

Construction and validation of a scale to assess attitudes to mysticism: the need for a new scale for research in the psychology of religion

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Abstract

This paper argues that two concepts, attitudes to mysticism and mystical experience, need to be distinguished carefully. This implies that a new questionnaire is needed to assess the former, and the paper reports on construction of a new scale to assess Attitudes to Mysticism. This scale was found to have good internal consistency, criterion-related validity and construct validity, and evidence is also given that this concept is related to but conceptually distinct from mystical experience. Copyright © 2007 John Wiley & Sons, Ltd.

Introduction

Numerous scales have been developed to assess concepts in the psychology of religion (Hill and Hood, 1999). Fervent popularity of psychometric approaches to religious psychology prompted Gorsuch (1984) to call for a moratorium in development of psychometric scales to assess religiosity-related concepts. Gorsuch's (1984) paper is now somewhat dated, as since it appeared various scales to assess concepts in the

psychology of religiosity (Hill and Hood, 1999) and transpersonal psychology (McDonald et al., 1995; McDonald, Friedman and Kuenzel, 1999; McDonald, Kuenzel and Friedman, 1999) have been published. Yet, a notable omission from the literature is the absence of a scale to assess attitudes to mysticism. This study reports on the design of such a scale.

Several scales have been developed to assess mystical experience, including Hood's M-Scale (Hood, 1975), the Francis-Louden

Mystical Orientation Scale (Francis and Loudon, 2000a) and the Mystical Experience Scale of Thalbourne (1991), used by Thalbourne et al. (1997). A recent scale developed by Kohls and Walach (2006), the Exceptional Human Experiences Questionnaire, can also be counted as pertinent to mystical experience rather than to beliefs about or attitudes to mysticism (the scale has been subject to factor analysis and yields four factors, all of which relate to experience rather than belief and, indeed, these authors clarify early in their paper their goal of development of a scale to assess experiences rather than attitudes or beliefs). However, attitudes to mysticism is conceptually distinct from mystical experience. To have a mystical experience need not imply one that takes positive attitudes towards it – attribution of one's own personal experiences of mystical union to incipient psychosis, or to Satanic possession, the latter attributions being made by Teresa of Avila for some of her experiences (Mavrodes, 1978; Pike, 1978), may lead to negative views of mysticism. Conversely, individuals who believe that they have never personally experienced mystical union may still have very positive attitudes towards mysticism. A scale to assess attitudes to mysticism is noticeably absent from Hill and Hood's (1999) compendium of religiosity scales.

Good grounds exist for development of psychometric scales that assess attitudes to mysticism in addition to those that assess mystical experience. The longstanding distinction in parapsychology between belief in the paranormal and paranormal experience has led to the development of scales such as Tobacyk's Paranormal Belief Scale (Tobacyk and Milford, 1983; cited in Tobacyk, 1995). A similar distinction between beliefs and attitudes to mysticism and personal mystical experience is needed in the psychology of religion. Another reason for developing a scale to assess attitudes to mysticism as

distinct from one that assesses mystical experience concerns how such a scale could contribute empirical data to an important debate in the philosophy of religion, about whether mystical experience is innate, as claimed by perennialists such as Forman (1998), or arises through social learning, as argued by social constructionists such as Katz (1978, 1983). Forman defends with evidence of how the *satori* experience may take place prior to learning that this experience is well known in Buddhism. Direction of a possible causal relationship between attitudes to mysticism and mystical experience is a question that is likely to divide perennialists and social constructionists, with the former holding that experience is more likely to take causal priority, the latter giving causal priority to attitudes. Development of separate scales to assess attitudes to mysticism and mystical experience will help to provide empirical means to evaluate directions of such causality.

This paper describes the construction and validation of a new scale to assess attitudes to mysticism. Although mystical experience and attitudes to mysticism are taken here to be distinguishable, assessment of the correlation between a scale to assess attitudes to mysticism and one to assess mystical experience will be taken as a method to assess the former's construct validity, based on the likely premise that these constructs share considerable variance. Scales to assess attitudes to mysticism may also be validated by administration to religious and other groups likely to differ in their attitudes to mysticism. These considerations provide the rationale for the study reported in this paper.

