Development and Validation of an Islamic Religious Orientation Scale with Pilgrims of Imam Reza Shrine

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ARTICLE INFO	ABSTRACT
	The present study aimed at exploring the factorial validity of an enlarged Religious Orientation Scale (ROS) within an Islamic context. To this end, several national and international pilgrims visiting the Imam Reza Shrine in Mashhad, Iran, were interviewed and eleven items were added to the thirty-three-item ROS developed and validated by Khodadady and Bagheri (2012). The forty-four-item Islamic ROS (IROS) was then administered to seven hundred forty nine pilgrims as they entered it through its sixteen gates to pray. The application of the Principal Axis Factoring to the data and rotating the extracted factors via Varimax with Kaiser Normalization showed that ten latent variables having the initial eigen values of one and higher underlie the scale, i.e., Inspirational, Intrinsic, Congregational, Social, Ceremonial, Sacrificial, Theo-Pacific, Humanitarian, Concessional and Observant. Internal consistency reliability estimates indicated that the IROS and its latent variables provide reliable measures of religious orientations. The scale and its underlying factors are discussed by employing schema theory and suggestions are made for future research.

1. Introduction

In his attempt to design theoretically sound tests to measure the reading comprehension ability of native and non-native speakers, Khodadady (1997, 1999) analyzed various types of testing methods and concluded that multiple choice item tests (MCITs) are the most popular because of their objectivity and ease of administration to a large number of test takers in a single session. As an internationally administered proficiency test, the written form of Test of English as a Foreign Language (TOEFL) has, for example, an MCIT format and is designed several times a year by the Educational Testing Service (ETS)to be taken by hundreds of thousands of tertiary education applicants throughout the world simply because it is "required by more than 3,000 colleges and universities in the United States, Canada and other parts of the world" (Matthiesen, 1999, p. 1)

Although MCITs such as the TOEFL are widely used, they have to be written by experienced testing experts because there is no rationale to explain their development (Bennett, 1993; Haladyna, 1994; Mislevy, 1993; Resnick & Resnick, 1990; Shepard, 1991a, 1991b). To provide MCIT writers with a sound rationale, Khodadady and Herriman (2000) employed the micro structural approach of schema theory to develop multiple choice items (MCIs)whose alternatives have semantic and syntactic relationships not only with each other but also with the schemata comprising the sentences and passages upon which they are developed. The microstructural approach of schema theory differs from its macro structural counterpart in treating *each and all the words comprising a given text* as schemata. The macro structural approach, however, adopts the text itself as a schema and thus fails to provide MCIT writers with an objective unit.

According to Khodadady and Herriman (2000), each schema comprising a text under reading has several senses by itself. However, its readers must activate only one of its senses in their minds on the basis of semantic features it shares with the other schemata comprising the text. The activation and comprehension of a given schema in a given text will thus depend on the sentence of which it forms a part, i.e., syntax, and other sentences of the text, i.e., discourse, in which it relates to other schemata in terms of distinct semantic features it shares with them. Approaching the words comprising texts as schemata, therefore, entails

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focusing on their specific senses determined and elaborated by the syntactic, semantic and discoursal relationships they hold with each other when they are employed to create and comprehend the texts by their writers and readers, respectively.

The word "religion", for example, becomes a schema as soon as a reader looks it up in a dictionary such as *The Shorter Oxford English Dictionary* (Onions, 1973) in which in has been defined in five senses. The comprehension of these senses in and of themselves and committing them to the memory establishes his background knowledge. This particular reader's background knowledge of "religion" will, however, change if he consults *Encyclopedia of Religion Vol. 11* (Jones, 2005) where King (1987) addressed it in ten pages. The same reader's schema of "religion" will still gain more complexity if he consults its entry in *Encyclopedia of Quran Vol 4*(McAuliffe, 2004) where Brodeur (2004) approached it in five running pages from a Quranic perspective. Reading a schema such as "religion" in various texts or encountering it in everyday interactions thus helps readersrefine their background knowledge represented by that specific schema continuously. By highlighting and focusing on this very natural process, schema theory accounts for the ever-evolving and dynamic nature of schemataas they are encountered in various con/texts in real life.

Allport and Ross (1967) [henceforth A&R] and Feagin (1964) were, for example, among the first scholars who tried to find out how the schema of "religion" affected peoples' lives in Western societies. To achieve the objective they designed the Religious Orientation Scale (ROS) which consisted of twenty one statements such as "what religion offers me most is comfort when sorrows and misfortune strike". They presented these statements as the stems of 21 multiple choice items (MCIs) to some participants and asked them to choose one of the five alternatives, i.e., 1) completely disagree, 2) disagree, 3) have no idea, 4) agree and 5) completely agree, indicating the extent to which religion related to their everyday life. They believed that two orientations underlay these items: intrinsic and extrinsic.

Khodadady and Golparvar (2011) [henceforth K&G]approached the 21-item ROS as a psychological scale which measures "religious orientations" as a construct or schema domain whose underlying factors or genera changes from societies to societies. K&G's view stands in sharp contrast to that of A&R who approached the ROS as a static measure consisting of two logically established components of Intrinsic and Extrinsic orientations. They are claimed to motivate human beings pursue a religious life "as an end in itself", i.e., items 12, 13, 14, 15, 16, 17, 18, 19, 20, and 21,and "as a means to achieve certain goals", items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11, respectively. The MCIs comprising the Intrinsic and Extrinsic orientations established by A&R are, however, species whose constituting types must of necessity change in meaning not only in different societies but also at different periods of time to reflect the ever-evolving nature of human understanding of "religious orientation" as a schema domain as shown in Figure 1.
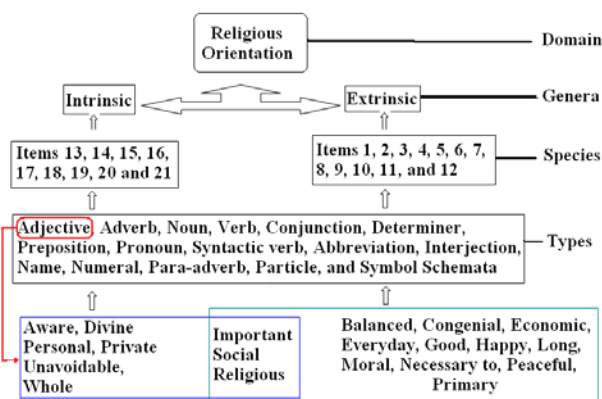

