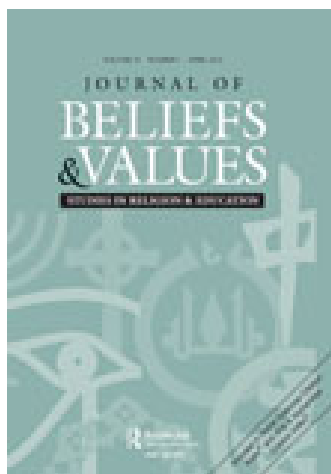


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Extrinsic Cultural Religious Orientation: analysis of an Iranian measure in university students in the United States

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Previous research examining Iranian university students suggested that an Extrinsic Cultural Religious Orientation may be more important than an Extrinsic Social Religious motivation in maintaining Muslim religious commitments. The present project demonstrated that a similar conclusion seemed applicable to the largely Christian commitments of American university students. In the United States, an Extrinsic Cultural Religious Orientation Scale displayed a factor structure like that observed in Iran, was a more robust and consistent predictor of psychological adjustment than the Extrinsic Social Religious Orientation, and was sensitive to spiritual as well as religious dimensions of commitment. Peace and Justice and Cultural Foundations factors from this scale were relatively more positive in their adjustment implications than were Disorder Avoidance and Family and Social Order factors. Noteworthy contrasts between the present American and previous Iranian data appeared in Extrinsic Cultural Religious Orientation relationships with a sense of identity and with cognitive empathy. These results confirmed that the Extrinsic Cultural Religious Orientation deserves additional research attention in both Muslim and more secular Western societies.

Keywords: religious commitments; social motivations; psychological adjustment; United States; Muslim societies

Groundbreaking in the social scientific study of religious motivations was the development of Religious Orientations Scales by Allport and Ross (1967). They created an Intrinsic Religious Orientation Scale to operationalise a sincere effort of the individual to make religion the ultimate motivation in life, whereas their Extrinsic Religious Orientation Scale sought to record a more hypocritical use of religion as a means to other ends. An extensive research literature subsequently confirmed their theoretical expectation that the Intrinsic and Extrinsic Religious Orientation Scales would largely predict adjustment and maladjustment, respectively (Donahue 1985).

Complexities nevertheless appeared. Critics sometimes complained that the Intrinsic Religious Orientation Scale too much recorded a cognitively rigid orthodoxy that was incompatible with the sincere quest for an existentially relevant, more spiritual faith (Batson, Schoenrade, and Ventis 1993). Evidence also demonstrated that the extrinsic religious motivation was not unitary, since the Extrinsic Religious Orientation Scale contained two factors (Kirkpatrick 1989). An Extrinsic Personal Religious Orientation factor appeared in such self-reports as, ‘What religion offers

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me most is comfort in times of trouble and sorrow.’ Representative of an Extrinsic Social Religious Orientation factor was the assertion, ‘I go to church mostly to spend time with my friends.’ Psychometric refinements in the Extrinsic Religious Orientation Scale formally acknowledged this structural complexity (Gorsuch and McPherson 1989). Perhaps most important were eventual claims that extrinsic reasons for being religious could have positive as well as negative implications for adjustment (Pargament 1992). Numerous investigations, for example, documented the benefits of using religion to cope with stress and illness (Pargament 1997).

Religious Orientation in Muslim society

Research with Religious Orientation Scales focused initially on largely Christian, Western samples (Hood et al. 1996). Recent studies in Muslim societies have confirmed their usefulness in other cultural contexts, but have also uncovered new complexities (Ghorbani, Watson, and Khan 2007). As in the West, the Intrinsic Religious Orientation proved to be largely adaptive, but so too did the Extrinsic Personal Religious Orientation. Indeed, when procedures scored Religious Orientation measures in terms of the average response per item, the Extrinsic Personal Religious Orientation was sometimes higher than the Intrinsic Religious Orientation in both Pakistan (Khan, Watson, and Habib 2005) and Iran (Ghorbani et al. 2011). Such outcomes suggested that the Extrinsic Personal Religious motivation might be especially strong in Muslims. Of further importance was the unexpected complaint of Pakistanis translating these measures into Urdu that items expressing the Extrinsic Social Religious Orientation were offensive to their faith (Khan et al. 2005). Extrinsic Social Religious Orientation means also proved to be reliably lower than Intrinsic and Extrinsic Personal Religious Orientation scores in both Pakistan and Iran (Ghorbani et al. 2007), and this factor was largely unrelated to Muslim psychological functioning, although weak relationships did occasionally appear with both adjustment and maladjustment. Overall, these data seemed to identify the Extrinsic Social Religious motivation as a questionable and perhaps offensive index of Muslim religious commitments.

Islam does not separate the so-called secular and religious dimensions of life; so, Muslim intrinsic faith presumably can and should be united with the use of religion as a means to adaptive social ends (e.g. Moughrabi 1995; Murken and Shah 2002). Support for that possibility came in Iranian research that offered the preliminary development (Ghorbani et al. 2002) and subsequent refinement of a 32-item Extrinsic Cultural Religious Orientation Scale (Ghorbani et al. 2010). In a sample of Iranian university students, this refined instrument displayed four factors that recorded the use of religion to promote cultural well-being. Its Family and Social Order factor included such beliefs as, ‘A religious life is important because it promotes better family relationships.’ Exemplifying the Disorder Avoidance factor was the self-report, ‘Most of the problems of a society result from the failure of people to be sincerely religious.’ Peace and Justice items said, for example, ‘My motivation for being religious is a desire to develop a human society that is peaceful, just, and happy.’ Expressive of the Cultural Foundations factor was the statement, ‘Underlying my faith is the belief that religion is essential to the moral development of the society.’

In Iran, the Extrinsic Cultural Religious Orientation Scale and its factors correlated negatively with depression and positively with social adjustment as measured,

for example, by a sense of identity, by collective self-esteem, and by the Emotional Concern and cognitive Perspective Taking dimensions of empathy (Ghorbani et al. 2010). The Extrinsic Cultural Religious Orientation Scale also partially mediated relationships of identity with social adjustment, but also suppressed an identity linkage with personal adjustment as assessed, for example, by measures of depression, anxiety, and self-esteem. Overall, these data suggested that at least in Iranian university students, an Extrinsic Cultural Religious Orientation may promote social adjustment, but may also interfere with the full expression of personal adjustment.