The likelihood that different religious groups are likely to hold very different attitudes to mysticism may be used as a basis to assess the criterion-related validity of a scale to assess Attitudes to Mysticism. Buddhism's rich mystical tradition implies that groups influenced by this tradition will score high on a measure to assess attitudes to

mysticism. Some groups, being connected with belief and cognition rather than experience, can be expected to score higher on a measure of beliefs and cognitions about mysticism, but not necessarily mystical experience. This is illustrated in the study reported here by use of participants from a Special Interest Group (SIG) in Mensa, the society for people of high intelligence quotient, who have particular interests in the paranormal, Mensa Paranormal. A more detailed account of the rationale for selecting participants for the study reported here is given in the 'Method' section.

This study is an exploratory one, describing the construction and validation of a new scale. However, its aims may be presented as testing several hypotheses:

- (1) Scores on an 'Attitudes to Mysticism' scale correlate significantly positively with scores on a measure of mystical experience.
- (2) Reiki healers and Nichiren Daishonen Buddhists, groups drawn from populations associated with Buddhism (a pro-mystical religion) score significantly higher than a convenience sample of students on an 'Attitudes to Mysticism' scale.
- (3) Members of Mensa Paranormal score significantly higher than a convenience sample of students on an 'Attitudes to Mysticism' scale.
- (4) Reiki healers and Nichiren Daishonen Buddhists score significantly higher on a measure of mystical experience than a convenience sample of students.

Method

Design

This study employed a between-groups design with the one independent variable, group, at four levels (Student vs. Reiki vs. Buddhist vs. Mensa Paranormal) and the two dependent variables of Attitudes to Mysticism and mystical experience. The study was also

correlational, in so far as the correlation between the variables of attitudes to mysticism and mystical experience was assessed.

Materials

The two major dependent variables being assessed in this study were:

- (1) *Mystical experience.* This was assessed by the 21-item Francis–Louden Mystical Orientation Scale (Francis and Loudon, 2000a; see Appendix 1), chosen in preference to Hood's (1975) M-Scale due to its greater clarity; its Cronbach's alpha reliability coefficient of +0.94 (Bourke et al., 2004) also suggests that it has greater internal consistency than the M-Scale. Happold's (1963) seven criteria for mysticism, namely the four criteria outlined by James (1902/1960), i.e. ineffability, transiency, passivity and noetic quality, plus the three additional criteria of unitive quality, time transcendence and a sense of transcendence of false ego, provide theoretical bases for this scale, which takes the form of seven sub-scales, each of three items, assessing each of these dimensions of mystical experience.
- (2) *Attitudes to mysticism.* A new, 32-item scale was developed to assess this construct, using four questions per each of eight content categories. These content categories, based on the multidimensional analyses of religion (Glock and Stark, 1965; Smart, 1989) and also on Keller's (1978) essay, are outlined below:
 - Category One items assessed preferences for the ritual versus the experiential dimension of religion, and were:
 - Item 1. If I were to think of a prototypical religious person, I would think of a mystic or some one who reports religious experiences, rather than some one who attends religious services regularly.
 - Item 20. The practices of the mystic are a more true path to God than regular attendances at religious services.

Item 26. To have had a religious or mystical experience indicates more commitment to one's faith than whether one goes to one's place of worship regularly.

Item 32. If I were a religious person, I would see regular attendance at a church, mosque, synagogue or other place of worship as being more central to my faith than whether I had ever had a 'mystical' or 'religious' experience. (Scoring reversed).

- Category Two items assessed whether respondents' attitudes towards mystical literature, and were:

Item 2. Some of the most moving literature ever written has been the work of world's great mystics.

Item 12. I find that people who write about their so-called mystical experiences contradict themselves – they claim to have received revelations, but to me, their experiences hardly reveal anything at all. (Scoring reversed)

Item 17. I get excited when I read accounts of mystical, religious or spiritual experiences.

Item 24. I would get rather annoyed if I had to read mystical literature, as most of it would be quite incomprehensible to me. (Scoring reversed)

Item 12 above was based on a quote by Luther. Luther disliked the Biblical text of 'The Revelation of St John the Divine', holding that a revelation should be revealing, not couched in the rather esoteric language in which the final book of the Biblical canon is written.

- Category Three items assessed preferences for the intellectual versus the experiential dimension of religion, and were:

Item 3. Possession of a great deal of factual knowledge about one's faith (e.g. about its history, literature or ritual) is really a very poor shadow of the great insights that can be obtained during mystical experience.

Item 9. If one wants to know about one's faith, one should apply lots of academic study to its history, texts and theology,

rather than engage in practices that may or may not bring about mystical experiences. (Scoring reversed)

Item 13. Theologians are more important figures in the world religions than are mystics. (Scoring reversed)

Item 21. One can learn at least as much about God from those who report religious or mystical experiences as one can from theologians.