Figure 1. Schema types, species and genera forming the domain of "religious orientation"

As shown in Figure 1 above, schema theory explains the comprehension of texts comprising scales such as the ROS by addressing their constituting single and phrasal words at two interwoven levels simultaneously and hierarchically: linguistic and conceptual. Linguistically, it requires parsing, identifying and categorizing all the words forming its items as tokens whose types, species, and genera must be identified and categorized under the three broad domains of semantic, syntactic and parasyntactic schemata as shown in Figure 2. Conceptually, it reveals what each word as a schema means to readers not only in and by itself but also in combination with other words/schemata as they form the items or species of scales. The species are,

in fact, presented to the readers to determine the relevance of their constituting schemata to the genera underlying the construct under investigation by having the readers relate the types to each other on the basis of five choices they make when they activate the schemata in their minds by resorting to their personal experiences or background knowledge.
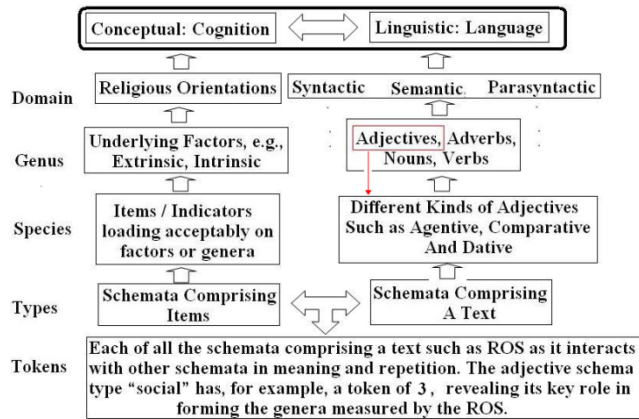

Figure 2. Cognitive and linguistic categorization of schemata constituting ROS

The adjective schema type "social" is, for example, used in items 7, "a primary reason for my interest in religion is that my church is a congenial *social* activity", and 8, "occasionally I find it necessary to compromise my religious beliefs in order to protect my *social* and economic well-being", contributing to *Extrinsic* orientation. It is also used in item 20, "if I were to join a church group, I would prefer to join (1) a Bible study group, or (2) a *social* fellowship", as a species of *Intrinsic* orientation. To find out whether these three items would load on two LVs corresponding to the logically established Extrinsic and Intrinsic orientations, Brewczynski and MacDonald (2006) translated the ROS into Polish and administered it to 385 undergraduate students in Poland. By utilizing the structural equation modeling (SEM), they extracted three LVs called Intrinsic, Personal Extrinsic and Social Extrinsic. Of items 7 and 8 forming the logical Extrinsic orientation, only the first loaded acceptably on Social Extrinsic LV, i.e., .35 (p. 70). Item 20 did not load acceptably on any LVs, indicating that the factorial or cognitive validity of orientations depends on the societies in which the ROS is employed.

Similarly, K&G translated the 21-item ROS into Persian and changed some of the schemata comprising the items to render them relevant to its Muslim readers. The schemata "church", "Bible" and "social fellowship" were, for example, replaced by "mosque", "Quran" and "religious group". They administered the Persian ROS to 329 undergraduate university students in Mashhad, Iran, and extracted four genera instead of two when they applied Maximum Likelihood (ML), Principal Axis Factoring (PAF) and Principal Component Analysis (PCA) to their data.

Their results showed that items 7 and 20 loaded acceptably on LV3, indicating that two items considered as species of two logically established genera such as Extrinsic and Intrinsic orientations may load on a single LV in a society with a different religious background. They also showed that instead of two, four orientations underlie the ROS.

Khodadady and Bagheri (2012) added 11 items to the 21-item ROS translated by K&G and administered it to 536 undergraduate students majoring in various fields of study at Ferdowsi University of Mashhad in Iran. Out of the 33 items comprising the new ROS, 32 loaded acceptably on seven LVs when they were extracted via PAF and rotated by Varimax with Kaiser Normalization (VKN). Khodadady and Bagheri called the LVs Inspirational, Intrinsic, Social, Concessional, Theo-pacific, Humanitarian and Sacrificial. Along with other four items, two out of three items containing the adjective schema "social" loaded acceptably on Social LV as shown in Table 1 below. As can be seen, item 20, "if I were to join a mosque group, I would prefer to join (1) a *Quran* Study group, or (2) a religious fellowship", in which the schema "social" is replaced with "religious", loads acceptably on Social LV (.45), emphasizing the important role of mosques in achieving *social* goals such as getting established in the community.

Table 1. Items loading on the third factor called *Social* (Khodadady & Bagheri, 2012, p. 242)

Loading	Item
.592	The mosque is most important as a place to formulate good social relationships.
.588	One reason for my being a mosque member is that such membership helps to establish a person in the community.
.548	If not prevented by unavoidable circumstances, I attend mosque.
.480	A primary reason for my interest in religion is that my mosque is a congenial social activity.
.455	I read literature about faith (or mosque).
.451	If I were to join a mosque group, I would prefer to join (1) a Quran Study group, or (2) a religious group.