Extrinsic Cultural Orientation in the United States

Studies in Muslim societies suggest a need for further research into socially related Extrinsic Religious Orientations in the West. The general purpose of the present project was to begin that research by analysing these extrinsic motivations in a sample of American university students, just as they had been examined previously in Iranian university students. A first obvious question was whether the Extrinsic Social Religious motivation would be significantly lower than the Intrinsic and Extrinsic Personal Religious Orientations in a Western society like the United States. Such an outcome would spotlight this motivation as relatively less compatible with Christian and other American religious commitments, just as it appears to be with Pakistani and Iranian Muslims.

A second set of issues revolved around the Extrinsic Cultural Religious Orientation Scale. Will the four factors observed in Iran successfully describe American responding as well? Of further interest was the possibility that the Extrinsic Cultural Religious Orientation more than the Extrinsic Social Religious Orientation might reflect the positive social potentials of American religious motivations. If so, average responding on the Extrinsic Cultural Religious Orientation Scale and its factors should be higher than on the Extrinsic Social Religious Orientation. The Extrinsic Cultural Religious Orientation should also be more predictive of the Intrinsic and Extrinsic Personal Religious Orientations and of social and personal adjustment as well. Extrinsic Cultural Religious Orientation measures, consequently, should display at least some evidence of incremental validity over the Extrinsic Social Religious Orientation. Finally, if the Extrinsic Cultural Religious motivation operates in the United States as it does in Iran, then it should partially mediate the relationship of identity with social adjustment and suppress its association with personal adjustment.

Central to a final issue was the expectation that Extrinsic Cultural Religious Orientation measures would correlate positively with the Intrinsic Religious Orientation. Again, one complaint against the Intrinsic Religious Orientation Scale is that it supposedly too much records a narrow-minded orthodoxy that interferes with a personal quest for an existentially vibrant spirituality (Batson et al. 1993). A strong correlation with the Intrinsic Religious Orientation Scale might, therefore, identify the Extrinsic Cultural Religious Orientation as a rigid form of religiosity devoid of any spiritual implications. One way to test that suggestion is to have research participants identify themselves as both religious and spiritual (Both), as religious but not spiritual (Religious), as spiritual but not religious (Spiritual), or as neither religious nor spiritual (Neither: Zinnbauer et al. 1997). If the Extrinsic Cultural Religious Orientation has no spiritual implications, then the Both and Religious Groups should

not differ on any measure of this motivation and should also score higher than the Spiritual and Neither research participants, who in turn should also not differ.

In summary, this study responded to recent Muslim research by reexamining socially related religious motivations in a largely Christian sample of American university students. Procedures made it possible to test seven most important hypotheses:

First, average responding on the Extrinsic Social Religious Orientation should be significantly lower than on the Intrinsic and Extrinsic Personal Religious Orientations.

Second, in America, the Extrinsic Cultural Religious Orientation Scale should display the same four-factor structure that was observed in Iran.

Third, average responding on the Extrinsic Cultural Religious Orientation Scale and its factors should be higher than on the Extrinsic Social Religious Orientation.

Fourth, as a motivation more in conformity with American religious commitments, the Extrinsic Cultural Religious Orientation should be more predictive than the Extrinsic Social Religious Orientation of religious functioning and of personal and social adjustment. Measures of religious functioning included the Intrinsic and Extrinsic Personal Religious Orientations. Analysis of personal and social psychological adjustment focused on instruments used in the previous examination of Iranian university students. Depression, Anxiety, and Self-Esteem Scales assessed personal adjustment. Identity, Empathic Concern, Perspective Taking, and Collective Self-Esteem Scales evaluated social adjustment.

Fifth, the Extrinsic Cultural Religious Orientation should display incremental validity in explaining variance beyond that accounted for by the Extrinsic Social Religious Orientation.

Sixth, the Extrinsic Cultural Religious Orientation Scale should partially mediate relationships of identity and social adjustment and suppress connections of identity with personal adjustment.

Finally, in the analysis of an issue more germane to secular American society and not examined previously within the theocratic context of Iran, the Both and Religious Groups should not differ on any Extrinsic Cultural measure and should score higher than the Spiritual and the Neither Groups, with these latter two groups also displaying no significant differences. Again, such an outcome would indicate that the Extrinsic Cultural Orientation is devoid of spiritual implications.

Method

Participants

The sample included 400 undergraduates enrolled in Introductory Psychology at a state university in the southeastern United States. These 173 men and 227 women had an average age of 19.1 ($SD = 2.24$). Participants were 77.1% Caucasian, 15.8% African-American, 2.3% Asian, and 1.8% Hispanic, with the remainder belonging to various other racial groups or failing to indicate their race. Religious affiliation was 32.7% Baptist, 12.2% Catholic, 11.7% Methodist, 6.8% Church of Christ, 3.5% Presbyterian, 3.3% Church of God, 5.8% 'Other Protestant,' 6.0% Atheist/Agnostic, and 18.0% indicating 'Other' or not responding to the question. Among these participants, 222 self-identified as 'Both Religious and Spiritual,' 63 as 'Religious but not Spiritual,' 81 as 'Spiritual but not Religious,' and 28 as 'Neither Spiritual nor Religious.' Six individuals failed to specify their stance on religion and spirituality.

Measures

All measures appeared in a single questionnaire booklet. An initial section obtained background information including the religion and spirituality self-ratings. In sequence, the booklet then presented items for the Extrinsic Cultural Religious Orientation (Ghorbani et al. 2010); the Intrinsic and Extrinsic Religious Orientations (Gorsuch and McPherson 1989); Identity (Ochse and Plug 1986), Collective Self-Esteem (Crocker and Luhtanen 1990); Empathic Concern and Perspective Taking (Davis 1983); Self-Esteem (Rosenberg 1989), and Depression and Anxiety (Costello and Comrey 1967). All instruments employed a 5-point Likert scale that ranged from 'I strongly disagree' (0) to 'I strongly agree' (4).

