Transliminality and Mystical Experience: Common Thread Hypothesis, Religious Commitment, and Psychological Adjustment in Iran

Nima Ghorbani University of Tehran P. J. Watson University of Tennessee at Chattanooga

Naser Aghababaei Allameh Tabataba'i University Zhuo Chen University of Oregon

Research in the West identifies transliminality as a largely problematic form of consciousness that is a common thread running through mystical and religious experience. In a non-Western cultural context, Iranian university and Islamic seminary students responded to measures of transliminality, mystical experience, religious commitment, and psychological adjustment. Transliminality correlated positively with introvertive, extrovertive, and interpretation dimensions of mysticism, and partially mediated the positive relationships that appeared among these 3 measures. Transliminality did not predict Iranian religiousness, and suppressed rather than mediated mysticism relationships with religiosity and psychological adjustment. Islamic seminarians scored higher than general university students in their religious commitment but not in their transliminality or mystical experience. In Iran, therefore, transliminality was in fact a common thread that ran through mystical experience. That thread, nevertheless, did not run through Iranian religiosity and seemed instead to interfere with the integration of mystical experience with religious and psychological adjustment.

Keywords: transliminality, common thread hypothesis, Iran, mystical experience, religious commitment

Explanations of religious experience as having at least some foundations in psychopathology have a long history in the psychology of religion (e.g., Freud, 1927/1961). The concept of transliminality is a recent example. Transliminality is "a hypothesized tendency for psychological material to cross (trans) thresholds (limines) into and out of consciousness" (Thalbourne & Houran, 2000, p. 853) and more formally represents "a largely involuntary susceptibility to, and awareness of, large volumes of inwardly generated psychological phenomena of an ideational and affective kind" (Thalbourne & Delin, 1994, p. 25). Relevance to religion appears obvious in linkages of transliminality with selfreported mysticism and religious functioning (Thalbourne & Delin, 1999; Thalbourne, Crawley, & Houran, 2003; Dagnall, Munley, Parker, & Drinkwater, 2010) and with neurological processes implicated in the phenomenology of mystical and religious experience (Thalbourne & Maltby, 2008; Thalbourne et al., 2003). That this "involuntary susceptibility" might have problematic mental health implications seems evident in its associations with paranormal beliefs, fantasy proneness, and magical ideation (Thalbourne & Delin, 1999), with psychopathology (e.g., Thalbourne, Bartemucci, Delin, Fox, & Nofi, 1997) and with illicit drug use (Thalbourne & Houran, 2005).

Investigations into transliminality have focused on Western samples. The present project most generally sought to extend the analysis to the non-Western Muslim cultural context of Iran. Accomplishment of this general purpose involved pursuit of five more specific objectives. First, procedures offered a more extensive assessment of self-reported mystical experience than has occurred previously. Second, the question of relationships with religious functioning involved the examination of a broader range of religious measures than in previous studies. Third, the administration of scales relevant to psychological adjustment made it possible to assess the presumed psychopathological implications of transliminality. Fourth, conceptualizations of transliminality describe this psychological process as "a common thread" that ties relevant states of consciousness together (Thalbourne & Delin, 1999, p. 46). Data analytical strategies sought to evaluate this common thread hypothesis. Fifth and finally, comparisons between student groups differing in the strength of their religious commitment made it possible to further test the hypothesis that transliminality is a "thread" that runs through religiosity.

Transliminality Relationships in Iran

Previous examinations of transliminality used global measures of self-reported mystical experience like the full Hood (1975) Mysticism Scale (Thalbourne & Delin, 1999). Mystical experience involves a sense of transcendent unity, and the Hood scale operationalizes different aspects of that sense as described by Stace

This article was published Online First September 1, 2014.

Nima Ghorbani, Department of Psychology, University of Tehran; P. J. Watson, Department of Psychology, University of Tennessee at Chattanooga; Naser Aghababaei, Department of Clinical Psychology, Allameh Tabataba'i University; Zhuo Chen, Department of Psychology, University of Oregon

Correspondence concerning this article should be addressed to P. J. Watson, Psychology/Department #2803, 350 Holt Hall, 615 McCallie Avenue, University of Tennessee at Chattanooga, Chattanooga, TN 37403. E-mail: paul-watson@utc.edu

(1960). Indeed, factor analysis identifies three dimensions of mystical experience within this instrument (Hood, Morris, & Watson, 1993), and this factor structure has been confirmed in Iran (Hood et al., 2001). With introvertive mysticism, mystical experience involves consciousness of a timeless and spaceless ultimate void. Extrovertive mysticism reflects an experienced unity with all things. The interpretation factor records tendencies to find religious meaning in mystical experience. The present study tested the hypothesis that transliminality would correlate positively with all three dimensions of Iranian Muslim mystical experience. In addition, the common thread hypothesis implies that the three dimensions of mysticism should be "tied" together through a shared element of transliminality. Previous Iranian investigations have in fact observed positive correlations among these factors (e.g., Hood et al., 2001; Ghorbani & Watson, 2009), and the common thread hypothesis suggests that transliminality should at least partially mediate such relationships.

Only limited empirical evidence links transliminality with religiosity. Thalbourne and Delin (1999) discovered a positive correlation of transliminality with the Haraldsson (1981) Religiosity Scale, and transliminality has also displayed associations with items from the Persinger (1984) Personal Philosophy Inventory that make reference to religiosity, but more broadly seem to reflect spirituality (Thalbourne et al., 2003). In addition, Dagnall et al. (2010) observed a near-significant tendency of those above the median in transliminality to score higher on a religion factor within a composite measure of paranormal beliefs.

