

Research in the Social Scientific Study of Religion

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Mindfulness within a Muslim Ideological Surround: Empirical Translation Schemes and Religious and Psychological Functioning of Islamic Seminarians in Iran

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Abstract

With Islamic seminarians in Iran ($N = 243$), use of empirical translation scheme procedures transformed the 'non-judgmental' psychological language of the Mindful Attention Awareness Scale (MAAS) into a more 'judgmental' measure reflecting a Muslim ideological surround. Muslim mindfulness and the MAAS correlated positively with each other, and both predicted stronger religious commitments and better mental health. Multiple regression procedures confirmed that the two forms of mindfulness combined to explain variance in religious and psychological functioning. Both scales also mediated associations of religious and psychological independent variables with both religious and psychological dependent variables. Muslim mindfulness tended to offer a more sensitive assessment of seminarian functioning. These data further illustrated how research that brings religious and psychological perspectives into empirically guided dialogues can enhance understandings of both.

Keywords

empirical translation schemes – ideological surround model – Islam – mindfulness – psychological adjustment – religious commitments

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1 Introduction

Central to an Ideological Surround Model (ISM) is the attempt to address challenges brought about by the incommensurability of social scientific and religious social rationalities (Watson, 1993, 2011). Social rationalities organize communities around a shared ultimate standard (Taylor, 2007). For theistic communities, that standard will be some vision of God. The life of Buddha will supply an ultimate standard around which a Buddhist community will coalesce. Social sciences originate in a transition from Christian theism to a deism that eventually becomes a nontheistic naturalism (Taylor, 1989). Most social scientific communities, therefore, organize themselves around a shared reading of nature. These and innumerable other communities further develop their rationality to the extent that thought and practice are brought into better alignment with the perceived demands of their ultimate standard and/or to the extent that greater insight into the ultimate standard promotes a more expansive integration of communal life. Conversely, social rationalities decline as thought and practice drift from the requirements of their ultimate standard. Decline can also occur as narrowed perspectives on the ultimate standard splinter thought and practice or as an excessively expansive vision of the ultimate standard offers increasingly diffuse and ineffective guidance for social life.

1.1 *Challenges of Incommensurability*

Regardless of their progress or decline, social rationalities are unavoidably incommensurable, and it is this fact that makes them a challenge for pluralistic social life (Watson, 2014). Social rationalities are incommensurable because ultimate standards are 'ultimate' and thus cannot be held accountable to a higher standard for judging ultimate standards (MacIntyre, 1988). This absence of an even more ultimate trans-communal standard means that social rationalities cannot be assessed along a common metric of evaluation, which is the definition of 'incommensurability'. Each social rationality will have an 'objectivity' that operates within a surround of ideological presumptions defined by its ultimate standard. Attempts to explain the social rationality of one community in terms of the social rationality of another, therefore, will have no general currency as 'objective'. What makes 'sense' relative to one ultimate standard may not make 'sense' relative to another. A failure to acknowledge this limitation can only encourage the development of hegemonic social rationalities that seek to subjugate other social rationalities. On the other hand, honest admission of the problem threatens all communities with the disintegrative potentials of relativism. Neither response seems productive.

Underlying the ISM are assumptions that incommensurability must be admitted and that objectivity must be defended against relativism. If incommensurability is an undeniable empirical reality, then objectivity dictates that it be studied. Circumstances require a social science that, at least sometimes, uses potentials inherent within its ultimate standard to rise above the functioning of its home ideological surround and then see its own social rationality in relationship with other social rationalities (Nietzsche, 1887/1967; Watson, Chen, Morris, & Ghorbani, 2017). In the study of religion, such a social science will confront three necessary tasks. First, the standard-specific 'objectivity' of a social scientific rationality should be made increasingly articulate so that its influence on perspectives can be better understood. Secondly, the 'objectivity' of religious social rationalities should be appreciated relative to their own ultimate standards so that the 'sense' of these perspectives can be truthfully represented. Finally, social science and religion need to construct a dialogical space where social rationalities can objectively explore their agreements and disagreements.

Incommensurability means that dialogical space cannot be governed by the ultimate standard of any specific social rationality (Watson, 2006). The attempt to 'falsify' one ultimate standard based upon another is an intra-ideological project involving efforts to construct increasingly compelling narratives about the inadequacies of other social rationalities. Such narratives will have a rationality within their home ideological surround, but will also interfere with dialogue. Dialogue will instead require the use of inter-ideologically acceptable methods that can bring inferences derived from different ultimate standards into productive conversation. The use of such methods has established, for example, that derivative assumptions of Christian and social scientific rationalities can be both compatible (Watson & Morris, 2008) and incompatible (Watson, Morris, & Hood, 1988). Access to such information should encourage communicative competence across ideological surrounds.

1.2 *Empirical Translation Schemes*

One ISM method for promoting dialogue is the empirical translation scheme (Watson, 2008a, 2008b; cf. Roth, 1987). This procedure translates derivative assumptions of one social rationality into the language of another. In one project, for example, research participants responded to a humanistic measure of self-actualization. Participants later responded to possible translations that attempted to express the items of this scale in Christian language (Watson, Milliron, Morris, & Hood, 1995). A positive correlation between the original humanistic item and its Christian expression identified a successful translation. Despite claims that humanistic and orthodox Christian perspectives are

incompatible (e.g., Maslow, 1987; Vitz, 1977), successful translations appeared for all humanistic items. Empirical translation schemes have also translated other social scientific constructs into religious language (Watson & Morris, 2006; Ghorbani, Watson, Tavakoli, & Chen, 2016; Andrews, Watson, Chen, & Morris, 2017).

