MEASURING RELIGION AS END, MEANS, AND QUEST: THE RELIGIOUS LIFE AND ORIENTATION SCALE

ALBERTO VOCI
GIULIA L. BOSETTI
CHIARA A. VENEZIANI
UNIVERSITY OF PADOVA

We propose a short and reliable instrument, based on pre-existing items, for measuring the three dimensions of religion as end, means, and quest. Starting from the 47 items originally included in the Religious Orientation Scale (ROS; Allport & Ross, 1967) and in the Religious Life Inventory (RLI; Batson, Schoenrade, & Ventis, 1993), we performed four steps of analyses involving three independent samples of Italian Catholic respondents (total $N = 1194$). Through a process of progressive refinement, using exploratory factor analyses, an investigation of the meaning of the items, and confirmatory factor analyses, we eventually selected 18 items from the pre-existing scales, recombined in the Religious Life and Orientation Scale. We report initial evidence of the psychometric qualities of the proposed instrument and analyze its correspondence with the parent scales. Future research should investigate the properties of the scale with respondents from other countries and belonging to other religions.

Key words: End-intrinsic; Means-extrinsic; Quest; Religious Orientation Scale; Religious Life Inventory.

Correspondence concerning this article should be addressed to Alberto Voci, Department FISPPA – Section of Applied Psychology, University of Padova, Via Venezia 14, 35131 Padova, Italy. Email: alberto.voci@unipd.it

Religion plays an important role in shaping individual and societal life. Religious motives often influence inner experiences, individual values, as well as the very meaning attributed to life (Park, 2005; Roccas & Elster, 2013). At the same time, religious beliefs may imbue shared cultural worldviews, thus influencing societal issues, group membership, and intergroup relations (Goplen & Plant, 2015; Hunsberger & Jackson, 2005). Given its strong impact on many psychological and societal issues, it is important to have reliable and valid instruments able to assess the subjective importance of the religious experience, as well as the different facets that it could display in individuals.

A crucial specification regards *religious orientations*, or the different ways of being religious. The most used distinction concerns intrinsic and extrinsic orientations (Allport & Ross, 1967). Intrinsic orientation refers to an internalized form of religiosity, in which individuals *live* their religious experience and consider religion as a prime motive in their life; it refers to a *mature* form of religiosity, characterized by a rich, profound, and critical reflection on religious issues (Allport, 1950). Extrinsic religiosity is characterized instead by utilitarian values: individuals *use* their religion for non-religious ends; an extrinsic orientation should be related to an *immature* form of religion, based on impulsiveness and self-gratification.

This approach has received several criticisms (e.g., Kirkpatrick & Hood, 1990) and inspired attempts of reformulation (e.g., Cutting & Walsh, 2008; Neyrinck, Lens, Vansteenkiste, &

Soenens, 2010). Nonetheless, the distinction between intrinsic and extrinsic orientation is still used to study the religious correlates of important psychological phenomena, such as prejudice (Hunsberger & Jackson, 2005), prosocial behaviors (Preston, Ritter, & Ivan Hernandez, 2010), life satisfaction (Cohen et al., 2005), moral attitudes (Stavrova & Siegers, 2013), responses to identity (Ysseldyk, Matheson, & Anisman, 2011), and existential threats (Jonas & Fischer 2006; for an extensive list, see Francis, 2007). For this reason, it is important to have available tools capable of providing a valid and reliable measure of religious orientations.

Among the scales present in the literature, the most often used is the Religious Orientation Scale (ROS; Allport & Ross, 1967), consisting of a nine-item intrinsic scale and an 11-item extrinsic scale. Intrinsic items were designed to detect the tendency to conceive religion as the master motive in own life (Allport & Ross, 1967). A sample item is "I try hard to carry my religion over into all my other dealings in life". The extrinsic scale was developed in order to capture the use of religion for one's needs and ends, such as security, sociability, and status. A sample item is "What religion offers me most is comfort when sorrows and misfortune strike". The ROS has been criticized for several reasons (see, e.g., Kirkpatrick & Hood, 1990). In particular, the predicted correspondence between intrinsic and mature religiosity was not fully confirmed by research (see Batson, Schoenrade, & Ventis, 1993). Indeed, intrinsic items were found to correlate positively with measures of authoritarianism and uncritical agreement with the teachings of one's Church, leading to the conclusion that intrinsic items contain relevant elements of immature religion, such as acceptance of religious dogma and rigid identification with figures of authority and institutions. Extrinsic items present further problems: factor analyses showed that they could relate to two distinct aspects of utilitarian and self-serving functions, referred to social relationships and personal benefits (Gorsuch & McPherson, 1989). Moreover, some extrinsic items turned out to be reverse measures of the intrinsic orientation (Kirkpatrick, 1989).

