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Afterlife Motivation Scale: Correlations With Maladjustment and Incremental Validity in Iranian Muslims

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# RESEARCH

# Afterlife Motivation Scale: Correlations With Maladjustment and Incremental Validity in Iranian Muslims

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In a previous study of Iranian Muslims, two scales measuring religious commitments based on a desire to avoid hell and to reach heaven predicted maladjustment. The responding of Iranian university students in this investigation revealed that these two forms of desire could be reduced to a single factor that was adequately operationalized in a brief six-item instrument. This Afterlife Motivation Scale displayed strong internal consistency and correlated positively with the extrinsic personal, extrinsic social, and intrinsic religious orientations and with nearness to God, depression, anxiety, and death anxiety. Multiple regression analyses indicated that this scale recorded a specific form of religious psychological functioning that

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could not be reduced to more general intrinsic and extrinsic forms of religiousness. This brief instrument could be useful in future efforts to better understand one way in which heaven and hell might be meaningful for Iranian and perhaps other Muslims and for followers of other religious traditions.

Over the past half century, the work of Gordon Allport has served as a seminal influence on the psychology of religion. His interpretation of mature and immature forms of religious commitment (Allport, 1950) culminated in the development of Intrinsic and Extrinsic Religious Orientation Scales (Allport & Ross, 1967). The Intrinsic Scale theoretically recorded a functionally autonomous, life-enhancing faith that manifests itself in personal and communal well-being. Allport's understanding of this orientation perhaps reflected his own mystic vision of an ultimate reality, about which he once said, "I can't explain it; but everything good is associated with it; happiness is inseparable from it ... [and] neither science nor history can rob me of [it]" (as cited in I. A. M. Nicholson, 2003, p. 125). The Extrinsic Scale, instead, sought to define a more problematic use of faith as a means to nonreligious ends and for Allport may have reflected "his unease with the impersonality and instrumentality of American consumer culture" (I. A. M. Nicholson, 2003, p. 125). An extensive research literature has often, though not invariably, supported Allport's description of these two motivations by linking the Intrinsic Scale with adjustment and the Extrinsic Scale with maladjustment (Donahue, 1985).

At the same time, however, the tradition of interpreting religious motivation based on the Allport and Ross (1967) scales has been subjected to numerous critiques. The Intrinsic Scale perhaps operationalized tendencies toward a socially desirable orthodoxy that lacked the open-minded cognitive complexity that Allport associated with mature faith, and Allport's conceptual framework may have too simplistically equated the intrinsic and extrinsic forms of faith with "good" and "bad" religion, respectively (Batson, Schoenrade, & Ventis, 1993). Indeed, Allport's perspective may underestimate the adaptive potentials of an extrinsic orientation (Pargament, 1992). More generally, Religious Orientation Scales may also supply an insufficient methodological and theoretical foundation upon which to construct a meaningful psychology of religion (Kirkpatrick & Hood, 1990). These and many other criticisms have usefully delimited the boundaries of Allport's contribution; yet the fundamental insight remains. Sometimes religious involvements seem sincere and may have positive psychosocial implications, and more important for the project presented here, sometimes they may reflect a more self-centered instrumentality that can move in maladaptive directions.

One obvious reason for maintaining religious commitments involves the desire of some believers to earn a rewarding afterlife. Like sacred texts of other traditions, the  $Qur'\bar{a}n$ , for example, makes frequent allusions to the hell that awaits those who fail to follow the commands of God (e.g., 3:15–17) and to

the heaven or paradise for those who do (e.g., 10–25). Such verses do not necessarily mean, however, that avoiding hell and reaching heaven are sufficient and appropriate motivations for faith. Imam Ali, a 7<sup>th</sup>-century spiritual leader of Islam after Mohammed (peace be upon him), made this point when he essentially argued that worship to reach heaven is the worship of a businessman, worship to avoid hell is the worship of a slave, but worship of God because he deserves to be worshiped is the worship of a liberated man (Ali, 1373/1985). The 8<sup>th</sup>-century Islamic mystic Rabi'a expressed a similar perspective when she said, "O God! If I worship Thee in fear of Hell, burn me in Hell; and if I worship Thee in own sake, withhold not Thine everlasting beauty" (as cited in R. A. Nicholson, 1914/1989, p. 115). Faith in God, in other words, should be intrinsic or "for Thine own sake," whereas religious commitments based on an instrumentality of avoiding hell and reaching heaven should be rejected.