Translated items combined into a single scale can be compared with the original instrument in three ways. First, correlations with other variables can determine if they have parallel or contrasting implications. Second, original and translated measures can serve as simultaneous predictors in multiple regression procedures. Such analyses will reveal whether both scales explain variance in functioning or if all relationships are attributable to the overriding influence of one social rationality over the other. Third, religious and nonreligious expressions of a construct can serve as simultaneous mediators in two sets of causal models (Baron & Kenny, 1986). In one set, a religious measure is the independent variable and psychological and religious constructs are dependent variables. In a second set, a psychological construct is the independent variable with psychological and religious constructs once again serving as dependent variables. All kinds of mediation results are possible. Only the nonreligious or only the religious expression of a construct might be a significant mediator. Alternatively, mediation might be an ideologically specific process in which a nonreligious mediator only explained relationships of nonreligious independent and dependent variables, and the religious mediator only explained associations between religious independent and dependent variables. On the other hand, mediation might reveal an ideologically general process in which both mediators explained relationships between both types of independent and dependent variables.

With the psychological constructs examined thus far, empirical translation schemes have suggested that original social scientific and translated measures have largely parallel correlational implications, that both sets of constructs combine to explain variance in religious and psychological functioning, and that both operate as ideologically general mediators. The expectation of the present investigation was that a measure of mindfulness and its translation into Iranian Muslim language would yield the same pattern of outcomes.

1.3 *Muslim Mindfulness*

As defined by the Mindful Attention Awareness Scale (MAAS), mindfulness represents an open and ongoing awareness of the present (Brown & Ryan, 2003). Mindfulness is a derivative assumption about ideal self-functioning that has origins in Buddhist traditions, but that is also compatible with wide-ranging Western perspectives (Brown, Ryan, & Creswell, 2007). MAAS items

express mindfulness, or rather the reverse scored absence of mindfulness, in a language that makes no reference to Buddhist or any other religious tradition. High MAAS scores attempt to describe an ongoing non-judgmental awareness of the present that should facilitate self-regulation. Research in fact confirms mindfulness as a consistent predictor of better mental health that has clear therapeutic potential (Keng, Smoski, & Robins, 2011).

In Iran as well, the MAAS predicts psychological adjustment (Ghorbani, Watson, & Weathington, 2009). Positive linkages with Iranian religious commitments also suggest the possibility of translating the MAAS into Muslim language (Ghorbani, Watson, Madani, & Chen 2016). Muslim mindfulness may, nevertheless, present one important contrast with mindfulness as conceptualized in the West. Western mindfulness scales can work from the assumption that optimal self-regulation requires a non-judgmental processing of ongoing experience (Baer, Hopkins, Kreitemeyer, Smith, & Toney, 2006). A more accurate perception of reality presumably follows from the removal of ideological 'blinders' that could at least sometimes promote a censoring misinterpretation of experience (Brown et al., 2007). In Iranian Muslims, however, this non-judgmental aspect of mindfulness can be incompatible with other dimensions of mindfulness and can also be a less consistent predictor of psychological adjustment (Ghorbani, Watson, Farhadi, & Chen, 2014). An explicitly Muslim mindfulness may require some process of religious judgment.

'Islam' literally means 'submission,' and Muslim consciousness should be in constant submission to and mindful of God who is always closer to a person than "his jugular vein" (Qur'an 50:16, Ali, 1993, p. 447). Qur'an verse 58:7 says, for instance,

Have you not considered that God knows whatever is in the heavens and the earth? No three persons confer secretly but He is the fourth among them, and no five but He is the sixth; and no fewer nor more but He is with them wheresoever they be. And on the Day of Judgment He will announce their deeds to them.

ALI, 1993, p. 474

Hence, Muslim commitments require an ongoing mindfulness of the present under the judgment of God, and thus cannot be described as non-judgmental. This project, therefore, attempted to translate MAAS items into a God-mediated Muslim mindfulness. As in a previous Iranian study (Ghorbani, Watson, Tavakoli, & Chen, 2016), use of empirical translation schemes with a sample of Islamic seminarians seemed especially appropriate for examining a formally Muslim social rationality.

1.4 *Additional Measures*

Empirical translation scheme procedures required the administration of other religious and psychological measures. Islamic Positive Religious Coping (Abu Raiya, 2008) and Punishing Allah Reappraisal (Abu Raiya, Pargament, Mahoney, & Stein, 2008) assessed adaptive and maladaptive forms of Muslim coping, respectively (e.g., Ghorbani, Watson, Hajirasouliha, & Chen 2016). Religious Orientation Scales recorded motivations for being religious (Gorsuch & McPherson, 1989). An Intrinsic Religious Orientation theoretically reflects a sincere faith in which religion serves as the master motive in life. An Extrinsic Personal Orientation involves a use of religion to maintain a sense of subjective well-being. A desire for social gain through religion underlies the Extrinsic Social Orientation. In Muslim samples, the Intrinsic and Extrinsic Personal Orientations predict religious and psychological adjustment, but the Extrinsic Social Orientation is relatively weak and has ambiguous implications (Ghorbani, Watson, & Khan, 2007).

