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ADAPTATION OF A MUSLIM RELIGIOSITY SCALE FOR USE WITH FOUR DIFFERENT FAITH COMMUNITIES IN MALAYSIA

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Though many religiosity scales originally developed for use with Judeo-Christian populations have been adapted for use with Muslim populations (Spilka et al. 2003), no known scales developed for Muslims have been adapted for use by non-Muslim adherents. In an attempt to measure religiosity of Malaysian youth across four faith communities (Muslims, Hindus, Buddhists and Christians), researchers required the use of an instrument that would be universally applicable and accepted. The Religious Personality subscale of the Muslim Religiosity-Personality Inventory (MRPI) (Krauss et al. 2006) was selected. The current paper set out to report on the process and results of scale adaptation. Psychometric results indicate that the scale is reliable, valid and relevant for use with multiple faith groups. Concerns about social desirability in relation to the religiosity scale are also considered. The study also highlights the need for more formal research on religiosity among non-Muslim faith groups in Malaysia as most of the formal research to date has been conducted on Muslim Malays.

INTRODUCTION

The vast majority of religiosity scales used with Muslim populations have been adapted from Judeo-Christian-based scales (Spilka et al. 2003). Since September 11th, however, there has been a heightened interest in Muslim religiosity as an area of empirical investigation. Accordingly, several new scales based on the Islamic theological worldview have been created (for example, Krauss et al. 2006) due to the perceived shortcomings of adapted Judeo-Christian-based scales, such as Wilde and Joseph's Muslim Attitude Toward Religion Scale [MARS] (Francis 1978; Francis and Stubbs 1987). While many scales developed for Judeo-Christian populations (Hood et al. 1996; Wilde and Joseph 1997; Hill and Hood 1999; Ghorbani et al. 2000) have been adapted for Muslim populations, no known scales developed for Muslim populations have been adapted and used with non-Muslim populations.

The Current Study

Researchers in Malaysia, in an attempt to measure and compare religiosity and religious tolerance of Malaysian youth across four major religious faith communities, required the use of a universal religiosity instrument that would be universally applicable and accepted. As three of the groups in the study represented non-Judeo-Christian traditions—i.e., Buddhists, Hindus and Muslims—the authors chose not to employ any of the established Judeo-Christian based scales or adapted versions thereof, in an attempt to utilize a more localized scale reflective of Malaysia’s diverse religious landscape. One of the two subscales of the Muslim Religiosity-Personality Inventory (MRPI) (see Krauss et al. 2006), a religiosity instrument developed for Muslims in Malaysia, was adapted for use across faiths for the aforementioned study. The MRPI is comprised of two main subscales: “Islamic Worldview” and “Religious Personality.” Given that the instrument was originally designed for use with Malaysian Muslims, it was believed that the scale could be accepted by other faith groups in Malaysia with only minor contextual edits and the removal of Islam-specific terminologies and references.

As the first known attempt at universalizing a Muslim-based religiosity scale, the current paper reports on the process employed to adapt and further develop the MRPI Religious Personality scale for use with four different religious communities: Christians, Buddhists, Hindus and Muslims. The current study also compares religious personality mean scores across the groups and highlight major findings.

Adapting the MRPI: A Note on Limitations in Religiosity Scale Adaptation

Despite the growing number of Muslim religiosity scales in both the Muslim world and the West, few, if any, have been adapted for use with non-Muslim populations. Such a possibility raises the question: how do you universally adapt a scale that has been created for a particular religious community, and one which reflects the uniqueness of that community’s religious worldview? As previously discussed in Krauss et al. (2006), the MRPI was developed to meet the need for a Muslim religiosity scale developed “from the ground,” i.e. based on the philosophical underpinnings encompassed in the unique *tawhidic* worldview of the Islamic faith and whose items derived from the two prominent knowledge sources of Islam: the Qur’an and *ahadith* (sayings) of the Prophet Muhammad. Additionally, there was a local need for such a scale that would be applicable to the school of thought and cultural nuances of Malaysia and its Muslim youth population.

Of the two subscales of the MRPI, one pertains to the specific theological pillars of Islam, while the other is representative of general religious behavior that shares many similarities with other revealed faiths. The former, the “Islamic Worldview” subscale, is unique in its aim of measuring the level of understanding of key theological tenets of Islamic belief. The latter, the “Religious Personality” subscale, though containing several items specific to Islamic religious practice and ritual behavior, is predominantly comprised of items of a universal nature not necessarily specific to Islam but deemed a key aspect of Islamic religiosity. This construct is represented by items relating to ritual worship which reflect one’s direct relationship with God, and *mu’amalat*, or religiously-guided behaviors towards one’s family, fellow human beings and the rest of creation (i.e., animals, and the natural environment—see Krauss et al. 2006).