Again, this investigation sought to offer a broader exploration of religious functioning. Single-item expressions of religious orientations assessed more general motivations for being religious (Gorsuch & McPherson, 1989). With an intrinsic orientation, religion theoretically operates as a master motive in life. The extrinsic personal orientation involves the use of religion to achieve personal well-being. The extrinsic social motivation reflects the use of religion to obtain desired social outcomes. Research has established the intrinsic and especially the extrinsic personal orientations as clear indices of Muslim religious and psychological adjustment, with the extrinsic social orientation having more ambiguous implications (Ghorbani, Watson, & Khan, 2007).

As more tradition-specific indices of faith, participants also responded to the Muslim Attitudes Toward Religion (Wilde & Joseph, 1997) and to the Muslim Experiential Religiousness (Ghorbani, Watson, Geranmayepour, & Chen, 2013, in press, a; Chen, Ghorbani, Watson, & Aghababaei, 2013) scales. Both of these measures predict religious and psychological adjustment in Iran (e.g., Ghorbani, Watson, Geranmayepour, & Chen, in press, b). The Wilde and Joseph instrument records a personal embrace of Muslim beliefs and practices. Muslim Experiential Religiousness operationalizes the submission, love, and attempt to get closer to God that defines a Muslim spiritual ideal. With regard to this Muslim spirituality, the word *Islam* is Arabic and literally means "surrender." As Nasr (2002) emphasizes, a Muslim is someone who lovingly submits to God, who is "closer to him than his jugular vein" (Qur'an, 50:16). Muslim spirituality, in other words, seeks to cross (trans) a threshold (limines) of consciousness and connect the believer to God who is always close by. This spirituality appears, for example, in the daily prayers of Islam, which include an actual prostrate submission that attempts to bring Muslim consciousness into closer contact with God.

Based upon the common thread hypothesis, the prediction was that transliminality would correlate positively with both the general and the more specifically Muslim indices of religious commitment. On the other hand, all but the extrinsic social measure of religiousness display associations with psychological adjustment in Iran, but transliminality is identified as a largely psychopathological process. A failure to observe positive relationships with these religious variables would, therefore, suggest the need to delimit the use of transliminality to interpret faith.

The common thread hypothesis also implies that transliminality might tie mystical experience to religious functioning. All three mysticism factors correlate positively with spirituality in Iran (Ghorbani, Watson, Shamohammadi, & Cunningham, 2009; Ghorbani, Watson, Rezazadeh, & Cunningham, 2011). The interpretation factor also serves as an especially consistent predictor of Iranian religiosity, with similar though less consistent patterns observed for extrovertive, but not usually for introvertive mysticism (Hood et al., 2001; Ghorbani & Watson, 2009; Ghorbani et al., 2009, 2011). Hence, transliminality might at least partially mediate mysticism relationships with higher levels of Muslim religious commitment. Once again, however, transliminality has psychopathological implications, whereas the interpretation and extrovertive mysticism factors predict more adaptive religious and psychological functioning in Iran (Hood et al., 2001; Ghorbani & Watson, 2009; Ghorbani et al., 2009, 2011). Hence, the possibility also existed that transliminality might suppress rather than mediate relationships of especially these two mysticism factors with religious and psychological adjustment. Such an outcome would once more challenge the generality of transliminality as a noteworthy element in the psychology of religion.

Again, research in the West generally indicates that transliminality predicts psychopathology. More positive implications do sometimes appear in, for example, relationships with openness to experience (Thalbourne, 2000) and with greater warmth and lower tough-mindedness as measured by the 16PF (Lange, Thalbourne, Houran, & Storm, 2000). Predominant findings, nevertheless, point toward maladjustment. Transliminality, for instance, predicts illicit drug use and interacts with unhappiness to predict even greater drug use (Thalbourne & Houran, 2005). Moreover, transliminality displays a negative association with self-control (Lange et al., 2000) and positive connections with neuroticism (van Kampen, 2012), schizotypy (Dagnall et al., 2010), psychoticism (Thalbourne et al., 1997), and depressive and manic experience (Thalbourne & Delin, 1999). Especially noteworthy was a recent Iranian study in which transliminality correlated negatively with self-control and self-knowledge measures that define a Muslim adjustment ideal (Aghababaei, Ghorbani, & Khodabakhsh, 2011). In short, transliminality appeared to be incompatible with Iranian mental health, a possibility further examined in this project through administration of Satisfaction with Life (Diener, Emmons, Larsen, & Griffin, 1985) and dispositional Depression and Anxiety (Costello & Comrey, 1967) scales.

Transliminality Group Differences in Iran

In addition to correlational data, this study examined group differences in order to further clarify the religious implications of transliminality. Research participants included Islamic seminary students from the Holy City of Qom and more general university students from Tehran. Previous Iranian studies have made it clear that Islamic seminary students score consistently higher than general university students on measures of Muslim religiosity and spirituality (Ghorbani, Watson, Chen, & Dover, 2013; Ghorbani, Watson, Geranmayepour et al., 2013; Ghorbani et al., in press, a, in press, b). Such outcomes presumably would be expected for seminary students who place Islamic beliefs and practices closer to the center of their future life plans. If transliminality is a thread that runs through Iranian Muslim religious commitment, then it should be greater in the Qom than in the Tehran students.