Similarly, Khodadady and Dastgahian (2013) approached constructs such as "intelligence" as a domain which can be broken down into various logical genera such as cultural, emotional, musical and spiritual intelligences, to name a few. The present study, however, considers whatever constructs measured by an instrument such as ROS as a domain whose genera can be established logically and validated psychometrically through factor analysis. The content validity of such instruments will, nonetheless, depend on their designers' ability to specify the constituting schemata of the domains under investigation and connecting them to each other in well-written and pertinent items.

Khodadady and Bagheri (2012) could, for example, enrich the ROS by increasing its constituting items from 21 to 33. Similarly, in order to find out whether the 33-item ROS could be employed to measure the "religious orientation" of people who visit the Imam Reza Shrine in Mashhad as pilgrims, the author of the present study asked one of his undergraduate students to administer it to as many national and international pilgrims as she could while she entertained them as a hotel receptionist. Her interaction with the guests and their comments and suggestions showed that 11 more items had to be added to the ROS. Based on these pilgrims' responses and comments, the number of items on the ROS were thus increased to 44and presented to the participants of this study as they entered the shrine to pray. The purpose was to find out how reliable the enlarged ROS was and what orientations motivated the pilgrims to practice Islam.

2. Methodology

2.1 Participants
Seven hundred forty nine pilgrims, 444 (59.3%) female, 292 (39.0%) male, and 13 (1.7) unspecified, took part in the study voluntarily. They were from Iran (n=733, 97.8%), Afghanistan (n=15, 2%) and Pakistan (n=1, 0.1%). Their age ranged from 15 to 80 (mean=35.48, SD=13.80). While 579 (77.3%) were married, 169 (22.6%) had stayed single. Thirty five (4.7%) pilgrims were illiterate and the others had had senior high school (n=209, 27.9%), bachelorette (n=149, 19.9%), elementary (n=126, 16.8%), junior high school (n=110, 14.7%), diploma (n=56, 7.5%), master (n=33, 4.4%), Hozeh (n=21, 2.8%), PhD (n=3, 0.4%) education. Only 35 (4.7%) pilgrims were, however, illiterate. The literate participants had majored in humanities (n=128, 17.1%), technical and engineering (n=65, 8.7%), sciences (n=32, 4.3%), medicine (n=13, 1.7%), and agriculture (n=9, 1.2%). Their jobs ranged from being a blacksmith to nursing. The first three most frequent jobs were housewives (n=291, 38.9%), the self-employed (n=91, 12.1%) and employees (n=66, 8.8%), respectively. They were residing in 104 cities of Iran. The three highest numbers of participants were, nonetheless, residing or staying in Mashhad (n=248, 33.1%), Tehran (n=93, 12.4%) and Isfahan(n=58,7.7%), respectively. They spoke Persian (n=665, 88.8%), Turkish(n=49, 6.5%), Kurdish (n=18, 2.4%), Arabic (n=10, 1.3%), Lori (n=6, 0.8%), and Urdu (n=1, 0.1%) as their mother language.

2.2 Setting
Imam Reza (AS) is venerated by Shiite Muslims as their eighth leader after the Prophet Mohammad (PBUH)chose Ali Ibn Abi Taleb (AS), Imam Reza's(AS) forefather, as the first Imam based on a divine decree. According to Sadooq (2007), Imam Reza (AS) was "born in Medina on Thursday the 11th of Rabiul Awwal in the year 153 A. H. (769 A.D)" (p. 32). He got martyred and was buried in Mashhad, Iran, on Friday the 21st (or the 20th) of the Arabic month of Ramadhan in the year 203 A. H. (817 A. D.). His blessed body rests in a building called the Tomb Chamber (Saadat, 1976). Over years many buildings have been added to the Chamber creating a large complex known as the Imam Reza (AS) Shrine or Astan Quds Razavi (see http://news.aqr.ir/en). According to online Wall Street Journal (2013), the shrine "attracts more than 12 million pilgrims a year. That's more even than Mecca in Saudi Arabia, making it the Islamic world's

busiest holy site". Courtright (2005) believed that shrines "are understood to be magnets for transformative power from which the devotee may draw for various life-enhancing purposes such as health, wealth, and success in the ordinary world" (p. 8376).

2.2 Instruments
Two questionnaires, i.e., a demographic scale and Islamic religious orientation scale, were developed in this study.

2.2.1 Demographic Scale
A scale consisting of ten short answer questions and multiple choice items was developed to collect the participants' demographic information. The items dealt with their age, nationality, mother language, gender, marital status, and educational background, field of study, jobs and cities of residence.

2.2.2 Islamic Religious Orientation Scale
From the 33 items developed by A&R, Feagin (1964) and K&B, item 15, "the prayers I say when I am alone carry as much meaning and personal emotion as those said by me in the presence of people", translated and modified by K&G was removed because it did not load acceptably on any of the seven LVs extracted by K&B. Nor did it load acceptably on any of six LVs extracted by Khodadady, Mousavi and Sarraf (2012) who administered K&B's 33-item ROS to 780 grade three high school students in Mashhad, Iran. To the remaining32 items, 12 new items were added, i.e., items 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43 and 44, on the basis of suggestions made by several national and international pilgrims visiting the shrine in the pilot phase of this study. [The English translation of the 44 items comprising the Islamic Religious Orientations Scale (IROS) is given in Appendix].

In order to relate the 44 items to each other in terms of the domains measured by the IROS, the main clause "It is necessary and important" is given as their common context to help the participants determine the degree to which they disagree completely, disagree, have no idea, agree and completely agree with the action or state described by the schemata comprising each item. For example, item 33 requires respondents to specify whether it is necessary and important for them "to attend the ceremony of the Night of Qadr."