Among the 32 statements from the Extrinsic Cultural Scale, 16 measured Family and Social Order, five recorded Disorder Avoidance, five expressed Peace and Justice, and six defined Cultural Foundations. The Intrinsic Religious Orientation Scale contained eight items that asserted, for example, 'My whole approach to life is based on my religion.' Three statements each made up the Extrinsic Personal and the Extrinsic Social Religious Orientation factors. The Extrinsic Social Orientation was, of course, centrally important in this project, and its three items said, 'I go to church because it helps me make friends,' 'I go to church mostly to spend time with my friends,' and 'I go to church because I enjoy seeing people I know there.'

With regard to the psychological variables, the Identity Scale contained 19 items exemplified in the self-report that 'I feel proud to be the sort of person I am.' For psychometric reasons, the previous Iranian analysis of Collective Self-Esteem used the full scale rather than its four factors (Ghorbani et al. 2010); so, the present project followed the same procedure. Illustrative of this 16-item instrument was the claim, 'I am a worthy member of the social groups I belong to.' Perspective Taking (e.g. 'I try to look at everybody's side of a disagreement before I make a decision') and Empathic Concern (e.g. 'I would describe myself as a pretty soft-hearted person') measures consisted of 7 items each. Ten statements made up the Self-Esteem Scale (e.g. 'I take a positive attitude to myself.'). 'I feel sad and depressed' was representative of the 14-item Depression Scale, and 'I'm a restless and tense person' illustrated the 9-item Anxiety Scale.

Procedure

All student involvement in this study was voluntary, rewarded with extra course credit, and in full conformity with institutional ethical guidelines. Groups of participants responded to the questionnaire booklet in a large classroom setting. Each subject entered all responses to questionnaire items on a standardised answer sheet that subsequently was read by optical scanning equipment into a computer data file. The scoring of all religious and psychological scales involved computation of the average response per item. Confirmatory factor analysis (CFA) determined whether the four factors observed in Iran would describe Extrinsic Cultural Religious Orientation responding in the United States. Tests of mediation followed the theoretical framework of Baron and Kenny (1986). In examining incremental validity, multiple regressions entered the Extrinsic Social Religious Orientation on the first step followed by the Extrinsic Cultural Religious Orientation on the second step in procedures predicting the other religious and the personal and social adjustment variables. A multivariate analysis of variance (MANOVA) determined whether the religious and spiritual groups differed on the Extrinsic Cultural Religious Orientation measures.

Results

Correlations among all scales appear in Table 1. The Extrinsic Cultural Religious Orientation predicted higher levels of the Intrinsic, Extrinsic Personal, and Extrinsic Social Religious Orientations, along with greater Collective Self-Esteem, and Empathic Concern and lower Perspective Taking and Depression. Relations of the Extrinsic Cultural Religious Orientation with other variables did prove to be more consistent and robust than those for the Extrinsic Social Religious Orientation. As predicted, the Extrinsic Cultural Religious Orientation Scale correlated more strongly with the Intrinsic, $t(397) = 11.35, p < .01$, and the Extrinsic Personal, $t(397) = 5.34, p < .01$, Religious Orientations than did the Extrinsic Social Religious Orientation. The possibility that the Extrinsic Cultural Religious Orientation Scale might mediate or suppress relationships of Identity with adjustment could not be examined because the latter measure displayed no significant association with the former, $\beta = .096, p > .05$, which was a prerequisite for testing mediation (Baron and Kenny 1986).

Among the four religious orientation measures, the Extrinsic Social Religious Orientation factor exhibited the lowest average response per item, Greenhouse-Geisser $F[2.59, 1034.82] = 343.43, p < .001$. Post hoc analyses demonstrated that this religious orientation was significantly lower than each of the other three. Extrinsic Cultural Religious Orientation scores were also significantly lower than the Extrinsic Personal and Intrinsic Religious Orientation means, which in turn did not differ. These means all appear in the bottom of Table 1.

Incremental validity

After multiple regression procedures entered the Extrinsic Social Religious Orientation measure on the first step, the Extrinsic Cultural Religious Orientation Scale on the second step exhibited significant β values in its associations with the Intrinsic Religious Orientation (.66), Extrinsic Personal Religious Orientation (.53), Identity (.13), Collective Self-Esteem (.18), Empathic Concern (.23), and Depression (-.14) scales ($ps < .05$). Two other multiple regression findings were noteworthy. First, the non-significantly positive Extrinsic Social Religious Orientation linkage with the Intrinsic Religious Orientation on the first step ($\beta = .09, p = .08$) became significantly negative on the second step ($\beta = -.11, p < .01$). Second, the Extrinsic Cultural Religious Orientation correlated negatively with Perspective Taking (-.11, $p < .05$), but this connection disappeared when multiple regression procedures simultaneously accounted for variance associated with the Extrinsic Social Religious Orientation ($\beta = -.06, p = .23$).

Extrinsic cultural factors

CFA procedures employed full information maximum likelihood estimation with robust standard errors (Muthén and Muthén 1998–2010). Analysed first was the baseline one-factor model. Evidence of adequate fit appeared if two of three fit indices displayed acceptable values involving a root mean square error of approximation (RMSEA) of .06 or less, a standardised root mean square residual (SRMR) of .08 or less, and a comparative fit index (CFI) of .90 or more (Hu and Bentler 1999). The one factor model failed to fit the data: $\chi^2(464) = 1391.7, RMSEA = .071$,

Table 1. Correlations among and descriptive statistics for extrinsic cultural and other scales.