It was the latter subscale, the Religious Personality scale, upon which an adapted religiosity scale suitable for multiple faiths was created. The Religious Personality subscale

reflects the manifestation of one's religious worldview and God-consciousness in "righteous works," as promoted by all major religions and that refer to a wide variety of behaviors. Such actions or behaviors can be analyzed at four levels: actions towards God; actions towards fellow human beings; actions toward non-human beings (animals, the environment, etc.); and actions towards oneself (Family Development Foundation 2002).

Primarily through alterations to wording, the Religious Personality subscale presented in the current study was adapted to remove specific references to one faith. However, the majority of basic items themselves were not altered. In a sense, therefore, the scale remained "Islamic," in the sense that it still places emphasis on certain behaviors/virtues that are of high value to Islam, but which may not be as salient for other faiths. Conversely, behaviors/virtues that may be of higher value to other faiths may not be adequately represented in the adapted Religious Personality scale. For example, Islam places much emphasis on kindness toward parents. It is one of the most fundamental teachings from both the Qur'an and *hadith* (sayings/teachings) of Muhammad in regard to a Muslim's social obligations. In accordance with this emphasis, the Religious Personality scale has several items that refer to this one subject. However, in Buddhism or Hinduism, though kindness to parents may also be deemed virtuous, it may not be as highly stressed as other social obligations that may have been omitted in the Religious Personality scale due to its design being based on Islamic teachings alone. In this way, although the current scale was "approved" by religious leaders from other faith communities (see Methods section), there may yet be a certain level of bias inherent within the scale based on the religious worldview of the tradition that guided the scale's creation (Krauss 2005).

METHODS

To adapt the MRPI Religious Personality scale, a multistage process was undertaken. A critical aspect of the process was to ensure content validity of the new scale, so that it would be applicable and relevant to the different religious communities. This required the involvement and expertise of religious leaders from each faith community involved, along with two additional leaders from faiths not included in the current sample.

Scale Development

Like the original MRPI Religious Personality scale, the adapted scale utilized a five-point Likert scale ranging from (1) Never to (5) Always, to measure respondents' frequency of behaviors, attitudes, or intention to commit behaviors.

Content Validity

The most critical aspect of the adaptation process was ensuring that the Religious Personality scale was applicable and appropriate for use with different faith traditions. To address this content validity issue, the research team called on leaders from five non-Muslim faith groups (Buddhist, Hindu, Protestant, Catholic and Sikh) for expert feedback on each item on the scale.

First, after agreeing to be involved in the research, each leader was sent the original Religious Personality questionnaire along with a cover letter. This was followed up by a phone call to repeat the instructions and answer any preliminary questions the leaders had. The leaders all took one to two weeks to edit the scale. Once the leaders completed their edits

and comments, the researchers met individually with each leader and went over each item, requesting feedback as to whether the item was applicable to their faith or required editing. Each meeting took up to three hours. Following the first meeting with all the leaders, the researchers edited the scale accordingly and re-sent it to each leader for check-in. At this point the leaders either approved the scale or requested further changes. The leaders' copy of the scale was in English and the final copy was translated to Malay by the researchers.

Appendix A shows the item adaptations along with the original MRPI Religious Personality scale items (original items on top). In all, 35 items were revised, three were removed, and one was added for a total of 99 items.

Sampling

Data for the current study was collected in Selangor state, which was randomly selected from the four "mixed-belt states" (i.e., Selangor, Malacca, Negeri Sembilan and Johor). Mixed-belt states are those states in Malaysia that have significant percentages of all three of the main ethnic groups: i.e., Malay, Chinese and Indian.

Study respondents were composed of youth from nine schools in seven school districts. The schools were also randomly selected, and represented a mix of rural and urban schools. Within each school, researchers first contacted the school by phone asking for permission to conduct the study, and then followed up with letters of support from the National Education Ministry as well as the State Education department. Once the schools agreed, they were asked to recruit Malay, Chinese, and Indian student respondents according to a 5/3/2 ratio, respectively, in concordance with the population breakdown of the country at large. Sixty students were requested from each school. School liaisons were asked to select mainly "average" students (B grade range) for participation in the study.

The overall sample for the study was comprised of 615 Form Four (14—17 years old) students from mixed religious groups (i.e., Islam, Christianity, Buddhism and Hinduism).¹ The majority of respondents were 16 years old (87.5%). The sample was comprised of 276 (44.9%) male and 339 (55.1%) female students. In terms of race, 39% (n=240) were Malay, 32% (n=197) were Chinese, 28% (n=172) were Indian, while less than 1% were from other races. According to religious group, 39.3% (n=242) identified themselves as Muslims, 27.4% (n=168) identified as Buddhists, 25.4% (n=156) identified as Hindus, 7.0% (n=43) identified as Christians, while less than 1% were from another religious background.

Data were collected using survey method. At each site, the research team members administered the questionnaires in groups. Questionnaires were given to the respondents and collected as soon as they were completed. Respondents were given forty-five minutes to one hour to complete the surveys. Scores for each scale were summed (negatively worded items were reverse scored). Missing data were addressed by replacing all missing values with series means.