As a schema "the night" forms a part of verse one of Surah 97 of the Holy *Quran*, "BEHOLD, from on high have We bestowed this [divine writ] on Night of Destiny" (translated by Asad, 1980, p. 1227). Since it is assumed that it is one of the last ten nights of themonth of Ramadan, Iranian Muslims gather in mosques, listen to preachers, pray and recite the *Quran* during these nights.

2.3 Procedures
Upon being introduced to the Research Department of Imam Reza (AS) Shrine by Ferdowsi University of Mashhad, the first author met its director in person, presented a summary of what he had already done on the ROS, and asked him to approve and facilitate the administration of the enlarged 44-item IROS to the pilgrims of shrine. The director welcomed the request and arranged for the administration of the scale in the period of one month, i.e., July 2013, provided that the first researcher presented his findings to the staff of the department. Upon having sufficient copies of the IROS prepared, the director had its officially trained staff administer them to the pilgrims who voluntarily accepted to fill them out as they entered the shrine through its Babol Javad, Babol Reza, Bast Toosi, Darb Ghadi, Darb Ghadir, Darb Hor Ameli, Darb Shirazi, Darb Shohada, Darb Tabarsi, Darb Toosi, Jame, Kosar, Panjrah gates, Tabarsi, and Toosi gates.

2.4 Data Analysis
Cronbach's Alpha was employed to determining the internal consistency of IROS. For extracting the LVs underlying the scale the PAF method was utilized. They were then rotated via Varimax with Kaiser Normalization (VKN). Eigen values of one and higher were adopted as the main criterion to determine the number of LVs or genera forming the domain of religious orientations. The items loading .32 and higher, on a given LV were adopted as its acceptable species. If any item loaded acceptably on more than one LV, its higher loading was adopted as an evidence of its belonging to the LV upon which it had loaded and its lower cross loading was deleted from the list of items loading acceptably on other factors. All the statistical analyses were conducted via the IBM SPSS Statistics 20 to address the research questions below:

1. How reliable is the IROS?
2. What is the factorial structure of the IROS?
3. How reliable are the LVs underlying the IROS?
4. How related are the LVs underlying the IROS?

3. Results

Table 2 presents the psychometrics of the 44 items comprising the IROS taken by 749 pilgrims. As can be seen, the mean (M) score of 42 items is greater than three, indicating that respondents have agreed (Ag%) with 95 percent of items. Seventy five and 62 percent have, however, disagreed (DA%) with only two items, i.e., 17, *it is necessary and important* (henceforth ...) *to compromise religious beliefs occasionally in order to protect social and economic interests*, and 19, ... *to accept that in spite of believing in religion, there are many more important things in life*, respectively. Neither Skewness nor Kurtosis (Kurt) values of the items are described because the large sample size of this study, i.e., 200+ participants (see Tabachnick & Fidell, 2007), does not let these distribution values make a substantive difference in the analysis of data.

Table 2. Descriptive statistics of 44 items comprising the IROS

Item	M	SD	Skew	Kurt	DA %	NI %	Ag %	Item	M	SD	Skew	Kurt	DA %	NI %	Ag %
I01	3.63	1.133	-0.80	-0.27	21	10	69	I23	3.46	1.065	-0.61	-0.42	22	18	60
I02	4.56	.586	-1.19	1.92	0	3	96	I24	4.11	.688	-0.86	1.82	3	8	89
I03	4.45	.680	-1.51	3.74	2	3	95	I25	4.16	.668	-1.17	3.58	4	3	93
I04	4.07	.959	-1.28	1.49	10	6	84	I26	3.91	.918	-1.06	0.97	11	9	80
I05	4.05	.930	-1.20	1.47	8	9	82	I27	3.98	.928	-1.21	1.55	9	9	82
I06	4.21	.829	-1.56	3.48	5	5	90	I28	3.55	1.079	-0.56	-0.50	21	17	62
I07	4.34	.823	-1.87	4.77	5	3	93	I29	3.87	.888	-1.09	1.20	11	9	80
I08	3.98	.910	-1.14	1.42	9	10	81	I30	4.22	.782	-1.34	2.90	4	6	90
I09	4.10	.899	-1.27	1.83	7	8	84	I31	4.21	.822	-1.40	2.76	5	6	89
I10	3.92	.998	-1.04	0.64	13	9	78	I32	4.24	.836	-1.50	3.03	5	5	89
I11	4.26	.840	-1.52	2.96	5	5	90	I33	4.40	.825	-1.79	3.71	5	3	92
I12	4.40	.814	-1.69	3.28	5	4	91	I34	4.13	.976	-1.53	2.30	9	4	87
I13	3.73	1.211	-0.85	-0.37	22	5	72	I35	3.79	1.088	-0.72	-0.43	18	11	71
I14	3.48	1.258	-0.45	-1.07	31	8	62	I36	3.87	.901	-0.85	0.45	11	13	76
I15	4.42	.735	-1.83	5.40	3	3	94	I37	4.27	.826	-1.54	3.13	5	4	91
I16	3.99	.931	-1.27	1.68	10	7	83	I38	4.26	.849	-1.54	3.00	5	5	89
I17	2.29	1.147	0.99	0.09	75	6	20	I39	4.41	.794	-1.91	4.93	4	3	93
I18	4.27	.835	-1.79	4.39	5	2	92	I40	4.29	.800	-1.63	3.86	5	3	92
I19	2.59	1.282	0.51	-1.00	62	7	31	I41	3.96	.952	-0.92	0.31	11	10	78
I20	4.25	.705	-1.14	2.61	3	5	92	I42	3.93	.907	-1.08	1.07	11	9	81
I21	3.58	1.054	-0.63	-0.45	21	14	65	I43	4.45	.693	-1.58	4.18	2	4	94
I22	4.36	.697	-1.28	2.85	2	4	93	I44	4.13	.888	-1.03	0.88	6	12	81

Upon determining the functioning of all items on the IROS, its alpha reliability coefficient (RC) was estimated to find out how internally consistent it was. The obtained alpha RC(0.88) showed that it was almost as reliable as 33-item ROS (0.89) but more reliable than the 21-item ROS (0.80) reported by K&B and K&G, respectively. This result thus answers the *first* research question and shows that the IROS has a desirable level of reliability because its alpha RC is higher than .80 (see Clark & Watson, 1995). It also shows that the addition of more indicators to the ROS has contributed positively to its reliability level.