Measures	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Extrinsic Cultural	-	.62 ^{***}	.58 ^{***}	.31 ^{***}	.09 ^{***}	.16 ^{**}	-.11 [*]	.16 ^{**}	.03	-.12 [*]	.04
2. Intrinsic Orientation		-	.36 ^{***}	.09 ^{***}	.21 ^{***}	.25 ^{***}	.01	.27 ^{***}	.12 [*]	-.20 ^{***}	-.04
3. Extrinsic Personal			-	.27 ^{***}	.03	.15 ^{**}	-.01	.14 ^{**}	.07	-.17 ^{**}	.05
4. Extrinsic Social				-	-.06	-.02	-.19 ^{***}	-.17 ^{**}	-.01	.03	.09
5. Identity					-	.61 ^{***}	.18 ^{***}	.19 ^{***}	.63 ^{***}	-.59 ^{***}	-.40 ^{***}
6. Collective Self-Esteem						-	.20 ^{**}	.26 ^{***}	.46 ^{***}	-.49 ^{***}	-.22 ^{***}
7. Perspective Taking							-	.38 ^{***}	.14 ^{**}	-.13 ^{**}	-.19 ^{**}
8. Empathic Concern								-	.15 ^{**}	-.25 ^{***}	.07
9. Self-Esteem									-	-.75 ^{***}	-.50 ^{***}
10. Depression										-	.43 ^{***}
11. Anxiety											-
<u>Descriptive Statistics</u>											
<i>M</i>	1.85	2.48	2.44	1.12	2.61	2.81	2.58	2.96	3.00	0.77	1.63
<i>SD</i>	0.83	0.89	0.96	0.79	0.61	0.60	0.64	0.65	0.72	0.60	0.76
α	.96	.84	.73	.68	.86	.88	.71	.78	.87	.91	.78

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

SRMR=.060, CFI=.852. Procedures next examined whether the four-factor structure identified in Iranian university students would better describe responding in this sample of American university students. The four-factor structure displayed acceptable fit: $\chi^2(458) = 1076.8$, RMSEA = .058, SRMR = .052, CFI = .901. Factor loadings of items on the four factors appear in the appendix.

Cronbach alpha results demonstrated that the Family and Social Order (.95), Disorder Avoidance (.75), Peace and Justice (.80), and Cultural Foundations (.83) factors had acceptable internal reliabilities. Means for the Family and Social Order ($M = 1.82$, $SD = 0.96$) Disorder Avoidance ($M = 1.63$, $SD = 0.90$), Peace and Justice ($M = 2.13$, $SD = 0.86$) and Cultural Foundations ($M = 1.88$, $SD = 0.90$) factors were all significantly higher than for the Extrinsic Social Religious Orientation, Greenhouse-Geisser $F[2.98, 11.85.04] = 152.79$, $p < .001$. Among the Extrinsic Cultural Religious Orientation factors, only the Cultural Foundations contrast with Family and Social Order failed to reach statistical significance ($p > .05$). The full Extrinsic Cultural Religious Orientation Scale correlated .97 with Family and Social Order, .88 with Disorder Avoidance, .71 with Peace and Justice, and .86 with Cultural Foundations ($ps < .001$). Correlations among the four factors ranged from .51 between Disorder Avoidance and Peace and Justice to .84 between Disorder Avoidance and Family and Social Order ($ps < .001$).

Factor correlations with all other variables appear in Table 2. All four measures correlated positively with the Intrinsic, Extrinsic Personal, and Extrinsic Social Religious Orientations and with the Collective Self-Esteem and Empathic Concern Scales. Only Disorder Avoidance failed to predict lower levels of Depression. Disorder Avoidance and Family and Social Order correlated negatively with Perspective Taking, and Cultural Foundations displayed a small positive linkage with Identity.

Table 2. Correlation (r) and Multiple Regression (β) Results for Family and Social Order (FSO), Disorder Avoidance (DA), Peace and Justice (PJ), and Cultural Foundations (CF) Factors of the Extrinsic Cultural Scale.

Variables	Correlation r				Multiple Regression β			
	FSO	DA	PJ	CF	FSO	DA	PJ	CF
Intrinsic Orientation	.61***	.62***	.35***	.54***	.29***	.34***	-.04	.13*
Extrinsic Personal	.55***	.45***	.48***	.52***	.33***	-.10	.20***	.19**
Extrinsic Social Identity	.30***	.29***	.19***	.27***	-	-	-	-
Collective Self-Esteem	.14**	.10*	.13*	.19***	.08	-.12	.02	.23**
Perspective Taking	-.14**	-.11*	.01	-.08	-.25***	.04	.14*	.04
Empathic Concern	.13*	.15**	.16**	.16**	-.05	.13	.10	.11
Self-Esteem	.03	.00	.01	.04	-	-	-	-
Depression	-.10*	-.09	-.10*	-.13*	-	-	-	-
Anxiety	.05	.06	.01	.03	-	-	-	-

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

Table 2 also summarises multiple regression results in which the four factors increased the variance explained on the second step after the Extrinsic Social Religious Orientation had been entered on the first step. All four factors exhibited significant associations with one or both of the Intrinsic and Extrinsic Personal Religious Orientations. Cultural Foundations also directly increased the variance explained in Collective Self-Esteem. Linkages with Perspective Taking were negative for Family and Social Order and positive for Peace and Justice. The four Extrinsic Cultural measures taken together increased the variance explained in Empathic Concern, $\Delta R^2 = .06$, $F [4, 393] = 5.97$, $p < .001$, but no significant association appeared for any specific factor ($ps > .05$).

Groups varying in their religious and spiritual commitments displayed significant differences in the Extrinsic Cultural Religious Orientation measures, Wilks' Lambda = .205, $F [5, 385] = 299.35$, $p < .001$. In each case, the Both participants displayed the highest mean, followed by the Religious, then by the Spiritual, and finally by the Neither groups (see Table 3). All post hoc comparisons were significant except that the Spiritual and Neither Groups did not differ on Family and Social Order, and the Both and the Religious participant scored similarly on Peace and Justice and on Cultural Foundations.

Clarifying analyses

This project intentionally examined a religiously and spiritually diverse sample that would be more representative of American university students. Among other things, this approach made it more possible to analyse Spiritual and Neither types of religious and spiritual commitment. But did this use of a more heterogeneous sample misrepresent the implications of the Extrinsic Cultural Religious Orientation in those who maintained a religious affiliation?

In an attempt to answer this question, procedures reexamined the Extrinsic Cultural data only in those who self-reported one religious affiliation or another

Table 3. Measures of Extrinsic Cultural Orientation in Religious, Spiritual, Both Religious and Spiritual, and Neither Religious nor Spiritual Groups.