Limitations of the Adapted Religious Personality Scale

Religiosity scales always suffer from limitations in that no single scale can entirely capture the multiple dimensions of religious life. In attempting to "measure" a construct such as religious personality, therefore, it is enough of a challenge to do so for one religion, let alone multiple faiths.

As no other scales were administered to the sample populations in the current study, it is difficult to conclude definitively what the Religious Personality subscales of the MRPI are

measuring. Further analysis of the MRPI is thus required in conjunction with other related scales to ensure construct validity.

PSYCHOMETRIC ANALYSIS OF THE ADAPTED RELIGIOUS PERSONALITY SCALE

Lie Scale

Poll data on religious behavior and practice are notoriously unreliable, as individuals often describe their own behavior inaccurately by answering questions according to what they think they *should* be doing (Robinson 2001). To account for social desirability in surveying, social desirability scales are used to respond to individuals' habitual response style and the goals and expectations that are aroused in situations of self-evaluation. The items of social desirability scales present behaviors either socially desirable but uncommon of most people, or socially unapproved but very common (Crowne and Marlowe 1964). The rationale behind the items of social desirability scales is that an average individual will not always behave in a socially desirable manner. Consequently, a person with higher need for approval would tend to present more socially desirable responses than the average (Leite and Beretvas 2005).

To address social desirability, Leite and Beretvas (2005), in their extensive review of the literature on social desirability scaling, mention that some authors delete participants with high social desirability scores. Along these lines, in the current study, five items that were deemed to have an especially strong possibility toward social desirability (e.g. 'I [never] gossip about others') were selected from the Religious Personality scale to form a lie scale [and subsequently removed from the focal scale] (Sidek, 1998). Among the five items, if respondents indicated a total summed score exceeding 20 (> 80%), they were subsequently removed from the analysis. The items included in the scale were:

1. I use the lessons from the Qur'an/Holy book/Scriptures in my conversations
2. I am the first to greet when meeting another person
3. I fulfill all my promises
4. I perceive those who are not the same religion as mine as potential believers of my religion
5. I gossip about others (reverse scored item)

From the results of the lie scale, 50 respondents (8.1%) were removed from the analysis, reducing the sample size to 565.

To further account for social desirability in the current study, according to Leite and Beretvas (2005), there are two uses of lie scales to validate the scores on other scales. The first method is the use of correlation analysis between the lie scale and the focal scale. If a low correlation is found between scores on the lie scale and the focal scale, then one may conclude that the scores on the focal scale are not biased in a socially desirable manner. In the current study, Pearson Product Correlation indicated an r value of .59, indicating a moderate-to-high correlation between the scales.

Secondly, Leite and Beretvas (2005) cite factor analysis as a method of determining social desirability by analyzing scores on the focal and lie scale items to verify if the focal scale's items and the lie scale items are assessing distinct factors. In the current study, factor analysis was conducted by inputting the focal scale and the lie scale as two independent variables

and then observing whether they factored as such. Following principal component analysis with promax (oblique) rotation, one component accounting for 79% of the variance resulted, indicating that the items assessed a single factor, rather than two. This, along with the Pearson correlation of .59, indicates the likelihood of a high degree of responding in a socially desirable manner.

Response Distribution

For the adapted MRPI Religious Personality scale, the distribution of responses among the 565 respondents was normal (skewness = $-.11$), as indicated in Figure 1. The normal distribution of scores among such a diverse sample population indicates that the scale met the assumption of normality for performing subsequent statistical analyses.

Figure 1
Response Distribution for Adapted Religious Personality Scale
($n = 565$)

Reliability-Internal Consistency

The internal consistency of the adapted Religious Personality scale was tested using Cronbach Alpha. An internal consistency greater than .70 was considered adequate (Epps, Park, Huston, and Ripke 2003). Similar to the original MRPI scale, the adapted Religious Personality scale indicated an alpha of .93, indicating a high degree of internal consistency.

Factor Analysis

Principal component analysis was conducted to determine the factor structure of the adapted Religious Personality scale. As many edits were made to the scale from the original, factor analysis was conducted to identify the factor structure.

The item data were entered into SPSS using oblique (promax) rather than orthogonal rotation (varimax) as it has been suggested that religiosity variables tend to be inter-related and an oblique rotation as opposed to an orthogonal method enables one to measure the degree of inter-relationship between factors (De Jong, Faulkner, and Warland 1976). Furthermore, oblique rotation allows one to overcome simple structure bias by using an unrestricted factor rotation that allows for the possibility of the items resulting in a general factor. Varimax, or an orthogonal rotation, precludes any general factor because there is no way to overcome the simple structure bias that is present when the items come from the same domain (Gorsuch 1997).

For the adapted scale, the analysis initially produced a 25-factor solution (Eigenvalues > 1) which accounted for 60% of the original variance. According to the Scree plot, however, the results indicated that six factors predominated (35% of the variance). Following several extractions and removal of items with loadings less than .3 (18 in all), a rotated solution of six factors resulted. However, upon analysis of the items themselves, no evident grouping resulted from the six-factor solution as only three categories of items were apparent.

