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Religious Openness Hypothesis: II. Religious Reflection and Orientations, Mystical Experience, and Psychological Openness of Christians in Iran

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According to the Religious Openness Hypothesis, a negative relationship between Faith and Intellect Oriented Religious Reflection in American Christians reveals a defensive fundamentalist response to Western secularization that inhibits religious and psychological openness. The present study offered one test of that hypothesis by examining Christians living in Iran, a formally theocratic society where defensiveness toward secularization should not be prominent. A sample of 250 Iranian members of the Armenian Apostolic Church responded to the Christian Religious Reflection Scale along with indices of religious openness as made evident in self-reported mystical experience and of psychological openness as assessed by measures of Openness to Experience, Need for Cognition, and Integrative Self-Knowledge. Faith and Intellect Oriented Reflection correlated positively in Iranian Christians and displayed at least some linkages with mystical experience and psychological openness. These data supported the Religious Openness Hypothesis.

Whether Christianity and other traditional religions promote or interfere with psychological openness is a contentious question within the psychology of religion (e.g., Batson, Schoenrade, & Ventis, 1993; Hood, Hill, & Williamson, 2005). The Ideological Surround Model (ISM) of the relationship between religion and the social-sciences (Watson, 2011) essentially argues that it is not whether religions promote openness, but rather how they do so (Kamble, Watson, Marigoudar, & Chen, 2014b). Central to this claim is the assumption that openness for sincerely religious individuals necessarily "operates *within* a faith tradition, and for the purpose of finding religious truth" (Dover, Miner, & Dowson, 2007, p. 204). Research instruments like the Quest Scale valorize doubt and a willingness to move away from foundational religious commitments as a sign of openness (Batson & Schoenrade, 1991a, b). The original Quest Scale, therefore, appears to operate *outside* a

faith tradition and for the purpose of questioning the truth about religion based upon some unspecified standard of evaluation. Hence, the Quest Scale may reflect (a potentially agnostic) openness about religion rather than (a potentially faithful) religious openness. Undoubtedly, openness about religion is an important psychological process, and the Quest Scale is an invaluable tool for evaluating it. However, according to the Religious Openness Hypothesis associated with the ISM, a truly comprehensive psychology of religion should supplement measures of openness about religion with measures of religious openness (Beck & Jessup, 2004; Watson, Chen, & Morris, 2014).

Critical evidence supporting the Religious Openness Hypothesis rests upon use of the Religious Reflection Scale (Dover et al., 2007). This instrument includes Faith and Intellect Oriented Reflection factors that assess efforts of the individual to pursue truth within the framework of a specific religious tradition (Watson, Chen, & Hood, 2011). Positive correlations between these two factors in Iranian Muslims (Ghorbani, Watson, Chen, & Dover, 2013; Ghorbani, Watson,

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Geranmayepour, & Chen, 2014) and Indian Hindus (Kamble et al., 2014b) confirm the ability of these religious traditions to wed the intellect of believers with their faith.

In American Christians, however, Faith and Intellect Oriented Reflection display a sometimes significant tendency to correlate negatively (Watson et al. 2011; Watson, Chen, Ghorbani, & Vartanian, 2015; Watson, Chen, & Morris, 2014). The Religious Openness Hypothesis argues that this negative relationship reflects a fundamentalist ghettoization of faith that walls out the intellect in response to what some Christians perceive to be the inhospitality of an increasingly influential Western secularism (Kamble et al., 2014b). Seen in defensive fundamentalist terms, Western secularism divorces intellect from faith and defines the former as "rational" and the latter as "irrational." Western fundamentalism accepts that divorce, but reverses the evaluation with faith as "rational" and intellect as "irrational." Support for this interpretation comes from American studies in which partial correlations controlling for the Altemeyer and Hunsberger (2004) Religious Fundamentalism Scale uncover a positive rather than a negative linkage between Faith and Intellect Oriented Reflection. Partial correlations also uncover an apparently non-defensive Biblical Foundationalism (Watson et al., 2003) that correlates positively with both forms of religious reflection and with religious and psychological openness more generally (Watson, Chen, Ghorbani, & Vartanian, 2015; Watson, Chen, & Morris, 2014). Biblical Foundationalism, in other words, rejects the divorce and maintains a Christian marriage between faith and intellect.