Analysis of group differences also made it possible to explore gender differences. The Transliminality Scale was revised by Lange at al. (2000), in part, to eliminate gender bias in its items, and American data do suggest that men and women respond similarly on this revised scale (Boerger, 2009). The previous analysis of transliminality in Iran, nevertheless, found that women scored higher than men (Aghababaei et al., 2011). This study determined whether such an effect could be replicated.

Hypotheses

In summary, Iranian university students and Islamic seminarians responded to the Transliminality Scale along with measures of mysticism, religious functioning, and psychological adjustment. Procedures tested seven most important sets of predictions derived from the common thread hypothesis:

Hypothesis 1: Transliminality will correlate positively with the introvertive, extrovertive, and interpretation dimensions of self-reported mystical experience.

Hypothesis 2: Transliminality should at least partially mediate positive relationships among these three mysticism measures.

Hypothesis 3: Transliminality will display linkages with indices of religiosity involving the three religious orientations, Muslim Attitudes Toward Religion, and Muslim Experiential Religiousness.

Hypothesis 4: The common thread hypothesis suggests that transliminality will at least partially mediate any positive relationships that appear between self-reported mysticism and Muslim religious commitment.

Hypothesis 5: Transliminality will correlate negatively with Satisfaction with Life and positively with Depression and Anxiety. If so, the psychopathology of transliminality might suppress rather than mediate mysticism relationships with religious and psychological adjustment with such results challenging the common thread hypothesis.

Hypothesis 6: Qom Islamic seminarians will score higher on transliminality than will Tehran university students.

Hypothesis 7: Procedures made it possible to reexamine a possibility not apparent in the West that women will score higher on transliminality than men.

Method

Participants

Participants included 299 students from the University of Tehran and the Qom Islamic Seminary School. The Tehran sample

included 121 females and 41 males. In the Qom sample were 25 females, 110 males, and two individuals who failed to indicate their gender. Average age was 23.7 (SD=3.0) in Tehran and 27.1 (SD=5.5) in Qom. This age difference was statistically significant, t(263)=6.19, p<.01.

Materials

Instruments appeared in a single questionnaire booklet. Persian versions of all measures had been validated in previous Iranian studies. For scales originally developed in English, one individual translated the instrument into Persian, and then another translated it back into English. Differences between original and backtranslated measures were minor and easily eliminated through revisions in the Persian translation. All but the transliminality and single-item religious orientation measures used a 1 (strongly disagree) to 5 (strongly agree) Likert scale. Measures appeared in the questionnaire booklet in the sequence in which they are presented below.

Muslim Attitudes Toward Religion. The 14-item Wilde and Joseph (1997) scale has proven to be a valid measure of Muslim religious commitment in Iran (Ghorbani, Watson, Ghramaleki, Morris, & Hood, 2000). Statements recorded active participation in central Muslim practices (e.g., "I fast the whole month of Ramadan"), allegiance to a Muslim worldview (e.g., "I think the Qur'an is relevant and applicable to modern days"), and beliefs in the positive consequences of being a Muslim (e.g., "Islam helps me lead a better life"). This instrument proved to be internally reliable with the present sample ($\alpha = .93$, M response per item = 4.28, SD = 0.76).

Muslim Experiential Religiousness. Muslim Experiential Religiousness included 15 items ($\alpha = .95$, M = 4.02, SD = 0.82) and recorded the submission, love, and experienced closeness to God described in the Qur'an as central to Muslim religious experience (Ghorbani, Watson, Geranmayepour et al., 2013; Ghorbani et al., in press, b). Illustrating submission to God was the assertion, "Experiences of submitting to God cause me to feel more vital and motivated." Love of God appeared in, for example, the self-report, "When I look deeply within myself, I understand that the experience of loving God is worth any effort in my life." Representative of an experienced closeness to God was the claim, "I have understood how my passion to be closer to God has liberated me internally in contrast to the enslavement produced by the other passions in my life."

Mysticism. The Hood (1975) Mysticism Scale consisted of 32 statements that recorded three dimensions of mystical experience. One extrovertive and one interpretation item displayed negative item-to-total correlations, and their elimination enhanced internal reliability. The 11-item extrovertive mysticism factor appeared in such statements as, "I have had an experience in which all things seemed to be conscious" ($\alpha = .81, M = 3.28, SD = 0.80$). One of eight statements expressing introvertive mysticism said, "I have had an experience in which something greater than myself seemed to absorb me" ($\alpha = .71, M = 3.18, SD = 0.78$). Exemplifying the 11-item interpretation factor was the self-report, "I have had an experience which I knew to be sacred" ($\alpha = .77, M = 3.61, SD = 0.69$).

Anxiety and Depression. Costello and Comrey (1967) scales assessed depression (14 items, $\alpha = .90$, M = 2.19, SD = 0.76) and

anxiety (9 items, $\alpha = .84$, M = 2.72, SD = 0.82) as traits rather than as states. Illustrating depression was the self-report that "I feel sad and depressed." Representative of anxiety was the claim that "I'm a restless and tense person."

Satisfaction With Life. The widely administered Diener et al. (1985) scale used five items to operationalize satisfaction with life ($\alpha = .84$, M = 3.15, SD = 0.90). One item said, for example, "I am satisfied with my life."