Measures	Religious (R)		Spiritual (S)		Both (B)		Neither (N)		F	Post hocs
	M	SD	M	SD	M	SD	M	SD		
Extrinsic Cultural Scale	1.93	0.65	1.23	0.76	2.18	0.69	0.86	0.65	57.42***	B > R > S > N
Family and Social Order Disorder	1.91	0.76	1.08	0.85	2.20	0.81	0.77	0.72	54.65***	B > R > (S = N)
Avoidance	1.68	0.72	1.00	0.82	1.97	0.78	0.57	0.61	50.48***	B > R > S > N
Peace and Justice	2.16	0.77	1.88	0.94	2.31	0.76	1.39	1.01	13.87***	(B = R) > S > N
Cultural Foundations	2.02	0.71	1.26	0.86	2.20	0.79	0.92	0.70	43.32***	(B = R) > S > N

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

($N = 309$). With one exception, all significant Extrinsic Cultural Religious Orientation correlations with other measures in the full sample remained significant in this Religiously Affiliated subgroup. The one exception occurred when a negative correlation with Depression ($-.12, p < .05$) in the full sample became slightly smaller and non-significant ($-.10, p = .07$) in this subgroup. Patterns of significant mean differences between the Extrinsic Cultural and the three other Religious Orientation measures remained the same. Subgroup tests of incremental validity yielded the same basic conceptual outcomes as in the full sample. The pattern of significant mean differences between the Extrinsic Cultural factors and the Extrinsic Social Religious Orientation remained unchanged, and at a basic conceptual level, subgroup correlation and incremental validity results for the Extrinsic Cultural factors mirrored the findings observed with the full sample.

Unsurprisingly, the Atheist/Agnostic sub-group displayed far fewer significant Extrinsic Cultural Religious Orientation results, presumably due to the small number of such participants ($N = 24$) in addition to the obviously problematic meaning of this scale for such individuals. Still, some significant effects did appear even in this subgroup. The Extrinsic Cultural Religious Orientation, for example, correlated positively with both the Extrinsic Personal ($.72, p < .001$) and Extrinsic Social ($.74, p < .001$) Religious Orientations.

Finally, 72 participants identified themselves as 'Other' or failed to self-report their religious affiliation. For this Unspecified subgroup, the vast majority of significant outcomes, mirrored at a conceptual level the results observed for the full sample. Overall, Unspecific subgroup responding suggested that these participants were broadly like the Religiously Affiliated.

In short, the examination of a heterogeneous group in the full sample did not misrepresent the implications of the Extrinsic Cultural Religious Orientation in those with explicit religious commitments. This is a perhaps unsurprising conclusion given that the Religiously Affiliated made up 76% of the full sample and 94% of the total when combined with the religiously similar Unspecified subgroup.

Discussion

Research in Muslim societies suggests a need to re-examine socially related extrinsic reasons for being religious in the West (Ghorbani et al. 2007). In Pakistan and Iran, the Extrinsic Social Religious Orientation, unlike the Intrinsic and Extrinsic Personal Religious Orientations, seemed to operationalise a relatively weak motivation that was of marginal importance in understanding Islamic religious commitments. A socially relevant Extrinsic Cultural Religious Orientation more successfully expressed an adaptive and normatively acceptable religious motivation in a sample of Iranian university students (Ghorbani et al. 2010). The present investigation supported a similar though not identical description of social religious motivations in a largely Christian sample of American university students.

Overall implications of religious orientations

As in Pakistan and Iran, American responding on the Extrinsic Social Religious Orientation factor was lowest among the three original Religious Orientation measures. CFA procedures demonstrated that four factors previously discovered in Iranian university students adequately described the Extrinsic Cultural Religious

Orientation data of university students in the United States. The Extrinsic Social Religious Orientation mean was also lower than averages for the full Extrinsic Cultural Religious Orientation Scale and for each of its four factors. Positive Intrinsic and Extrinsic Personal Religious Orientation relationships with the Extrinsic Cultural Religious Orientation Scale were stronger than with the Extrinsic Social Religious Orientation. Intrinsic and Extrinsic Personal Religious Orientation means did not differ, and both were higher on average than the Extrinsic Cultural Religious Orientation Scale. Taken together, these results suggested that the Extrinsic Social Religious Orientation reflected a relatively weak and more marginal motivation for being religious in the United States. The empirically stronger Extrinsic Cultural Religious Orientation was better integrated into the Intrinsic and Extrinsic Personal Religious motivations that more centrally described the religious commitments of these American university students.

Results also demonstrated that the Extrinsic Cultural Religious Orientation Scale was superior to the Extrinsic Social Religious Orientation measure in predicting psychological adjustment. Of these two measures, only the Extrinsic Cultural Religious Orientation Scale correlated positively with Collective Self-Esteem and negatively with Depression. This scale also correlated positively and the Extrinsic Social Religious Orientation correlated negatively with Empathic Concern. Both measures displayed a negative linkage with Perspective Taking, but this relationship disappeared for the Extrinsic Cultural Religious Orientation when multiple regression procedures simultaneously accounted for variance in the Extrinsic Social Religious Orientation.

Evidence of incremental validity for the Extrinsic Cultural Religious Orientation Scale over the Extrinsic Social Religious Orientation appeared in associations with Identity, Collective Self-Esteem, Empathic Concern, and Depression. Incremental validity in predicting the Intrinsic and Extrinsic Personal Religious Orientations further documented the relative religious importance of the Extrinsic Cultural Religious Orientation. A non-significant Extrinsic Cultural Religious Orientation association with Identity became significantly positive in multiple regression procedures that accounted for variance in the Extrinsic Social Religious Orientation. A non-significant positive association between the Extrinsic Social and the Intrinsic Religious Orientations on first step of a multiple regression became significantly negative on the second step after the Extrinsic Cultural Religious Orientation Scale was entered into the prediction equation. Some outcomes, therefore, suggested that the relative maladjustment of the Extrinsic Social Religious Orientation could obscure the relative adjustment of the Extrinsic Cultural Religious motivation and vice versa.

Extrinsic cultural factors

Among Extrinsic Cultural Religious Orientation factors, the Peace and Justice mean was highest, Disorder Avoidance lowest, and Cultural Foundations and Family and Social Order in between. All four measures correlated positively with the three original Religious Orientations, Collective Self-Esteem, and Empathic Concern. The negative linkage of the Extrinsic Cultural Religious Orientation Scale with Perspective Taking seemed attributable to Family and Social Order and to Disorder Avoidance. Only Disorder Avoidance failed to display a negative relationship with Depression, and only Cultural Foundations correlated positively with Identity.