Present Project

A defensive ghettoization of faith should be less obvious in societies where secularization is less influential. Iran is a theocratic society that formally rejects secularism and operates within Muslim cultural assumptions that faith and intellect can be married (Ghorbani, Watson, Saeedi, Chen, & Silver, 2012). In addition to positive linkages between Faith and Intellect Oriented Reflection (Ghorbani et al., 2013), the observation that empirical markers of fundamentalism predict greater rather than lower psychological openness in Iran supports the notion that this Islamic society avoids a defensive ghettoization of faith (Ghorbani, Watson, Shamohammadi, & Cunningham, 2009). Christians living in such a context should experience no cultural pressure

to divorce faith from intellect. Hence, the hypothesis of the present project was that Faith and Intellect Oriented Reflection would correlate positively in Iranian Christians and that both would predict greater religious and psychological openness.

As in a previous Iranian investigation (Ghorbani et al., 2013), procedures included multiple measures of psychological openness. Openness to Experience (Goldberg, 1999) and Need for Cognition (Cacioppo, Petty, Feinstein, & Jarvis, 1996) assessed cognitive openness. The Integrative Self-Knowledge Scale (Ghorbani, Watson, & Hargis, 2008) evaluated openness to self-experience.

Hood's (1975) Mysticism Scale served as an index of religious openness. This instrument uses the phenomenological analysis of Stace (1960) to operationalize three elements that define the transcendent unity of mystical experience (Hood, Morris, & Watson, 1993). Introvertive Mysticism involves consciousness of a timeless and spaceless void. Extrovertive Mysticism reflects an experienced union with all things. The Interpretation of Mysticism factor measures tendencies to find religious meaning in mystical experience. This three-factor structure has been confirmed in Iran (Hood et al., 2001), and the Extrovertive and Interpretation, but not necessarily the Introvertive, factors tend to predict Iranian Muslim religious commitments and psychological adjustment (e.g., Hood et al., 2001; Ghorbani, Watson, Shamohammadi, & Cunningham, 2009; Ghorbani, Watson, Rezazadeh, & Cunningham, 2011; Ghorbani, Watson, Aghababaei, & Chen, 2014).

Finally, Religious Orientation Scales (Gorsuch & McPherson, 1989) made it possible to evaluate the religious implications of other variables. The Intrinsic Religious Orientation Scale records a sincere form of commitment in which believers try to live their faith. Within the Extrinsic Religious Orientation Scale, an Extrinsic Personal factor records the use of religion to achieve personal well-being, whereas an Extrinsic Social factor assesses the use of religion to obtain social advantages. In previous studies conducted in the United States, the Intrinsic Scale correlated positively with Faith and negatively with Intellect Oriented Reflection, with this negative linkage theoretically revealing an American Christian defensiveness toward the intellect (Watson et al., 2011; Watson et al., 2015; Watson, Chen, & Morris, 2014). The Religious Openness Hypothesis suggests that the Intrinsic Orientation should correlate positively with both forms of Christian religious reflection in

theocratic Iran where defensiveness toward the intellect should be unnecessary.

Studies in Iranian and Pakistani Muslims, Indian Hindus, and American Christians all suggest that Intrinsic and Extrinsic Personal Orientations reflect more adaptive functioning, but the Extrinsic Social Orientation often displays weak and ambiguous patterns of relationship (Ghorbani, Watson, & Khan, 2007; Kamble, Watson, Marigoudar, & Chen, 2014a; Watson, Chen, & Ghorbani, 2014). In these studies, average responding on Extrinsic Social items has also been significantly lower than on the other two religious motivation measures. The Extrinsic Social Orientation may, therefore, reflect a generally less prominent and ambiguous reason for being religious. Procedures made it possible to examine whether Extrinsic Social scores would be significantly lower in Iranian Christians as well.