Trying to overcome the limits of the ROS, Batson et al. (1993) proposed the Religious Life Inventory (RLI). According to these authors, three important aspects of mature religiosity were missing among the items of the intrinsic scale: (a) readiness to face existential questions without reducing their complexity, (b) self-criticism and perception of religious doubts as positive, and (c) openness to change. With the aim of tapping these three components, the authors proposed a new instrument, called the *quest scale*. The term "quest" refers to a specific dimension of religiosity, intended as an open-ended, questioning approach to religious issues, a responsive dialogue with existential questions. Batson and colleagues (1993) also proposed two new concepts with a view to grasping more precisely the essence of intrinsic-mature and extrinsic-immature religiosity: respectively, *religion as end* (where religion is seen as an ultimate end in itself) and *religion as means* (where religion is a means to achieve other self-serving ends).

To measure these aspects of religious experience, the RLI included items belonging to three subscales: internal (nine items), external (six items), and quest (12 items). The internal items were designed to detect the degree to which one's religion is a result of individual's needs for strength, direction, and certainty, as component of an intrinsic-end orientation. The intrinsic-end dimension is thus strongly linked to the need to find clear answers to existential questions. Accordingly, a sample item is "My religious development is a natural response to our innate need for devotion to God". The external scale was developed to assess a specific aspect of the extrinsic-means orientation, that is the influence that social environment has on one's religious experiences. The scale thus measures the relevance of social institutions or authority figures on one's religion. A sample item is "The church

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has been very important for my religious development". Finally, the quest scale was designed to assess the orientation to have an open-ended dialogue with existential questions, without reducing their complexity, combined with openness to change and positive attitudes toward religious doubts. A sample item is "It might be said that I value my religious doubts and uncertainties".

Studies on the factor structure of the ROS and RLI yielded mixed results. In particular, Batson and coworkers (1993) showed that the intrinsic, internal, and external subscales were highly intercorrelated, all three being measures of the religion as end dimension, together with a fourth instrument named Doctrinal Orthodoxy Scale. Instead, the quest and extrinsic scales seemed to measure distinct dimensions, referring respectively to religion as means and to religion as quest.

This solution can be considered as complete and reliable, but presents the inconvenience of requiring 47 items (59 if the Orthodoxy Scale is included) to measure three types of religious orientations. This high number of items could represent a problem when measures of religious orientations and of potentially related constructs have to be included in a single questionnaire.

A possible solution to this problem is represented by the 24-item scale developed by Hills, Francis, and Robbins (2005), named Religious Life Inventory-Revised (RLI-R), which included items drawn from the intrinsic and extrinsic scales of the ROS and from the quest subscale of the RLI (following Batson & Schoenrade, 1991). This brief instrument, however, does not include items from the internal and external subscales proposed by Batson and colleagues (1993) and, thus, cannot deal with the limitations of the intrinsic and extrinsic dimensions in the ROS already discussed.

In the present study, we tried to fill what we believe is a gap in the vast literature concerning the measurement of religious orientations. Our aim is to integrate the ROS and RLI without excluding any item or dimension a priori, in an effort to obtain a synthetic, but at the same time complete and reliable measure of religion as end, means, and quest. Such an instrument, entirely based on pre-existing items, could be a useful tool in the investigation of the relationships between religious orientations and other constructs, and could be included in questionnaires in which briefness and conciseness are important.

OVERVIEW OF THE STUDY

We designed a four-step investigation of the structure of the ROS and RLI, and chose the most appropriate items to include in a short version of the two original scales that we named Religious Life and Orientation Scale (RLOS). In Step 1, we focused on the factor structure of the ROS and RLI. In the light of previous findings (e.g., Batson et al., 1993), we expected to find three dimensions: intrinsic/end, extrinsic/means, and quest. In Step 2, we refined the factor structure of the scale and examined the meaning of the items selected, in order to isolate those that may present some discrepancies with the religious orientations they were meant to represent. In Step 3, we tested the factor structure of the resulting RLOS using confirmatory factor analysis. Finally, in Step 4 we analyzed the correspondence between the short scale and the original dimensions present in the ROS and RLI.

