isms (Saucier, 2000). We used the factor scores for Alpha and Delta (from the analysis of 48 clusters) in our analyses.

Supplementary attitude scales. Saucier (2004) also described the development of 42 additional item clusters representing constructs from the previous literature not directly referenced in the SDI or otherwise complementary to SDI content. In this study, we used three of these scales: those for Quest-Oriented (a questioning way of being religious; coefficient Alpha [α] .80), Hierarchicalism (valuing obedience/deference to

those in a higher social position; α .55), and Extropunitiveness (hierarchically exercised harshness toward criminals; α .69).

Eccentricity. We utilized an unpublished scale developed by Goldberg with 21 items (α .84) from the International Personality Item Pool (<http://www.ipip.ori.org>). Example items are “Know that my ideas sometimes surprise people,” “Am able to disregard rules,” “Love to dress in outlandish clothes,” and (reverse-scored) “Like to be viewed as proper and conventional.”

Conformity. The adjectives *Nonconforming* and *Conforming* were administered to participants, and a Conforming-minus-Nonconforming score calculated (α .92). We expected TR to be positively and SS to be negatively related to this index. Norm-Favoring vs. Norm-Questioning (v. 2; α .74) from the California Psychological Inventory (CPI; Gough, 1996) was used as an additional index of conformity.

Impression management. Another possible aspect of conformity is the need for approval (Crowne & Marlowe, 1964), now best represented in measures of impression management (IM; Paulhus, 1984). We used the Balanced Inventory of Desirable Responding (Paulhus, 1988) IM scale, with continuous, not dichotomized, scores (α .82). A previous study indicated a significant correlation between religiosity and impression management (Gillings & Joseph, 1996).

Private self-consciousness. Private self-consciousness is a disposition to be highly aware of internal states (Fenigstein, Scheier, & Buss, 1975). We administered the scale of Buss (1980; α .76).

Authoritarianism. We used a selection of Right-Wing Authoritarianism (RWA) items (Altemeyer, 1996). The 14 items (seven pro-trait, seven con-trait; α .91) were selected as a group that maximized coverage of the content in the longer scale (as found in stepwise regression of RWA items on RWA score in the Study 2 data set from Saucier [2000]), while maintaining balanced keying of pro-trait and con-trait items.

Social dominance orientation (SDO). We used a selection of SDO items (from Pratto, Sidanius, Stallworth, & Malle, 1994). The eight items (four pro-trait, four con-trait; α .80) were selected as a group that maximized coverage of the content in the longer scale (as found in stepwise regression of SDO items on SDO score in the Study 2 data set from Saucier [2000]), while maintaining balanced keying of pro-trait and con-trait items. We

hypothesized that SS, due to its egalitarian or “horizontal” emphases, would be negatively associated with Social Dominance Orientation.

Collectivism and individualism. We used scales by Triandis and Gelfand (1998). These have “horizontal” (egalitarian) and “vertical” (pro-hierarchy) subscales for both Individualism (idiocentrism) and Collectivism (allocentrism). In keeping with our hypotheses, we aggregated the two Collectivism subscales (α .68) and for Individualism used only the horizontal Individualism subscale (α .57). We also used the Oyserman (1993) scales for Individualism (α .55) and Collectivism (α .67) and subtracted scores on one from the scores on the other to arrive at a Collectivism-minus-Individualism score (α .63).

From the Magical Ideation Scale of Eckblad and Chapman (1983) we used all 30 items but changed the response format from true-false to a 5-point format (*strongly agree, agree, not sure, disagree, strongly disagree*). The scale had a coefficient Alpha of .92.

Irrational beliefs (Superstitiousness). We used the 19-item scale of Koopmans, Sanderman, Timmerman, and Emmelkamp (1994) with coefficient Alpha of .93. Content includes beliefs in psychokinesis, out-of-body experiences, astrology, reincarnation, spells, and psychic powers.

Fantasy-proneness. We used the Creative Experiences Questionnaire (CEQ; Merkelbach, Horselenberg, & Muris, 2001). However, we separated out the eight “as a child” items as a measure of childhood fantasies (via retrospective recall; α .72) because they give a retrospective account of childhood fantasy-proneness, a potentially useful antecedent variable. The 17 remaining items were taken as a measure of fantasy-proneness in adulthood (α .77). The two measures (current and retrospective) correlated .41.

Dissociation. We utilized the 31-item Curious Experiences Survey (CES; Goldberg, 1999), a revision of the Dissociative Experiences Scale (Bernstein & Putnam, 1986). Alpha was .90.

MPQ scales. We used scores from the Traditionalism (α .87) and Absorption (α .90) scales from the Multidimensional Personality Questionnaire (MPQ; Tellegen, in press).

The Temperament and Character Inventory (TCI; Cloninger et al., 1994) has a Self-Transcendence scale (α .95) with five subscales, all of which were used in our analyses. The labels for the subscales in order (ST1 to ST5; α .79, .77, .90, .95, .82) are: Self-forgetful versus Self-conscious experience (i.e., absorption), Transpersonal identification

versus Self-differentiation (e.g., sense of connection with all things), Spiritual acceptance versus Rational materialism (e.g., contact with and direction by a higher power), Enlightened versus Objective (supernatural guidance), and Idealistic versus Practical (e.g., engagement with prayer and moral ideals). We hypothesized that some of these subscales would be correlated mainly with TR, the others with SS, and, by implication, that ST subscales can be differentiated based on relative TR and SS loadings.