Similar to the RC, the KMO value obtained on the IROS (0.91) is higher than its earlier version consisting of 21items (.88) but almost the same as its 33-item version (0.92) as shown in Table 2. Since the value is in .90s, it shows that the IROS provides a "marvellous" (Kaiser, 1974 cited in DiLalla & Dollinger, 2006, p. 250) factorial measure of religious orientation. As it can also be seen in Table 3, the Bartlett's Test of Sphericity is significant (X^2=10011.723, df=946, p<.000), indicating that the correlation matrix was not an identity matrix and factor analysis could therefore be run on the data collected.

Table 3. KMO and Bartlett's Test of IROS and its shorter versions

		K&G	K&B	Present Study
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.882	0.915	0.913
	Approx. Chi-Square	2561.210	7399.012	10011.723
Bartlett's Test of Sphericity	df	210	528	946
	Sig.	.000	.000	.000

Table 4 presents the ordered initial and extraction communalities obtained via the PAF and VKN. As can be seen, the extraction communalities (ECs) range from .59 (Item 43), ... *to believe that both men and women should observe Hijab*, to .20 (Item 4), ... *to spend periods of time in private religious thought and meditation*. As it can also be seen, item 43 loads on LV10 whereas item 4 does not load acceptably on any factor, indicating that it shares very little variance with other 43 items and thus does not contribute to the factors or genera underlying the religious orientations ofthe pilgrims of Imam Reza (AS) shrine.

Table 4. Initial (I) and extraction communalities (ECs)

Item	ICs	ECs	Item	ICs	ECs	Item	ICs	ECs	Item	ICs	ECs
I43	.469	.585	I36	.418	.467	I40	.420	.414	I01	.315	.327
I32	.520	.567	I30	.400	.466	I23	.369	.407	I22	.312	.319
I12	.390	.564	I07	.401	.463	I37	.393	.403	I03	.358	.314
I28	.367	.517	I34	.326	.461	I27	.387	.391	I26	.285	.289
I33	.457	.500	I06	.438	.461	I15	.410	.388	I42	.220	.285
I39	.475	.490	I05	.411	.454	I21	.352	.382	I35	.259	.281
I10	.393	.489	I41	.395	.451	I44	.347	.379	I18	.261	.260
I29	.404	.488	I08	.366	.430	I16	.389	.379	I20	.257	.250
I19	.391	.480	I11	.373	.427	I02	.374	.377	I14	.202	.228
I25	.331	.473	I09	.411	.425	I17	.362	.368	I13	.172	.204
I24	.370	.471	I31	.436	.414	I38	.339	.328	I04	.196	.197

Table 5 presents the rotated factors extracted from the IROS. Responding to the *second* research question dealing with the factorial structure of the IROS, the results of this study show that adding more indicators to the IROS increases the number of its underlying factors from seven, i.e., *Inspirational, Intrinsic, Social, Concessional, Theo-pacific, Humanitarian and Sacrificial*, to ten. Items 4, ... *to spend periods of time in private religious thought and meditation*, 20,... *to admit that religion helps keep life balanced and steady in exactly the same way as citizenship, friendships, and other memberships do*, and 22, ... *to do charitable work like supporting the orphans*, do not, however, load acceptably on any LVs. In contrast, items 6, 11, 15, 19, 32, 34, 35, 36, 42 and 43 load acceptably on two factors. In order to specify what items constitute each LV, items having lower acceptable loadings on any LV were removed and their higher loadings were adopted as their exclusive contribution to that particular LV. For example, since item 6 had loadings of .35 and .41 on LV7 and LV2, respectively, it was removed from the list of items loading on LV7. It was, however, kept as one of the constituting items of LV2.

Table 5. Ten rotated factors extracted from the IROS

Item	1	2	3	4	5	6	7	8	9	10
I01	*	.38	*	*	*	*	*	*	*	*
I02	*	.50	*	*	*	*	*	*	*	*
I03	*	*	*	*	.39	*	*	*	*	*
I04	*	*	*	*	*	*	*	*	*	*
I05	*	*	*	.48	*	*	*	*	*	*
I06	*	.41	*	*	*	*	.35	*	*	*
I07	*	.58	*	*	*	*	*	*	*	*
I08	*	*	*	*	.44	*	*	*	*	*
I09	*	*	*	.41	*	*	*	*	*	*
I10	*	*	*	.61	*	*	*	*	*	*
I11	*	*	*	.34	*	*	.47	*	*	*
I12	*	*	*	*	*	*	.64	*	*	*
I13	*	*	*	*	*	*	*	*	.42	*
I14	*	*	*	*	*	*	*	*	.46	*
I15	.37	.38	*	*	*	*	*	*	*	*
I16	*	*	*	.32	*	*	*	*	*	*
I17	*	-.44	*	*	*	*	*	*	*	*
I18	*	*	*	*	*	*	.39	*	*	*
I19	*	-.49	*	*	*	*	*	*	.41	*
I20	*	*	*	*	*	*	*	*	*	*
I21	*	*	.45	*	*	*	*	*	*	*
I22	*	*	*	*	*	*	*	*	*	*
I23	*	*	*	*	*	.49	*	*	*	*
I24	*	*	*	*	*	*	*	.57	*	*
I25	*	*	*	*	*	*	*	.61	*	*
I26	*	*	.33	*	*	*	*	*	*	*
I27	.46	*	*	*	*	*	*	*	*	*
I28	*	*	*	*	*	.60	*	*	*	*
I29	*	*	*	*	*	.50	*	*	*	*
I30	*	*	*	*	.56	*	*	*	*	*
I31	*	*	*	*	.44	*	*	*	*	*
I32	.60	*	*	*	.33	*	*	*	*	*
I33	.61	*	*	*	*	*	*	*	*	*
I34	*	.47	*	*	*	*	*	*	.37	*
I35	*	*	.32	*	*	.32	*	*	*	*
I36	*	*	.36	*	.42	.33	*	*	*	*
I37	*	*	*	*	*	*	*	*	*	.34
I38	.38	*	*	*	*	*	*	*	*	*
I39	.54	*	*	*	*	*	*	*	*	*
I40	.46	*	*	*	*	*	*	*	*	*
I41	*	*	.58	*	*	*	*	*	*	*
I42	*	*	.33	*	*	*	*	*	.37	*
I43	.40	*	.39	*	*	*	*	*	*	.40
I44	*	*	.40	*	*	*	*	*	*	*