Secondary analyses were conducted based on both five and four-factor solutions; with each result, however, the same theoretical pattern of three categories emerged. A three-factor solution was therefore settled on. The component correlation matrix based on oblique rotation indicated that the first two factors inter-correlated (.46) but not highly enough to be considered as a single factor.

A clear theoretical grouping resulted from the three-factor solution. The scale was thus broken down into three subscales labeled “Pro-Social Behaviors,” “Ritual Behaviors,” and “Anti-Social Behaviors.” The factor loadings for the three subscales are shown in Appendix B. All three subscales were also found to be reliable ($\alpha = .91, .90$ and $.75$, respectively).

Concurrent Validity

Further analysis of the adapted Religious Personality scale included the use of a demographic item asking respondents to rate their level of religious practice. The item was broken down into four possible responses, (1) High; (2) Moderate; (3) Low; and (4) Not practicing. To further test the validity of the adapted Religious Personality scale, the item was correlated with respondents’ scores on the Religious Personality scale and subscales to determine if respondents’ self-perceptions of religious practice correlated with the three dimensions of religious practice as put forth by the Religious Personality scale.

Pearson Product Moment correlations confirmed moderate but significant (at the .01 level) correlations for the overall Religious Personality scale ($r = -.40$; negative result due to reverse order scaling), Prosocial subscale ($r = -.30$), Antisocial subscale ($r = -.14$), and Ritual subscale ($r = -.42$). The Ritual subscale correlated highest with respondents’ self-perceived level of religious practice, indicating that “religious practice” to the respondents most closely reflected religious rituals.

RESULTS: DESCRIPTIVES AND COMPARISONS OF MEANS

Descriptives and comparison of means tests for the Religious Personality scale and subscales were conducted for the four religious groups included in the study sample. The results are shown in Tables 1 through 4.

For the overall Religious Personality scale, although ANOVA results indicated that the means were significantly different ($F = 22.27$), the effect size was small to modest. Partial Eta square was .14, indicating that the factor Religious Personality by itself accounted for only 14% of the overall (effect + error) variance. Further analysis of the comparisons of means using Games-Howell post-hoc pairwise tests indicated significant differences between Muslim and Hindu respondents ($p = .000$), Muslim and Buddhist respondents ($p = .000$), and Buddhist and Hindu respondents ($p = .000$). No significant differences were found between the Christian respondents and the other groups, perhaps due to the small sample size of the Christian sub-sample.

Table 1
Religious Personality Mean Scores by Religious Affiliation

Religious Affiliation	n	Mean	SD	Df	F	Partial Eta squared	α
Hindu	133	314.31	35.74	4	22.27*	.14	.93
Muslim	229	298.69	33.04				
Christian	36	293.36	33.81				
Buddhist	161	279.07	27.59				
Missing/Others	5	-	-				
Overall	565	296.26	34.66				

* - Mean differences significant at the .01 level

For the Pro-social Behavior subscale, again ANOVA results indicated that the means were significantly different ($F = 10.51$), with a small to modest effect size. Partial Eta square for the subscale was .07, indicating that the Pro-social Behaviors factor accounted for only 7% of the overall variance. Additional comparison of means using post-hoc tests showed significant differences between Hindu respondents and Muslim and Buddhist respondents ($p = .000$), and Hindu and Christian respondents ($p = .031$).

For the Ritual Behaviors subscale, ANOVA results indicated that the means were significantly different ($F = 56.15$), with a modest effect size. Partial Eta square for the subscale was .29, indicating that the Ritual Behaviors factor by itself accounted for 29% of the overall variance; a considerably higher value than the other subscales. Additional comparison of means using post-hoc tests resulted in significant differences between Buddhist respondents and the other three religious groups, Muslim, Hindu and Christian, respectively ($p = .000$), indicating that Buddhist respondents scored significantly lower on ritual behaviors than the other groups.

Table 2
Religious Personality Mean Scores by Religious Affiliation –
Pro-Social Behaviors Subscale

Religious Affiliation	n	Mean	SD	Df	F	Partial Eta squared	α
Hindu	133	167.32	20.63	4	10.51*	.07	.91
Buddhist	161	156.02	18.34				
Christian	36	155.22	21.55				
Muslim	229	154.45	18.42				
Missing/Others	5	-	-				
Overall	565	157.97	19.76				

* - Mean differences significant at the .01 level

Table 3
Religious Personality Mean Scores by Religious Affiliation –
Ritual Behaviors Subscale

Religious Affiliation	n	Mean	SD	Df	F	Partial Eta squared	α
Muslim	229	82.17	12.69	4	56.15*	.29	.90
Hindu	133	81.17	13.12				
Christian	36	76.94	15.61				
Buddhist	161	63.22	12.99				
Missing/Others	5	-	-				
Overall	565	76.05	15.55				

* - Mean differences significant at the .01 level

For the Anti-social Behavior subscales, ANOVA results indicated that the means were significantly different ($F = 9.02$), with a small to modest effect size. Partial Eta square for the subscale was .06, indicating that the Anti-social Behaviors factor by itself accounted for only 6% of the overall variance. Additional comparison of means using post-hoc tests showed significant differences between Hindu respondents and the other three religious groups, Muslim, Buddhist and Christian, respectively ($p < .003$), indicating that Hindu respondents scored significantly higher than the other groups.