Big Five. To index the Big Five factor structure we used the Mini-Markers (Saucier, 1994) to capture the lexical representation of the structure and the NEO Personality Inventory-Revised (Costa & McCrae, 1992) to capture its best-known questionnaire representation. Coefficient alpha values ranged from .77 to .86 for Mini-Markers and .85 to .92 for the NEO-PI-R.

Multi-Language Seven. To index a variant factor structure that is also lexically derived but may provide a better fit to indigenous factor structures from non-European languages, we used the 60ML7, a 60-adjective measure of the Multi-Language Seven factors (Gregariousness, Self-Assurance, Even Temper, Concern for Others, Conscientiousness, Originality/Intellect, Social Unacceptability/Negative Valence) with alpha values of .70 to .81. These seven factors were derived from commonalities found in structures from lexical studies of Filipino (Church, Reyes, Katigbak, & Grimm, 1997) and Hebrew (Almagor, Tellegen, & Waller, 1995), studies in which Big Five structures were not obtained (Saucier, 2003).

Behavioral frequency reports. We used four clusters developed by Goldberg (in press) from a set of 400 activity descriptions; participants rated the relative frequency with which they engaged in the activity. The clusters involved drug/alcohol behavior (α .89; e.g., became intoxicated, smoked marijuana, drank beer), religious practices (α .87; e.g., read the Bible, taught Sunday school, prayed), creative achievement behavior (α .70; e.g., produced a work of art, wrote poetry, acted in a play), and proenvironmentalist practices (α .76; e.g., rode a bicycle to work, bought organic food, recycled).

Attitude about categories of people. To tap specific attitudes about classes and groups of people, 32 items were administered with the question "Who deserves more influence, power, and respect?" and a 5-point response scale (*much less, slightly less, already have the right amount, slightly more, much more*). Items suiting our hypotheses were: religious

leaders, those who study the holy scriptures, those who follow the Ten Commandments, military leaders, gay and lesbian people, scientists who believe in evolution, feminists, those with psychic abilities, those with unconventional spiritual beliefs, spiritually enlightened persons, and people who avoid military service.

Attitudes about causal forces. To tap other consequential specific beliefs, 44 items were administered with the question “What forces determine what happens in life?” and a 5-point response scale (*never, seldom, sometimes, often, always*). Items suiting our hypotheses were: God, miracles, supernatural power, astrological influences, magic, witchcraft, destiny, and fate.

Childbearing and divorce. Reflecting the likely greater collectivism of TR and individualism of SS, we hypothesized that TR would be associated with a lower likelihood of divorce and a larger number of children, whereas SS would be associated with a higher likelihood of having experienced a divorce and with smaller numbers of children. Number of biological children and frequency of divorce were elicited with two items from among a larger 18-item survey, headed “Things That Don’t Happen Every Day,” that asked respondents to identify how often each of 18 events had occurred in their lives. The two items used here were “gave birth to or fathered a child” and “been divorced.” The 6-point response scale had response options of *never, once, twice, three times, four times, and five or more times*. For this sample the median number of children was two, with 14% percent having never begotten a child. Some 33% of the sample had experienced at least one divorce; responses to another item indicated that only 5% had never been married.

RESULTS

The three sets of indicators for TR and SS were not significantly correlated with the age of the participant—correlations with age ranging from $-.05$ to $.10$ for TR indicators and from $-.10$ to $.07$ for SS indicators. All of the indicators, on the other hand, had a very modest point-biserial correlation with gender. With positive correlations indicating higher scores among women than men, the correlations were $.12$ (Religious), $.21$ (ESI Religiousness), $.14$ (SDI Alpha), $.09$ (Mystical), $.21$ (ESI Spiritual Experiences), and $.26$ (SDI Delta). We infer that TR and SS are both unrelated to age, but both appear to be weakly related to being female rather than male.

Response means (on a 1–7 scale) were lower for Mystical (2.87; SD 1.78), than for Religious (4.28; SD 1.94) and for Spiritual (4.61; SD 2.19). This is in harmony with Norman's (1967) report indicating that, in English, on a 1 to 9 scale, Mystical ($M = 5.22$) is less socially desirable than Religious ($M = 6.57$) and Spiritual ($M = 6.42$).

The correlations among these terms were .68 (Religious-Spiritual), .26 (Spiritual-Mystical), and .09 (Religious-Mystical). Controlling for Religious (in a partial correlation analysis) did not affect the correlation between Spiritual and Mystical. Indications are, then, that Spiritual is somewhat intermediary between the other two concepts, whereas Religious and Mystical have more independent denotation. Spiritual and Religious were highly correlated, but, nonetheless, when a Spiritual-minus-Religious score was calculated, this score also correlated positively (.26) with Mystical in the present sample, consonant with our predictions.

Table 1 presents all correlations among the three sets of putative indicators for TR and SS. We note that the within-set intercorrelations for TR are very high, much higher than those for SS, indicating a more tightly converging construct. Between-set correlations (TR with SS indicators) were generally small. Because so many hypotheses were tested simultaneously, we used a relatively stringent criterion ($p < .001$) for statistical significance in this and other tables.