All psychological scales administered in this project had well-documented validity within the Iranian cultural context. Integrative Self-Knowledge (Ghorbani, Watson, & Hargis, 2008) and Self-Control (Tangney, Baumeister, & Boone, 2004) recorded two aspects of an Iranian Muslim spiritual ideal (Ghorbani, Watson, Rezazadeh, & Cunnigham, 2011). Other indices of psychological adjustment included Self-Esteem (Rosenberg, 1965) and Satisfaction with Life (Diener, Emmons, Larsen, & Griffin, 1985). Recording maladjustment were Perceive Stress (Cohen, Kamarack, & Mermelstein, 1983) and Depression and Anxiety (Costello & Comrey, 1967) scales.

1.5 *Hypotheses*

The general assumption of the present project was that empirical translation schemes examining Muslim mindfulness would yield results paralleling previous uses of this dialogical ISM method. Procedures made it possible to test four sets of hypotheses:

First, MAAS items will translate successfully into the God-mediated language of Muslim mindfulness.

Second, both Muslim mindfulness and the MAAS will predict religious and psychological adjustment. In other words, both will correlate positively with the Intrinsic and Extrinsic Personal Religious Orientations, Islamic Positive Religious Coping, Integrative Self-Knowledge, Self-Control, Self-Esteem, and Satisfaction with Life and correlate negatively with Punishing Allah Reappraisal, Perceived Stress, Depression, and Anxiety. The ambiguity of the Extrinsic Social Orientation meant that no predictions were possible for this measure.

Third, in multiple regression analyses, both Muslim mindfulness and the MAAS will combine to explain variance in religious and psychological functioning.

Fourth, the two mindfulness measures will display ideologically general mediation effects. In other words, both will mediate relationships of religious and psychological independent variables with both religious and psychological dependent variables. As with a previous use of these mediation procedures in Iran, the Intrinsic Religious Orientation served as the religious independent variable, and Perceived Stress was the psychological independent variable (Ghorbani, Watson, Tavakoli, & Chen, 2016).

2 Method

2.1 Participants

Research participants comprised 130 men and 113 women in Iran who were enrolled in Islamic seminaries or in institutes that were under seminary supervision. Participants' average age was 29.6 ($SD = 8.8$).

2.2 Measures

All scales appeared in a single questionnaire booklet. Creation of Integrative Self-Knowledge and potential Muslim mindfulness items occurred in Persian. Translation of all other instruments from English into Persian took place in procedures associated with previous projects (e.g., Ghorbani et al., 2014; Ghorbani et al., 2011; Ghorbani et al., 2009). Unless otherwise noted, reactions to each statement within a scale occurred along 1-to-5 Likert response options. The scoring of each instrument involved computation of the average response per item. Inclusion of scales within the booklet occurred in the order of their description below.

Depression and Anxiety. Costello and Comrey (1967) measures assessed dispositional depression and anxiety. Representative of the 14-item Depression Scale ($\alpha = 0.83$, $M = 2.00$, $SD = .58$) was the claim, 'I feel sad and depressed'. Indicative of the 9-item Anxiety measure ($\alpha = 0.78$, $M = 2.55$, $SD = 0.73$) was the self-report that 'I am a restless and tense person'.

Self-Esteem. The widely-used Rosenberg (1965) Self-Esteem Scale included 10 expressions of positive self-regard ($\alpha = 0.75$, $M = 3.70$, $SD = .62$). One example item said, 'I feel that I have a number of good qualities'.

Satisfaction with Life. The Diener et al. (1985) Satisfaction with Life Scale ($\alpha = .81$, $M = 3.28$, $SD = 0.84$) included five items that said, for instance, 'So far, I have gotten the important things I want in life'.

Self-Control. Thirteen items made up the brief version of the Tangney et al. (2004) Self-Control Scale ($\alpha = .78$, $M = 3.47$, $SD = 0.61$). Illustrating Self-Control was the assertion, 'I am good at resisting temptation'.

Mindful Attention Awareness Scale (MAAS). Assessing non-Muslim mindfulness was the 15-item MAAS of Brown and Ryan (2003; $\alpha = .85$, $M = 4.39$, $SD = 0.70$). Each statement in this instrument expressed a lack of mindfulness (e.g., 'I find it difficult to stay focused on what's happening in the present'). Responding occurred along a 6-point scale ranging from 'almost always' (1) to 'almost never' (6).

Religious Orientation. Gorsuch and McPherson (1989) Religious Orientation Scales assessed Intrinsic (8 items, $\alpha = .75$, $M = 4.25$, $SD = 0.63$), Extrinsic Personal (3 items, $\alpha = .70$, $M = 3.91$, $SD = 0.88$), and Extrinsic Social (3 items, $\alpha = .63$, $M = 2.71$, $SD = 0.97$) reasons for being religious. 'My whole approach to life is based on my religion,' illustrates the Intrinsic Orientation. The Extrinsic Personal Orientation appears in such self-reports as, 'What religion offers me most is comfort in times of trouble and sorrow'. Reflecting the Extrinsic Social motivation is the statement, 'I go to activities associated with my religion because I enjoy seeing people I know there'.