- Category Four items assessed whether respondents endorsed the Lutheran doctrine of *sola fide*ism. This doctrine teaches that justification is by faith in God alone; endorsement of this doctrine therefore implies a proscription of self-initiated attempts at the spiritual quest. This doctrine continues to be espoused by some forms of Christian fundamentalist Protestantism today, and explains the suspicions towards mystical religion held by such groups. Items in this category were:

Item 4. Our sins are justified through faith, that is, through belief that God alone can save us from our sins – we are not likely to get very far by constant reliance on our own efforts at the spiritual quest. (Scoring reversed)

Item 6. God alone is the fountainhead of all religious revelations, so mystics deceive themselves to think that they can obtain union with God by their own efforts. (Scoring reversed)

Item 8. The mystical quest for union with the Divine is one which – partly thanks to the mystic's own efforts – is often likely to prove extremely fruitful.

Item 11. The mystical viewpoint that life is like a ladder, and that by an appropriate spiritual journey, one may ascend this ladder to reach the realms of God, is one that deserves a lot of respect.

- Category Five items assessed respondents' associations between mystical experiences and psycho-pathology, and were:

Item 5. I can really understand why many

people (including religious leaders such as the clergy or rabbis) have perceived mystics as mad. (Scoring reversed)

Item 14. Major and important differences exist between the hallucinations of psychotics and the experiences of mystics.

Item 19. It would not surprise me if it turned out that the vast majority of those who claim to have had mystical experiences turn out to be suffering from some type of psychiatric illness. (Scoring reversed)

Item 23. Established religious authorities – such as the Christian church – are wrong if they think that the experiences reported by mystics should be seen as pathological.

- Category Six items were based on the assumption that those with positive attitudes towards mysticism are likely to be more sympathetic to the perennialism of authors who have written favourably about mysticism, e.g. Huxley (1946), than those who take the viewpoint that only specific theologies are defensible, and – by implication – that doctrine should be given more respect than experience. These items were:

Item 7. Mystics of all faiths, creeds and, indeed, of no traditional religion are all involved in the same spiritual journey.

Item 18. There are cases in many different religions where earnest seekers have had an experience of union with the Divine, or, at least, glimpses of God.

Item 22. One should never trust anyone who claims to follow a religion, but who takes a deep interest in the mystical teachings of religions or creeds other than the one he or she claims to profess. (Scoring reversed)

Item 30. I am rather suspicious of those who would have us believe that mystical experiences in all of the world religions are more or less the same. (Scoring reversed)

- Category Seven items assessed preferences for the social versus the experiential dimension of religion, and were:
 - Item 10. Religious authorities, such as church leaders, the Pope or rabbis, have every right

to be suspicious of mystics. (Scoring reversed)

Item 15. Religious people should put more trust in formally designated religious authorities (e.g. vicars in Christianity, rabbis in Judaism) than in mystics or those who claim to have had religious or mystical experiences. (Scoring reversed)

Item 25. The mystic is someone often far closer to God than are those with formally designated religious authority (e.g. bishops, rabbis).

Item 28. The mystical path is a more sure path to God than that taken by hierarchically organized structures in the world religions.

- Category Eight items assessed preferences for the doctrinal versus experiential dimension of religion, and were:

Item 16. To agree with the doctrines of a particular creed does not really matter in the long run – what really matters is to have had, in one's heart, experience of the Divine.

Item 27. The revelation awarded to one during a mystical experience is an important experience for anyone, regardless of whatever he or she believes.

Item 29. Divine providence and the sovereignty of God imply that mystics cannot achieve true union with God. (Scoring reversed)

Item 31. One should pay special scrutiny to what those reporting religious or mystical experiences really believe in, especially if they come from a religious background different from one's own. (Scoring reversed)

Separation of the items into these categories ensured that the scale would assess a good range of opinions and beliefs related to mysticism. The first, third and eighth of the above categories are based on Glock and Stark's (1965) dimension taxonomy, the seventh on Smart's (1989) scheme and the second on the work of Keller (1978).