By far, the largest between-set correlation (.36) was between ESI Religiousness and ESI Spiritual Experiences. Scrutiny of the 24 ESI items revealed that six use the term *spiritual*, whereas only two use *religious* and one uses *mystical*. The items that included the term *spiritual* all had at least moderate (.37 or higher) loadings on both the Religiousness and Spiritual Experiences factors. Moreover, items referring to belief in the reality of witchcraft and of spirits and ghosts and to merger with a "force or power greater than myself" also had substantial loadings on both factors. Avoiding these items that mix TR and SS content, we did identify small subsets of ESI items that could be used as adequately reliable abbreviated indicator scales for TR and SS with a near-zero correlation; the six items involved reference to seeing oneself as a religiously oriented person and to the importance of going to religious services (for TR; α .87), as well as transcending space and time, leaving one's body, communicating with the dead, and psychokinesis (for SS; α .78). However, because our particular selection of orthogonal item-sets might capitalize on chance features of the present sample, we relied for subsequent

Table 1
Correlation Matrix for Three Sets of Indicators for Dimensions of Tradition-Oriented Religiousness and Subjective Spirituality

Indicator	Tradition-Oriented Religiousness				Subjective Spirituality		
	Religious	ESI Religiousness	SDI Alpha. ()	Mystical	ESI Spiritual Exps.	SDI Delta. ()	
Religious							
ESI Religiousness	.78 (.72/.84)						
SDI Alpha. ()	.76 (.69/.83)	.81 (.75/.87)					
Mystical	.09 (–.01/.19)	.19 (.09/.29)	.11 (.01/.22)				
ESI Spiritual Experiences	.17 (.07/.27)	.36 (.26/.45)	.20 (.10/.30)	.51 (.42/.60)			
SDI Delta. ()	.06 (–.04/.17)	.18 (.08/.28)	.01 (–.09/.12)	.37 (.27/.46)	.52 (.44/.61)		

Note. $N = 375$. Religious and Mystical refer to single adjectives treated as 1-item measures. ESI—*Expressions of Spirituality Inventory* (MacDonald, 2002). SDI—*Survey of Dictionary-Based Isms* (Saucier, 2004). Coefficients in parentheses are 95% confidence limits. Correlations over .40 are printed in boldface type.

analyses on the obliquely related principal components based on all of the 24 ESI items; use of orthogonal components from the same 24 items led to very similar external correlates.

Overall, we interpreted these results as evidence in support of using these measures—the adjectives *religious* and *mystical*, the two isms factors, and the two ESI factors—as converging indicators for each of two religious/spiritual belief dimensions that tend to be highly independent of one another and can evidently be made fully orthogonal with ease, if desired.

Given the good convergence among the indicators within each set, we simplified the hypothesis testing by aggregating the indicators. One means to this end was a principal components analysis. When the six indicators were analyzed with two factors extracted and rotated by the oblique oblimin method, they loaded as expected on separate TR and SS factors, which intercorrelated only .18, with a 95% confidence interval from .08 to .28. Use of maximum-likelihood extraction led to nearly identical factors, intercorrelating .22. In the component solution, salient structure-matrix loadings on the first factor were .93 (Alpha), .93 (ESI Religiousness), and .91 (Religious), whereas salient loadings on the second factor were .85 (ESI Spiritual Experiences), .79 (Delta), and .77 (Mystical), with all other loadings being of magnitude .31 or lower. Component scores were saved from this analysis and compared to composite variables constructed by standardizing all six indicators, then averaging the three TR indicators, and then separately averaging the three SS indicators. The composite variables correlated .9994 (TR) and .9990 (SS) with the corresponding component scores and .21 with each other (95% confidence interval from .11 to .31). Treating each set of three indicators as alternate measures of a single construct, we could compute precisely the internal consistency of these composite variables (α .91 for TR, .72 for SS). Therefore, we used these by preference in our hypothesis tests (although a comparison indicated that the nearly identical component scores would have led to the same conclusions).

A question of some interest is whether hypotheses would have been supported if we had used only one kind of indicator. To enable examination of this subsidiary issue, we provide additional correlations between each indicator and the measures. But we emphasize that in Tables 2–7, the two leftmost columns of correlations are the crucial ones. The next two columns to the right provide estimates of

the correlations after correction for attenuation due to imperfect reliability of the measures. These corrections should be interpreted with some caution because such corrections can be excessive to the degree that the two variables involved are multidimensional in similar ways (Schmitt, 1996); the scales in the tables likely vary in their degree of multidimensionality, so there is a hazard of over-correction in some instances.

Variables Hypothesized to Relate to Tradition-Oriented Religiousness

Tables 2 through 4 present correlations between the TR and SS variables and hypothetically related scales. Table 2 concentrates on variables hypothesized to be related to TR. TR was strongly correlated with Right-Wing Authoritarianism and with Traditionalism but also moderately correlated with Collectivism and with Impression Management. Correlations with the SS indicators were rarely significant ($p < .001$). These results support our hypotheses.

We also found support for hypotheses involving variables based on act-frequency self-reports. TR was very strongly positively correlated with engagement in religious practices and was negatively correlated with reported engagement in drug and alcohol-related behaviors.

Variables Hypothesized to Relate to Subjective Spirituality

Table 3 includes variables hypothesized to be related to SS. Absorption, magical ideation, superstitious beliefs, and fantasy-proneness in adulthood were all substantially positively correlated with SS. Fantasy-proneness in childhood had moderate correlations with SS, as did dissociation and eccentricity. Correlations for private self-consciousness and for social dominance orientation were significant for the aggregate variable, but only for two of the three SS indicators, taken individually. The individualism measures turned out to be more highly correlated with TR (negatively) than with SS. It appears, then, that TR is a bipolar dimension that is partially aligned with collectivism versus individualism, whereas SS has little relation to this bipolar dimension.