Hypotheses

In summary, the Openness Hypothesis argues that Christian Faith and Intellect Oriented Reflection Scales should not correlate negatively in societies where secularization is largely nonexistent. Theocratic Iran is just such a society. The present project evaluated this suggestion by examining four sets of measures in Iran:

First, and most importantly, Christian Faith and Intellect Oriented Reflection Scales supplied the centrally important data. Especially relevant to their use in this study was a previous finding that Muslim Faith and Intellect Oriented Reflection correlated positively in Iran (Ghorbani et al., 2013).

Second, the Mysticism Scale served as an index of religious openness. Extrovertive and Interpretation, but not the Introvertive factors tend to predict religious and psychological adjustment in Iranian Muslims (e.g., Hood et al., 2001).

Third, Need for Cognition, Openness to Experience, and Integrative Self-Knowledge Scales assessed psychological openness. These measures usefully clarified the religious openness of Iranian Muslims in a previous investigation (Ghorbani et al., 2013).

Fourth and finally, Religious Orientation scales made it possible to evaluate the religious motivational implications of all other constructs. Intrinsic and Extrinsic Personal Orientations have had largely adaptive implications in previous examinations of Iranian Muslims, but the Extrinsic Social Orientation appears to be weak and ambiguous in Muslim samples (Ghorbani et al., 2007).

Assessment of these variables made it possible to test three most important hypotheses:

First, Intellect and Faith Oriented Reflection should correlate positively in Iranian Christians, rather than negatively as they have done in American Christians.

Second, both religious reflection measures should predict higher levels of psychological and religious openness as made evident in positive correlations with Openness to Experience, Need for Cognition, and Integrative Self-Knowledge and with the Extrovertive and Interpretation, but not necessarily with the Introvertive mysticism factors.

Third, the Intrinsic Religious Orientation should correlate positively with both forms of religious reflection, in contrast to previously observed relationships with Intellect and Faith Oriented Reflection that were negative and positive, respectively, in American Christians (Watson et al., 2015).

Administration of Religious Orientation Scales also made it possible to determine if Extrinsic Social scores were lowest among these three religious motivation measures, just as they have been in Iranian and Pakistani Muslims, Indian Hindus, and American Christians.

Method

Participants

Research participants included 250 individuals from the Armenian Apostolic Church in Tehran, Iran. This church operates within the Oriental Orthodox tradition. Average age of these 82 men and 168 women was 33.4 ($SD = 11.1$). One of the researchers used personal contacts to recruit a diverse cross-section of Christians for the project. Approximately 100 were athletes and other members of the Ararat gym and cultural community. Another 30 individuals were students and graduates in the sciences who belonged to the Armenian Association of University Graduates. Musicians belonging to an Armenian chorus constituted another approximately 30 members of the sample. Students from an Armenian high school recruited all remaining participants from among family members and friends.

Materials

All instruments appeared in a single questionnaire booklet. Initial scale development procedures created a Persian version of the Integrative Self-Knowledge measure (Ghorbani et al., 2008). Translation of all other measures occurred in

preparation for previous projects. In these procedures, one individual translated an instrument from English into Persian, and then another translated the Persian back into English. Differences between original and back-translated statements were minor and easily resolved through revisions in the Persian translation.

Reactions to all questionnaire items occurred along a 1 to 5 Likert scale. As in previous projects in Iran, preliminary analyses eliminated any items displaying negative item-total-correlations in order to maximize the internal reliability of a translated scale. Scoring of all measures involved computation of the average response per item. Instruments appeared in the questionnaire booklet in the order in which they are described below.

Integrative Self-Knowledge. Twelve items defined the Integrative Self-Knowledge Scale ($\alpha = 0.76$, $M = 3.51$, $SD = 0.76$), which records openness to past, present, and desired future self-experience (Ghorbani et al., 2008). One item said, for example, "If I need to, I can reflect about myself and clearly understand the feelings and attitudes behind my past behaviors."