Table 4
Religious Personality Mean Scores by Religious Affiliation –
Anti-Social Behaviors Subscale

Religious Affiliation	n	Mean	SD	Df	F	Partial Eta squared	α
Hindu	133	65.82	9.12	4	9.02*	.06	.75
Muslim	229	62.06	9.18				
Christian	36	61.19	6.61				
Buddhist	161	59.83	7.43				
Missing/Others	5	-	-				
Overall	565	62.24	8.76				

* - Mean differences significant at the .01 level

DISCUSSION

The adapted Religious Personality scale is the first known Muslim-based religiosity scale adapted for use with non-Muslim religious adherents in Malaysia. As the scale was originally created for Muslims, it was of note to find that other non-Muslim religiosity leaders found its content acceptable following their input and edits to 35 of the original 101 items. This lends support to the argument that the major religions of the world do indeed share many similarities and room for understanding one another, particularly in regard to their mutual teachings on the importance of self-development and the role religion can play in promoting and teaching character building, ethics, positive inter-personal relations and the like.

Psychometric results indicate a cohesive scale with high internal reliability for the scale and subscales. The factor structure fell clearly around three main dimensions. This differed with the original MRPI subscales (see Krauss et al. 2006), which also included a ritual-related sub-dimension but factored around only one other subscale named “*mu’amalat*,” which also refers to pro-social behaviors. However, from the original subscales, the anti-social behavior construct failed to result in an independent factor.

Social desirability was an important consideration in this study. The results appeared to reflect the claim by pollsters (see Robinson 2001; Walsh 1998) that poll and survey data on religious practice is prone to social desirability. As a result of the correlation and factor analysis findings on social desirability, methods cited by Leite and Beretvas (2005), the current study attempted to account for at least a portion of the socially desirable responses by removing 50 respondents from the analysis, a method also mentioned by Leite and Beretvas for dealing with response bias. In retrospect, a better approach would have been to include an established lie scale, such as the Crowne-Marlowe Social Desirability Scale (Crowne and Marlowe 1960), at the outset of the sampling process, followed by correlation and factor analysis checks. This more established method would have provided a better indication of

the extent of social desirability using an established lie scale and would have allowed more in-depth analysis on social desirability according to sub-sample. This much-needed inquiry could have been used to address the important gap on how religious sub-groups in the Malaysian context differ in regard to socially desirable responding. Despite concerns within the Malaysian research community about social desirability in religiosity surveying, formal documentation of the nature of the problem as well as attempts to account for it remain scant in the literature. The current study findings begin to address the problem as well as point to future directions for more in-depth inquiry.

On the overall scale as well as the pro-social behavior and anti-social behavior subscales, the Hindu sample indicated the highest mean scores. Only on the ritual subscale did the Muslim sample score higher, with the Hindu sample indicating the second highest score. Moreover, the Muslim sample scored lowest of the four groups on the pro-social behavior scale. From these results, it appears that the current adapted scale, despite being based on a Muslim religiosity scale, contained little bias toward Muslim respondents. This should not be taken to mean that the scale is without bias, however. Further investigation of the meaning of religiosity for each of the four sampled groups represented by the study is needed. The original MRPI was based on a religiosity model specific to the Islamic faith (see Krauss et al. 2006). It would be of great interest to compare this and other Islamic religiosity models with those from the other faith groups represented in the current study, to determine areas of theoretical concurrence and diversion. Such comparisons might help explain why, for example, Hindu respondents scored consistently higher than the other groups represented in the study, including even the Muslim sample.

Potential scale biases aside, there is much more formal research needed on religiosity among non-Muslim faith groups in Malaysia. Most of the formal research to date has been conducted on the Muslim Malays who comprise the majority of Malaysia's religious adherents. Without this type of formal research, it is difficult to draw definitive conclusions about the current study findings and the scoring patterns, beyond rudimentary speculation based on generalizations and stereotypes within Malaysian society itself. The somewhat unexpected pattern of mean score results of the current study should act as a stimulus for further understanding of religiosity between different religious groups in Malaysia.

Even though the adapted MRPI Religious Personality scale was approved by experts from each of the four religious communities in the study, each religion retains key differences and different areas of emphasis in regard to manifested religious life or "religious personality." For example, the Muslim sample's high scores on the ritual sub-scale may be reflective of the emphasis Islamic teachings place on rituals, for example, the mandatory five prayers per day (*solat*), fasting (*sawm*), charity (*zakat*) and pilgrimage (*hajj*). On the other hand, it is less clear as to why the Muslim sample scored lower than the other groups on pro-social behaviors, as Islamic teachings place considerable emphasis on this aspect of religion as well. Glock and Stark first noted that "being religious on one dimension does not necessarily imply religiosity on other dimensions" (1965:22). In their study, they suggested that those who scored high on ritual observance and biblical literacy tended to score low on religious belief and religious feeling, and vice versa (Glock and Stark 1965). The results of the Muslim sample in the current study mirror this statement. As the Muslim sample scored highest on ritual observances, it also indicated the lowest score on the pro-social behavior subscale. The Hindu and Buddhist samples on the other hand indicated the most consistent scores, albeit one being high and the other low, respectively, with the Christian sample ranking sec-

ond or third throughout. These results indicate that the scale may be most sensitive for Muslims, but why remains unclear.