Could the goal of obtaining a desirable afterlife serve as a more self-centered, instrumental approach to religion? In other words, would such desires operate more like a maladjusted extrinsic than a life-enhancing intrinsic religious orientation? Any attempt to answer such questions using Muslim samples must first cope with a basic conceptual challenge. Commentators often emphasize that in contrast to religion in the West, Islam offers a more holistic vision of life that does not distinguish between "the spiritual and the temporal" (Moughrabi, 1995, p. 72; Murken & Shah, 2002). Any effort to generalize the more "spiritual" intrinsic and the more "temporal" extrinsic distinction to Muslims can, therefore, seem suspect.

On the other hand, the Iranian philosopher Soroush (2003) recently analyzed Muslim religious motivations in terms suggesting a rough parallel with the Western religious orientation literature (Ghorbani, Watson, & Khan, 2007). He, for instance, identified a Muslim utilitarian religious motivation that echoes aspects of a more maladaptive extrinsic orientation. Indeed, research in Iran and Pakistan has supported the possibility of a resemblance, though not an exact identity, between a Muslim utilitarian religiousness and the extrinsic orientation (Ghorbani, Watson, & Khan, 2007). Factor analysis of the Extrinsic Scale in Iran, for example, identified Extrinsic personal and social dimensions that were identical to those found in the West (Ghorbani, Watson, & Mirhasani, 2007; Kirkpatrick, 1989). Other extrinsic items, however, defined a more prominent utilitarian factor that suggested affinities with Soroush's analysis. Such items in the West have been interpreted as reverse scored manifestations of the intrinsic orientation. In Iran, this utilitarian factor did correlate inversely with the Intrinsic Scale, but not so strongly as to suggest that it was reducible to the same measure. In short, the extrinsic orientation seems to be at least somewhat relevant to Muslims, although the factors defining this extrinsic motivation appear to require additional research clarification.

Most importantly, however, Sorouch's (2003) arguments suggest that a more maladaptive Muslim motivation for a desirable afterlife is at least a theoretical possibility. Empirical support for that idea was in fact observed in a previous investigation examining American Christians and Iranian Muslins (Ghorbani, Watson, Ghramaleki, Morris, & Hood, 2002). In this project, one scale was created for measuring religious commitments based on a motivation to enter paradise. This orientation was obvious in such self-reports as, "I meet my religious obligations so that I can go to heaven." Another scale recorded a similar desire to avoid hell and was evident in such statements as, "I am religious so that I do not have to be anxious about going to hell." In Iranian Muslims, but not American Christians, one or both of these instruments correlated positively with symptom checklist measures of anxiety, depression, obsessive-compulsion, psychoticism, and interpersonal sensitivity.

In general terms, the investigation presented here sought to further develop these scales for use with Iranian Muslims. Factor analytic procedures first made it possible to determine whether these two measures defined distinct heaven and hell constructs, a single afterlife motivation, or something more complex in between. The original instrument for recording a motivation to reach heaven contained 9 items, whereas the hell measure included 12. A secondary goal, therefore, was to use the factor analytic results to create shorter and more useful research tools.

Once these steps were accomplished, relationships with other constructs were evaluated. The religious meanings of afterlife motivations were explored with the Allport and Ross (1967) and with the Nearness to God (Gorsuch & Smith, 1983) scales. Use of the Extrinsic Scale focused on the utilitarian, personal, and social factors so that these motivations could be further clarified. Nearness to God apparently has not been examined in previous Muslim samples, but responding on this instrument has been linked with tendencies to make causal attributions to God, which presumably should be more evident in those concerned about being rewarded or punished in the afterlife. The mental health implications of Muslim afterlife motivations were assessed in correlations with dispositional depression and anxiety (Costello & Comrey, 1967) and, more important, with death anxiety (Templer, 1970).