Need for Cognition. Removal of one statement improved the internal reliability of the Need for Cognition Scale ($\alpha = .69$, $M = 3.34$, $SD = 0.55$). Illustrative of the remaining 17 items was the self-report, "I find satisfaction in deliberating hard and for long hours."

Openness to Experience. The Openness to Experience scale ($\alpha = .69$, $M = 31.85$, $SD = 4.71$) was the 10-item version of this instrument associated with the International Personality Item Pool (Goldberg, 1999). A representative expression of openness said, "I have a rich vocabulary."

Mysticism. The Mysticism Scale included 32 items (Hood, 1975) describing three dimensions of mystical experience (Hood et al., 1993). Removal of two items from the Introvertive and four items from the Extrovertive factors maximized their internal reliabilities. Introvertive Mysticism appeared in such statements as, "I have had an experience which was both timeless and spaceless," with the final instrument containing six items ($\alpha = .52$, $M = 2.85$, $SD = 0.89$). Indicative of Extrovertive Mysticism was the self-report, "I have had an experience in which all things seemed to be conscious." Eight statements defined this factor ($\alpha = .63$, $M = 3.28$, $SD = 0.42$). Representative of the 12-item Interpretation factor ($\alpha = .73$, $M = 3.58$, $SD = 0.60$) was the claim, "I have had an experience which I knew to be sacred."

Christian Religious Reflection. Faith Oriented Reflection ($\alpha = .87$, $M = 4.12$, $SD = 0.87$) included seven statements that said, for example, "Faith in Christ is what nourishes the intellect and makes the intellectual life prosperous and productive." Removal of one item increased the internal reliability of Intellect Oriented Reflection ($\alpha = .60$, $M = 4.00$, $SD = 0.73$). Exemplifying this 4-item measure was the assertion, "I believe as humans we should use our minds to explore all fields of thought from science to metaphysics."

Religious Orientation. Gorsuch and McPherson (1989) Religious Orientations Scales assessed Intrinsic (8 items, $\alpha = .68$, $M = 3.40$, $SD = 0.69$), Extrinsic Personal (3 items, $\alpha = .79$, $M = 3.79$, $SD = 0.99$), and Extrinsic Social (3 items, $\alpha = .72$, $M = 2.34$, $SD = 0.97$) reasons for being religious. A representative Intrinsic Scale item said, "My whole approach to life is based on my religion." Reflective of the Extrinsic-Personal motivation was the claim, "What religion offers me most is comfort in times of trouble and sorrow." The Extrinsic Social Orientation appeared in such statements as, "I go to activities associated with my religion because I enjoy seeing people I know there."

Procedure

Conduct of this project occurred in conformity with institutional guidelines for ethical research. All participants were volunteers, and their responding remained completely anonymous. Administration of questionnaires occurred in both individual and group settings. Data analyses focused primarily on correlations among measures, although procedures also examined the possibility of within-subject differences in self-reported religious orientations.

Results

Among the correlations presented in Table 1, most important was the direct relationship between Faith and Intellect Oriented Reflection. This result documented the ability of Iranian Christians to unite their intellect with their faith. Other correlations further documented the openness of these Iranian Christians. Faith Oriented Reflection correlated positively with Interpretation of Mysticism and with Openness to Experience. Intellect Oriented Reflection exhibited direct linkages with Extrovertive Mysticism, Interpretation of Mysticism, Need for Cognition, Openness to Experience, and Integrative Self-Knowledge. With regard to their religious implications, both forms

Table 1
Relationships Among Christian Religious Reflection, Religious Orientation, and Varieties of Openness Measures (N = 250)