As a scale originally constructed for Muslims, the MRPI may still be better at capturing the nuances of religious personality for Muslims more than others. Though the scales were approved by leaders from all four communities, the findings may not necessarily reflect the weight or value that each community places on the variables comprising the scale. In this regard, the scale most probably still reflects the Islamic faith more than the others.

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NOTES

¹These numbers do not exactly match the numbers in Table 1, which reflects the fact that fifty respondents were removed from the subsequent analysis because of a high social desirability bias in their answers.

APPENDIX A

Religious Personality Scale Item Changes and Deletions

The following table includes the original MRPI Religious Personality Scale items along with adapted items. The original items are listed first, with the adapted items – where applicable – provided underneath. Items that were removed upon adaptation are also indicated. This list is prior to item removals due to factor analysis.

Item
1. I get enthusiastic about doing good deeds when people praise me.
2. I am willing to help old people when they need it.
3. I make effort to deepen my understanding of Islamic law. I make effort to deepen my understanding of law/rules/teaching/precepts of my religion.
4. I feel at peace when I hear the Qur'an recited. I refer to Al Qur'an/my Holy book/Scriptures to obtain tranquility (peace).
5. I love my brothers and sisters in Islam as I love myself. I love my brothers and sisters in my religion as I love myself.
6. I use the lessons from the Qur'an and Hadith in my conversations. I use the lessons from the Qur'an/Holy book/Scriptures in my conversations.
7. I incline toward taking a side when my friends quarrel.
8. I try to understand the meaning of Qur'anic words/verses. I try to understand the teachings of my religion in the Holy book/Qur'an.
9. I establish good relations with my neighbours.
10. I find ways to recycle anything that can still be of use.
11. I feel sad when Ramadhan ends - removed.
12. I invite others to perform obligatory prayer (solat). invite others to perform solat/prayer/religious service.

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13. I avoid something if I am unsure about its legal status.
I avoid something if I am unsure about its religious implication.
14. I make effort to remember death often.
I make effort to remember death and afterlife often.
15. I do not pay alms (zakat).
I try to avoid myself from giving donations.
16. I find time to recite the Qur'an even if I am busy.
I find time to recite the Qur'an/Holy book/Scriptures even if I am busy.
17. I immediately apologize if I wrong someone.
18. I thank Allah S.W.T when beggars come to my house.
I feel happy when beggars come to my house.
19. I make effort to always follow the Islamic code of dress.
I always follow the latest fashion code of dress even though it is against my religion.
20. If I borrow money from someone, I will make a contract with them.
21. I create commotion in public.
22. I do all jobs assigned to me to the best of my ability.
23. I am the first to give salam when meeting another Muslim.
I am the first to greet when meeting another person.
24. I will ridicule someone in return when they ridicule me, even during Ramadhan.
I will ridicule someone in return when they ridicule me.
25. I continue to perform good deeds even if others might ridicule me for it.
26. I am particular about doing good deeds consistently even though they may be small.
27. I easily forgive my siblings when they hurt me.
28. I always obtain the facts before passing judgment.
29. I tend to rely on others when faced with difficulty.
I will seek for God's help first then to others when faced with difficulty.
30. I like to help the needy.
31. I do not expose the shortcomings of others.
32. I make effort not to display my personal good deeds.
33. I like to help my relatives.
34. I frequently discuss religious issues with my friends.
I frequently share my religious values with my friends.
35. I make sure all my family members are following the teachings (*sunnah*) of Rasulullah.
I make sure all my family members are following the teachings of my religion.
36. I seek sympathy from others when I experience misfortune.
37. I avoid offending in any way when joking around with others.
38. I make an ongoing effort to increase the frequency of my non-obligatory (*nafil*) prayers.
I make an ongoing effort to increase the frequency of my good deeds.
39. I would give true information in court against someone even if he/she is my relative.
40. I would remove an obstacle that I see on the road, even if it is small.
41. I worry if I cannot pay debt on time.
42. I am involved in da'wah work.
I am involved in religious work.
43. I care about my good relations with my siblings.