In summary, this study sought to accomplish four most important objectives. First, scales for measuring Muslim desires to reach heaven and to avoid hell were factor analyzed to ascertain whether they defined a single or multiple constructs. Second, the religious implications of such desires were evaluated. Based on the assertions of Muslims like Imam Ali (1373/1985) and Rabi'a (R. A. Nicholson 1914/1989), the hypothesis was that afterlife motivations would represent a religious instrumentality involving a turn toward God for more extrinsic reasons. In other words, afterlife motivations should correlate positively with the extrinsic utilitarian, personal, and social motivations, and

with the Nearness to God Scale. Third, the psychological implications of a more utilitarian Muslim religiousness (Soroush, 2003) were assessed. The specific hypothesis was that both the afterlife motivations and the extrinsic factors would correlate positively with depression, anxiety, and death anxiety. Fourth and finally, the incremental validity of the afterlife motivations was evaluated. The assumption was that afterlife motivations would be associated with specific influences on religious psychological functioning beyond more general tendencies to maintain faith. Afterlife motivations, in other words, should explain variance beyond that already accounted for by the Intrinsic Scale and the extrinsic factors.

# METHOD

# Participants

Undergraduates enrolled at the University of Tehran served as the research participants. The average age of these 80 women and 51 men was 20.5 years (SD = 2.0). The responding of all students to the procedures of this project was voluntary, completely anonymous, and in conformity with institutional ethical guidelines.

#### Procedure

All scales were presented in a booklet that contained instruments used in several different projects. In addition to the afterlife heaven and hell measures mentioned previously (which are available to interested researchers upon request), other instruments included the 11-item Extrinsic and the 9-item Intrinsic Religious Orientation Scales (Allport & Ross, 1967), the 6-item Nearness to God Scale (Gorsuch & Smith, 1983), the 15-item Templer (1970) Death Anxiety Scale, and the 14-item Depression and the 9-item Anxiety Scales (Costello & Comrey, 1967). Afterlife motivation and Costello and Comrey instruments were associated with a 0-to-4 Likert format. Reactions to the religious orientation items were scored along a 0-to-3 scale based on options presented in the original instrument but appropriately modified for the Muslim context (Ghorbani et al., 2002, p. 74; Robinson & Shaver, 1973). True (1) and false (0) response options were presented with the Death Anxiety Scale, and respondents agreed (1) or disagreed (0) with each of the nearness to God statements.

Translation of all measures occurred in preparation for the present or previous studies. Persian questionnaire items were back-translated into English by an individual not previously involved in the translation procedures. Noteworthy discrepancies between the original and back-translated English statements were rare and

successfully resolved through appropriate revision of the Persian translations. Validity of the translated Allport and Ross (1967) and the Costello and Comrey (1967) scales was documented in several previous Iranian investigations (e.g., Ghorbani & Watson, 2004, 2005; Ghorbani et al., 2002; Watson et al., 2002).

Questionnaires were administered in classroom settings to groups of varying size. Data analysis began with all heaven and hell afterlife motivation items examined in a single principal axis factoring procedure. Upon completion of the factor analyses, internal reliabilities were determined for all measures, and scales were scored in terms of the average response per item. Correlations among all measures were computed, and one-tailed tests of significance were utilized in the analysis of predicted relationships for the afterlife motivations and the Extrinsic Scale factors. Data analysis procedures concluded with an assessment of incremental validity. Responding to the Nearness to God, Depression, Anxiety, and Death Anxiety Scales was predicted in multiple regressions in which the intrinsic and extrinsic measures were entered simultaneously in the first step followed by afterlife motivations in the second.