Reports of creative achievement behaviors had weak correlations in the expected positive direction with SS but not consistently across

Table 2
Correlations With Scales Expected to Relate to Tradition-Oriented Religiosity

Measure	Tradit. Religiosity							Subj. Spirituality		
	TR	SS	TR'	SS'	Religious	ESI-R	Alpha	Mystical	ESI-S	SDI Delta
Religious Practices	.80*	.01	.90	.01	.75*	.77*	.71*	.01	.11	-.10
Right-Wing Authoritarianism	.64*	-.15	.70	-.18	.53*	.50*	.75*	-.04	-.10	-.20*
MPQ Traditionalism	.55*	-.17*	.62	-.21	.46*	.43*	.63*	-.09	-.17	-.15
Drug/Alcohol Behavior (-)	-.44*	.10	-.49	.12	-.41*	-.38*	-.42*	.04	.05	.15
Collectivism (Triandis & Gelfand)	.31*	.09	.43	.14	.30*	.33*	.24*	.03	-.01	.16
Collectivism (Oyserman)	.24*	.02	.31	.03	.21*	.22*	.24*	.00	.00	.04
Impression Management	.21*	-.08	.24	-.10	.21*	.21*	.16	-.03	-.08	-.08

Note. $N = 375$. TR'—Tradition-oriented Religiosity composite, TR'—this composite with correction for attenuation; SS—Subjective Spirituality composite, SS'—this composite with correction for attenuation; ESI—Expressions of Spirituality Inventory; ESI-R—Religiosity factor; ESI-S—Spiritual Experiences factor, (-) indicates that a negative correlation was hypothesized. Attenuation-corrected coefficients are printed in italics.

* $p < .001$.

Table 3
Correlations With Scales Expected to Relate to Subjective Spirituality

Measure	Tradit. Religiosity						Subj. Spirituality			
	TR	SS	TR'	SS'	Religious	ESI-R	SDI Alpha	Mystical	ESI-S	SDI Delta
Irrational/Superstitious Beliefs	.08	.65*	.09	.79	.00	.13	.09	.43*	.59*	.55*
Magical Ideation	.06	.57*	.07	.71	-.03	.10	.09	.39*	.53*	.46*
MPQ Absorption	.05	.55*	.06	.68	.03	.12	-.01	.37*	.52*	.43*
CEQ Fantasy Proneness	.15	.51*	.18	.68	.11	.20*	.10	.38*	.53*	.32*
Eccentricity	-.20*	.37*	-.23	.47	-.20*	-.10	-.25*	.26*	.40*	.22*
CEQ Childhood Fantasies	-.05	.35*	-.06	.48	-.06	.01	-.09	.19*	.37*	.29*
CES Dissociation	.07	.34*	.08	.42	.03	.10	.06	.20*	.34*	.26*
Private Self-Consciousness	.00	.25*	.00	.34	-.03	.06	-.03	.23*	.28*	.10
Social Dominance Orientation (-)	.06	-.23*	.07	-.30	.00	-.03	.19*	-.10	-.17	-.29*
Environmentalist Practices	-.22*	.13	-.26	.18	-.19*	-.13	-.30*	.03	.16	.13
Creative Achievement Behaviors	-.06	.13	-.07	.18	-.05	.02	-.13	.07	.21*	.04
Individualism (Oyserman)	-.26*	.12	-.37	.19	-.24*	-.26*	-.21*	.09	.11	.11
Horizontal Individualism	-.20*	.10	-.28	.16	-.22*	-.16	-.18*	.06	.05	.14

Note. $N = 375$. TR—Tradition-oriented Religiosity composite, TR'—this composite with correction for attenuation, SS—Subjective Spirituality composite, SS'—this composite with correction for attenuation, ESI—Expressions of Spirituality Inventory, ESI-R—Religiosity factor, ESI-S—Spiritual Experiences factor, (-) indicates that a negative correlation was hypothesized. Attenuation-corrected coefficients are printed in italics.

* $p < .001$.

all indicators. Environmentalist practices were more consistently related (but negatively and weakly) to TR than to SS indicators.

Variables Hypothesized to Relate to Both TR and SS

Table 4 presents results for variables hypothesized to be related to both TR and SS. Self-Transcendence was, as hypothesized, related to both, albeit more strongly to TR. This overall effect, however, masks interesting divergences at the subscale level. Self-Forgetfulness and Transpersonal Identification were both more highly correlated with SS, whereas Spiritual Acceptance, Enlightened, and Idealistic were more highly correlated with TR.

The last variables in Table 4 were hypothesized to be related in opposite directions to TR and SS, and thus to differentiate these two dimensions. The best differentiator was Quest Orientation, which was related positively to SS and negatively to TR. "Religion as quest" is characterized as "an open-ended active approach to existential questions that resists clear-cut, pat answers" (Batson & Schoenrade, 1991, p. 416), thus emphasizing individuality over tradition. Directions of effect for the other variables were all consistent with hypotheses but not significant for both aggregate variables.

Correlations of TR and SS With Single Items

We had numerous hypotheses relating TR or SS to attitudes regarding causal forces and categories of persons. Table 5 presents relevant correlations. Because the attitudes were indexed with single items of unascertained reliability, no corrections for attenuation are offered.

As predicted, TR was strongly associated with a belief that God is a powerful force, with a belief in the power of supernatural forces and miracles, and with respect for religious leaders, those who study the scriptures, those who follow the Ten Commandments, and (negatively) scientists who believe in evolution. There were moderate positive correlations with respect for military leaders and, negatively, with respect for gays and lesbians and feminists.