Transliminality. The revised Transliminality Scale included 17 statements designed to assess relevant psychological experiences including increased sensitivity to environmental stimuli, hypomanic or manic experience, fantasy-proneness, absorption, a positive attitude toward dream interpretation, mystical experience, and magical ideation (Houran, Thalbourne & Lange, 2003; Lange et al., 2000; Thalbourne & Houran, 2005). This instrument employed a true (1)–false (0) response format ($\alpha = .76$, M = 0.45, SD = 0.21). Exemplifying Transliminality was the claim that "at the present time, I am very good at make-believe and imagining."

Religious Orientation. Responses to the single-items measures of religious orientation (Gorsuch & McPherson, 1989) ranged from 1 (*strongly disagree*) to 10 (*strongly agree*). An intrinsic orientation appeared in the statement, "My whole approach to life is based on my religion" (M = 6.33, SD = 2.62). Assessing the extrinsic personal motivation was the self-report, "What religion offers me most is comfort in times of trouble and sorrow" (M = 6.41, SD = 2.57). Capturing the extrinsic social orientation was the assertion, "I go to activities associated with my religion because I enjoy seeing people I know there" (M = 2.52, SD = 2.61).

Procedure

All procedures conformed to institutional ethical guidelines for research. Participants volunteered for the project, and their responding was completely anonymous. Groups of varying size received the questionnaire booklet in a classroom setting.

Scoring of all instruments involved computation of the average response per item. Data analyses began with an examination of correlations among measures. Tests of mediation then followed the conceptual framework of Baron and Kenny (1986). Final analyses examined possible differences between the Qom and Tehran Groups and between men and women. Again the Qom group was

older; so, a Multivariate Analysis of Covariance (MANCOVA) controlled for age as a covariate. Examination of the Group-by-Gender interaction was considered to be very preliminary, since the Tehran sample had far more women than men, whereas the opposite was true of the Qom students.

Results

As predicted, transliminality and the three mysticism factors correlated positively (see Table 1). Among these variables, only interpretation displayed any linkages with religious commitment, involving direct relationships with Muslim Attitudes Toward Religion, Muslim Experiential Religiousness, and the intrinsic and extrinsic personal religious orientations. Direct though relatively weak associations with Anxiety and Depression suggested that transliminality had maladjusted psychological implications. Extrovertive and interpretation factors correlated negatively with depression, and the extrovertive measure also predicted lower anxiety and greater satisfaction with life. Negative linkages with depression and/or positive relationships with life satisfaction indicated that all religious commitment constructs pointed toward at least some mental health benefits.

Mediation analyses first required that the proposed independent variable of a model display a significant association with the mediator (Baron & Kenny, 1986). Across all mediation analyses of this project, the mysticism factors served as independent variables, and thus had to predict transliminality as the mediator. Such relationships, in fact, appeared for the introvertive ($\beta = .34, p < .001$), extrovertive ($\beta = .38, p < .001$), and interpretation ($\beta = .36, p < .001$) factors.

With regard to relationships among the dimensions of mysticism, mediation analyses supported the conclusion that transliminality operated as a "common thread." As Table 2 makes clear, this outcome seemed evident in demonstrations that transliminality partially mediated introvertive associations with the extrovertive and interpretation factors and that transliminality also partially mediated the extrovertive relationship with interpretation.

Further analyses revealed that transliminality suppressed rather than mediated mystical experience relationships with religious commitment and psychological adjustment. Table 3 summarizes these significant effects. With regard to extrovertive mysticism, transliminality significantly suppressed negative associations with

Table 1 Correlations Among Transliminality, Mysticism, Religious, and Psychological Measures

Measures	2	3	4	5	6	7	8	9	10	11	12
1. Transliminality	.34***	.38***	.36***	10	03	06	06	.07	.14*	.12*	02
2. Introvertive Mysticism	_	.52***	.50***	.02	.06	.04	03	.00	.04	05	.09
3. Extrovertive Mysticism		_	.61***	06	.09	03	06	03	13*	18**	.16**
4. Interpretation of Mysticism			_	.27***	.36***	.26***	.14*	.03	10	20**	.09
5. Muslim Attitudes Toward Religion				_	.81***	.72***	.60***	.21***	04	25***	.11
6. Muslim Experiential Religiousness					_	.68***	.60***	.19**	10	29^{***}	.20**
7. Intrinsic Orientation						_	.71***	.30***	05	25***	.15**
8. Extrinsic Personal Orientation							_	.29***	.02	20**	.11
Extrinsic Social Orientation								_	.02	05	.15*
10. Anxiety									_	.61***	34***
11. Depression										_	58***
12. Satisfaction With Life											_

p < .05. ** p < .01. *** p < .001.

Table 2
Analysis of Transliminality as Mediator (MED) of Mystical Experience Independent Variable (IV) Relationships With Mystical Experience Dependent Variable (DV)

Independent variable		Step 1				
Dependent variable	R^2	IV β with DV	ΔR^2	IV β with DV	MED β with DV	Sobel Z
Introvertive Mysticism as IV						
Extrovertive Mysticism	.27***	.52***	.05***	.44***	.24***	3.72***
Interpretation of Mysticism	.27***	.52***	.04***	.45***	.21***	3.64***
Extrovertive Mysticism as IV						
Interpretation of Mysticism	.41***	.64***	.02**	.59***	.13**	2.53*

^{*} p < .05. ** p < .01. *** p < .001.

anxiety and depression. Transliminality also suppressed negative linkages of interpretation with depression and anxiety and positive relationships with Muslim Attitudes Toward Religion, Muslim Experiential Religiousness, and the intrinsic religious orientation. In other words, transliminality was not a common thread that tied Iranian mystical experience with religious commitment. Instead, it seemed to interfere with such linkages and also with the associations of mystical experience with psychological adjustment.