# RESULTS

When factor analyzed, all heaven and hell statements displayed loadings of .43 or greater on a single unrotated dimension that was associated with an eigenvalue of 9.69 and that explained 51.0% of the variance. Another minor factor with an eigenvalue slightly greater than 1.0 also appeared but was ignored based on a scree test and, more importantly, on the conclusion that a single factor comprehensively and parsimoniously summarized all items. A single scale joining the previous two was internally reliable ( $\alpha = .94$ ).

Efforts to produce a shorter and more useful instrument involved an examination of equal but progressively smaller numbers of heaven and hell items combined together. At each step, statements in each afterlife category were selected for additional scrutiny based on highest corrected item-to-total correlations in the internal reliability analysis. Each tentative shortening of the measure was checked for unidimensionality, for its relationship with all items contained in the first version of this scale, and for internal reliability. These procedures culminated in the identification of the six-item measure presented in Table 1. This scale included only one factor (eigenvalue = 4.09, variance explained = 68.1%), exhibited high internal consistency ( $\alpha$  = .91), and essentially mirrored the variance defined by all of the heaven and hell items taken together (r = .95, p < .001).

Correlations of this six-item instrument with all other measures are reviewed in Table 2. Relatively lower internal reliabilities for the extrinsic social, intrinsic, and nearness to God measures suggested a need for caution in interpreting data

TABLE 1						
Corrected Item-to-Total Correlations and Factor Loadings of Statements						
from the Afterlife Motivation Scale						

Item	Item-to-Total Correlation	Factor Loading
I am religious because I want to spend eternity in heaven.	.68	.72
My religious behavior is motivated primarily by my goal to get into heaven.	.81	.86
My attempt to reach heaven is a principal motivation behind my religious practices.	.76	.80
I do my best to avoid sin because I do not want to go to hell.	.71	.75
Fear of punishment in hell explains why I am religious.	.76	.81
I worship God in this life so that I will not be punished by Him in the next life.	.73	.78

for these instruments. The Afterlife Motivation Scale, nevertheless, correlated positively with the extrinsic personal and social factors and with the Intrinsic and Nearness to God scales. This scale also was associated with higher levels of depression, anxiety, and death anxiety.

Again, to assess the incremental validity of afterlife motivations, this new scale was used to predict variance in nearness to God, depression, anxiety, and death anxiety in the second step of multiple regressions after the Intrinsic Scale and the three extrinsic factors had been entered simultaneously on the first step. As Table 3 makes clear, significant  $\Delta R^2$  values were obtained for afterlife motivations in each analysis, thus confirming its incremental validity.

Finally, clarification of these data was accomplished in two ways. First, previous studies have often discovered gender differences in Muslim responses to religious measures (e.g., Khan & Watson, 2005, 2006; Khan, Watson, & Habib, 2005). In our project, men and women displayed no overall significant differences in their average levels of responding, MANOVA F(9, 121) = 0.87, p > .50. The patterns of correlation did vary across the two genders, however, Box's M = 657.52; F(45, 37746.03) = 1.38, p < .05. Six specific contrasts proved to be statistically significant ( $Z_s > 1.65$ ,  $p_s < .05$ ). In women, afterlife motivations correlated .42 (p < .001) with the extrinsic personal factor, .33 (p < .01) with the Intrinsic Scale, .39 (p < .001) with nearness to God, and .37 (p < .001) with anxiety. In addition, death anxiety correlated .09 (p > .05) with the Intrinsic Scale and .51 (p < .001) with anxiety. In men, afterlife motivations instead correlated .00 with the extrinsic personal factor, -.06 with the Intrinsic Scale, .10 with nearness to God, and -.06 with anxiety (all ps < .05). In addition, for men, death anxiety correlated -.22(p > .05) with the Intrinsic Scale and .24 (p < .05) with anxiety. These results