* Loadings less than .32

As it can also be seen in Table 5 above, item 17, … *to compromise religious beliefs occasionally in order to protect social and economic interests*, loads acceptably but negatively on LV2 (-.44). Since its inclusion among the items contributing to LV2 reduces its reliability drastically, it was treated as non-contributory and thus deleted from the list of items loading on the factor. Similarly, item 19, … *to accept that in spite of believing in religion, there are many more important things in life*, has an acceptable but negative loading on LV2. However, it cross loads acceptably and positively on LV9. Although the magnitude of its negative loading (-.49) is greater than its positive loading on LV9 (.41), its negative loading was removed and the item was considered as a species contributing only to LV9.

Table 6 presents the descriptive statistics as well as the reliability estimates of the IROS and its ten underlying LVs. As can be seen, the RCs of the 10 LVs range from 0.79 (*Inspirational*) to .47 (*Concessional*), answering the *third* research question raised in this study, i.e., How reliable are the LVs underlying the IROS? Although the *Concessional* LV consists of four items, its RC is lower than that of the *Observant* (.59) and *Humanitarian* (.63) LVs, each consisting of two items only. The low RC of the *Concessional* LV can be attributed to the strong religiosity of the participants of the present study. While Item 17, … *to compromise religious beliefs occasionally in order to protect social and economic interests*, has the highest loading (.61) on the *Concessional* LV for university students in K&B's study, it loads negatively on *Intrinsic* (-.44) LV in this study.

Table 6. Descriptive statistics of IROSS and its LVs

#	Factors	# of item	Mean	SD	α	Rotation Sums of Squared Loadings		
						Total	% of Variance	Cumulative %
1	Inspirational	6	25.58	3.514	0.79	3.123	7.099	7.099
2	Intrinsic	6	25.28	3.209	0.68	2.541	5.775	12.874
3	Congregational	4	15.57	2.626	0.63	2.026	4.605	17.479
4	Social	4	16.05	2.703	0.69	1.838	4.176	21.655
5	Ceremonial	5	20.72	2.784	0.70	1.812	4.119	25.774
6	Sacrificial	4	14.67	2.867	0.64	1.58	3.591	29.365
7	Theo-pacific	3	12.93	1.876	0.62	1.551	3.526	32.891
8	Humanitarian	2	8.27	1.158	0.63	1.243	2.826	35.717
9	Concessional	4	13.74	2.915	0.47	1.181	2.683	38.401
10	Observant	2	8.72	1.285	0.59	0.815	1.853	40.254
	IROS	44	176.5	16.31	0.88			

Table 7 presents the correlation coefficients (CCs) obtained between the IROS and its ten LVs. As can be seen, the LVs correlate significantly with the IROS itself ranging from .78 (*Inspirational*) to .08 (*Concessional*). The *Concessional* LV is, however, the only genus which does not correlate significantly with *Congregational*, *Sacrificial* and *Humanitarian* genera. It does though correlate significantly but negatively with other six LVs. The remaining nine LVs correlate significantly and positively with each other, ranging from .58 (*Inspirational* and *Social*) to .27 (*Intrinsic* and *Congregational*). These results answer the *fourth* research question and show that almost all genera constituting the religious orientation domain are significantly related to each other.

Table 7. Correlations between the IROS and its ten LVs

	IROS	Factors									
		1	2	3	4	5	6	7	8	9	10
IRoss	1	.78**	.66**	.70**	.74**	.75**	.69**	.60**	.53**	.08*	.66**
1 Inspirational	.78**	1	.55**	.43**	.58**	.54**	.44**	.47**	.35**	-.17**	.55**
2 Intrinsic	.66**	.55**	1	.27**	.49**	.39**	.35**	.48**	.29**	-.20**	.50**
3 Congregational	.70**	.43**	.27**	1	.50**	.53**	.47**	.30**	.39**	.04	.48**
4 Social	.74**	.58**	.49**	.50**	1	.54**	.40**	.42**	.31**	-.15**	.45**
5 Ceremonial	.75**	.54**	.39**	.53**	.54**	1	.50**	.37**	.39**	-.08*	.52**
6 Sacrificial	.69**	.44**	.35**	.47**	.40**	.50**	1	.35**	.41**	.02	.36**
7 Theo-pacific	.60**	.47**	.48**	.30**	.42**	.37**	.35**	1	.28**	-.10**	.37**
8 Humanitarian	.53**	.35**	.29**	.39**	.31**	.39**	.41**	.28**	1	-.04	.31**
9 Concessional	.08*	-.17**	-.20**	.04	-.15**	-.08*	.02	-.10**	-.04	1	-.12**
10 Observant	.66**	.55**	.50**	.48**	.45**	.52**	.36**	.37**	.31**	-.12**	1

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

4. Discussions

The results of the present study show that as a schema domain, Islam is practiced by the pilgrims of Imam Reza (As) shrine for ten orientations or genera and thus support K&B's argument that religious motivations are multi-dimensional rather than bipolar. The pilgrims attend religious ceremonies, give alms, visit the prophet Mohammad's (PBUH) household, wash themselves for praying and consume halal food to inspire themselves as their first and foremost reason among the other nine genera. The six items loading on the *Inspirational* LV of IROS, however, differ from the five items loading on the same LV extracted by K&B on the 33-item ROS [henceforth ROS33], indicating that *the number and complexity of religious orientations measured by a given scale depends as much on the schema types constituting its items as it depends on the people to whom the scale is administered*.