Participants

An initial pool of ninety-three participants completed questionnaires for this study. Forty-one were students who were given questionnaires during lectures at a college in the East Midlands of England, where they were all enrolled as students in higher education. All students were doing at least one module in Psychology as part of their degree programme and were handed questionnaires during Psychology lectures. Twenty-four of the participants were members of a Reiki healing group; 12 were members of a local Buddhist group, specifically Nichiren Daishonen Buddhists; and 16 were members of Mensa Paranormal. Two of these participants had to be eliminated because they had completed only one of the two scales administered for this study, and a further participant was eliminated for not having completed a sufficient proportion of the Attitudes to Mysticism Scale to allow for data collection (one Buddhist and two Reiki healers), leaving an *n* of 90 for data analysis.

The students comprised 33 females and eight males, 24 respondents aged 19–21, 11 respondents aged 21–30, two respondents aged 31–40 and four respondents aged over 40 (mean average age = 24.36; standard deviation = 9.14; range = 19.5–56.90). Ten indicated religious affiliation as atheist or as having no religion, seven as agnostic, four as Roman Catholic, six as Anglican, six as adhering to some other Christian denomination, two as Hindu, one as Sikh, one as Islamic, one as the Korean religion Chun Do So Bop and three as personal religion.

The Reiki sample comprised 16 females, six males and two respondents who did not indicate sex; two were aged 21–30, three aged 31–40, four aged 41–50, seven aged 51–60, three were over 60 and five did not record age (mean average age, where given (*n* = 19) was 48.63; SD = 12.65; range = 22–69).

Religious affiliations indicated by the Reiki group were Anglican (six respondents), Roman Catholic (three respondents), 'Other Christian' (three respondents), Buddhist (two respondents), spiritualist (one respondent), agnostic (two respondents) and multi-faith (five respondents); two respondents did not record religious affiliation.

The Nichiren Daishonen Buddhists comprised eight females, three males and one respondent who did not indicate sex; two were aged 31–40, seven aged 41–50, two aged 51–60 and one respondent did not record age (mean average age, where given (*n* = 11) was 46.51, SD = 6.24; range = 35–55). Nichiren Daishonen Buddhism, as with Zen, is a particularly pro-mystical form of Buddhism.

The Mensa Paranormal group comprised eight males and eight females, of whom one was aged 21–30, one aged 31–40, two aged 41–50, five aged 51–60, one aged 61–70, three were over 70 and three did not record age (mean average, where given (*n* = 13) was 54.69; SD = 14.19; range = 29–78). All 16 members of Mensa Paranormal indicated their personal religious affiliation, these being Anglican (three participants), Roman Catholic (two participants), Quaker (one participant), lapsed Anglican (one participant), Buddhist (one participant), agnostic (one participant), atheist (one participant), animist (one participant), 'New Age' (one participant), Pagan (one participant), Druidic-pantheistic-'The Tao' (one participant), monotheist (one participant) and 'God within' (one participant).

Rationale for sampling of populations

Nichiren Daishonen Buddhists and Reiki healers were good comparison groups to use for this study, as the links both have with the pro-mystical religion of Buddhism justified predictions that such participants would score higher on a scale to assess attitudes to mysticism of good criterion-related validity,

than would a convenience sample of higher education students. Reiki healing could legitimately be depicted as a pro-mystical movement, given that it represents a 'New Age' approach to healing often related to New Age preoccupations such as spiritual energy, crystals, chakras and Zen Buddhism (Parkes and Parkes, 1998; Shuffrey, 1998), and whose founder, Mikao Usui, spent part of his time in a Zen monastery in Japan (Parkes and Parkes, 1998). Mensa Paranormal, a sub-group within the high-intelligence society Mensa, can be regarded as a group whose members share intellectual interests rather than discussions of personal experiences. Respondents from this population were therefore expected to obtain significantly higher scores on the Attitudes to Mysticism Scale than students, but not necessarily higher scores on the Francis–Louden Mystical Orientation Scale.

Procedure

Participants were presented with a booklet in two parts – one, the Francis–Louden Mystical Orientation Scale, measuring mystical experience, the other, the 32-item scale that had been designed to assess attitudes to mysticism. To control for order effects, half of the participants received the Francis–Louden Mystical Orientation Scale as the first scale in the booklet and the other half received the scale to assess attitudes to mysticism as the first scale.

The students were given questionnaires during a lecture presented by the lead researcher, who lectured at the college where the students studied. They were asked to return completed questionnaires to a box outside the lead researcher's office. The Reiki healers were given the questionnaires by a Reiki healing instructor, who later collected the questionnaires and returned them to the lead researcher by post. The Buddhists were given the questionnaires by a member of a local Buddhist group, who subsequently

returned completed questionnaires to the lead researcher in person at the college where the researcher worked. The Mensa Paranormal members received questionnaires, via post, at a hotel where they were staging one of their conventions. They completed them at the convention, where the convenor collected them in person and posted them to the lead researcher.