MANCOVA results uncovered significant overall effects for the Group, Wilks' $\lambda = .800$, F(12, 242) = 5.04, p < .001, and Gender, Wilks' $\lambda = .875$, F(12, 242) = 2.89, p < .01, main effects. The overall Group-by-Gender interaction was not significant, Wilks' $\lambda = .939$, F(12, 242) = 1.31, p = .21. Table 4 demonstrates that seminary students scored relatively higher on all measures of religious commitment, but failed to display significant differences in their levels of transliminality and mystical experience. Women scored higher than men on transliminality, extrovertive mysticism, and anxiety.

Discussion

Research in the West depicts transliminality as a largely maladaptive form of consciousness that is a common thread running through mystical and religious experience (e.g., Thalbourne & Delin, 1999; Thalbourne et al., 2003). Evidence supporting this conclusion rests upon the use of religiosity measures that have limited psychometric credentials and on a more global rather than discriminative assessment of mystical experience. This Iranian

investigation not only extended the analysis of transliminality to a non-Western Muslim cultural context, but also sought to offer a more comprehensive and psychometrically adequate assessment of religious and mystical experience. Results did uncover some support for the common thread hypothesis, but findings also suggested that the "thread" of transliminality had limited utility in tying together phenomena of relevance within the psychology of religion.

Support for the common thread hypothesis was most obvious in the examination of mystical experience. As predicted, transliminality correlated positively with all three dimensions of mystical experience, and transliminality more importantly served as a partial mediator of the positive relationships observed among the three mysticism factors. These latter outcomes presented especially noteworthy evidence in favor of the notion that transliminality is a common thread running through mystical experience. At the same time, however, transliminality as a mediator explained only small amounts of the variance in the associations among mysticism measures; and these relatively weak partial rather than full mediation effects made it clear that much more than transliminality tied mystical experience together.

The present data offered no support for an extension of the common thread hypothesis to Iranian religiosity. Transliminality failed to predict any measure of religious functioning. Perhaps most noteworthy was the nonsignificant finding for Muslim Experiential Religiousness. This scale records a Qur'anic experiential ideal of lovingly submitting to and getting closer to God and thus

Table 3
Analysis of Transliminality as Mediator (MED) of Mystical Experience Independent Variable (IV) Relationships With Religious Commitment and Psychological Adjustment Dependent Variables (DV)

Independent variable		Step 1				
Dependent variable	R^2	IV β with DV	ΔR^2	IV β with DV	MED β with DV	Sobel Z
Extrovertive Mysticism as IV						
Anxiety	.02*	13*	.05***	22**	.23***	3.30***
Depression	.03**	18**	.04***	27***	.23***	3.30***
Interpretation of Mysticism as IV						
Muslim Attitudes Toward Religion	.07***	.27***	.05***	.35***	24***	-3.41***
Muslim Experiential Religiousness	.14***	.37***	.03**	.43***	18^{**}	-2.86**
Intrinsic Orientation	.07***	.26***	.03**	.33***	18^{**}	-2.70**
Anxiety	.01	10	.04**	17**	.21**	3.04**
Depression	.04**	20**	.05***	28***	.23***	3.28**

^{*} p < .05. ** p < .01. *** p < .001.

Table 4

MANCOVA Group and Gender Main Effects in Analysis of Transliminality, Religious, and Psychological Dependent Variables

			Group			Gender				
Dependent variable	Tehran		Qom			Men		Women		
	M	SEM	M	SEM	\overline{F}	M	SEM	M	SEM	F
Transliminality	.43	.02	.49	.02	3.15	.43	.02	.49	.02	4.55*
Introvertive Mysticism	3.14	.08	3.16	.09	.03	3.21	.08	3.09	.09	.95
Extrovertive Mysticism	3.24	.08	3.63	.09	.97	3.16	.08	3.45	.09	5.92*
Interpretation of Mysticism	3.47	.07	3.68	.08	3.72	3.56	.07	3.58	.08	.03
Muslim Attitudes Toward Religion	3.88	.07	4.62	.08	46.62***	4.25	.07	4.25	.08	.00
Muslim Experiential Religiousness	3.65	.08	4.33	.09	30.61***	3.98	.08	4.01	.09	.05
Intrinsic Orientation	5.03	.24	7.15	.28	32.30***	6.28	.24	5.91	.28	1.02
Extrinsic Personal Orientation	5.47	.25	7.20	.29	19.68***	6.21	.25	6.46	.29	.42
Extrinsic Social Orientation	1.79	.25	2.72	.29	5.80*	2.37	.25	2.14	.29	.36
Anxiety	2.64	.08	2.75	.09	.90	2.53	.08	2.86	.09	7.24**
Depression	2.22	.07	2.07	.08	1.75	2.12	.07	2.16	.08	.13
Satisfaction With Life	3.16	.09	3.12	.11	.09	3.13	.09	3.15	.11	.01

^{*} p < .05. ** p < .01. *** p < .001.

reflects personal attempts to cross (*trans*) a threshold (*limines*) in religious consciousness. That transliminality did not correlate with Muslim Experiential Religiousness, therefore, seemed to supply especially compelling evidence against any application of the common thread hypothesis to Iranian religious functioning. Muslim Experiential Religiousness, incidentally, exhibited clear linkages with all measures of religiosity and with the interpretation factor of mysticism; so, the failure of this scale to correlate with transliminality cannot be dismissed as a problem with its validity.