Overall, three independent convenience samples were recruited, for a total of 1469 Italian respondents. In the analyses, we considered the 1194 participants who identified themselves as Catholics in an item of the questionnaire concerning religious affiliation. Questionnaires were collected by undergraduate students involving their own social networks and neighbourhood.

Respondents were asked to complete a questionnaire including Italian translations of items from the ROS and RLI. Responses were given on a scale from 1 = *Not describing me at all* to 7 = *Describing me very well* (Kristensen, Pedersen, & Williams, 2001). As, to our knowledge, Italian validated versions of the ROS and RLI are not available, we first of all proceeded to translate the items into Italian. In this translation, we tried to maintain the meaning of the English version as closely as possible, using a back-translation procedure.

Participants from the first sample (involved in Steps 1 and 4) filled out all the 47 items contained in the two scales (20 from the ROS and 27 from the RLI). Respondents from the second sample (Step 2) completed only the 34 items retained after the analyses in the first step. In Step 3, only the 19 items derived from the previous steps were proposed to the third sample. Participants were assured that their responses were completely anonymous and that their data would be treated in accordance with the Italian Privacy Law and with ethical standards in research.

Step 1

In this first step, we tested the factor structure of the 47 items drawn from the ROS and RLI. The sample was made up of 504 respondents, 212 males and 292 females (M_{age} = 36.69 years, SD = 14.89, range: 18-87). Among them, 445 identified themselves as Catholics (179 males, 266 females; M_{age} = 37.71 years, SD = 14.97, range: 18-80) and were then considered in the analysis.

We conducted a principal axis factor analysis with oblimin rotation, Kaiser-Meyer-Olkin (KMO) = .90; Bartlett's Test of Sphericity: $\chi^2(1081)$ = 7803.04, $p < .001$. This analysis yielded 10 factors with eigenvalues greater than one. Based on the results of a scree plot, it emerged that three factors could be retained. The first factor accounted for 22.45% of the variance in the items, the second factor for 9.65%, and the third factor for an additional 6.93%.

After investigating the factor loadings, reported in Table 1, we dropped the items with loadings lower than .40 in all factors, and those with loadings equal to or higher than .30 on more than one factor, and this left us with 34 items. The first factor consisted of 19 items mainly regarding intrinsic/internal religious orientation, although it referred to several dimensions: seven items were intrinsic, six internal, three external, two extrinsic, and one quest. Of the seven items loading on the second factor, six were part of the extrinsic scale, and one belonged to the external scale. Finally, the eight items loading on the third factor pertained exclusively to the quest scale.

Step 2

In the second step of analysis, we sought to refine the findings obtained in Step 1 in two ways. First, we performed another exploratory factor analysis on the 34 items derived from the previous step. Then we examined the meaning of the items in order to choose which of them tapped the original concepts of intrinsic/end, extrinsic/means, and quest orientations. A second sample of 464 participants was involved (200 males and 264 females; M_{age} = 35.69 years, SD = 14.55, range: 18-87). Catholic respondents were 409 (170 males and 239 females; M_{age} = 36.28 years, SD = 14.67, range: 18-87).

TABLE 1

Exploratory factor analysis of Religious Orientation Scale and Religious Life Inventory; Steps 1 and 2