Perceived Stress. Included in the Cohen et al., (1983) Perceived Stress Scale were 14 questions about stressors possibly experienced during the past month ($\alpha = .86$, $M = 2.65$, $SD = 0.60$). One asked, for example, 'In the last month, how often have you felt that you were unable to control the important things in your life?'. Answers ranged from 'never' (1) to 'almost always' (5).

Integrative Self-Knowledge Scale. The twelve statements of the Integrative Self-Knowledge scale expressed tendencies of an individual to synthesize past, present, and desired future self-experience into a meaningful whole (Ghorbani et al., 2008; $\alpha = .84$, $M = 3.70$, $SD = 0.67$). A representative item said, 'If I need to, I can reflect about myself and clearly understand the feelings and attitudes behind my past behaviours'.

Islamic Positive Religious Coping. The Islamic Positive Religious Coping Scale included 7 items (Abu Raiya, 2008; $\alpha = .83$, $M = 3.33$, $SD = 0.54$). Each began with the phrase, 'When I face a problem in life'. An Islamic coping response then followed and said, for instance, 'I look for a stronger connection with God'.

Punishing Allah Reappraisal. Defining punishing Allah Reappraisal were three items that attributed the experience of life difficulties to God's punishment for personal misdeeds (Abu Raiya et al., 2008; $\alpha = .86$, $M = 2.59$, $SD = 0.83$). One illustrative item said, 'When I face a problem in life, I believe that I am being punished by God for bad actions I did'.

Muslim Mindfulness Translations. Included in a final section of the questionnaire were at least three potential Muslim translations for each of the 15 MAAS items. The resource for creating possible translations was an analysis

of verses from the Qur'an that seemed relevant to mindfulness. Many potential translations paralleled the original instrument by expressing an absence of mindfulness. Reactions to these reversed statements of mindfulness once again ranged from 'almost always' (1) to 'almost never' (6). Some potential translations did, however, express Muslim mindfulness directly. The scoring of these non-reversed self-reports ranged from 'almost always' (6) to 'almost never' (1).

2.3 Procedure

All procedures complied with institutional requirements for ethical research. Seminarian participation in the project was voluntary and confidential. Researchers administered the questionnaire booklet to groups of varying sizes in a classroom setting. Correlations first determined which potential Muslim translations should be combined into a Muslim Mindfulness Scale. Statistical procedures then compared Muslim Mindfulness and the MAAS in correlation, multiple regression, and mediation analyses.

3 Results

3.1 Preliminary Analyses

Again, successful Muslim mindfulness translations had to correlate positively with their corresponding expression in the MAAS. Given the directionality of all predictions, evaluation of all relationships used one-tailed tests. Out of 52 possible translations, 42 were successful, with at least one translation appearing for each MAAS item. Translations displaying the strongest positive correlations with their corresponding MAAS expression appear in Table 1. A final Muslim Mindfulness Scale combined these 15 statements into a single measure ($\alpha = .90$, $M = 4.33$, $SD = .76$). This 15-item instrument reflected Muslim mindfulness in a way that was virtually identical with all 42 successful translations combined, $r = .95$, $p < .001$.

Gender influenced responding on a few measures. With males scored as 1 and females as 2, women were higher on perceived stress (.18) and Islamic positive religious coping (.13) and lower on integrative self-knowledge ($-.16$, p 's $< .05$). All subsequent statistical procedures, therefore, controlled for gender.

Table 2 presents partial correlations among the religious and psychological measures used to clarify mindfulness. Perhaps most important were significant relationships observed for the two independent variables, the Intrinsic Religious Orientation and Perceived Stress, of the proposed mediation models. Such results identified the dependent variables to be used in these mediation models. As the proposed religious independent variable, the Intrinsic Religious

TABLE 1 Correlations between MAAS items and best Muslim translations

	Mindfulness item	Muslim translation	<i>r</i>
1	I could be experiencing some emotion and not be conscious of it until some-time later. (R)	I could be experiencing emotions evoked by Satan's suggestion and not be conscious of its source until sometime later. (R)	.21***
2	I break or spill things because of care-lessness, not paying attention, or think-ing of something else. (R)	I can remember God and what he wants me to do in my activities	.12*
3	I find it difficult to stay focused on what's happening in the present. (R)	I find it difficult to submit my heart to God's guidance in the present. (R)	.33***
4	I tend to walk quickly to get where I'm going without paying attention to what I experience along the way. (R)	I tend to walk quickly to get where I'm going without remembering God. (R)	.22***
5	I tend not to notice feelings of physical tension or discomfort until they really grab my attention. (R)	My ongoing awareness of God helps me do what God wants me to do when I experience physical discomfort and tension.	.13*
6	I forget a person's name almost as soon as I've been told it for the first time. (R)	I forget God's presence as soon as I have been made aware of him. (R)	.28***
7	It seems I am "running on automatic," without much awareness of what I'm doing. (R)	Often it seems I am "running on auto-matic," without awareness of what is the ultimate outcome of my action. (R)	.32***
8	I rush through activities without being really attentive to them. (R)	I rush through activities without maintaining my awareness of God. (R)	.36***
9	I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there. (R)	As I focus on the goals I want to achieve, I keep in touch with God's guidance as I try to get there.	.20**
10	I do jobs or tasks automatically, without being aware of what I'm doing. (R)	I do jobs or tasks automatically, without fearing God and being cautious about him. (R)	.32***
11	I find myself listening to someone with one ear, doing something else at the same time. (R)	When I recite the Qur'an, I get dis-tracted by others or get entangled in thoughts so that my heart understands little from the verses. (R)	.22***