44. I admonish my friends when they do wrong.
I criticize my friends when they do wrong.
45. I perform my work duties enthusiastically because it is a form worship (*ibadat*).
I perform my work duties enthusiastically because of my religion/God.
46. I fulfill all my promises.
47. **I am not sensitive to the teachings (*sunnah*) of Rasulullah in my daily activities – removed.**
48. I make effort to obey Allah S.W.T.'s rules in every situation.
I make effort to obey rules/advice of my religion (God) in my daily life.
49. I assume that people talk about me because they are concerned about my well-being.
50. I always thank a person when they do something nice for me.
51. I assume that nobody is perfect.
52. I get jealous when my colleague/friend is more successful than me.
53. I make effort to have ablution (*wudhu*) at all times.
I make effort to be clean at all times.
54. I try to smile as much as possible.
55. I do not get angry when I am being scolded.
56. I tend to remain silent when someone degrades Islam in front of me.
I tend to remain silent when someone degrades my religion in front of me.
57. I speak politely to my parents.
58. **I do non-obligatory prayers (*solat sunnat*) wherever I am - removed.**
59. I forgive others who wrong me before they ask for my forgiveness.
60. I expect others to finish my work for me.
61. I get upset when I hear about the suffering of Muslims in other parts of the world.
I get upset when I hear about the suffering of people of all races in other parts of the world.
62. I will keep a person's identity hidden when I talk about them and they are not present.
63. I like to join in when I hear people gossiping.
64. I do not neglect my friends' dignity.
65. I refer to the people who know when I feel uncertain about Islamic rulings.
I refer to the people who know when I feel uncertain about the rulings/teachings of my religion.
66. I like to help the poor without anyone knowing.
67. I make effort to internalize the Prophet's ethical conduct in my daily life.
I make effort to internalize the ethical conduct of my religion in my daily life.
68. I throw rubbish in the trash bin when I see it lying around.
69. I feel worried when I hurt my parents.
70. I do not feel worried when I send negative e-mails/SMS messages/information to people.
71. I use public buses, walkways, etc. with care/respect.
72. I cannot tolerate people who disagree with me.
73. I am careful to follow Islamic social norms during all activities I am involved in.
I am careful to follow my religious social norms during all activities I am involved in.
74. I participate in recreational activities without neglecting religious norms.
75. I perceive all non-Muslims that I see as potential Muslims.
I perceive those who are not the same religion as mine as potential believers of my religion.
76. I respect all opinions.

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- 77. I feel happy when someone says something good about one of my friends.
- 78. I am very conscious about my health.
- 79. I openly display my anger if somebody meddles with my belongings.
- 80. I tend to let setbacks in life distract me from my responsibilities and religious practice.
- 81. I am very comfortable admitting my mistakes.
- 82. I make a serious effort to fulfill wedding invitations.
- 83. I have started saving money for *haji* since my early days.
I have started saving money for religious donations since my early days.
- 84. I prefer to do any form of labour than to beg.
- 85. I gossip about others.
- 86. I make sure that when I read the Qur'an, I understand its demands.
I make sure that I understand the demands/obligations/teachings of my religion.
- 87. I use other peoples' belongings without their permission.
- 88. I speak rudely to my parents when I am angry at them.
- 89. My siblings and I compete in serving our parents.
- 90. I enjoy working in a team.
- 91. I pay more attention to my friends than my parents.
- 92. I offer my guests the best of what I have when I am hosting them in my home.
- 93. I like to take advantage of opportunities to understand Islam with my family.
I like to take advantages of opportunities to understand my religion with my family.
- 94. I look for opportunities to give charity.
- 95. I share my opinion when I think that it will improve a situation.
- 96. I do not enter a person's house until I am invited.
- 97. I follow the advice of my parents even though it may not be what I want.
I follow the advice of my parents even though it may contradict my religious conviction.
- 98. I make effort to make my guests feel as comfortable as possible.
- 99. I set aside money every year for charity.
I set aside money every year for religious purposes.
- 100. I work hard to achieve my goals in the specified time.
- 101. I pray the 5 compulsory (*fard*) prayers (*solat*) everyday.
I practice *solat*/religious prayers as taught in my religion.
- 102. I follow the advice of my parents even though it may not be what I want.

Appendix B

Adapted MRPI Religious Personality Scale Factor Loadings

Item Statement	Factor 1 – Pro-Social Behaviors	Factor 2 – Ritual Behaviors	Factor 3 – Anti-Social Behaviors
I fulfill all my promises	.644	-.187	-.053
I make effort to make my guests feel as comfortable as possible	.641	.023	-.023
I am very comfortable admitting my mistakes	.619	-.082	-.123