Item code	Item	Step 1			Step 2		
		F1	F2	F3	F1	F2	F3
Intrinsic 3	Carry religion into all dealings in life	.82	.06	.11	.75	−.07	.20
Internal 7	Essential to have faith	.78	.11	.06	.79	−.04	.15
Intrinsic 8	Religious beliefs behind approach to life	.75	.12	.04	.66	.00	.13
Intrinsic 9	Religion important as it answers questions about meaning of life	.75	.20	.07	.63	.02	.28
Internal 2	God's will shapes my life	.73	.09	.08	.59	.05	.29
Intrinsic 5	Awareness of the presence of God	.72	.04	.13	.58	.08	.14
Intrinsic 1	Importance of private religious thought and meditation	.65	−.07	.21	.55	.22	−.07
External 1	Church important for my religious development	.66	.11	−.03	.70	.00	.16
Extrinsic 1	Many things more important than religion	−.63	.14	.14	−.67	.11	.24
External 2	Influence of minister on personal religious development	.63	−.05	.13	.45	.19	−.03
External 5	Certain people as "models" for religious development	.62	.05	.08	.61	.07	.04
Intrinsic 2	Church attendance	.61	.12	.05	.59	−.04	.19
Extrinsic 2	Leading a moral life more important than believing	−.60	.28	.07	−.52	.21	.20
Internal 6	To be religious or not doesn't make much difference	−.56	.17	.09	−.48	.06	.19
Internal 8	Impossible to conceive myself as not religious	.56	.10	.04	.47	.01	.03
Internal 3	Necessary for me to have a religious belief	.55	.25	.04	.59	.06	.21
Intrinsic 6	Read literature about my faith	.54	−.14	.19	.37	.17	.04
Internal 1	Religious development as response to need for devotion to God	.53	.37	.04			
Internal 4	Feel driven to know the truth on religious questions	.53	.30	−.04			
Internal 9	Religion not a "must" for me	−.51	.17	.16	−.55	.09	.18
Extrinsic 7	Religious considerations do not influence my everyday affairs	−.47	.35	.04			
Quest 1	My religion grows and changes with me	.40	−.06	.19	.48	.30	.03
External 6	Outside forces unimportant in religious development	−.37	.10	.17			

(table 1 continues)

Table 1 (continued)

Item code	Item	Step 1			Step 2		
		F1	F2	F3	F1	F2	F3
External 3	Importance of religion for my parents determinant for my religious development	.36	.24	−.16			
Quest 6	My religious convictions will not change in the next years	.24	.21	−.11			
Extrinsic 3	Relief and protection as primary purpose of prayer	−.03	.64	.01	.23	−.02	.51
Extrinsic 8	Interest in religion as my church is a congenial social activity	−.02	.58	−.02	.08	.00	.56
Extrinsic 5	Religion offers comfort for sorrows and misfortune	.13	.57	.02	.43	−.06	.39
Extrinsic 6	I pray because I have been taught to do it	−.21	.56	−.04	−.18	.02	.52
External 4	Religion satisfies needs for fellowship and security	.15	.53	.11	.28	.03	.48
Extrinsic 11	Purpose of prayer is a happy and peaceful life	.16	.51	.01	.03	.06	.50
Extrinsic 10	Church membership establishes a person in the community	−.01	.47	.00	.03	−.03	.49
Extrinsic 4	Church important to formulate good social relationships	.34	.39	.02			
Quest 7	Religious doubts as upsetting	.11	.38	.02			
Extrinsic 9	Necessity to compromise religious beliefs to protect well-being	−.28	.36	.04			
Intrinsic 4	Prayers said alone as meaningful as those said during services	−.26	.29	.26			
Quest 3	Valuing religious doubts and uncertainties	.14	−.12	.68	.14	.75	−.24
Quest 2	Questioning religious beliefs	−.02	−.06	.68	−.03	.72	−.09
Quest 5	Doubting is an important part of being religious	.04	−.09	.56	−.02	.64	−.03
Quest 10	Still changing my views on many religious issues	−.04	−.16	.54	−.06	.59	−.09
Quest 9	Rethinking my religious convictions	−.02	.06	.48	−.04	.44	.06
Quest 4	Interest in religion related to questions on meaning and purpose of life	.07	.20	.45	.12	.35	.18
Quest 8	Religious questions related to awareness of the tensions in my world	.07	.11	.45	.03	.40	.10
Quest 12	Questions central to my religious experience	.16	−.02	.45	−.01	.47	.07
Quest 11	God not important for me until I asked questions about the meaning of life	−.02	.19	.39			
Intrinsic 7	Preferring to join a Bible study group rather than a social fellowship	.24	.06	.28			
Internal 5	Never felt compelled to consider religion	−.17	−.01	.21			

Note. Items are reported in a synthesized version.

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As in the first step, an exploratory factor analysis was performed and, based on the results of the scree plot, three factors were retained, accounting respectively for 26.01%, 9.89%, and 7.01% of the total variance, Kaiser-Meyer-Olkin (KMO) = .89; Bartlett's Test of Sphericity: $\chi^2(5611) = 4935.54$, $p < .001$. We reported the factor loadings of the 34 items in Table 1.