α	М	SD	1	2	3	4	5	6	7	8	9
91	2.05	0.99	_	.09	.25**	.34***	.18*	.30***	.22**	.22**	.30***
65	1.16	0.60		_	03	.20*	36***	03	.28***	.16*	.10
53	2.01	0.69			_	.23**	.36***	.39***	08	.05	.14
62	1.19	0.71					.21**	.09	.07	.08	.13
57	1.69	0.44						.38***	09	05	03
58	0.81	0.21							15	.06	.21*
89	1.52	0.77								.46***	.26**
80	1.94	0.78									.41***
72	0.54	0.22									_
	01 55 53 52 57 58 39 30	01         2.05           55         1.16           53         2.01           52         1.19           57         1.69           58         0.81           39         1.52           30         1.94	01         2.05         0.99           55         1.16         0.60           53         2.01         0.69           52         1.19         0.71           57         1.69         0.44           58         0.81         0.21           39         1.52         0.77           30         1.94         0.78	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

 TABLE 2

 Correlations of Afterlife Motivations with Religious Orientation, Nearness to God, Depression, Anxiety, and Death Anxiety

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

TABLE	3
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Multiple Regression Analyses Examining the Ability of Afterlife Motivations (AM) to Predict the Nearness to God and Psychological Measures on the Second Step After Entering in the Intrinsic (INT) and the Extrinsic Utilitarian (EU), Personal (EP), and Social (ES) Factors on the First

	First Step					Second Step		
Scales	$R^2$	$\beta$ for INT	$\beta$ for EU	$\beta$ for EP	$\beta$ for ES	$\Delta R^2$	β for AM	
Nearness to God Depression Anxiety Death Anxiety	.23*** .08* .03 .04	.33** .03 03 09	.11 .28** .14 .05	.30** 09 .06 .15	07 .02 .04 .11	.04* .05** .05** .10***	.23* .26** .26** .37***	

p < .05. p < .01. p < .01.

mostly identified afterlife motivations as a more noteworthy predictor of other variables in women. Men, nevertheless, displayed significant correlations of this new scale with the extrinsic social (.30), depression (.27), and death anxiety (.27, ps < .05) measures.

Second, the expectation was that afterlife motivations would correlate with the Extrinsic, but a positive association with the Intrinsic Scale had not been predicted. A previous study demonstrated that Iranian Muslims, like American Christians (Allport & Ross, 1967), can be categorized into an empirically meaningful Indisciminately Proreligious type that displays high levels of responding on both religious orientations. This type can be contrasted with Intrinsics who score high only on the Intrinsic Scale, with Extrinsics with high scores only on the Extrinsic Scale, and with an Indiscriminately Antireligious type that is associated with lower levels of responding on both (Ghorbani & Watson, 2006).

With the present sample, medians for the Intrinsic (1.60) and the full Extrinsic (1.40) Scales were used to construct the four types. Types then served as the fixed factor in MANOVA procedures analyzing afterlife motivations, nearness to God, and the three mental health variables. A significant overall effect was obvious, F(7, 123) = 599.48, p < .001, and was explained by type contrasts in nearness to God, F(3, 127) = 6.84, p < .001, and afterlife motivations, F(3, 127) = 3.54, p < .05. Significant group differences were clarified with Bonferroni post hocs. With regard to Nearness to God, the Indiscriminately Proreligious (M = 0.87, SD = 0.17) and Intrinsic (M = 0.86, SD = 0.18) means were higher than the Indiscriminately Antireligious average (M = 0.65, SD = 0.27). For the afterlife motivations, the only significant contrast occurred between the Indiscriminately Proreligious (M = 2.43, SD = 0.78) and the Indiscriminately Anti-religious (M = 1.66, SD = 0.92).

# DISCUSSION

In a previous study, separate scales were created to measure religious commitments based on a desire to reach heaven or to avoid hell, and these measures predicted maladjustment in a sample of Iranian Muslims (Ghorbani et al., 2002). Our investigation demonstrated that these two instruments could be defined by a single factor that contained only six statements involving three items for each desire. This short scale was unidimensional, displayed strong internal reliability, and exhibited expected connections with higher scores on the extrinsic personal and social factors and on the Nearness to God, Depression, Anxiety, and Death Anxiety Scales. Taken together, these data suggested that the six-item Afterlife Motivation Scale could be useful in future research into the religious commitments of Iranians.