As predicted, SS was associated with superstitious beliefs, such as in the power of astrology or magic, and with respect for psychics and belief in the power of destiny. Several other variables hypothesized

Table 4
Correlations With Scales Expected to Relate to Both Dimensions

Measure	Tradit. Religiosity					Subj. Spirituality				
	TR	SS	TR'	SS'	Religious	ESI-R	Alpha	Mystical	ESI-S	Delta
Hypothesized to be both TR and SS-related										
TCI Self-Transcendence	.76*	.52*	.82	.63	.67*	.79*	.64*	.31*	.56*	.38*
TCI ST1: Self-forgetul	.15	.52*	.18	.69	.14	.21*	.07	.33*	.55*	.38*
TCI ST2: Transpersonal identif.	.25*	.59*	.30	.79	.22*	.33*	.15	.36*	.53*	.53*
TCI ST3: Spiritual acceptance	.81*	.43*	.89	.53	.71*	.83*	.70*	.24*	.51*	.30*
TCI ST4: Enlightened	.87*	.33*	.93	.40	.76*	.87*	.78*	.20*	.40*	.20*
TCI ST5: Idealistic	.75*	.35*	.87	.45	.67*	.75*	.67*	.22*	.36*	.27*
Hypothesized opposing relations to TR and SS										
Quest Orientation	-.21*	.33*	-.25	.43	-.17	-.11	-.31*	.23*	.23*	.33*
Collectivism vs. Individualism (Oys.)	.32*	-.07	.42	-.10	.29*	.31*	.29*	-.05	-.07	-.05
Hierarchicalism	.31*	-.05	.44	-.08	.25*	.22*	.39*	.01	-.02	-.12
Extropunitiveness	.25*	-.06	.31	-.08	.16	.15	.38*	.04	-.08	-.10
CPI Norm-favoring (v.2)	.20*	-.12	.24	-.16	.20*	.20*	.17	-.07	-.13	-.09
Conforming versus Nonconforming	.16	-.15	.17	-.18	.17	.07	.19*	-.15	-.20*	-.02

Note. $N = 375$. TR—Tradition-oriented Religiosity composite, TR'—this composite with correction for attenuation, SS—Subjective Spirituality composite, SS'—this composite with correction for attenuation, ESI—Expressions of Spirituality Inventory, ESI-R—Religiosity factor, ESI-S—Spiritual Experiences factor, (–) indicates that a negative correlation was hypothesized. Attenuation-corrected coefficients are printed in italics.

* $p < .001$.

Table 5
Correlations of Tradition-Oriented Religiousness and Subjective Spirituality With Single Items

Measure	Tradit. Religiousness					Subj. Spirituality			
	TR	SS	Religious	ESI-R	SDI Alpha	Mystical	ESI-S	SDI Delta	
Hypothesized to be TR-related									
Power of God	.84*	.24	.74*	.79*	.82*	.17	.26*	.17	
Respect Religious Leaders	.67*	-.03	.60*	.59*	.67*	-.07	-.01	.00	
Respect Those Who Study Scriptures	.67*	.08	.58*	.59*	.68*	.04	.10	.05	
Power of Miracles	.62*	.33*	.50*	.61*	.61*	.21*	.37*	.21*	
Power of Supernatural	.59*	.26*	.48*	.59*	.56*	.15	.32*	.16	
Respect Ten Commandments Obeyers	.53*	.00	.47*	.46*	.54*	.01	.05	-.05	
Respect Military Leaders	.35*	-.08	.31*	.24*	.43*	.00	-.10	-.11	
Respect Evolution Scientists (-)	-.57*	.05	-.43*	-.47*	-.69*	-.02	-.03	.18*	
Respect Gay and Lesbian People (-)	-.37*	.19*	-.29*	-.25*	-.48*	.05	.15	.26*	
Respect Feminists (-)	-.37*	.18*	-.29*	-.27*	-.46*	.08	.10	.26*	

Hypothesized to be SS-related

Power of Astrological Influences	.07	.55*	.03	.10	.06	.41*	.48*	.44*
Power of Magic	.03	.46*	-.02	.07	.04	.35*	.42*	.35*
Respect Psychics	-.04	.46*	-.05	.00	-.06	.27*	.39*	.43*
Respect Enlightened Persons	.36*	.45*	.31*	.40*	.29*	.26*	.38*	.43*
Power of Witchcraft	.13	.31*	.10	.13	.12	.29*	.34*	.12
Respect Unconventional Beliefs	-.05	.29*	-.05	.03	-.11	.12	.28*	.29*
Power of Destiny	.11	.30*	.05	.09	.18	.20*	.23*	.30*
Power of Fate	-.01	.21*	-.07	-.05	.08	.13	.10	.28*
Respect Avoiders of Military	-.34*	.12	-.30*	-.23*	-.41*	.01	.16	.11

Hypothesized to be related to both TR and SS

Frequency of Divorces	-.03	.22*	-.02	-.02	-.06	.13	.19*	.21*
Number of Biological Children	.13	.01	.16	.12	.09	.05	-.03	.01

Note. $N = 375$. TR—Tradition-oriented Religiosity composite, SS—Subjective Spirituality composite, ESI—Expressions of Spirituality Inventory, ESI-R—Religiosity factor, ESI-S—Spiritual Experiences factor, (–) indicates that a negative correlation was hypothesized. * $p < .001$.

to be SS-related—the power of witchcraft and fate, respect for those with unconventional beliefs—had moderate correlations in the expected direction but not consistently across all indicators. Respect for avoiders of military service was more consistently related (but negatively) to TR than to SS indicators. Overall, correlations in Tables 3 through 5 suggest that SS involves an interest in privately and subjectively experienced (rather than collectively shared and validated) metaphysical phenomena but that this interest does not have substantial corollaries in the domain of political views.