TABLE 1 Correlations between MAAS items and best Muslim translations (*cont.*)

	Mindfulness item	Muslim translation	<i>r</i>
12	I drive places on “automatic pilot” and then wonder why I went there. (R)	Although I automatically take Wudu and say my prayers before the time of prayer runs out, I hardly remember God during the daytime, nor do I speak with him in the privacy of my heart. (R)	.25***
13	I find myself preoccupied with the future or the past. (R)	I find myself so preoccupied with the future or the past, that I become heedless of God in the present. (R)	.25***
14	I find myself doing things without paying attention. (R)	I find myself doing things without feeling God’s presence.	.29***
15	I snack without being aware that I’m eating. (R)	Heedless of my Lord, I am extravagant in what I eat. (R)	.22***

Note: Significance levels are for one-tailed tests ($N = 243$). Items followed by (R) represent reverse expressions of or the absence of mindfulness. In the translation of item 12, ‘Wudu’ refers to the ritual washing that occurs before daily prayers. * $p < .05$, ** $p < .01$, *** $p < .001$.

Orientation correlated positively with the Extrinsic Personal Orientation, Islamic Positive Religious Coping, Integrative Self-Knowledge, Self-Control, Satisfaction with Life, and Self-Esteem and correlated negatively with Perceived Stress, Depression, and Anxiety. Perceived Stress as the proposed psychological independent variable correlated positively with Depression and Anxiety and negatively with all other measures except for the two Extrinsic Religious Orientations and Punishing Allah Reappraisal. The Extrinsic Personal Orientation and Islamic Positive Religious Coping correlated positively with each other and with the Extrinsic Social Orientation. Both also exhibited linkages with psychological adjustment. Punishing Allah Reappraisal predicted lower Integrative Self-Knowledge and higher Anxiety. The Extrinsic Social Orientation was irrelevant to psychological functioning. Relationship among all psychological scales conformed with their mental health implications.

3.2 Comparing Muslim and Non-Muslim Mindfulness

A partial correlation of .50, $p < .001$, appeared between the two mindfulness scales. Average responding to the Muslim ($M + SEM = 4.34 + .05$) and to the MAAS non-Muslim ($4.39 + .05$) expressions of mindfulness did not differ, Greenhouse-Geisser $F(1, 268) = 1.91$, $p > .10$. As Table 3 makes clear, the two

TABLE 2 Partial correlations controlling for gender among clarifying religious and psychological measures (N = 243)

		1	2	3	4	5
1	Intrinsic Orientation	–	.36***	–.09	.53***	.07
2	Extrinsic Personal		–	.37***	.47***	.15*
3	Extrinsic Social			–	.17**	.11
4	Islamic Positive Religious Coping				–	.17**
5	Punishing Allah Reappraisal					–
6	Perceived Stress					
7	Integrative Self-Knowledge					
8	Self-Control					
9	Satisfaction with Life					
10	Self-Esteem					
11	Depression					
12	Anxiety					

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

TABLE 3 Partial correlation and multiple regression analyses examining associations of Muslim Mindfulness Scale (MMS) and the Mindful Attention Awareness Scale (MAAS) with other variables

Variables	Partial correlations		
	MMS	MAAS	z
Intrinsic Orientation	.35***	.39***	–0.68
Extrinsic Personal Orientation	.24***	.22**	0.32
Extrinsic Social Orientation	.10	–.09	2.96**
Islamic Positive Religious Coping	.50***	.32***	3.17**
Punishing Allah Reappraisal	–.03	–.10	1.09
Perceived Stress	–.52***	–.50***	–0.38
Integrative Self-Knowledge	.51***	.57***	–1.17
Self-Control	.51***	.42***	1.64
Satisfaction with Life	.31***	.25***	0.98
Self-Esteem	.44***	.39***	0.88
Depression	–.43***	–.49***	1.09
Anxiety	–.43***	–.41***	–0.35

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

6	7	8	9	10	11	12
-.27***	.40***	.28***	.19**	.34***	-.39***	-.24***
-.11	.10	.19**	.20**	.25***	-.27***	-.08
-.07	-.04	-.03	.08	.06	-.06	.05
-.36***	.36***	.36***	.28***	.35***	-.45***	-.30***
.11	-.17**	-.11	-.03	-.07	.08	.16*
-	-.68***	-.47***	-.39***	-.55***	.59***	.54**
	-	.48***	.36***	.53***	-.56***	-.58***
		-	.38***	.52***	-.48***	-.45***
			-	.57***	-.60***	-.34***
				-	-.67***	-.45**
					-	.58***
						-