Measures	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Faith Oriented Reflection	.31***	.52***	.60***	.11	.10	.05	.24***	-.01	.24***	-.02
2. Intellect Oriented Reflection	-	-.08	.24***	-.04	.14*	-.04	.19**	.14*	.26***	.13*
3. Intrinsic Orientation	-	-	.53***	.11	.11	.06	.24***	.03	.11	-.07
4. Extrinsic Personal Orientation	-	-	-	.24***	.07	-.06	.26***	.04	.31***	-.08
5. Extrinsic Social Orientation	-	-	-	-	-.21**	.00	-.17**	-.10	.00	-.15*
6. Extroverted Mysticism	-	-	-	-	-	.10	.58***	.25***	.30***	.33***
7. Introverted Mysticism	-	-	-	-	-	-	.24***	.09	-.02	-.12
8. Interpretation of Mysticism	-	-	-	-	-	-	-	.32***	.43***	.24***
9. Need for Cognition	-	-	-	-	-	-	-	-	.42***	.42***
10. Openness to Experience	-	-	-	-	-	-	-	-	-	.28***
11. Integrative Self-Knowledge	-	-	-	-	-	-	-	-	-	-

* $p < .05$

** $p < .01$

*** $p < .001$

Table 2

Comparison of Correlations Among Measures Examined in Both Iranian (N = 250) and American (N = 350) Christian Samples

Measures	1.	2.	3.	4.	5.	6.
1. Faith Oriented Reflection	-	.31***	.52***	.60***	.11	-.01
2. Intellect Oriented Reflection	-.18**	-	-.08	.24***	-.04	.14*
3. Intrinsic Orientation	.69***	-.36***	-	.53***	.11	.03
4. Extrinsic Personal Orientation	.53***	.06	.35***	-	.24***	.04
5. Extrinsic Social Orientation	.11*	.12*	-.09	.20***	-	-.10
6. Need for Cognition	-.26***	.25***	-.20***	-.14**	-.08	-

Note. Correlations from Iran are above the diagonal, whereas American relationships appear below. Above the diagonal, bold correlations specify those relationships which proved to be significantly different across the two samples ($p < .01$).

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

of religious reflection predicted a higher Extrinsic Personal Religious Orientation, and Faith Oriented Reflection also correlated positively with the Intrinsic Orientation.

Other relationships generally conformed to results previously observed with Iranian Muslims. Extrinsic Personal scores correlated positively with the two other religious orientations and also predicted higher levels of the Interpretation of Mysticism and Openness to Experience measures. The Intrinsic Scale also correlated positively with the Interpretation of Mysticism factor. Negative linkages with Introvertive Mysticism, Interpretation of Mysticism, and Integrative Self-Knowledge pointed toward an Extrinsic Social incompatibility with both religious and psychological openness. All three mysticism measures correlated positively with each other, and the Extrovertive and Interpretation of Mysticism factors also predicted greater Need for Cognition, Openness to Experience, and Integrative Self-Knowledge, with these results once again suggesting their more adaptive psychological implications in Iran. As would be expected of presumed indices of psychological openness, Need for Cognition, Openness to Experience, and Integrative Self-Knowledge all correlated positively with each other.

Significant differences did appear among the three religious orientations, Greenhouse-Geisser $F(1.75, 436.44) = 245.58, p < .001$. Post hoc analyses revealed that the average response per item for each motivation was significantly different from

the other two. The Extrinsic Personal Orientation ($M = 3.79, SD = 0.99$) was highest, follow by the Intrinsic ($M = 3.40, SD = 0.69$) and then by the Extrinsic Social ($M = 2.34, SD = 0.97$) measures.

Comparisons With American Data

Of interest were relationships for Iranian Christians in comparison to those observed for American Christians in a companion project to this study (Watson et al., 2015). Table 2 presents the six common measures examined in both investigations. Given the large combined sample size ($N = 600$), use of a $p < .01$ level of significance and an examination of only those comparisons in which a relationship proved to be significant in at least one society made it possible to ignore weak and chance contrasts. Centrally important was the demonstration that the positive correlation between Faith and Intellect Oriented Reflection in Iran was significantly different from the negative relationship in the United States, $z = 6.04, p < .001$. The positive Intrinsic Orientation linkage with Faith Oriented Reflection was more robust in the United States as was its negative association with Intellect Oriented Reflection. The direct connection between Extrinsic Personal and Intrinsic scores was stronger in Iran. Negative Need for Cognition relationships with Faith Oriented Reflection and with the Intrinsic Orientation in the United States differed significantly from the nonsignificant outcomes in Iran.