Factors displayed incremental validity beyond the Extrinsic Social Orientation in associations with the Intrinsic Religious Orientation, Extrinsic Personal Religious

Orientation, Collective Self-Esteem, Perspective Taking, and Empathic Concern measures. These multiple regression analyses also revealed that Cultural Foundations accounted for the Extrinsic Cultural Religious Orientation association with Collective Self-Esteem and that Peace and Justice was relatively unimportant in predicting the Intrinsic Religious Orientation, as was Disorder Avoidance in predicting the Extrinsic Personal Religious Orientation. All four factors together increased variance explained in Empathic Concern, but no single dimension exhibited a statistically significant effect. Multiple regressions procedures also associated Family and Social Order with lower and Peace and Justice with higher levels of Perspective Taking. Overall, these results suggested that Peace and Justice and Cultural Foundations expressed relatively more and that the Family and Social Order and Disorder Avoidance factors operationalised relatively less adjusted Extrinsic Cultural Religious motivations in this sample of American university students.

Spiritual commitments

The Intrinsic Religious Orientation Scale has been criticised for too much measuring a cognitively narrow form of conservative religiosity that interferes with a more spiritual quest for existential meaning in life (Batson et al. 1993). Based on this interpretative framework, the present project tested the possibility that positive linkages with the Intrinsic Religious Orientation Scale might mean that the Extrinsic Cultural Religious Orientation reflects a religiosity devoid of spirituality. Evidence failed to support the hypothesis. Participants who identified themselves as both religious and spiritual (i.e. the Both Group) most consistently scored at the highest levels of the Extrinsic Cultural Religious motivations, although they were similar to religious only (i.e. Religious) individuals in their Cultural Foundations and in their Peace and Justice scores. Spiritual but not religious (i.e. Spiritual) individuals displayed lower Extrinsic Cultural Religious Orientation averages than the two religious groups, but these participants still sometimes scored higher than those who were neither religious nor spiritual (i.e. the Neither Group).

The Extrinsic Cultural Religious Orientation, therefore, seemed to be sensitive to spiritual dimensions of faith. This conclusion presumably cannot mean, however, that Extrinsic Cultural Religious motivations are wholly unproblematic. Such measures, for example, might predict greater religious fundamentalism (Altemeyer and Hunsberger 1992). Research should explore that possibility, but may also need to account for ideological factors that can apparently influence the empirical analysis of fundamentalism (Watson et al. 2003; Watson, Chen, and Hood 2011).

Contrasts with Iranian university students

In Iranian university students, the Extrinsic Cultural Religious Orientation Scale partially mediated Identity Scale associations with social adjustment and suppressed its relationships with personal adjustment (Ghorbani et al. 2010). Such data suggested that the Extrinsic Cultural Religious motivation was important in connecting a sense of belonging with social adjustment, though perhaps at some cost to personal adjustment. Such effects did not occur in this sample of university students in the United States. The Extrinsic Cultural Religious Orientation Scale did not correlate with Identity, which was a necessary precondition for mediation to occur (Baron and Kenny 1986).

For the sake of brevity, a number of additional analyses were not reported that also failed to uncover American mediation effects like those discovered in Iran. No evidence of mediation appeared when the neither religious nor spiritual (i.e. Neither) participants were dropped from the analysis, nor did such evidence appear when multiple regression procedures focused only on the two religious groups (i.e. Both and Religious participants). Cultural Foundations did correlate positively with Identity, but this factor also failed to mediate any Identity Scale relationship with adjustment. In short, these data supported the perhaps unsurprising conclusion that Extrinsic Cultural Religious motivations assumed a more central identity formation function in theocratic Iran than in the more secular United States. An interesting question for future research would be to determine what variables do mediate relationships of a sense of identity with adjustment in the United States and in other more secular societies.

Also noteworthy were American and Iranian student contrasts in Perspective Taking. All Extrinsic Cultural Religious Orientation measures correlated positively with Perspective Taking in Iran (Ghorbani et al. 2010), but in the United States, a negative linkage with the full scale was attributable to the Family and Social Order factor. This factor seems somewhat relevant to ‘family values’ and ‘law and order’ beliefs advocated by conservative religious groups in the United States. One item says, for example, ‘A family that worships God together will be happy, and that is the most important reason why I am religious.’ Another says, ‘I am religious because religion is so important in preventing crime and other social disorders, and I want to contribute to this cultural effort.’ In theocratic Iran, such values presumably represent a confident and culturally dominant position. In the secular United States, they may instead reflect a more defensive minority view that encourages an ideological insensitivity to the perspectives of others. That ideological polarisation in the United States may produce contrasts with Iranian data also seemed evident in recent analyses of religious reflection in the two societies. In Iran, faith and intellect based forms of religious reflection correlated positively (Ghorbani et al. 2013). In the United States, they correlated negatively, and only became positive when ideological dimensions of the issue were included in the analysis (Watson, Chen, and Hood 2011). The important general suggestion of these findings is that the psychological implications of conservative religious beliefs may be influenced by the ideological context in which they occur.

Limitations

Final conclusions about the meaning of these data must, of course, be tempered by an awareness of the limitations of this project. Like the previous Iranian investigation, this American exploration of the Extrinsic Cultural Religious Orientation Scale used university students as the research participants. In neither society will such a sample be representative of the population as a whole. Future research should clearly broaden the boundaries of the analysis. Among other things, for example, future studies should formally examine variations in marital and parenting status. This project did not assess these variables, but they might be important in understanding the deeper implications of perhaps especially the Family and Social Order factor.

The content of Extrinsic Cultural Religious Orientation items suggests that responding to this instrument might be influenced by social desirability concerns. Additional studies should explore that possibility; although, such research may also

need to remain sensitive to reports that social desirability scales appear to measure a substantive personality trait (McCrae and Costa 1983) that is sensitive to positive social adjustment (Watson, Milliron, and Morris 1995) and to religious ideological commitments (Watson et al. 1986).

Findings of this project reflected the use of a religiously heterogeneous sample that made it possible to examine greater variation in religious and spiritual commitments. A separate analysis of the Religiously Affiliated participants, nevertheless, revealed that data for the full sample yielded conclusions that applied to this subgroup as well. At the same time, however, important Extrinsic Cultural Religious Orientation differences may still exist in Western religious and nonreligious subgroups, and even within the Religiously Affiliated, important contrasts may exist, for example, across denominations.