Multiple regressions

Step 1			Step 2	
<i>R</i> ²	Gender β	ΔR^2	MMS β	MAAS β
.01	.09	.19***	.21**	.29***
.02	.13	.07***	.17*	.14
.00	-.04	.04*	.19*	-.19*
.02*	.13*	.26***	.45***	.10
.01	.11	.01	.02	-.11
.03**	.18**	.34***	-.36***	-.32***
.03*	-.16*	.39***	.30***	.42***
.00	.02	.30***	.41***	.22***
.01	.12	.11***	.24***	.13
.00	.03	.23***	.33***	.23***
.01	.08	.28***	-.25***	-.36***
.01	.12	.23***	-.30***	-.27***

assessments of mindfulness displayed similar relationships with other constructs. Comparisons of partial correlations using Steiger's (1980) asymptotic z-test revealed only two contrasts. The nonsignificant positive relationship of Muslim Mindfulness with the Extrinsic Social Orientation differed from the nonsignificant negative MAAS linkage. In addition, the significant positive relationship with Islamic Positive Religious Coping was stronger for Muslim Mindfulness.

Table 3 also presents regression results in which the two mindfulness scales predicted religious and psychological functioning on the second step after controlling for gender on the first step. In 7 out of 13 analyses, Muslim and non-Muslim mindfulness both made significant contributions in the same direction to the prediction equation. For the Extrinsic Social Orientation, the significant effect was positive for Muslim Mindfulness and negative for the MAAS. Only Muslim Mindfulness explained variance in the Extrinsic Personal Orientation and in Satisfaction with Life. No significant association appeared with Punishing Allah Reappraisal.

3.3 *Mediation Analyses*

Final statistical analyses evaluated Muslim and non-Muslim mindfulness as simultaneous mediators in two sets of models using the procedures of Hayes (2013). Again, one set used the Intrinsic Religious Orientation as a religious independent variable. Perceived Stress served as a nonreligious independent variable in the other set. Mediation first requires a significant relationship of the independent variable with a mediator (Baron & Kenny, 1986). Results in Table 3 documented the Intrinsic Religious Orientation as a positive and Perceived Stress as a negative predictor of both mindfulness measures. Muslim Mindfulness and the MAAS, therefore, were potential mediators. Mediation also requires significant relationships of the independent with a dependent variable. For the Intrinsic Religious Orientation, dependent variables were the Extrinsic Personal Orientation, Islamic Positive Religious Coping, and all seven measures of psychological functioning (see Table 2). For Perceived Stress, dependent variables were the Intrinsic Religious Orientation, Islamic Positive Religious Coping, and the remaining six psychological constructs.

Mediation effects appeared in all nine Intrinsic Religious Orientation analyses (see Table 4). Both mindfulness measures combined to mediate all but three associations between independent and dependent variables. For Islamic Positive Religious Coping and for Satisfaction with Life, only Muslim Mindfulness proved to be a significant mediator. For the Extrinsic Personal Orientation, a significant overall mediation effect appeared, but the influence of neither mindfulness scale reached statistical significance. After accounting

for the influence of mediators, direct effects for Perceived Stress, Self-Control, Satisfaction with Life, and Anxiety became nonsignificant. These outcomes revealed full mediation. The other five mediation results reflected partial mediation.

Table 5 presents mediation results when Perceived Stress was the independent variable. Significant overall mediation effects appeared in each analysis. Both mindfulness scales mediated Perceived Stress relationships with the Intrinsic Religious Orientation and with Integrative Self-Knowledge. This former effect was, of course, a mirror image of the result when the Intrinsic Orientation had been the independent and Perceived Stress the dependent variable. Only the MAAS mediated the Perceived Stress linkage with Depression, and only Muslim Mindfulness served as a significant mediator in all other analyses. Full mediation appeared with the Intrinsic Religious Orientation and with Islamic Positive Religious Coping. All other outcomes were partial mediation effects.

4 Discussion

This Iranian investigation further documented the potential of empirical translation schemes to promote dialogue between religion and the social sciences. Accomplishment of that objective involved an examination of mindfulness as a derivative assumption presumed to be compatible with the ultimate standards of both. The MAAS expressed mindfulness in the non-judgmental, secular language of Western psychology. When used with a sample of Islamic seminarians, empirical translation scheme procedures translated all MAAS items into a Muslim language that imposed religious judgment on the processing of ongoing experience. Muslim and non-Muslim mindfulness correlated positively, and both displayed mostly parallel relationships with religious and psychological adjustment. Multiple regression analyses went on to confirm that both explained variance in at least some measures. Muslim Mindfulness and the MAAS also simultaneously mediated relationships of religious and psychological independent variables with religious and psychological dependent variables. These two expressions of mindfulness, therefore, exhibited ideologically general patterns of influence. The dialogical conclusion to be drawn from these data was that ideologically judgmental and non-judgmental forms of mindfulness were compatible and complementary, and thus 'rational' within the ideological surround of Iranian Muslim seminarians.