Discussion

Results from this investigation supported the Religious Openness Hypothesis. Confirmation of the first, critical prediction occurred when Intellect and Faith Oriented Reflection correlated positively in Iranian Christians with this result being significantly different from the negative relationship observed previously in American Christians (Watson et al., 2015). In line with the second hypothesis, Faith and Intellect Oriented Religious Reflection also displayed at least some linkages with religious and psychological openness. The third hypothesis argued that the Intrinsic Orientation would correlate positively with both forms of religious reflection in Iran, in contrast to previous American data in which Intellect and Faith Oriented Reflection correlated negatively and positively, respectively. In Iran, the Intrinsic Orientation did exhibit a positive tie with Faith Oriented Reflection, but the hypothesized direct linkage with Intellect Oriented Reflection failed to materialize. However, the negative Intrinsic Orientation relationship with Intellect Oriented Reflection in Iran was small, statistically non-significant, and weaker than the negative correlation observed in American Christians. Intellect Oriented Reflection, therefore, was relatively less incompatible with sincere religious commitments in Iranian Christians, and this result was consistent with the broader implications of the Religious Openness Hypothesis.

In American Christians, Faith and Intellect Oriented Reflection tend to correlate negatively (Watson, Chen, & Morris, 2014), and sometimes significantly (Watson et al., 2011, 2015), in contrast to positive linkages observed in Iranian Muslims (Ghorbani et al., 2013) and Indian Hindus (Kamble et al., 2014b). The Religious Openness Hypothesis argues that this negative relationship reflects a defensive ghettoization of thought in response to what some American Christians perceive to be an inhospitality toward faith within the secularization that increasingly dominates the West. Someone skeptical about this explanation might counterclaim that this negative relationship merely demonstrates the closed-mindedness of Christians in contrast to the open-mindedness of Muslims and Hindus. In conformity with the Religious Openness Hypothesis, Faith and Intellect Oriented Reflection correlated positively in Iranian Christians. Hence, this outcome documented an open-minded Christian ability to wed intellect with faith when

a cultural context seemed to preclude any need for a defensive reaction to secularism.

Additional support for the Religious Openness Hypothesis came in relationships of Faith and Intellect Oriented Reflection with indices of religious and psychological openness. Openness to religious experience appeared in positive correlations of both Christian Religious Reflection measures with the Interpretation of Mysticism factor and in a direct association of Intellect Oriented Reflection with Extrovertive Mysticism. Connections with psychological openness were obvious as well in positive ties of Faith Oriented Reflection with Openness to Experience and of Intellect Oriented Reflection with Openness to Experience, Need for Cognition, and Integrative Self-Knowledge. A nonsignificant Faith Oriented Reflection relationship with Need for Cognition differed significantly from the negative correlation observed previously in the United States, and this result also suggested a relatively greater cognitive openness in Iranian Christians.

Religious Orientation and Openness Measures

Data failed to confirm the Religious Openness Hypothesis in one noteworthy instance. Intellect Oriented Reflection did not display the predicted positive correlation with the Intrinsic Orientation. The negative relationship between these two variables was not statistically significant in Iran, as it has been in American Christians (e.g., Watson, Chen, & Morris, 2014); yet, this linkage also was not significantly positive as it has been in Iranian Muslims (Ghorbani et al., 2013, Ghorbani, Watson, Aghababaei, & Chen, 2014) and Indian Hindus (Kamble et al., 2014b). Findings in Iran and America, therefore, suggest that intrinsic religious commitments may not have a potential to facilitate the Intellect Oriented Reflection of Christians as they appear to have in Iranian Muslims and Indian Hindus. At the same time, however, the positive Intrinsic Orientation relationship with Faith Oriented Reflection was more robust in the United States, as was its negative association with Intellect Oriented Reflection. This pattern further suggested that Christian religious reflection was more polarized in the United States.