Even greater challenges to use of the common thread hypothesis to explain Iranian religiosity appeared in the examination of other mediation effects. Transliminality suppressed rather than mediated associations of the interpretation factor with Muslim Attitudes Toward Religion, Muslim Experiential Religiousness, and the intrinsic religious orientation. Rather than tying mystical and religious experiences together, such outcomes suggested that transliminality interfered with their integration.

Relationships with psychological adjustment may help clarify the failure of the common thread hypothesis to explain Iranian religiosity. Transliminality displayed small, though statistically significant linkages with greater depression and anxiety. Introvertive mysticism failed to predict any measure of psychological functioning, but all religious commitment and other mysticism variables exhibited positive mental health implications in the pattern of their associations with depression, anxiety, and satisfaction with life. A somewhat maladaptive transliminality, therefore, contrasted with the relative adjustment of Iranian mystical and religious experience. This contrast perhaps explained why transliminality suppressed rather than mediated the connections of extrovertive and interpretation mysticism with lower levels of depression and anxiety.

Further challenges to the common thread hypothesis seemed obvious in comparisons between Islamic seminarians and general university students. Seminary students scored higher on all religious variables, including the general religious orientation and the more tradition-specific indices of commitment. At the same time, seminary students did not exhibit significantly higher transliminality. Once again, therefore, transliminality was not a noteworthy thread that ran through the higher self-reported religiosity of

students pursuing educational and career opportunities in religion. Dimensions of mystical experience also seemed irrelevant to differentiating between the two student groups, who also displayed no differences in their relative mental health.

Again, at least some data support the idea that transliminality is a thread running through Western religiosity (Thalbourne & Delin, 1999; Dagnall et al., 2010), but results of the present investigation found this not to be true in the non-Western cultural context of Iran. Some attempt to dismiss these Iranian findings might begin by considering the possibility that a failure to observe previously reported Western effects reflected a less adequate assessment of religiosity. In actual fact, however, the relevant Western studies relied upon more limited and less well established measures of religiosity that emerged out of the parapsychology literature. The present observations, therefore, cannot be dismissed on the charge that this project employed a less adequate assessment of religiosity. Instead, these data suggest that the proposed connection between transliminality and religiosity may deserve additional research attention in the West.

Gender differences appeared. Especially noteworthy was the observation that women scored higher on transliminality. This result replicated a previous Iranian outcome (Aghababaei et al., 2011). In research using Western samples (Lange at al., 2000), revisions in the Transliminality Scale attempted to eliminate gender bias in item content with some apparent success (Boerger, 2009). The present data may reveal that such efforts are not always successful across cultures. On the other hand, women also scored higher on anxiety. This contrast mirrored a vast array of previous findings about fear and anxiety in the West (McLean & Anderson, 2009), and the socialization processes that perhaps explain this Western gender difference (e.g., Zalta & Chambless, 2012) may exist in Iran as well. More importantly, however, the present gender difference in anxiety perhaps revealed that the higher female levels of an at least somewhat maladaptive transliminality may have had foundations in more general mental health contrasts between women and men in Iran. Finally, the finding that women scored higher than men in their extrovertive mysticism was in line with many previous observations that women often self-report higher levels of religiosity and spirituality (e.g., Hood, Spilka, Hunsberger, & Gorsuch, 1996).

Limitations

Limitations of this project of course necessitate interpretative caution. Findings for religious orientations rested upon use of single-item rather than full-scale measures. Single items are clearly valid in the Muslim context (e.g., Khan & Watson, 2004), as the correlational data of this project once again confirmed. Single items, nevertheless, may not yield as robust or as consistent a pattern of outcomes as the full scales (Aghababaei, 2013). Stronger results might, therefore, appear with the full scales.

Most findings were correlational, and contrasts between Qom and Tehran were only quasi-experimental. Hence, no conclusions can be drawn about causality. It cannot be said, for instance, that transliminality caused aspects of Iranian Muslim mystical experience (or vice versa).

Also noteworthy is the fact that university and seminary students were not typical of the Iranian population. Analysis of more representative samples will be necessary before definitive conclusion about transliminality can be generalized to the wider Iranian society. In addition, Iran is a largely Shiite Islamic republic, and this investigation may or may not have something to say about transliminality in largely Sunni Muslim societies or in minority communities of Muslims living in the West or elsewhere.

Seminarians scored higher than university students on all indices of religiosity. Such outcomes would be a requirement for confirming the validity of any measure of religious commitment; and so, these results presumably reflected empirically real contrasts. At the same time, however, Iran is formally a theocracy, and cultural factors may have encouraged seminary students to elevate their self-reported religiosity. The discovery that seminarians scored higher on the extrinsic social orientation, in fact, suggested that they were more sensitive to the social dimensions and benefits of being religious. In short, social desirability factors in a theocracy perhaps exaggerated the seminary and general university contrasts in self-reported religiosity.

Finally, as mentioned previously, imbalances in the gender of participants from Qom and Tehran meant that the group-by-gender findings must be seen as only very preliminary. Two previous projects included more adequate numbers of both genders and compared Islamic seminary with general university student groups. One of these investigations observed no significant group-bygender interactions in, for example, Muslim Experiential Religiousness (Ghorbani et al., in press, a). In another study, however, women scored higher than men in Muslim Experiential Religiousness only in the seminary, and seminary women also tended to self-report relatively better mental health than university women (Ghorbani et al., in press, a). Group-by-gender interactions, therefore, do sometimes appear in Iran and deserve careful and repeated empirical consideration. With regard to the present project, such a conclusion most importantly means that definitive evaluation of transliminality across these two educational environments will require procedures that attempt to guarantee roughly equal numbers of men and women in both the Islamic seminary and general university student groups.