Some findings suggested that Muslim Mindfulness was more sensitive to seminarian functioning than the MAAS. The correlation with Islamic Positive

TABLE 4 Muslim Mindfulness and the Mindful Attention Awareness Scale (MAAS) as mediators of intrinsic religious orientation relationships with religious and psychological dependent variables

Dependent variable	<i>R</i> ²	Total indirect effect (LL to UL)
Extrinsic Personal Orientation	.15***	.08 (.00 to .19)*
Islamic Positive Religious Coping	.40***	.11 (.05 to .18)*
Perceived Stress	.32***	-.23 (-.32 to -.16)*
Integrative Self-Knowledge	.38***	.26 (.18 to .35)*
Self-Control	.30***	.22 (.13 to .32)*
Satisfaction with Life	.12***	.17 (.08 to .28)*
Self-Esteem	.26***	.17 (.10 to .26)*
Depression	.30***	-.18 (-.25 to -.12)*
Anxiety	.22***	-.23 (-.34 to -.15)*

Note: *R*² values represent the overall significance of the mediation model. An 'indirect effect' examines whether the influence of the mediator(s) was significant as defined by the lower limits (LL) and upper limits (UL) of the confidence intervals. Tests of significance used 95% confidence intervals that were bias corrected and based upon 5000 bootstrap samples. Confidence

TABLE 5 Muslim Mindfulness and the Mindful Attention Awareness Scale (MAAS) as mediators of perceived stress relationships with religious and psychological dependent variables

Dependent Variable	<i>R</i> ²	Total indirect effect (LL to UL)
Intrinsic Religious Orientation	.19***	-.26 (-.38 to -.16)*
Islamic Positive Religious Coping	.27***	-.23 (-.32 to -.14)*
Integrative Self-Knowledge	.55***	-.20 (-.29 to -.12)*
Self-Control	.33***	-.24 (-.34 to -.14)*
Satisfaction with Life	.16***	-.15 (-.27 to -.03)*
Self-Esteem	.34***	-.15 (-.24 to -.08)*
Depression	.40***	.15 (.08 to .23)*
Anxiety	.34***	.16 (.06 to .27)*

Note: For details associated with these analyses, see the note for Table 4. **p* < .05, ***p* < .01, ****p* < .001.

Indirect effect for Muslim mindfulness (LL to UL)	Indirect effect for MAAS(LL to UL)	Total effect	Direct effect
.06 (-.01 to .16)	.03 (-.06 to .13)	.58***	.43***
.12 (.06 to .19)*	-.01 (-.06 to .04)	.47***	.36***
-.11 (-.20 to -.05)*	-.01 (-.20 to -.06)*	-.23***	.00
.10 (.04 to .18)*	.16 (.09 to .25)*	.41***	.15*
.14 (.07 to .23)*	.08 (.01 to .17)*	.28***	.06
.11 (.04 to .23)*	.06 (-.03 to .16)	.27***	.10
.10 (.04 to .18)*	.07 (.01 to .14)*	.34***	.17**
-.07 (-.14 to -.02)*	-.11 (-.19 to -.05)*	-.35***	-.17**
-.11 (-.20 to -.05)*	-.12 (-.21 to -.03)*	-.26***	-.03

intervals that do not include zero identify a significant indirect effect at the .05 level. The 'total effect' represents the effect of the independent variable on a dependent variable without accounting for the influence of mediators. The 'direct effect' describes this same relationship after accounting for the influence of the mediators. All analyses controlled for gender. * $p < .05$, ** $p < .01$, *** $p < .001$.

Indirect effect for Muslim mindfulness (LL to UL)	Indirect effect for MAAS (LL to UL)	Total effect	Direct effect
-.11 (-.22 to -.04)*	-.15 (-.25 to -.07)*	-.26***	.00
-.20 (-.30 to -.11)*	-.03 (-.11 to .04)	-.31***	-.08
-.06 (-.14 to -.00)*	-.14 (-.23 to -.07)*	-.77***	-.57***
-.17 (-.27 to -.08)*	-.08 (-.18 to .00)	-.47***	-.23**
-.12 (-.25 to -.02)*	-.03 (-.15 to .08)	-.50***	-.35**
-.10 (-.19 to -.03)*	-.05 (-.13 to .01)	-.55***	-.40***
.05 (-.01 to .12)	.10 (.04 to .19)*	.57***	.42***
.08 (.01 to .17)*	.08 (-.00 to .19)	.67***	.51***

Religious Coping was stronger for Muslim Mindfulness than for the MAAS. Only Muslim Mindfulness predicted the Extrinsic Personal Orientation, Islamic Positive Religious Coping, and Satisfaction with Life in multiple regression procedures. In addition, only Muslim Mindfulness mediated associations of the Intrinsic Religious Orientation with Islamic Positive Religious Coping and with Satisfaction with Life. When Perceived Stress was the independent variable, only Muslim Mindfulness mediated linkages with Islamic Positive Religious Coping, Self-Control, Satisfaction with Life, Self-Esteem, and Anxiety. The only result suggesting an opposite influence occurred when the MAAS was the sole mediator of the Perceived Stress association with Depression.