Ethics

Attached to the front of the booklet was a sheet assuring respondents of anonymity, and advising respondents that if they felt that the questions were getting either too difficult or too personal they could return questionnaires uncompleted, thus allowing participants the chance to withdraw from the study at any time. The front sheet also included the researcher's contact details, so that participants could contact the researcher for further information and to receive a breakdown of the study's rationale and findings following analysis of the data.

Notes on data analysis

Statistical analyses revealed no significant differences between scores of respondents who completed the Francis–Louden Mystical Orientation Scale first and those who completed the Attitudes to Mysticism Scale first. Consequently, order of presentation of scales was not entered into the final data analyses.

Analyses of data employed a means of correcting for missing data whereby a mid-range of three was entered for missing items, providing that a respondent had omitted no more than two items, and was done for five respondents from the Reiki group and three respondents from the Buddhist group. Respondents who had omitted responses to more than two items on a scale were eliminated for the purpose of analysis, ensuring that only respondents who had

completed at least 90% of both scales were used for the final data analyses. One Buddhist respondent and two Reiki healers had omitted more than two items from the Attitudes to Mysticism Scale, leaving an *n* of 90 for final data analysis.

Results

Internal consistency of the Attitudes to Mysticism scale

The Cronbach's alpha of the new scale was satisfactory at 0.847. Items-to-total correlations were 0.2 or above for all but the following items:

Item 5: I can really understand why many people (including religious leaders such as the clergy or rabbis) have perceived mystics as mad.

Item 14: Major and important differences exist between the hallucinations of psychotics and the experiences of the mystics.

Item 29: Divine providence and the sovereignty of God imply that mystics cannot achieve true union with God.

Item 31: One should pay special scrutiny to what those reporting mystical or religious experiences really believe in, especially if they come from a religious background different from one's own.

Items distinguishing high and low scorers on the Attitudes to Mysticism scale

Item analysis was also performed on the new scale by a MANOVA, with one independent variable at two levels (range of score: above median versus below median), treating the 32 items on the scale as dependent variables. This largely corroborated the results of the Cronbach's alpha statistics. As with the Cronbach's alpha, this method suggested elimination of Items 5, 14, 29 and 31. This

method also suggested elimination of Item 6 ('God alone is the fountainhead of all religious revelations, so mystics deceive themselves if they think that that they can obtain union with God by their own efforts').

Item-to-total correlations of each individual item on the 32-item version of the scale are displayed in Table 1; items which produced significant differences between high and low scorers in responses to the scale are displayed in Table 2.

Construction of a 24-item version of the Attitudes to Mysticism Scale

Following item analyses, 24 items from the Attitudes to Mysticism scale were selected to produce a revised version, from which unreliable items had been discarded but which still included at least two items from each item content category (see Appendix 2). This maintained a high Cronbach's alpha of 0.854. All individual items had item to total correlations of at least 0.29 on this version of the scale except Item 2, 'Some of the most moving literature ever written has been the work of the world's great mystics', which had a item-to-total correlation of 0.18 on the 24-item version of the scale, and Item 30, 'I am rather suspicious of those who would have us believe that mystical experiences in all the world religions are more or less the same', which had a item-to-total correlation of 0.19 on the 24-item version. No items had negative item-to-scale item-to-total correlations. Items 5, 6, 14, 29 and 31, all of which either had low item-to-scale correlations or low discrimination between high and low scorers on the scale, were discarded from this version of the scale. However, in the interests of shortening and sharpening the questionnaire to make it more accessible to respondents, three other items were also eliminated, for which long-winded or obscure wording may have reduced accessibility of the questionnaire for some respondents. These were:

Table 1: Cronbach's item-to-total correlations on Attitudes to Mysticism Scale (32-item version)

Item	Item to total correlation	Item	Item to total correlation
1	0.26	17	0.40
2	0.20	18	0.52
3	0.48	19	0.34
4	0.23	20	0.53
5	0.12	21	0.47
6	0.27	22	0.28
7	0.39	23	0.35
8	0.42	24	0.63
9	0.36	25	0.42
10	0.39	26	0.33
11	0.40	27	0.53
12	0.43	28	0.29
13	0.50	29	0.17
14	0.15	30	0.24
15	0.42	31	0.07
16	0.39	32	0.43

1. If I were to think of a prototypical religious person, I would think of a mystic or some one who reports religious experiences, rather than some one who attends religious services regularly.
4. Our sins are justified through faith, that is, through belief that God alone can save us from our sins – we are not very likely to get very far by constant reliance at our own efforts attempts at the spiritual.
26. To have had a religious or mystical experience indicates more commitment to one's faith than whether one goes to one's place of worship regularly.