Conclusion

Transliminality is a largely maladaptive form of consciousness that research in the West has implicated as a common thread running through religious and spiritual experience. The present examination of transliminality in a non-Western cultural context confirmed that transliminality does have maladaptive implications and does clarify mystical experience in Iran. The clarification of mysticism, nevertheless, proved to be limited, and instead of being a thread running through Iranian religiosity, transliminality did not predict either general or tradition-specific forms of commitment and also interfered with the integration of religion with mysticism. Understanding the wider implications of these findings for the psychology of religion will require additional research. Studies in the West apparently need to examine whether and to what degree transliminality mediates relationships among the various dimensions of mystical experience, and such investigations should also explore the relationship of transliminality with a broader array of more psychometrically established indices of religiosity.

References

- Aghababaei, N. (2013). Between you and God, where is the general factor of personality? Exploring personality-religion relationships in a Muslim context. *Personality and Individual Differences*, 55, 196–198. doi: 10.1016/j.paid.2013.02.021
- Aghababaei, N., Ghorbani, N., & Khodabakhsh, M. R. (2011). Khod shenasi dar tagabol ba astane e gozari [Self-knowledge processes in contrast with transliminality]. *Ravanshenasi va din* [Psychology and Religion], 4, 55–69. (In Persian).
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182. doi:10.1037/0022-3514.51.6.1173
- Boerger, E. A. (2009). Associations among boundary structure, gender, and beliefs about control of dreams. *Dreaming*, 19, 172–186. doi:10.1037/a0017156
- Chen, Z., Ghorbani, N., Watson, P. J., & Aghababaei, N. (2013). Muslim experiential religiousness and Muslim attitudes toward religion: Dissociation of experiential and attitudinal aspects of religiosity in Iran. *Studia Religiologica*, 46, 35–44.
- Costello, C. G., & Comrey, A. L. (1967). Scales for measuring depression and anxiety. *The Journal of Psychology: Interdisciplinary and Applied*, 66, 303–313. doi:10.1080/00223980.1967.10544910
- Dagnall, N., Munley, G., Parker, A., & Drinkwater, K. (2010). Paranormal belief, schizotypy, and transliminality. *Journal of Parapsychology*, 74, 117–141.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49, 71–75. doi:10.1207/s15327752jpa4901_13
- Freud, S. (1961). *The future of an illusion*. New York, NY: Norton and Company. (Original work published 1927).
- Ghorbani, N., & Watson, P. J. (2009). Mysticism and self-determination in Iran: Multidimensional complexity of relationships with basic need satisfaction and mindfulness. *Archive for the Psychology of Religion*, 31, 75–90. doi:10.1163/157361209X371500
- Ghorbani, N., Watson, P. J., Chen, Z., & Dover, H. (2013). Varieties of openness in Tehran and Qom: Psychological and religious parallels of faith and intellect oriented Islamic religious reflection. *Mental Health*, *Religion & Culture*, 16, 123–137. doi:10.1080/13674676.2011.647809
- Ghorbani, N., Watson, P. J., Geranmayepour, S., & Chen, Z. (2013).
 Analyzing the spirituality of Muslim experiential religiousness: Relationships with psychological measures of Islamic religiousness in Iran.

- Archive for the Psychology of Religion, 35, 233–258. doi:10.1163/15736121-12341264
- Ghorbani, N., Watson, P. J., Geranmayepour, S., & Chen, Z. (in press, a). Muslim experiential religiousness: Relationships with attitude toward Islam, religious reflection, and basic needs satisfaction in Iranians. Research in the Social Scientific Study of Religion.
- Ghorbani, N., Watson, P. J., Geranmayepour, S, & Chen, Z. (in press, b). Muslim experiential religiousness in Iran: Relationships with religious orientation, Muslim attitudes toward religion, and psychological adjustment. *Journal of Muslim Mental Health*.
- Ghorbani, N., Watson, P. J., Ghramaleki, A. F., Morris, R. J., & Hood, R. W., Jr. (2000). Muslim Attitudes Toward Religion Scale: Factors, validity, and complexity of relationships with mental health in Iran. Mental Health, Religion & Culture, 3, 125–132. doi:10.1080/713685603
- Ghorbani, N., Watson, P. J., & Khan, Z. (2007). Theoretical, empirical, and potential ideological dimensions of using Western conceptualizations to measure Muslim religious commitments. *Journal of Muslim Mental Health*, 2, 113–131. doi:10.1080/15564900701613041
- Ghorbani, N., Watson, P. J., Rezazadeh, Z., & Cunningham, C. J. L. (2011). Dialogical validity of religious measures in Iran: Relationships with integrative self-knowledge and self-control of the "Perfect Man" (Ensan-e Kamel). Archive for the Psychology of Religion, 33, 93–113. doi:10.1163/157361211X552209
- Ghorbani, N., Watson, P. J., Shamohammadi, K., & Cunningham, C. J. L. (2009). Post-critical beliefs in Iran: Predicting religious and psychological functioning. *Research in the Social Scientific Study of Religion*, 20, 151–194. doi:10.1163/ej.9789004175624.i-334.50
- Gorsuch, R. L., & McPherson, S. E. (1989). Intrinsic/extrinsic measurement: I/E-revised and single item scales. *Journal for the Scientific Study of Religion*, 28, 348–354. doi:10.2307/1386745
- Haraldsson, E. (1981). Some determinants of belief in psychical phenomena. Journal of the American Society for Psychical Research, 75, 297–309
- Hood, R. W., Jr. (1975). The construction and preliminary validation of a measure of reported mystical experience. *Journal for the Scientific Study* of Religion, 14, 29–41. doi:10.2307/1384454
- Hood, R. W., Jr., Ghorbani, N., Watson, P. J., Ghramaleki, A. F., Bing, M. N., Davison, H. K., . . . Williamson, W. P. (2001). Dimensions of the Mysticism Scale: Confirming the three-factor structure in the United States and Iran. *Journal for the Scientific Study of Religion*, 40, 691–705. doi:10.1111/0021-8294.00085
- Hood, R. W., Jr., Morris, R. J., & Watson, P. J. (1993). Further factor analysis of Hood's Mysticism Scale. *Psychological Reports*, 73, 1176– 1178. doi:10.2466/pr0.1993.73.3f.1176
- Hood, R. W., Jr., Spilka, B., Hunsberger, B., & Gorsuch, R. (1996). The psychology of religion: An empirical approach (2nd ed.). New York, NY: Guilford Press.
- Houran, J., Thalbourne, M. A., & Lange, R. (2003). Methodological note: Erratum and comment on the use of the Revised Transliminality Scale. *Consciousness and Cognition*, 12, 140–144. doi:10.1016/S1053-8100(02)00025-9
- Khan, Z. H., & Watson, P. J. (2004). Religious orientation and the experience of Eid-ul-Azha among Pakistani Muslims. Journal for the Scien-