The results of this study, for example, show that "eating the food prepared on the basis of Islamic rules", i.e., halal, is practiced by pilgrims in order to derive inspiration. The inclusion of "consuming halal food" in the IROS has thus helped the present researchers specify the schema types contributing to *Inspirational* LV

more specifically and differentiate it from the *Ceremonial* LV as another genus of religious orientations whose schema types could not be revealed by the ROS33. "Participating in the birthday celebrations of Innocent Imams", for example, *inspired* university students to whom ROS33 was administered. The pilgrims participating in this study, however, assigned a *ceremonial* rather than *inspirational* function to attending that particular celebration because this item loads only on the pilgrims' *Ceremonial* LV.

As the second LV, *Intrinsic* genus extracted from the IROS consists of six items, i.e., 1, 2, 6, 7, 15 and 34, indicating that pilgrims read religious literature, are aware of God's presence, accept Islam based on research, interpret the meaning of life, deal with everything religiously and pray to get intrinsically motivated. Among the six items constituting pilgrims' *Intrinsic* motivation, 15, 2 and 7 loaded on LVs called *Concessional*, *Theo-pacific* and *Social* by K&B, respectively. Adding item 34, "doing a research before accepting Islam" and administering IROS to participants who had a common purpose, i.e., visiting the shrine, has in fact resulted in approaching "reading literature about faith or religion" from an intrinsic rather than social dimension. Although "being keenly aware of the presence of God" was common to both ROS33 and IROS, it has contributed to *intrinsic* orientation of pilgrims but served a *Theo-pacific* function for university students in K&B's study. Future research must, however, show whether the same items will load on *Intrinsic* LV, if IROS is administered to students whose common goal is "attending university".

Congregational LV has been extracted as the third genus of religious orientation by including item 41, "giving priority to everyday congregations" and 44, "attaching more importance to religious trips than to tourism" in IRO Smissing in ROS33. Items 21, "becoming a member of mosque to establish oneself in the community" and 26, "allocating some money to help charitable organizations" loaded on this new LV as well. These two items did, however, loadon *Social* and *Humanitarian* LVs in K&B's study, emphasizing the necessity of validating schema genera on the basis of including schema types practiced within specific societies and administering the scales to homogenous participants within specific contexts such as pursuing religious objectives in shrines and academic achievements in universities.

Three out of four items loading on *Social* LV in K&B's study, loaded on the fourth LV called the same in this study, i.e., 9, 10 and 16. Item 5, "adopting religious beliefs as reasons underlying one's whole approach to life" which contributes to Social LV in IROS, loaded, however, on Intrinsic LV in ROS33, showing that life is religiously approached as a social schema while it is viewed as an intrinsic, i.e., individual, one by university students. Pilgrims form social relationships in mosques, adopt their religious beliefs as their reasons to live, attend mosques, and participate in religious ceremonies to motivate themselves socially. *Social* LV correlates the highest with pilgrims' *Inspirational* LV (.58). In K&B's study, *Social* LV, however, shows the highest relationship with both *Inspirational* and *Intrinsic* LVs (.56), necessitating the validation of IROS with university students.

As the fifth LV, *Ceremonial* genus shows that pilgrims celebrate their prophet and his descendants' birthday and death day ceremonies, join religious groups, participate Qadir and Qorban Salats and attend collective supplications weekly to motive themselves. Among the five items loading on the *Ceremonial* LV, i.e., 3, 8, 30, 31 and 36, item 8, "to join religious groups such as those memorizing and reciting the *Quran*", formed the *Intrinsic* and *Social* orientations of AR and K&B's studies, respectively. The very addition of items 3 and 36 and administering them to pilgrims has rendered the two *Inspirational* items, i.e., 30 and 31, on ROS33 *Ceremonial*, adding another dimension to religious practices not previously identified in any study before. *Sacrificial* genus appears as a result of items 23, 28, 29 and 35 loading acceptably on the sixth LV. While items 28, "to sacrifice an animal on Eid Qorban and other occasions", and 29, "to consume sacrificed meat for its religious effect" deal specifically with sacrificing, items 23, "To donate on religious occasions." and 35, "To try to carry the *Quran* under all conditions" open previously unknown windows to its understanding. By donating and carrying the *Quran*, the pilgrims try to submit themselves to Allah as Abraham did by sacrificing his son Ismail.

Items 11, "to pray in order to secure a happy and peaceful life", 12 "To accept that religion offers comfort when sorrows and misfortune strike", and 18, "To pray to gain relief and protection (from spiritual problems)", load acceptably on the seventh LV called *Theo-Pacific* by K&B. In contrast to A&R who considered the three items contributive to their extrinsic orientation within a Western society, the findings of this study along with those of K&B establish them as species of a distinct orientation motivating pilgrims to lead a religious life. The *Theo-Pacific* LV does in fact relate the highest to *Intrinsic* (r=.48, *p*<.01) and *Inspirational*(r=.47, *p*<.01) LVs than extrinsic orientations such as *Social* LV (r=.42, *p*<.01).