In numerous outcomes, the Extrinsic Cultural Religious Orientation displayed incremental validity over the Extrinsic Social Religious Orientation. Such results cannot demonstrate that the Extrinsic Social Religious Orientation is unimportant in the West. This is first true because the Extrinsic Social Religious Orientation Scale included only three items and exhibited a lower internal reliability than the 32-item Extrinsic Cultural Religious Orientation Scale. A psychometrically improved Extrinsic Social Religious Orientation Scale might explain greater variance in other measures and thus reduce evidence of Extrinsic Cultural incremental validity. At the same time, however, the present evidence of incremental validity cannot be dismissed over concerns about differences in internal reliability. It is important to remember, that the Extrinsic Cultural Orientation correlated positively with Empathic Concern, whereas the Extrinsic Social Orientation correlated negatively. Several findings in the incremental validity analyses also suggested that the 3-item Extrinsic Social Religious Orientation Scale had negative implications for religious and psychological adjustment in contrast the relative adjustment predicted by the Extrinsic Cultural Religious Orientation. A psychometrically improved Extrinsic Social Religious Orientation Scale would presumably yield even more compelling demonstrations of contrasts between the Extrinsic Cultural and the Extrinsic Social Religious Orientations.

A second, perhaps more important reason may exist for not dismissing the Extrinsic Social Religious Orientation based upon an analysis of university students. Strikingly different results might appear in the examination of other age groups. Later in life, during retirement and after the children have grown up and left home, for example, the Extrinsic Social Religious Orientation may have noteworthy positive religious and psychological adjustment implications.

Conclusion

In conclusion, this project confirmed that in university students in the United States, as in Iran and in Pakistan, the Extrinsic Social Religious motivation seemed to be a relatively marginal social motivation for being religious. An Extrinsic Cultural Religious Orientation proved to be stronger and more centrally important, displayed a factor structure like that observed in Iran, and was a more robust and consistent predictor of adjustment. This motivation was also sensitive to spiritual as well as religious dimensions of commitment. Such data suggested that the Extrinsic Cultural Religious Orientation deserves additional research attention. Especially the Family and Social Order factor, for example, might clarify the psychological dynamics of

conservative religious perspectives in the West. Further analysis of the Peace and Justice factor could be important as well in attempts to understand the potential benefits of religious commitments. Extrinsic Cultural Religious motivations do appear to be more critical in Iranian than in American identify formation; yet, the appearance of a Peace and Justice factor in both societies does suggest at least some common ground. Empirical studies examining this factor in the two societies might be useful in exploring possible foundations for constructive dialogue.

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References

- Allport, G. W., and J. Michael Ross Jr. 1967. "Personal Religious Orientation and Prejudice." *Journal of Personality and Social Psychology* 5: 432–443.
- Altemeyer, B., and B. Hunsberger. 1992. "Authoritarianism, Religious Fundamentalism, Quest, and Prejudice." *International Journal for the Psychology of Religion* 2: 113–133.
- Baron, R. M., and D. A. Kenny. 1986. "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic and Statistical Considerations." *Journal of Personality and Social Psychology* 51: 1173–1182.
- Batson, C. D., P. Schoenrade, and W. L. Ventis. 1993. *Religion and the Individual*. New York: Oxford University Press.
- Costello, C. G., and A. L. Comrey. 1967. "Scales for Measuring Depression and Anxiety." *The Journal of Psychology* 66: 303–313.
- Crocker, J., and R. Luhtanen. 1990. "Collective Self-Esteem and Ingroup Bias." *Journal of Personality and Social Psychology* 58: 60–67.
- Davis, M. H. 1983. "Measuring Individual Differences in Empathy: Evidence for a Multidimensional Approach." *Journal of Personality and Social Psychology* 44: 113–126.
- Donahue, M. J. 1985. "Intrinsic and Extrinsic Religiousness: Review and Meta-Analysis." *Journal of Personality and Social Psychology* 48: 400–419.
- Ghorbani, N., P. J. Watson, A. F. Ghramaleki, R. J. Morris, and R. W. Hood Jr. 2002. "Muslim-Christian Religious Orientation Scales: Distinctions, Correlations, and Cross-Cultural Analysis in Iran and the United States." *International Journal for the Psychology of Religion* 12: 69–91.
- Ghorbani, N., P. J. Watson, and Z. Khan. 2007. "Theoretical, Empirical, and Potential Ideological Dimensions of Using Western Conceptualizations to Measure Muslim Religious Commitments." *Journal of Muslim Mental Health* 2: 113–131.
- Ghorbani, N., P. J. Watson, J. Zarehi, and K. Shamohammadi. 2010. "Muslim Extrinsic Cultural Religious Orientation and Identity: Relationships with Social and Personal Adjustment in Iran." *Journal of Beliefs and Values* 31: 15–28.
- Ghorbani, N., P. J. Watson, Z. Rezazadeh, and C. J. L. Cunningham. 2011. "Dialogical Validity of Religious Measures in Iran: Relationships with Integrative Self-Knowledge and Self-Control of the "Perfect Man" (*Ensān-E Kāmel*)." *Archive for the Psychology of Religion* 33: 93–113.