TR and SS composites (put in standardized form) differed among various denomination categories, which also were indexed by a single item. Among those categories with substantial (over $N = 25$) representation in our sample, mean standard scores tilted in the TR direction for Protestants (.49 for TR, $-.15$ for SS) and Catholics (TR .50, SS .07). As would be expected, scores tilted in the SS direction for those who identified as “spiritual but not affiliated with a conventional religion” (TR $-.31$, SS .75). Those who endorsed “none” as their religious affiliation had below-mean scores for both but were more extreme for TR (-1.36) than for SS ($-.60$). Within a multivariate analysis of variance (overall $F[6, 634] = 58.27, p < .001$), denomination category (among these four, with $N = 321$) predicted both TR ($F[3, 317] = 105.33, p < .001$) and SS ($F[3, 317] = 27.42, p < .001$). Post hoc Scheffé tests indicated that, with 95% confidence intervals, Protestant and Catholic did not differ from each other on either TR or SS but did differ from both “spiritual” and “none,” just as “spiritual” and “none” differed from each other, on both TR and SS. Overall, those who identified with a religious denomination were much more likely to be high on TR than were those who did not. SS, however, was a useful differentiator among the “unchurched”; that is, it distinguished with very large effect size the “spiritual but not affiliated with a conventional religion” from those with “none” as religious affiliation.

Correlations With Personality Dimensions

Table 6 presents correlations between the TR and SS indicators and broad personality dimensions. The expected correlation of TR with Agreeableness (A) and Conscientiousness (C) could not be found with the Big Five scales and only held up for Agreeableness when

Table 6

Correlations of Tradition-Oriented Religiousness and Subjective Spirituality With Big Five and Multi-Language Seven

Measure	Tradit. Religiousness							Subj. Spirituality		
	TR	SS	TR'	SS'	Religious	ES1-R	Alpha	Mystical	ES1-S	SDI Delta
Big Five Extraversion	.02	.07	.02	.09	-.02	.06	.00	-.05	.08	.11
Big Five Agreeableness	.06	.13	.07	.17	.11	.12	-.03	.03	.08	.20*
Big Five Conscientiousness	.07	-.15	.08	-.19	.03	.07	.08	-.10	-.14	-.12
Big Five Emotional Stability	-.16	-.15	-.19	-.20	-.11	-.17	-.21*	-.07	-.15	-.17
Big Five Imagination/Intellect	-.11	.21*	-.13	-.28	-.09	-.02	-.22*	.12	.28*	.07
NEO-PI-R Extraversion	.05	.20*	.06	.25	.04	.11	.00	.07	.17	.23*
NEO-PI-R Agreeableness	.29*	.13	.32	.16	.31*	.32*	.19*	.04	.07	.22*
NEO-PI-R Conscientiousness	.07	-.18	.08	-.22	.07	.07	.05	-.11	-.17	-.15
NEO-PI-R Neuroticism	.03	.07	.03	.09	.01	-.01	.10	.07	.07	.05
NEO-PI-R Openness to Experience	-.26*	.40*	-.28	.49	-.19*	-.13	-.37*	.24*	.33*	.37*
ML7 Gregariousness	.06	.08	.07	.11	.04	.10	.03	-.05	.11	.12
ML7 Self-Assurance	-.02	.00	-.02	.00	-.03	.02	-.05	-.03	-.01	.02
ML7 Even Temper	.03	-.07	.04	-.09	.07	.05	-.04	-.05	-.09	-.04
ML7 Concern for Others	.28*	.15	.35	.21	.25*	.30*	.24*	.08	.07	.21*
ML7 Conscientiousness	.26*	-.16	.32	-.22	.23*	.20*	.28*	-.11	-.12	-.14
ML7 Originality/Intellect	-.13	.13	-.16	.18	-.08	-.05	-.22*	.11	.15	.03
ML7 Social Unacceptability (NV)	-.03	.28*	-.04	.37	.05	-.03	.00	.23*	.30*	.16

Note. *N* = 375. TR—Tradition-Oriented Religiousness factor, SS—Subjective Spirituality factor, ES1—Expressions of Spirituality Inventory, ES1-R—Religiousness factor, ES1-S—Spiritual Experiences factor, ML7—Multi-Language Seven.
**p* < .001.

using the NEO-PI-R scales. However, TR was consistently moderately correlated with ML7 Concern for Others (related to Agreeableness) and ML7 Conscientiousness, in line with the hypothesis. These results indicate that the correlation between TR and A may be stronger when the A measure emphasizes either compliance (as in the NEO-PI-R) or prosocial and altruistic tendencies (as in the ML7), rather than gentleness and absence of hostility (as on the Big Five scale). Similarly, the correlation between TR and C may be stronger when the C measure has greater emphasis on strictness and perfectionism, as is true of C in the ML7 (see Saucier, 2003, Table 4).

We expected that SS would be related to Openness to Experience (O) and to its lexical-factor counterpart Imagination/Intellect. We found that O is related to both TR and SS and is a good differentiator of them. Those high on TR tended to be low on O; those high on SS tended to be high on O. This pattern generalized weakly and inconsistently to the lexical factor in line with previous findings that O is substantially related to social attitudes (McCrae, 1996; van Hiel, Kossowska, & Mervielde, 2000), more so than is the lexical Intellect factor (Yik & Tang, 1996).