Afterlife motivations also correlated positively with the Intrinsic Scale. This relationship had not been predicted, but clarifying analyses demonstrated that the Indiscriminately Proreligious but not the Intrinsic type displayed a higher average on the six-item scale than did the Indiscriminately Antireligious. The positive correlation with the Intrinsic scale may, therefore, have reflected at least some variance associated with tendencies to display a generalized embrace of all religion. The finding that Extrinsics also failed to differ from the other three types on this six-item measure perhaps revealed the same thing with regard to the even stronger positive correlations of the extrinsic personal and social factors with afterlife motivations.

The Nearness to God Scale included such statements as "I am sometimes very conscious of the presence of God" and "God is very real to me" (Gorsuch & Smith, 1983). Such beliefs presumably would be typical of individuals who worried that God would punish them with hell and who hoped that he would reward them with heaven. The positive relationship of this measure with afterlife motivations, therefore, had been expected. Personal experiences of a nearness to God would not, of course, be limited only to those with concerns about heaven or hell. Sincere and secure believers presumably would report the same thing. Supporting that conclusion were observations that nearness to God also correlated positively with the Intrinsic Scale and that the Intrinsic and not just the Indiscriminately Proreligious type scored significantly higher than the Indiscriminately Antireligious on this measure.

Multiple regression analyses indicated that the Afterlife Motivation Scale recorded a specific form of religious psychological functioning that could not be reduced to more general intrinsic and extrinsic forms of commitment. This evidence of incremental validity suggested that the six-item scale might be uniquely useful in future efforts to analyze Muslim beliefs. At the same time, however, these multiple regression data may need to be interpreted cautiously. Internal reliability of especially the Intrinsic scale tended to be lower than

in previous Iranian studies (e.g., Ghorbani et al., 2002; Ghorbani, Watson, & Mirhasan, 2007). More definitive evidence may therefore be necessary in replications with samples that display more internally consistent responding on the two religious orientation measures or in investigations that develop and then use more adequate indices of Muslim motivations for being religious. More generally, these data once again seemed to demonstrate that Western religious orientation scales may supply a useful conceptual and empirical point of departure for taking the first but not necessarily the final step in efforts to integrate Muslim religious commitments into a broader research literature in the psychology of religion (also see, e.g., Ghorbani, Watson, & Khan, 2007; Khan et al., 2005; Watson & Ghorbani, 1998).

Interpretation of these data must occur within the context of at least four other caveats and broader considerations. First and perhaps most obviously, our study focused on younger Iranian Muslims who maintained Shiite commitments. An important question for future research is whether similar findings would be obtained with samples of Sunni Muslims and with older respondents of both Shiite and Sunni traditions. Among other things, such investigations could test the hypothesis that afterlife motivations are a more noteworthy concern in older individuals.

Second, this study once again confirmed the importance of gender in the analysis of Muslim religiousness. Men and women did not differ in their average levels of responding, but correlations of afterlife motivations with a number of other measures were more robust for women. This pattern perhaps identified afterlife motivations as more central to the religious commitments of Iranian women. Significant relationships with various scales, nevertheless, revealed that afterlife motivations were also relevant to men. In previous Pakistani samples, correlations of religious constructs with other variables displayed complex gender contrasts with men sometimes displaying more robust and even opposite correlations to those exhibited by women (Khan & Watson, 2005, 2006; Khan et al., 2005). Given such complexities across studies, additional research seems essential before offering even a preliminary understanding of how gender relates to the religiousness of Muslims.