- Ghorbani, N., P. J. Watson, Z. Chen, and H. Dover. (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.
- Gorsuch, R. L., and S. E. McPherson. 1989. "Intrinsic/Extrinsic Measurement: I/E Revised and Single-Item Scales." *Journal for the Scientific Study of Religion* 28: 348–354.
- Hood Jr, R. W., B. Spilka, B. Hunsberger, and R. Gorsuch. 1996. *The Psychology of Religion: An Empirical Approach*. 2nd ed. New York: Guilford.
- Hu, L.-T., and P. M. Bentler. 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives." *Structural Equation Modeling: a Multidisciplinary Journal* 6: 1–55.
- Khan, Z. H., P. J. Watson, and F. Habib. 2005. "Muslim Attitudes toward Religion, Religious Orientation, and Empathy among Pakistanis." *Mental Health, Religion, & Culture* 8: 49–61.
- Kirkpatrick, L. A. 1989. "A Psychometric Analysis of the Allport and Ross and Feagin Measures of Intrinsic and Extrinsic Religious Orientation." In *Research in the Social Scientific Study of Religion*. vol. 1, edited by D. O. Moberg and M. L. Lynn, 1–30. Greenwich, CT: Jai Press.
- McCrae, R. R., and P. T. Costa. 1983. "Social Desirability Scales: More Substance than Style." *Journal of Consulting and Clinical Psychology* 51: 882–888.
- Moughrabi, F. 1995. "Islam and Religious Experience." In *Handbook of Religious Experience*, edited by R. W. Hood, 72–86. Birmingham, AL: Religious Education Press.
- Murken, S., and A. A. Shah. 2002. "Naturalistic and Islamic Approaches to Psychology, Psychotherapy, and Religion: Metaphysical Assumptions and Methodology – a Discussion." *International Journal for the Psychology of Religion* 12: 239–254.
- Muthén, L. K. and B. O. Muthén. 1998-2010. *Mplus User's Guide. Sixth Edition*. Los Angeles: Muthén & Muthén.
- Ochse, R., and C. Plug. 1986. "Cross-Cultural Investigation of the Validity of Erikson's Theory of Personality Development." *Journal of Personality and Social Psychology* 50: 1240–1252.
- Pargament, K. I. 1992. "Of Means and Ends: Religion and the Search for Significance." *International Journal for the Psychology of Religion* 2: 201–229.
- Pargament, K. I. 1997. *The Psychology of Religion and Coping*. New York: Guilford.
- Rosenberg, M. 1989. *Society and the Adolescent Self-Image*. Rev ed. Middleton, CT: Wesleyan University Press.
- Watson, P. J., R. J. Morris, J. E. Foster, and R. W. Hood Jr. 1986. "Religiosity and Social Desirability." *Journal for the Scientific Study of Religion* 25: 215–232.
- Watson, P. J., J. T. Milliron, and R. J. Morris. 1995. "Social Desirability Scales and Theories of Suicide: Correlations with Alienation and Self-Consciousness." *Personality and Individual Differences* 18: 701–711.
- Watson, P. J., P. Sawyers, R. J. Morris, M. Carpenter, R. S. Jimenez, K. A. Jonas, and D. L. Robinson. 2003. "Reanalysis within a Christian Ideological Surround: Relationships of Intrinsic Religious Orientation with Fundamentalism and Right-Wing Authoritarianism." *Journal of Psychology and Theology* 31: 315–328.
- Watson, P. J., Z. Chen, and R. W. Hood Jr. 2011. "Biblical Foundationalism and Religious Reflection: Polarization of Faith and Intellect Oriented Epistemologies within a Christian Ideological Surround." *Journal of Psychology and Theology* 39: 111–121.
- Zinnbauer, B. J., K. I. Pargament, B. Cole, M. S. Rye, E. M. Butter, T. G. Belavich, T. G. Belavich, and J. L. Kadar. 1997. "Religion and Spirituality: Unfuzzifying the Fuzzy." *Journal for the Scientific Study of Religion* 36: 549–564.

Appendix 1. Items from four factors of Extrinsic Cultural Religious Orientation Scale and Factor Loadings in a Sample from the United States

Factor Item (Factor Loading)

Family and Social Order

- (1) Being religious is essential because a happy family life depends upon sincere religious commitment. (.84)
- (2) I am religious because I believe religion is a necessary element in a loving marriage. (.83)
- (3) A religious life is important because it promotes better family relationships. (.82)
- (4) I am religious because family life becomes unhealthy if it is not based upon religion. (.81)
- (5) A family that worships God together will be happy, and that is the most important reason why I am religious. (.79)
- (6) My commitment to religion is based on the belief that religion is necessary if a society is to be moral. (.76)
- (7) In order to prevent and control criminal behavior, society must support religion. (.76)
- (8) I am religious because I know that religion is necessary to teach children to respect their parents. (.76)
- (9) I am religious because religion is so important in preventing crime and other social disorders, and I want to contribute in this cultural effort. (.73)
- (10) All in the society should be religious so that children will be encouraged to respect their parents. (.72)
- (11) I am religious because I do not want to have an unhappy marriage. (.72)
- (12) Everyone should be religious because if children are not taught to be religious, they will not respect their parents. (.68)
- (13) Family discord is the result if husband and wife are not sincerely religious. (.67)
- (14) I am religious because I want to make my small contribution to the improved relationships within a religious society. (.69)
- (15) I am religious because religion is essential to avoid class divisions and warfare. (.68)
- (16) I follow the teachings of my religion as a way to help solve social problems. (.59)

Disorder Avoidance

- (1) My life is grounded in religion because without religion society becomes inhumane and empty of love and affection. (.79)
- (2) Most of the problems of society result from the failure of people to be sincerely religious. (.70)
- (3) From my point of view, religion is a gift from God to humanity that is designed to make the world a better place in which to live. (.69)
- (4) Religion is necessary to avoid divorce and disintegration of the family. (.62)
- (5) If I were not religious, I would contribute to cultural processes that would weaken my society. (.29)

(Continued)

Appendix 1. (*Continued*).Factor Item (Factor Loading)Peace and Justice

- (1) My motivation for being religious is a desire to develop a human society that is peaceful, just, and happy. (.74)
- (2) My religious faith is motivated by a desire to work against hate and prejudice in the world. (.71)
- (3) The most important aim of my commitment to religion is to promote peace and justice in human society. (.65)
- (4) My religious activities are motivated by a belief that religion helps prevent poverty and injustice in the world. (.62)
- (5) The true purpose of my religion is to help create a more just world. (.60)

Cultural Foundations

- (1) A lack of religion produces many difficulties within a society, and this is an important reason why I am religious. (.79)
- (2) If the people fail to be religious, a society cannot survive, and this largely explains why I am religious. (.74)
- (3) I am religious because I know that the loss of religious life leads to the decline of civilization and culture. (.71)
- (4) Underlying my faith is the belief that religion is essential to the moral development of the society. (.69)
- (5) A major goal of my religion is to support the establishment of good social relationships in society. (.55)
- (6) I read the Bible to learn how to live with other people in the world. (.53)