Finally, Table 6 reveals an interesting but unanticipated correlation. Two of the SS indicators were correlated positively with Social Unacceptability (i.e., Negative Valence), and the third was nearly so ($p < .01$ but not $p < .001$). There is some controversy over whether Negative Valence (NV) has a substantive interpretation (Benet-Martinez & Waller, 2002; Saucier, 2002, 2003) or an artifactual interpretation (Ashton & Lee, 2002). Saucier's (2003) markers for this factor include the adjectives *weird* and *crazy*; further analyses indicated that individuals with strong tendencies toward subjective, mystical spiritual experiences were also more likely to apply these particular adjectives to themselves, consistent with a substantive interpretation of NV and with the already noted correlation between SS and eccentricity.

Hierarchical Regression Analyses

Substantial correlations between personality scales and either TR or SS raise the possibility that TR and SS are really “nothing more than” traits already captured by personality inventories. The resolution of this issue depends, however, on which constructs one accepts to be aspects of personality. A key question then is “How far must

one expand the definition of what comprises a personality variable in order to argue that dispositions toward TR and SS are personality variables?"

To answer this question, we employed a set of hierarchical-regression analyses. In each analysis the first block was the gender variable. The second block of predictors consisted of lexical Big Five scale scores. The third and fourth blocks consisted of other personality scales that had demonstrated a substantial correlation with TR or SS indicators in the earlier analyses: the third block involved scales whose categorization as "personality" is uncontroversial; the fourth block included scales whose categorization as such might generate some debate. Finally, a fifth block involved scales that would rarely be categorized as personality traits. The first four blocks were utilized in a "forced entry" manner, whereas the fifth block was subjected to a stepwise algorithm to search for the single variable that best added to the prediction (p for entry .001, p for removal .005). As in earlier analyses, primary analyses involved the TR and SS composites, each based on three indicators, but we also present analyses based on each indicator alone so as to examine generality of results across single indicators.

Table 7 summarizes the results of these hierarchical regressions. Gender and the lexical Big Five each provided a significant R -squared change in only half of the regressions. Adding personality inventory scales (for which there would be no dispute over their being considered personality variables; e.g., Openness to Experience) raised these multiple correlations substantially (to .41 and .61, with a range of .35 to .58 for the indicators). Adding still other scales that might incite some controversy if labeled "personality" (e.g., Self-Transcendence) produced a very large increase in the multiple correlation for TR (to .87, indicators in the .75–.85 range) and a smaller increase for SS (to .68, indicators in the .48–.69 range).

Switching to adjusted (shrunken) R values in these regressions would result in a reduction of from .00 to .03 in the R values, except that the R for Mystical and the lexical Big Five was adjusted from .19 to .14. There is probably relatively little inflation in the multiple correlations.

The results of these four regression steps indicate that TR and SS should not be considered personality if personality means "captured by the lexical Big Five." However, if personality is defined as "whatever is measured on influential personality inventories"

Table 7
Multiple Correlations From Hierarchical Regressions Using Personality Scales to Predict Religious/Spiritual Belief Dimensions

After Step	Tradition-Oriented Religiosity					Subjective Spirituality				
	TR	SS	Religious	ESI Relig.	SDI Alpha	Mystical	ESI Spir.	SDI Delta		
1—Gender	.17	.23*	.12	.21*	.14	.09	.21*	.26*		
2—Lexical Big Five	.27	.37*	.22	.27	.34*	.19	.40*	.37*		
3—Other Personality Scales	.41*	.61*	.35*	.37*	.47*	.43*	.58*	.55*		
4—Other Scales That Might Be Labeled “Personality”	.87*	.68*	.75*	.84*	.85*	.48*	.69*	.59*		
5—Non-Personality Scales That Add to Prediction	.88*	.78*	.76*	.85*	.88*	.55*	.76*	.68*		
Scale Added at Step 5	RWA	IrrBel	RWA	Individualism	RWA	IrrBel	IrrBel	IrrBel		
Its Direction of Effect	+	+	+	-	+	+	+	+		+

Note. $N = 375$.

*Changes in R -squared for step significant, $p < .001$. RWA—Right Wing Authoritarianism. Individualism—Oyserman scale. IrrBel—Irrational Beliefs. For TR regressions Step 3 included NEO-PI-R Openness to Experience and CPI Vector 2 (Norm-favoring), Step 4 TCI Self-Transcendence and MPQ Traditionalism. For SS regressions Step 3 included NEO-PI-R Openness to Experience, MPQ Absorption, 60ML7 Negative Valence, Private Self-Consciousness, Step 4 TCI Self-Transcendence, CES Dissociation, CEQ Fantasy-Proneness, Eccentricity.

(including the TCI and MPQ), then it appears that TR and SS should definitely be considered aspects of personality.

For all three TR indicators RWA had partial correlations in the .15 to .45 range with the criterion after Block 4, but, in one case, Individualism had a higher (negative) one. For the SS indicators, Irrational Beliefs was, for the aggregate as well as the single indicators, the scale that added to prediction. Though Block 5 additions all yielded a significant change in *R*-squared values, many may be surprised that such belief scales added so little to what can be called personality measures in terms of predicting variation in tradition-oriented religiousness and subjective spirituality.

The foregoing results involved operationalizing TR and SS via composites that allowed them to be modestly (.21) intercorrelated. However, these results were not method dependent. When analyses were run using component or factor scores instead of composites, with either principal components or maximum-likelihood extraction and with either oblique or with orthogonal factors, the coefficients were little different and would lead to the same conclusions.

DISCUSSION

The results of this study indicated that Tradition-oriented Religiousness (TR) and Subjective Spirituality (SS) are highly independent dimensions that can be tapped by any of at least three sets of indicators. Any of these indicators would have generated similar results for most of our hypotheses, so these findings are not contingent on whether the indicators are adjectives or, instead, factors drawn from the ESI or from studies of dictionary-based isms. Caution is needed, however, in using the term *spiritual* in survey items, as this term tends to lead to a confounding of TR and SS, whereas terms like *religious* or *mystical* do not.