- *tific Study of Religion*, *43*, 537–545. doi:10.1111/j.1468-5906.2004 .00254.x
- Lange, R., Thalbourne, M. A., Houran, J., & Storm, L. (2000). The Revised Transliminality Scale: Reliability and validity data from a Rasch topdown purification procedure. *Consciousness and Cognition*, 9, 591–617. doi:10.1006/ccog.2000.0472
- McLean, C. P., & Anderson, E. R. (2009). Brave men and timid women? A review of the gender differences in fear and anxiety. *Clinical Psychology Review*, 29, 496–505. doi:10.1016/j.cpr.2009.05.003
- Nasr, S. H. (2002). *The heart of Islam: Enduring values for humanity*. San Francisco, CA: HarperSanFrancisco.
- Persinger, M. A. (1984). Propensity to report paranormal experiences is correlated with temporal lobe signs. *Perceptual and Motor Skills*, 59, 583–586. doi:10.2466/pms.1984.59.2.583
- Stace, W. T. (1960). Mysticism and philosophy. London, UK: MacMillan. Thalbourne, M. A. (2000). Relation between transliminality and openness to experience. Psychological Reports, 86, 909–910. doi:10.2466/pr0.2000.86.3.909
- Thalbourne, M. A., Bartemucci, L., Delin, P. S., Fox, B., & Nofi, O. (1997). Transliminality: Its nature and correlates. *Journal of the American Society for Psychical Research*, 91, 305–331.
- Thalbourne, M. A., Crawley, S. E., & Houran, J. (2003). Temporal lobe lability in the highly transliminal mind. *Personality and Individual Differences*, 35, 1965–1974. doi:10.1016/S0191-8869(03)00044-8
- Thalbourne, M. A., & Delin, P. S. (1994). A common thread underlying belief in the paranormal, creative personality, mystical experience and psychopathology. *Journal of Parapsychology*, *58*, 3–38.
- Thalbourne, M. A., & Delin, P. S. (1999). Transliminality: Its relation to dream life, religiosity and mystical experience. *International Journal for the Psychology of Religion*, 9, 45–61. doi:10.1207/s15327582ijpr0901_6
- Thalbourne, M. A., & Houran, J. (2000). Transliminality,the Mental Experience Inventory and tolerance of ambiguity. *Personality and Individual Differences*, 28, 853–863. doi:10.1016/S0191-8869(99)00143-9
- Thalbourne, M. A., & Houran, J. (2005). Patterns of self-reported happiness and substance use in the context of transliminality. *Personality and Individual Differences*, 38, 327–336. doi:10.1016/j.paid.2004.04.011
- Thalbourne, M. A., & Maltby, J. (2008). Transliminality, thin boundaries, unusual experiences, and temporal lobe lability. *Personality and Indi*vidual Differences, 44, 1617–1623. doi:10.1016/j.paid.2008.01.022
- van Kampen, D. (2012). The 5-Dimensional Personality Test (5DPT): Relationships with two lexically based instruments and the validation of the Absorption scale. *Journal of Personality Assessment*, 94, 92–101. doi:10.1080/00223891.2011.627966
- Wilde, A., & Joseph, S. (1997). Religiosity and personality in a Moslem context. *Personality and Individual Differences*, 23, 899–900. doi: 10.1016/S0191-8869(97)00098-6
- Zalta, A. K., & Chambless, D. L. (2012). Understanding gender differences in anxiety: The mediating effects of instrumentality and mastery. *Psychology of Women Quarterly*, 36, 488-499. doi:10.1177/0361684312450004

Received June 3, 2013
Revision received May 28, 2014
Accepted June 9, 2014