As in the previous step, we dropped items with loadings lower than .40 (Intrinsic 6 and Quest 4), or equal/higher than .30 on more than one factor (Quest 1 and Extrinsic 5), finally retaining 30 items. The first factor consisted of 17 items: six intrinsic, six internal, three external, and two extrinsic. Seven items pertaining to quest orientation loaded on the second factor, and six items (five extrinsic and one external) loaded on the third.

After two rounds of exploratory factor analyses, which enabled us to reduce the number of items from 47 to 30, we took a careful look at the wording of each item with a view to selecting those most accurately mapping onto the three religious orientations. This item selection procedure involved dropping any items that may be considered as ambiguous or having a different connotation from the other items loading on the same factor (for a similar procedure, see Hills et al., 2005).

For the first factor, which was the most variegate, we opted to exclude nine items, for the following reasons (a synthetized version of the items is reported in Table 1; complete items are reported in Batson et al., 1993: for the ROS, see Table 6.1, p. 162; for the RLI, see Table 6.2, p. 170). Two intrinsic items tended to characterize religious people in general, without being linked to any particular religious orientations: Item 2, which contains a reference to the general behavior of attending church, and Item 5, concerning an "awareness of the presence of God or the Divine Being" that should characterize all religious people. Three items of the external subscale of the RLI (Items 1, 2 and 5) were excluded as they do not really tap the intrinsic/end dimension, referring to the influence on the respondent's religious development of the Church (Item 1), of other people conceived as "model" (Item 5), and of specific individuals, such as ministers (Item 2). Two further items were part of the extrinsic subscale (Item 1: "Although I believe in my religion, I feel there are many more important things in my life," and Item 2: "It doesn't matter so much what I believe so long as I lead a moral life"), but they loaded negatively on the first factor, meaning that respondents interpreted them as a negation of intrinsic/internal orientation. They were excluded because, when the negation present in the wording was removed to prompt their recoding, their meaning was not uniquely intrinsic or internal. Item 9 of the intrinsic scale was excluded because it may refer to extrinsic, instrumental aspects ("Religion is especially important to me because it answers many questions about the meaning of life"; indeed, its loading on the extrinsic/means factor was .28). Finally, Item 2 of the internal scale was omitted because it could be interpreted in a fundamentalist sense, given the explicit statement that God's will should shape one's life (this item presented a high loading on the extrinsic/means factor, .29). Thus, as a measure of the first dimension, religion as end, we retained three items from the intrinsic subscale of the ROS (Items 1, 3, and 8), and five from the internal subscale of the RLI (Items 3, 6, 7, 8, and 9).

For the second factor, we decided to drop Item 8 of the quest scale ("I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in my relation to my world"), which had the lowest factor loading (.40) and did not uniquely describe this specific orientation: religious people in general could agree with its content. Thus, for the second dimension, named religion as quest, we kept six items of the quest scale (Items 2, 3, 5, 9, 10, and 12).

For the third dimension, religion as means, we dropped Item 6 of the extrinsic scale because its content ("I pray chiefly because I have been taught to pray") does not refer specifically to the utilitarian aspects typical of the extrinsic/means orientation. These aspects are fully tapped by the other five items retained, four drawn from the extrinsic subscale of the ROS (Items 3, 8, 10, and 11), and one from the external subscale of the RLI (Item 4). Thus, at the end of this selection process, we retained 19 items: eight for religion as end, five for religion as means, and six for religion as quest.

Step 3

The aim of the third step was to test by means of a confirmatory factor analysis the three-factor structure of the scale obtained in the previous stages. The third sample consisted of 501 participants (203 males and 298 females; M_{age} = 35.09 years, SD = 14.70; range: 18-89). In the analysis, we considered the 340 respondents who self-identified as Catholics (121 males and 219 females; M_{age} = 37.45 years, SD = 15.37, range: 18-89).