Cross-group comparisons

Mean scores on the Francis–Louden Mystical Orientation Scale and the 24-item version of the Attitudes to Mysticism Scale are displayed in Table 3. Reiki healers and Nichiren Daishonen Buddhists, as predicted, scored higher on average than students on both scales. Mensa Paranormal members also scored higher on average than did students, although the differences here were not as great as were those between Buddhists and students or between Reiki healers and students.

Table 2: Items separating high and low scorers on Attitudes to Mysticism Scale

Item	F-ratio	Item	F-ratio
1	6.08*	17	20.28**
2	3.99*	18	21.06**
3	20.81**	19	16.18**
4	8.71*	20	29.86**
5	0.71	21	14.16**
6	2.33	22	6.49*
7	11.36**	23	6.59*
8	6.05*	24	.63
9	14.72**	25	15.32**
10	15.74**	26	8.82**
11	8.38*	27	19.94**
12	20.23**	28	14.90**
13	14.42**	29	2.42
14	0.56	30	6.30*
15	6.82*	31	0.75
16	14.25**	32	14.59**

Note: * = $p < 0.05$; ** = $p < 0.01$.

Table 3: Mean scores of students, Reiki healers, Nichiren Buddhists and Mensa Paranormal members on Francis–Louden Mystical Orientation Scale and 24-item version of Attitudes to Mysticism Scale

Scale	Francis–Louden Mystical Orientation Scale			24-item version of Attitudes to Mysticism Scale		
	Mean	SD	Range	Mean	SD	Range
Group:						
Students ($n = 41$)	54.17	15.31	23–88	77.41	15.31	55–118
Reiki healers ($n = 22$)	75.45	17.57	28–103	89.00	13.17	64–108
Nichiren Buddhists ($n = 11$)	72.09	19.70	41–99	91.27	12.34	72–109
Mensa Paranormal ($n = 16$)	66.88	22.20	26–100	84.31	12.66	51–103

Distribution of the data was near enough to normality to justify analysis by parametric statistics. The correlation between scores on the attitudes to mysticism scale and the Francis–Louden Mystical Orientation Scale was therefore analysed using Pearson's correlation coefficient, and was significantly positive ($r = 0.538$; $n = 90$; $p < 0.001$), offering evidence for the construct validity of the new scale. A between-groups MANOVA with the one independent variable of group at four levels (Student vs. Reiki vs. Buddhist vs. Mensa Paranormal) and the two dependent variables of attitudes to mysticism and mystical experience applied to the data revealed significant between-group differences between group scores for both mystical experience ($F = 7.162$; $d.f. = 3$; $p < 0.001$) and attitudes to mysticism ($F = 4.932$; $d.f. = 3$; $p < 0.007$). Tukey's Honest Test of Statistically Significant Differences revealed that Nichiren Buddhists and Reiki healers both scored significantly higher than did students on both scales, whereas Mensa Paranormal respondents did not significantly differently from any of the other three groups on either scale, occupying an intermediate level between the means of the students and those of the Buddhists and Reiki healers. The

Buddhists and Reiki healers did not differ significantly from each other on either scale (see Table 4).

Factor analysis indicated that items in the 24-item version of the scale generally loaded on a first unrotated factor, accounting for 25.7% of the variance. Factors beyond the first factor each accounted for less than 10% of the variance; thus, the scale to assess Attitudes to Mysticism appeared to assess a relatively homogeneous concept, and factor analysis of the scale was not used as a substantial part of the data analysis. Further details of the factor analysis, including precise percentages of variance and loadings of each item on each factor, can be obtained from the senior author of this paper.