The Extrinsic Personal Orientation correlated positively with both Intellect and Faith Oriented Reflection. Iranian Christians, therefore, did appear to have the religious motivational foundations for uniting their intellect with their faith. Iranian Muslims (Ghorbani et al., 2013) and Indian Hindus (Kamble et al., 2014b) display similar

relationships, but in American Christians, Extrinsic Personal scores correlate negatively (Watson, Chen, & Morris, 2014) or nonsignificantly (Watson et al., 2011, 2015) with Intellect Oriented Reflection. The implications of the Extrinsic Personal Orientation for Christians may, therefore, vary with cultural context.

Significant linkages with mystical experience and psychological openness conformed to previous demonstrations that the Extrinsic Personal and Social Orientations tend to be more adaptive and maladaptive, respectively. The only Intrinsic Orientation relationship with these variables was a positive association with Interpretation of Mysticism. The Intrinsic Orientation did, nevertheless, appear to be relatively more open in Iran because a nonsignificant Intrinsic Orientation correlation with Need for Cognition differed from the negative association observed in the United States.

Studies of Muslims in Iran and Pakistan reveal that the Extrinsic Personal Orientation is strongest, the Extrinsic Social Orientation is weakest, and the Intrinsic Orientation falls in between (Ghorbani et al., 2007). In the United States, the Extrinsic Social Orientation is weakest as well, but the Intrinsic and Extrinsic Personal motivations either do not differ (Watson, Chen, & Ghorbani, 2014) or the Intrinsic Orientation is strongest (Watson et al., 2015). Such data might mean that the Extrinsic Personal Orientation is more important only within the motivational dynamics of Muslims, but Indian Hindus display the same pattern (Kamble et al., 2014a). The present data now make it clear the Christians living in Iran are like both Muslims and Hindus in their relative embrace of these three religious motivations. Similarities across traditions and societies suggest that the Extrinsic Personal Orientation may assume a special significance outside the West. The stronger relationship between the Extrinsic Personal and Intrinsic Orientations in Iran than in the United States may also suggest the same thing. In contrast, the Extrinsic Social Orientation appears to be less prominent, regardless of cultural context.

Correlations among openness measures were in line with expectations. Extrovertive Mysticism and Interpretation of Mysticism factors displayed direct relationships with all three indices of psychological openness, which in turn correlated positively with each other. As in previous Iranian projects (e.g., Hood et al., 2001; Ghorbani, Watson, Shamohammadi, & Cunningham, 2009), Introvertive Mysticism seemed relatively less

important in defining religious and psychological functioning.

Limitations

Limitations associated with this exploration of the Religious Openness Hypothesis in American (Watson et al., 2015) and then in Iranian Christians necessitate interpretative caution. Five issues may be especially noteworthy.

First, internal reliabilities for a number of measures in both projects were below the .70 value recommended by Kaplan and Saccuzzo (2012). More robust relationship might appear with the administration of more internally reliable instruments.

Second, direct comparisons between Iranian and American correlations require careful interpretation. In cross-cultural research, the typical assumption is that definitive comparison of psychological constructs requires measurement invariance statistical procedures which confirm that instruments are operating with some degree of psychometric similarity across societies (e.g., van de Vijver & Leung, 1997). The need to achieve this criterion can result in the removal of items from scales in order to eliminate cross-cultural dissimilarities (e.g., Ghorbani, Watson, & Weathington, 2009). Such procedures are clearly useful in calibrating constructs to a nomothetic perspective that seeks to understand populations abstracted from culture-specific ambiguities. On the other hand, the ISM assumes that the maintenance of dissimilarities in "ideographic" as opposed to nomothetic comparisons may have their place as well (Watson et al., 2015). Such comparisons may usefully clarify the nuances and particularities that help describe the psychology of Christian and other communities (e.g., Ghorbani, Watson, Krauss, Bing, & Davison, 2004).