Similar to *Theo-Pacific* orientation, the *Humanitarian* genus establishes itself as the eighth LV by claiming items 24, "to visit patients as a religious duty", and 25, "To support the deprived as a religious duty" as its constituting species. It correlates the highest with the *Sacrificial* LV (r=.41, *p*<.01). Neither *Humanitarian* nor *Congregational* and *Sacrificial* LVs show any significant relationship with the *Concessional* genus identified first by K&B and extracted as the ninth LV in this study.

Items 14, "that in spite of being a religious person, religious considerations should not be allowed to influence everyday affairs", 13, "to lead a moral life without attaching any importance to what religion one believes", and 19, "to accept that in spite of believing in religion, there are many more important things in life" considered *Extrinsic* by A&R, have the first to third highest loadings on the ninth LV of this study, i.e., *Concessional*. Item 42, "to obtain information on other religions besides Islam," added to the IROS in this study also loads acceptably on *Concessional* genus, increasing its complexity and calling for further research to find out whether the same factorial structure will appear with participants other than pilgrims.

As the last LV, the *Observant* genus consists of item 43, "To believe that both men and women should observe Hijab", and 37, "To keep the account of one's wealth and possessions and pay its Zakat and Khoms". [Zakat is a specific amount of money paid to the poor or needy for owning certain quantity of wheat, barley, dates, grapes, gold, silver, sheep, cow and camels and Khoms is the one-fifth of the money left after annual expenses of a person and his family are covered (Makarem Shirazi, 2006)].It correlates the highest with the *Inspirational* LV (r=.55, *p*<.01) and relates negatively to the *Concessional* genus (r=-.12, *p*<.01). The very identification of *Observant* orientation must help Westerners understand why Muslims observe Hijab and consider it as an indispensible part of their religious practice.

5. Conclusions

The IROS developed and explored in this study consists of 465 single and phrasal words/schemata which are syntactically related to each other within 44 statements. Pilgrims' comprehension of these schemata by themselves and in relation to each other reveals ten genera whose constituting statements correlate the highest with each other within a factorial design. The first genus, the *Inspirational* orientation, for example, comprises six statements calling for "believing in the effect of alms-giving in shielding against problems and catastrophes" and the actions of "actively attending Friday prayers and the ceremonies held for prophet's house hold as well as that night of Ghadr", "consuming halal food when travelling to different countries", "observing Ghosl", and "visiting prophet's descendents on Eid Qadir". Similarly, the remaining 38 statements load on the *Intrinsic*, *Congregational*, *Social*, *Ceremonial*, *Sacrificial*, *Theo-Pacific*, *Humanitarian*, *Concessional* and *Observant* genera establishing the IROS as a multidimensional measure of religious practice in Iran. Future research must show whether the newly established orientations will be found with the participants who practice Islam in places other than shrines.

Acknowledgements

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Appendix

Items comprising the IROS and their loadings (L) on the ten factors (F) extracted in this study

No	It is necessary and important ...	F	L
1	That religion is carried over into all other dealings, e.g., social, economic and political, in life.	2	.380
2	To be keenly aware of the presence of God or the Divine Being.	2	.499
3	To participate in mourning ceremonies particularly in the months of Moharram and Safar.	5	.394
4	To spend periods of time in private religious thought and meditation.		
5	To adopt religious beliefs as reasons underlying one's whole approach to life.	4	.483
6	To treat religion specifically because it answers many questions about the meaning of life.	2	.406
7	To read literature about faith or religion.	2	.579
8	To join religious groups such as those memorizing and reciting the *Quran*.	5	.436
9	To attend mosques if unavoidable circumstances do not prevent it.	4	.406
10	To consider mosques as the most important places where good social relationships are formed.	4	.607
11	To pray in order to secure a happy and peaceful life.	7	.465
12	To accept that religion offers comfort when sorrows and misfortune strike.	7	.642
13	To lead a moral life without attaching any importance to what religion one believes.	9	.423
14	That in spite of being a religious person, religious considerations should not be allowed to influence everyday affairs.	9	.458
15	To pray because everyone is taught to pray.	2	.375
16	To take part in religious ceremonies because they are congenial social activities.	4	.322
17	To compromise religious beliefs occasionally in order to protect social and economic interests.	2	-.444
18	To pray to gain relief and protection (from spiritual problems).	7	.392
19	To accept that in spite of believing in religion, there are many more important things in life.	9	.411
20	To admit that religion helps keep life balanced and steady in exactly the same way as citizenship, friendships, and other memberships do.		
21	To become a member of mosque to establish oneself in the community.	3	.449
22	To do charitable work like supporting the orphans.		
23	To donate on religious occasions.	6	.492
24	To visit patients as a religious duty.	8	.574
25	To support the deprived as a religious duty.	8	.607
26	To allocate some money to help charitable organizations.	3	.329
27	To visit the Prophet's descendents on Eid Qadir.	1	.457
28	To sacrifice an animal on Eid Qorban and other occasions.	6	.600
29	To consume sacrificed meat for its religious effect.	6	.499
30	To participate in ceremonies celebrating the birthdays of the Prophet and his household.	5	.555
31	To participate in Qadir and Qorban Salats.	5	.435
32	To actively attend the mourning ceremonies held for the Prophet's household.	1	.603
33	To attend the ceremony of the Night of Qadr.	1	.606
34	To do a research before accepting Islam.	2	.466
35	To try to carry the *Quran* under all conditions.	6	.323
36	To attend weekly supplication ceremonies such as Komeil.	5	.422
37	To keep the account of one's wealth and possessions and pay its Zakat and Khoms.	10	.336
38	To consume Halal food when travelling to different countries.	1	.385
39	To believe in the effect of alms-giving in shielding against catastrophes and problems.	1	.544
40	To observe Ghosl (		