Discussion

Evidence for good internal consistency, criterion-related validity and construct validity of the new scale to assess Attitudes to Mysticism was obtained in this study. As predicted, statistically significant positive correlations were observed between scores on the Attitudes to Mysticism Scale and scores on the Francis–Louden Mystical Orientation

Table 4: Tukey's Honest Test of Significant Differences results

	Attitudes to Mysticism	Mystical Experience
Students vs. Buddhists	-13.614*	-21.284*
Students vs. Mensa Paranormal	-6.900	-12.704
Students vs. Reikis	-11.342*	-17.921*
Buddhists vs. Mensa Paranormal	0.696	5.216
Buddhists vs. Reikis	2.273	-3.364
Mensa Paranormal vs. Reikis	-0.468	-0.858

Notes: * = $p < 0.05$. Negative figures indicate that a higher mean was obtained by the second group listed in each comparison.

Scale, indicating the construct validity of the new scale. The significantly higher scores of Reiki healers and Buddhists than of students on the scale provided evidence for the new scale's criterion-related validity. Data from this study also provided support for the prediction that Reiki healers and Buddhists would score significantly more highly on a measure of mystical experience than would students.

Against predictions, members of Mensa Paranormal did not obtain significantly higher scores than did students on a measure of attitudes to mysticism. However, the difference between this group and students, while not statistically significant, was in the predicted direction and may have reached statistical significance with a bigger and more powerful sample. The Mensa Paranormal group, on both variables, occupied a mid-range position between the students and the Reikis and the Buddhists. That these latter two groups should have scored higher than Mensa Paranormal on both scales is unsurprising if Buddhism is considered a pro-mystical religion, Reiki healing itself being a largely Zen-influenced therapy. This aspect of the results therefore poses no substantial challenges to the criterion-related validity of the new scale.

As the Nichiren Daishonen Buddhists and the Reiki healers were, on average, older than the students, significant differences across groups in attitudes to mysticism may have stemmed from age-based differences rather than ideological differences of the different groups sampled. Similar arguments may be offered for the higher scores of these two groups on the Francis–Louden Mystical Orientation Scale than those of the students, in so far as older participants will have had a greater opportunity for all experiences, including mystical experiences. Against such criticisms, the oldest sample, Mensa Paranormal, did not obtain significantly higher scores on either attitudes to mysticism or mystical experience than did students,

rendering it unlikely that the Buddhist and Reiki samples obtained significantly higher scores on both scales than the students through age-based rather than ideological differences.

Attitudes to mysticism and mystical experience shared around 25% variance, leaving enough unaccounted variance to justify a distinction between these constructs. Even stronger grounds for this distinction would emerge if research were to suggest that the personality correlates of these two variables differ in significant ways. It is possible that the personality correlates of these two variables could establish further grounds for their distinction. Although there are published data on personality correlates of mystical experience (Hood et al., 1979; Caird, 1987; Francis and Thomas, 1996, 1997; Francis and Loudon, 2000b), a similar literature on the personality correlates of attitudes to mysticism is, as yet, lacking, probably because academic scholarship lacks contemporary work on attitudes to mysticism as a distinct construct to mystical experience. Evidence that this variable correlates with different personality traits from those that have been found to correlate with mystical experience would give psychologists of religion important grounds for consideration of differences between these two constructs, setting an exciting agenda for future research with the new scale.

The admittedly small sample sizes of each group may raise questions about generalizability of the findings reported here, but the study at least provides a foundation for belief that the new Attitudes to Mysticism Scale has desirable psychometric properties, and will be a useful instrument in future research. A bigger challenge to this study is that the samples used were over-selective. Groups associated with Buddhism were used as pro-mystical groups, but although Ghose (1993) and Küng (1991) have taken pro-mystical religions to be Eastern religions, a

Western movement attracting many adherents in the Western world today is definitely pro-mystical – contemporary neo-Paganism, manifest in movements such as Wicca or Druidry, and part of the wider New Age movement (Barker, 1989; Barrett, 1996; Heelas, 1996). Comprehensive attempts to validate attitudes to mysticism scales should therefore compare religions less obviously pro-mystical (such as Christian Protestantism or orthodox Judaism) with Pagans as well as with Hindus or Buddhists. Assessment of whether attitudes to mysticism can be distinguished in Western pro-mystical and non-mystical religions, and whether the personality correlates of attitudes to mysticism and mystical experience differ, provides the

basis for a subsequent study, undertaken by the senior author of this paper, which will form the basis of a future investigation. This paper has contributed to the psychology of religion by demonstrating how attitudes to mysticism can be assessed psychometrically, a topic which deserves valued status in empirical psychological research into religion.