These dimensions have quite different correlates. TR is highly associated with authoritarianism and traditionalism and, more moderately, with collectivism versus individualism and with (low) openness to experience; TR represents a brand of religious/spiritual belief in which there is high reliance on tradition-hallowed sources of authority that provide shared practices (e.g., rituals) and rules for controlling social and sexual behavior. SS is associated with absorption, fantasy-proneness, dissociation, and beliefs of a magical

or superstitious sort, as well as with eccentricity and high openness to experience and represents a brand of belief in which the individual's subjective experiences (including intuitions and fantasies) have great importance.

The two dimensions appear to be dispositions that are substantially intertwined with commonly measured personality traits and should not be confused with denominational affiliations, nor even with membership in a particular religion. Perhaps such affiliations and memberships reflect specific cultural and environmental influences to which the individual might be exposed and thus involve only the superficial mode in which these dispositions are expressed. However, those who identify with a denomination appear more likely to be high on TR than are those who do not.

Overall, our findings are potentially important for several reasons. First, they indicate that scientists who treat religious/spiritual tendencies as a unitary phenomenon do so in error. Instead, spiritual tendencies can go in either of two highly independent directions: toward a tradition-oriented, authority-based religion emphasizing collectively shared beliefs, or toward a mysticism based in subjective, individual experience that seems to have little implication for group action or political views. Second, it appears that these two different "directions" are associated with different dispositions. One direction references collectively defined authority and provides clearer directives for behavior, making it more appealing to those whose tendencies and values emphasize behavioral control (via rules, rituals, or a hierarchical conception of the world). The other direction, more subjective and phenomenological, may be more appealing to those with tendencies to absorption and fantasy. Research is needed to define further these dispositions.

Arguments that religiousness/spirituality forms a "sixth factor" of personality (e.g., MacDonald, 2000; Piedmont, 1999) should take into account that there are two relatively orthogonal dimensions in this domain and that these two dimensions have substantial correlations (in opposing directions) with one of the widely accepted first five factors, Openness to Experience. If one were to produce a single religiousness/spirituality factor that averaged TR and SS, it might appear orthogonal to Openness. But as our findings demonstrate, TR and SS should not be lumped together.

One could, alternatively, attempt to assimilate these findings entirely to the Five-Factor Model. This would involve the argument

that SS and TR simply represent high and low Openness to Experience, respectively. A first problem with this approach: TR and SS are not opposites, but highly independent. This means some individuals will be high on one and low on the other. But others will be high on both and others will be low on both, and these two groups of individuals might tend to score similarly—around the middle—on Openness to Experience. Within the Five-Factor Model, information that would distinguish high TR/high SS from low TR/low SS is simply lost. A second problem with this “Openness = SS–TR” formulation is that Openness has some problems with generality across cultural settings (De Raad, 1994; Watkins & Gerong, 1997).

We found that TR and SS are relatively independent of lexically based personality factors and that lexically based social-attitude (isms) factors serve as good indicators for them. The clearest approach might be to dispense with the Openness construct as a problematic amalgam of temperamental, intellectual, and attitudinal tendencies. Instead, one would conceive of TR and SS as dispositional factors underlying social attitudes that are beyond a Big Five in which there is an Intellect factor rather than Openness.

TR and SS dimensions do not apply only to religious people but can also be used to differentiate among the nonreligious. For example, one nonreligious person may strongly oppose traditional religion but be more indifferent to subjective spiritual experiences. Another may be relatively indifferent to traditional religion but strongly skeptical of subjective spiritual experiences.

Some limitations of this study need acknowledgment. First, we do not yet know to what extent our findings are culture bound. The present sample represents but one cultural setting. Given the presence in all major religions of distinct orthodox and mystical schools, cross-cultural generalizability seems promising. However, relations with other variables may be moderated by culture. For example, if adherence to traditional authority-based religion were strongly normative in a culture, endorsement of attitudes representing doctrines of this religion should become highly desirable for individuals. Under such conditions, measurement of tradition-oriented religiousness should become strongly affected by desirability responding, as are scores on Agreeableness and Conscientiousness, with the result that correlations of TR with these two variables should increase.

We relied on multiple converging indicators of TR and SS as there is not yet a well-validated measure of these two constructs; ESI

items, markers of Alpha and Delta isms factors, or adjectives all seem capable of serving. Moreover, we relied exclusively on self-report data, though it can be argued that self-report may be superior with respect to belief variables because informants often are not very knowledgeable about the full range of another individual's beliefs.

CONCLUSIONS

Individual differences in religious/spiritual beliefs cannot be captured by a single dimension. Two highly independent dimensions (TR and SS) have quite different correlates, supporting the view that they are indeed divergent constructs. TR is associated with authoritarianism and traditionalism and, more moderately, with collectivism versus individualism and with low Openness to Experience. SS is associated with absorption, fantasy-proneness, dissociation, and beliefs of a magical or superstitious sort, as well as eccentricity and high Openness to Experience. Expressions of religious/spiritual belief appear to differ according to whether the person places relatively more importance on having clear collective standards for behavioral control, or on personal intuitions, fantasies, and subjective experience. Because the two dimensions of religious/spiritual belief overlap so substantially with personality, there is a case for saying they are themselves aspects of personality. Even if they are not personality, they appear to capture important dispositions of the individual, dispositions to which psychology has paid too little attention.

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