Findings for the Extrinsic Social Orientation offered useful insights. Previous research has identified this religious motivation as ambiguous when used with Muslim samples (Ghorbani et al., 2007). In the present study, the Extrinsic Social Orientation correlated only with the Extrinsic Personal Orientation and with Islamic Positive Religious Coping. No associations appeared with any psychological construct. A nonsignificant positive correlation with Muslim Mindfulness was significantly different for the nonsignificant negative association observed with the MAAS. These contrasting implications then became statistically significant when multiple regressions simultaneously accounted for variance associated with both mindfulness measures. The overall suggestion, therefore, was that the ambiguity of the Extrinsic Social Orientation perhaps rested upon potentials that were adaptive within Islamic and maladaptive within Western psychological ideological surrounds.

Correlations among religious and psychological measures generally conformed to expectations. Relationships of Integrative Self-Knowledge and Self-Control with each other and with the Intrinsic Religious Orientation, Islamic Positive Religious Coping, and all other psychological constructs supported the claim that these two processes may point toward an ideal within Muslim personality functioning (Ghorbani et al., 2011). In addition to predicting higher Intrinsic Religious Orientation and Islamic Positive Religious Coping scores, Punishing Allah Reappraisal displayed at least some of its expected mental health liabilities when it correlated positively with Anxiety and negatively with Integrative Self-Knowledge. In contrast, Islamic Positive Religious Coping broadly predicted adjustment. Overall, adaptive Muslim coping, therefore, seemed to assume a more prominent role in seminarian psychological functioning than did maladaptive Muslim coping.

4.1 *Limitations*

As with any investigation, procedural limitations dictate a need for interpretative caution. Three may be especially important in this case. First, although

a focus on Islamic seminarians seemed especially appropriate for evaluating mindfulness within a Muslim ideological surround, seminarians were not typical of the wider Iranian population. Different conclusions might follow from the analysis of a more representative Iranian sample. Second, findings in Shiite Iran may not generalize to other, largely Sunni Muslim societies or to Muslims living as a minority community elsewhere. Finally, all analyses were essentially correlational, including mediation procedures that tested causal models. Correlations cannot establish causation. It cannot be said, for example, that Muslim Mindfulness caused a reduction in Perceived Stress. Attempts to establish causality will require the use of other research designs.

5 Conclusions

At the most general level, this study illustrated the positive potentials of a dialogical social science. Development of a Muslim Mindfulness Scale allowed those committed to Muslim traditions to articulate a previously unexpressed regularity within the religious and psychological functioning of their own social rationality. Findings for the MAAS also provided a further reassurance that the nonreligious language of this Western psychological construct was compatible with Muslim commitments. Indeed, the MAAS expanded possibilities for Muslims to account for variance in their own adaptive awareness of the present.

Benefits for the Western psychological social rationality seemed obvious as well. Western perspectives can suggest that non-judgmental processing of ongoing experience allows for a more open and accurate perception of reality (Brown et al., 2007). Seen from this perspective, mindfulness might seem to require a removal of ideological blinders that can interfere with objectivity. Nothing in the present data suggested that this is impossible. Interpretative lenses must surely, at least sometimes, obscure the clarity of mindfulness. On the other hand, the present results demonstrated that judgmental mindfulness is not invariably problematic and can have positive mental health implications. Indeed, this investigation suggested that ideological lenses brought the mindfulness of Muslim seminarians into sharper focus. Similar possibilities may be true of those with different religious commitments in the more pluralistic West.

This use of empirical translation schemes once again demonstrated the possibility of using social scientific methods to construct a dialogical space. Previous investigations have also used ISM procedures to promote dialogue between Western psychological and Iranian Muslim perspectives (Ghorbani, Watson, Saeedi, Chen, & Silver, 2012; Ghorbani, Watson, Tavakoli, & Chen, 2016).

The fact that that some derivative inferences are open to dialogical agreement in no way means that all derivative inferences will be. Incommensurable social rationalities will also display incompatibilities. Empirical translation schemes will expand dialogical space when compatibilities exist. When incompatibilities are clear, then research procedures could expand dialogical space by making the intra-ideological 'objectivity' of both social rationalities increasingly explicit and articulate. An increasingly sophisticated dialogical space would presumably enhance a communicative competence that could be beneficial across ideological surrounds.

The promotion of mindfulness can have therapeutic benefits (Keng et al., 2011). The present data, therefore, had applied as well as basic scientific implications. Therapists who work with Muslims may find it useful to encourage not only the non-judgmental mindfulness expressed by the MAAS, but also the explicitly Muslim Mindfulness identified with these procedures. Indeed, multiple regression and mediation results implied that the promotion of both forms of mindfulness might have therapeutic advantages.

Previous ISM studies have clarified the relationship of social scientific with Christian (Watson, 2011) and with Muslim (e.g., Ghorbani et al., 2012) social rationalities. Many more possibilities remain for exploring the compatible and incompatible inferences that may operate across these ideological surrounds. An extension of these methods to completely different religious traditions is another obvious need. Thus far, ISM procedures have only compared social scientific with religious rationalities, but empirically guided dialogues might also be constructed between two different religions or between two different nonreligious social rationalities. Ideological disagreements within a single religious tradition have also been examined using ISM methodologies (Watson, Chen, Ghorbani, & Vartanian, 2015), and other intra-ideological disagreements presumably remain to be analysed. In a pluralistic world, incommensurable rationalities are an undeniable empirical reality; so, objectivity presumably requires research into their dynamics. The social scientific construction of that objectivity could promote better forms of communication that could be of benefit to all ideological surrounds.

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