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Appendix 1. Francis–Louden Mystical Orientation Scale (Francis and Louden, 2000a)

Please indicate, on the 1–5 scale each time, whether you can recognize having had each of the experiences listed below, ranging from 1 (to indicate that you have NEVER had the experience listed) to 5 (indicating that you have DEFINITELY had the experience listed).

Note: For each question, respondents were asked to record responses on a 1–5 scale, structured as follows:

Never had this experience 1 2 3 4 5
Definitely had this experience

1. Experiencing something that I could not put into words
2. Sensing God in the beauty of nature
3. Brief glimpses into the heart of things
4. Being overwhelmed by a sense of wonder
5. Feeling at one with the universe
6. Losing a sense of time, place and person
7. Being absorbed within the Divine
8. Feeling moved by a Power or Presence beyond description
9. Knowing that I was surrounded by a Presence

10. Transient visions of the transcendental
11. Being in a state of mystery outside my body
12. Feeling at one with all living things
13. Being conscious of only timelessness and eternity
14. Losing myself in a greater being
15. Being aware of more than I could ever describe
16. Hearing God speak to me
17. Passing moments of Divine revelation
18. Being grasped by a Power beyond my control
19. Sensing the unity in all things
20. The merging of past, present and future
21. Feeling myself absorbed in the depths of being

Appendix 2. Twenty-four-item version of Attitudes to Mysticism Scale

Please indicate how much you agree or disagree with each of the 24 statements listed below, by circling your appropriate response on the 1–5 scale each time, ranging from 1 ('strongly disagree') to 5 ('strongly agree').
 Note: Figures in parentheses refer to number of corresponding item in the original 32-item version of the scale.

1. I get excited when I read accounts of mystical, religious or spiritual experiences (17)

Note: For each question, respondents were asked to record responses on a 1–5 scale, structured as follows:

Strongly Disagree 1 2 3 4 5 Strongly Agree

2. Possession of ample factual knowledge about one's faith is really a very poor shadow of the insights that can be gained during mystical experience (4)
3. Religious people should put more trust in formal religious authorities (e.g. vicars, rabbis)

- than in mystics or those who claim to have had religious experiences (15)
4. Some of the most moving literature ever written has been that of the world's great mystics (2)
5. Mystics of all faiths, creeds and indeed of no traditional faith are all involved in the same spiritual journey (7)
6. Theologians are more important figures in the world religions than are mystics (13)
7. I would get annoyed if I had to read mystical literature, as most of it would be quite incomprehensible to me (24)
8. The mystical quest for union with the Divine is one which – partly thanks to the mystics' own efforts – is likely to prove extremely fruitful (8)
9. To gain knowledge of one's faith, one should do lots of academic study of history, texts and theology, rather than engage in practices that might or might not bring about mystical experiences (9)
10. Religious authorities (e.g. vicars, rabbis) have every right to be suspicious of mystics (10)
11. To agree with the doctrines of a particular creed does not matter in the long run – what really matters is to have had, in one's heart, experience of the Divine (16)
12. Mystical practices are a more trustworthy spiritual path than are attendance of religious services (20)
13. Those who report mystical experiences provide at least as much religious knowledge as do theologians (21)
14. It is wrong for established religious authorities (e.g. the Christian church) to think that those who report mystical experiences are mentally ill (23)
15. I am rather suspicious of those who claim that mystical experiences in all the world religions are more or less the same (30)
16. If I were a religious person, I would see regular attendance at a church, mosque, synagogue or other place of worship as being more central to my faith than whether I had

- ever had a 'mystical' or 'religious' experience (32)
17. The revelations gained during mystical experiences are important to anyone, regardless of what he or she believes (27)
 18. People who report mystical experiences contradict themselves – they claim to have received revelations, but to me their reports reveal nothing (24)
 19. There are cases in many faiths where seekers have experienced Divine union (18)
 20. The mystical path is a more trustworthy spiritual path than the hierarchically organized structures in the world religions (28)
 21. One should never trust anyone who claims to follow a religion, but who takes a deep interest in the mystical teachings of creeds or religions other than the one he or she claims to profess (22)
 22. The mystic is often some one far closer to God than are those with formally designated religious authority (e.g. bishops, rabbis) (25)
 23. It would not surprise me if it turned out that the vast majority of those who report mystical experiences turn out to be suffering from some type of psychiatric illness (19)
 24. The mystical viewpoint that life is like a ladder, and that by appropriate spiritual journey, one may ascend this ladder to reach new spiritual realms, deserves much respect (11)