Third, this Iranian and the companion American project did not examine the exact same set of measures. Important insights might have been available if they had done so, and this possibility may deserve future research attention. At the same time, however, the ISM exploration of religious openness has intentionally adopted the strategy of analyzing a broad range of relevant constructs across diverse religious and cultural contexts. Such an approach helps avoid the development of conclusions that could be construct, culture, or religion dependent. The most important insights, therefore, may follow from research programs that are even more ambitious in their empirical expansiveness.

Fourth, any attempt to explain cross-cultural differences in terms of the influences of secularization in the West but not in Iran is admittedly speculative. The American sample included only university undergraduates who were primarily Protestants living in religiously conservative area of the United States (Watson et al., 2015). The Iranian sample was older and included individuals from the wider Armenian Orthodox Christian community in Tehran. Age, denominational, and numerous other differences could have produced the contrasts that appeared between these two samples. Additional research seems necessary to clarify these possibilities.

Fifth and finally, the two present studies operated within a Christian Ideological Surround. The ISM, nevertheless, rests upon Christian beliefs in the importance of dialog and peace across traditions (Watson, 2006; Ghorbani et al., 2013). Hence, ISM assumptions and methods will presumably have their place within other non-Christian religious and even non-religious ideological surrounds (cf., Ghorbani et al., 2012). Interpretations of the findings of the present project will of course vary across ideological surrounds.

Future Studies

Given such limitations, ultimate confirmation of the Religious Openness Hypothesis will obviously require considerable additional research. Of interest, for example, will be efforts to discover whether Intellect and Faith Oriented Reflection correlate positively in Christians living in other non-Western societies or whether a negative correlation always appears in different Christian denominations in the West.

In addition, a central assumption of the hypothesis is that defensive attitudes toward secularism explain the negative correlation between Faith and Intellect Oriented Reflection in the West. This suggestion should be tested more directly by operationalizing such attitudes. Among other things, the prediction would be that these attitudes should mediate the negative linkage of Faith Oriented Reflection and also of Religious Fundamentalism with Intellect Oriented Reflection in American samples (Watson, Chen, Morris, & Stephenson, 2015).

With a measure of defensive attitudes toward secularism available, additional issues could be explored as well. An interesting question might be whether Faith and Intellect Oriented Reflection would correlate negatively among Muslims, Hindus, and Jews living in the West. The

argument of the Religious Openness Hypothesis is that a negative relationship between Faith and Intellect Oriented Reflection should be obvious only in those religious communities that display defensiveness toward secularism. In the United States, minority religious communities might express more favorable attitudes toward a secularization that creates a greater public space not dominated by the majority Christian perspective. In France, however, government efforts to limit public expressions of Islamic faith, as, for example, in the wearing of the hijab or headscarf by Muslim women, might promote defensiveness and encourage a divorce between faith and intellect. Such predictions may not hold true, but evident in these possibilities is the ISM assumption that context effects are potentially important in the psychology of religion and deserve careful empirical consideration (e.g., Andrews, Watson, Chen, & Morris, 2014).

Conclusion

Empirical efforts to differentiate between Religious Fundamentalist and Biblical Foundationalist Ideological Surrounds in American Christians (Watson et al., 2015) and the examination of Christians living in Iran both supported the Religious Openness Hypothesis. Additional support has come from investigations analyzing the religious reflection of Muslims in Iran (Ghorbani et al., 2013, Ghorbani, Watson, Aghababaei, & Chen, 2014) and of Hindus in India (Kamble et al., 2014b). At the broadest level, the Religious Openness Hypothesis argues that a truly comprehensive understanding of openness as it relates religion must remain sensitive to two very different perspectives. One perspective exists outside religious traditions and expresses a potentially agnostic skepticism that is recorded by, for example, the original Quest Scale (Watson, Chen, & Morris, 2014). The other operates within religion and potentially reflects a faith that thoughtfully attempts to answer questions about the present and the future using foundations from the past. Research examining Faith and Intellect Oriented Reflection may be critical in clarifying this second form of openness. In short, a truly comprehensive psychology of religion should explore intra-traditional as well extra-traditional forms of openness.

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