I share my opinion when I think that it will improve a situation	.585	.113	-.137
I always thank a person when they do something nice for me	.578	-.065	.070
I speak politely to my parents	.577	-.080	.143
I offer my guests the best of what I have when I am hosting them in my home	.567	.025	.045
I like to help my relatives	.551	.011	.010
I care about my good relations with my siblings	.545	-.024	.109
I feel happy when someone says something good about one of my friends	.544	-.035	-.134
I make a serious effort to fulfill wedding invitations	.535	-.041	-.246
I am very conscious about my health	.518	-.121	-.081
I do all jobs assigned to me to the best of my ability	.513	.009	-.006
I respect all opinions	.502	.031	.015
I like to help the needy	.495	.086	.102
I use public buses, walkways, etc. with care/respect	.490	-.036	.162
I immediately apologize if I wrong someone	.488	-.076	.126
I work hard to achieve my goals in the specified time	.487	.064	.008
I enjoy working in a team	.478	.008	-.146
I forgive others who wrong me before they ask for my forgiveness	.474	-.115	.072
My siblings and I compete in serving our parents	.470	.098	.195
I follow the advice of my parents even though it may not be what I want	.465	-.031	.096
I easily forgive my siblings when they hurt me	.462	-.101	.114
I always obtain the facts before passing judgment	.460	-.020	.095
I follow the advice of my parents even though it may contradict my religious conviction	.446	-.429	.099
I am willing to help old people when they need it	.441	-.111	.060
I feel worried when I hurt my parents	.439	-.091	.047
I try to smile as much as possible	.436	-.063	-.016
I continue to perform good deeds even if others might ridicule me for it	.418	.201	.001
I like to help the poor without anyone knowing	.402	.132	-.174
I do not neglect my friends' dignity	.399	-.042	-.264
I would remove an obstacle that I see on the road, even if it is small	.390	-.015	-.124
I make effort to be clean at all times	.373	.250	.041
I throw rubbish in the trash bin when I see it lying around	.368	-.098	.244
I am particular about doing good deeds consistently even though they may be small	.366	.193	-.162
If I borrow money from someone, I will make a contract with them	.355	-.084	-.218
I would give true information in court against someone even if he/she is my relative	.352	.144	-.013
I will ridicule someone in return when they ridicule me	.346	.155	.104
I avoid offending in any way when joking around with others	.344	.003	-.054
I worry if I cannot pay debt on time	.343	.051	-.181
I get upset when I hear about the suffering of people of all races in other parts of the world	.324	.222	.021
I am careful to follow my religious social norms during all activities I am involved in	.310	.110	.139
I refer to Al Qur'an/my Holy book/Scriptures to obtain tranquility (peace)	-.138	.773	-.145
I make sure that I understand the demands/obligations/teachings of my religion	-.034	.757	-.017
I find time to recite the Qur'an/Holy book/Scriptures even if I am busy	-.204	.737	-.014

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I make effort to deepen my understanding of law/rules/teaching precepts of my religion	.032	.706	.064
I practice solat/religious prayers as taught in my religion	-.001	.704	.049
I try to understand the teachings of my religion in the Holy book/ Qur'an	-.001	.702	.071
I invite others to perform solat/prayer/religious service	-.041	.694	-.051
I use the lessons from the Qur'an/Holy book/Scriptures in my conversations	-.191	.671	-.107
I will seek for God's help first then to others when faced with difficulty	-.018	.662	.036
I make an ongoing effort to increase the frequency of my good deeds	.122	.640	.044
I make sure all my family members are following the teachings of my religion	.056	.633	.104
I refer to the people who know when I feel uncertain about the rulings/ teachings of my religion	.073	.632	-.067
I perform my work duties enthusiastically because of my religion/God	.116	.622	.014
I like to take advantages of opportunities to understand my religion with my family	.173	.584	.042
I make effort to obey rules/advice of my religion (God) in my daily life	.129	.578	.113
I am involved in religious work	.141	.542	-.043
I make effort to remember death and afterlife often	-.048	.535	-.146
I avoid something if I am unsure about its religious implication	-.151	.532	.042
I frequently share my religious values with my friends	.181	.461	-.031
I make effort to internalize the ethical conduct of my religion in my daily life	.317	.386	.110
I love my brothers and sisters in my religion as I love myself	.277	.369	.003
I set aside money every year for religious purposes	.069	.365	-.212
I look for opportunities to give charity	.291	.308	-.071
I will ridicule someone in return when they ridicule me	-.070	.033	.594
I expect others to finish my work for me	-.026	.060	.561
I use other peoples' belongings without their permission	.105	-.044	.546
I gossip about others	.065	-.001	.535
I create commotion in public	.149	-.114	.533
I pay more attention to my friends than my parents	-.061	.090	.521
I criticize my friends when they do wrong	-.245	-.008	.509
I like to join in when I hear people gossiping	-.001	-.072	.502
I speak rudely to my parents when I am angry at them	-.205	-.018	.488
I openly display my anger if somebody meddles with my belongings	-.203	-.042	.474
I incline toward taking a side when my friends quarrel	.064	-.217	.438
I get jealous when my colleague/friend is more successful than me	-.054	-.178	.424
I try to avoid myself from giving donations	.096	.047	.417
I do not feel worried when I send negative e-mails/SMS messages/information to people	-.003	-.004	.410
I perceive those who are not the same religion as mine as potential believers of my religion	-.051	.211	-.408
I always follow the latest fashion code of dress even though it is against my religion	-.172	.172	.378
I tend to let setbacks in life distract me from my responsibilities and religious practice	-.250	.186	.375
I seek sympathy from others when I experience misfortune	-.258	.132	.317

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