Third, factor analytic procedures made it possible to create a unidimensional measure of afterlife motivations that seemed short enough to be especially useful in future studies. The structure of this measure, nevertheless, needs to be replicated with additional samples and tested through confirmatory factor analysis. In addition, no reason exists for assuming that the heaven and hell scales used in our study offered a comprehensive operationalization of all motivations related to the afterlife. Examination of a broader array of items could uncover a more complex dimensional structure associated with afterlife motivations. Indeed, the weak, secondary factor observed in the first step of the factor analytic procedures of this project supported such a suggestion. That possibility may deserve future research attention as well.

Fourth and finally, numerous correlations for the afterlife motivation and religious orientation measures were statistically significant but not especially robust. Previous investigations have similarly found significant though often small correlations for the Allport and Ross (1967), Gorsuch and McPherson (1989), and single-item measures of religious orientation (Ghorbani, Watson, & Khan, 2007). Among other things, such data once again pointed toward a need for caution in using Western measures to assess Muslim religious commitments. Indeed, understandings of religious motivation developed within the Western research literature may not be fully applicable to Muslim forms of commitment. As only one illustration of that possibility, the extrinsic utilitarian factor in our study correlated negatively with but did not explain much more than 10% of the variance in Intrinsic Scale scores. This utilitarian factor but not the Intrinsic Scale also served as a reliable predictor of depression in the first step of a multiple regression. Such findings suggest that the items defining this utilitarian factor may not be fully reducible to reverse scored articulations of an intrinsic orientation, as has been suggested in the West (Kirkpatrick, 1989). Among other things, such observations indicate that Western understandings of religious orientation should not be applied automatically to Muslim data (Ghorbani, Watson, & Khan, 2007).

Previously, American Christians differed from Iranian Muslims in that they failed to display any linkage of beliefs about heaven and hell with psychological maladjustment (Ghorbani et al., 2002). Such findings perhaps revealed that beliefs about heaven and hell exert no noteworthy mental health influences on Christians, but it may also be important to remember that students from a state-supported university served as the research participants in that earlier investigation. Relationships similar to those observed with the Iranian Muslims might become more obvious with a sampling of specific Christian subgroups in which concerns about heaven and hell represent a prominent doctrinal emphasis. Especially interesting might be those Protestant groups that see membership in a specific denomination as a prerequisite for entering heaven. The six-item scale could be useful in examining such a possibility and also in exploring the influences of afterlife motivations in traditions other than Islam and Christianity.

Concluding emphasis should be placed on the necessity of approaching the data presented here with an interpretative complexity. At the most straightforward level, our findings may have demonstrated that beliefs about heaven and hell reflect a wholly unhealthy and defensive religiosity that is incompatible with sincere Muslim beliefs. The previously mentioned assertion of the Islamic mystic Rabi'a might support such a possibility: "If I worship Thee in fear of Hell, burn me in Hell" (as cited in R. A. Nicholson 1914/1989, p. 115). On the other hand, Jewish and Christian readers of the stories of Job and Jonah will understand that faithful relationships with God can have troubling elements that eventually lead to deeper, more meaningful commitments. The possibility,

therefore, cannot be dismissed that "troubling" beliefs about heaven and hell may be essential in the appropriate development of a Muslim's faith.

Most importantly, however, absolutely no assumption should be made that the Afterlife Motivation Scale exhaustively captured all the meanings that heaven and hell can have for Muslims. In emphasizing the symbolic as well as literal importance of paradise for Muslims, Nasr (2002), for example, emphasized,

Conscious of Divine Justice but also of God's Infinite Mercy, Muslims live in an open awareness of the realities of worlds beyond, and even today function in a world in which there is greater communication and rapport with realities that transcend the life of this world than there is for most modern Westerners. (p. 284)

Associated with this awareness is a greater "understanding of God's Justice, the significance of our actions for the ultimate end of our soul beyond the grave, and the meaning of human life itself" (Nasr, 2002, p. 248). Other Muslim beliefs about the afterlife might, therefore, be associated with psychosocial benefits, and that important possibility also clearly deserves further consideration in future research.

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