Before testing the factor structure of the 19 items, we checked normal distribution and multivariate normality as statistical assumptions for the confirmatory factor analysis. For skewness, absolute values ranged from 0.01 (Intrinsic 3) to 0.97 (Extrinsic 10), with a mean value of 0.40. Absolute values of kurtosis ranged from 0.07 (Extrinsic 10) to 1.28 (Quest 2), and the mean value was 0.84. Moreover, Mardia's (1970) test suggested a deviation from multivariate normality (multivariate skewness: b_1p = 47.36, $p < .001$; multivariate kurtosis: b_2p = 464.75, $p < .001$). The hypothesis of multivariate normality was therefore rejected. Nevertheless, as outlined by Curran, West, and Finch (1996), relevant problems arise when univariate values are equal to or higher than 2.0 for skewness, and 7.0 for kurtosis. All the values of skewness and kurtosis in our sample were far from these threshold values. Given the multivariate nonnormality of our data, anyway, we decided to employ the unweighted least squares (ULS) estimation method with ordinal variables. To test the proposed three-factor model, we conducted a confirmatory factor analysis in LISREL 8.71 (Jöreskog & Sörbom, 2004). The three-factor model involved three latent constructs (the three religious orientations) and 19 observable variables (the items retained after the previous selection steps).

In order to identify the model, the first factor loading for each latent variable was set to 1. We considered different goodness-of-fit indexes, that is, the Satorra-Bentler chi-square, the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the standardized root mean residual (SRMR). A good fit is identified by a nonsignificant chi-square, but significant values are common when the sample is large. The ratio of chi-square to the degree of freedom was used to address this limitation (values between 2 and 3 are considered acceptable). A fit is also considered acceptable when RMSEA is between .05 and .08, CFI is higher than .90, and SRMR is equal to or lower than .08 (Browne & Cudeck, 1993; Hu & Bentler 1999; Schermelleh-Engel, Moosbrugger, & Müller 2003).

Overall, the fit indexes indicated that the model did not fit the data very well: SBχ^2(149) = 395.35, $p \cong .00$; SBχ^2/df = 2.65; RMSEA = .073; CFI = .93; SRMR = .10. Examination of the modification indexes revealed that the model would be improved by eliminating Item 12 of the quest scale, which presented relevant negative associations with intrinsic and internal items. After dropping this item, the model provided a better fit to the data: SBχ^2(132) = 326.94, $p \cong .00$;

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SBχ^2/df = 2.48; RMSEA = .069; CFI = .94; SRMR = .086. The factor loadings were all high and consistent (Figure 1). Notably, no modification index for λ_x was suggested, thus confirming that each item only measured the respective religious orientation.

To sum up, the final version of the scale consisted of 18 items: eight for religion as end, five for religion as means, and five for religion as quest.[1] We assessed the internal consistency of the three subscales and found good alpha values: α_{end} = .84; α_{means} = .72; α_{quest} = .72.

As reported in Table 2, all the values of skewness and kurtosis of the 18 items were far from problematic values (Curran et al.,1996). Moreover, all the items were strongly related to the mean score of the corresponding subscale. As reported in Table 3, items belonging to the same subscale were all intercorrelated, while nonsignificant or weak relationships (Cohen, 1988) emerged between the items of different subscales.

Step 4

The aim of this final step was to evaluate the correspondence between the three religious orientations detected by the RLOS and the original dimensions presented in the ROS and RLI. In this step, we considered the Catholic respondents involved in the first step of our analyses (N = 445).

First, the three subscales confirmed to be reliable: α_{end} = .86; α_{means} = .71; α_{quest} = .74. Second, as reported in Table 4, results showed that the end subscale of the RLOS was strongly associated with both the intrinsic orientation measured by the ROS, r = .83, p < .001, and the internal scale of the RLI, r = .92, p < .001. The high correlation between RLOS-end and RLI-external, r = .62, p < .001, confirms the partial overlap between these two dimensions already shown by Batson and coworkers (1993). The means subscale of the RLOS correlated closely with the ROS-extrinsic, r = .80, p < .001, and there was also a strong association between the quest subscale of the RLOS and the corresponding dimension measured by the RLI, r = .91, p < .001. Overall, these findings show that reducing the items through the described three-step analysis yielded a short scale that closely corresponds to the original, more ample subscales.

DISCUSSION

In the present study we proposed a short and reliable tool for measuring religious orientations. We began with the 47 items included in the Religious Orientation Scale (ROS; Allport & Ross, 1967) and the Religious Life Inventory (RLI; Batson et al., 1993). Then, through a process of progressive refinement, involving exploratory factor analyses, an investigation of the meaning of the items, and a confirmatory factor analysis, we eventually selected the 18 items of the Religious Life and Orientation Scale (RLOS) to assess the three dimensions of religion as end, means, and quest.

The eight items of the *end* subscale come from the intrinsic subscale of the ROS (three items) and from the internal subscale of the RLI (five items). Two of these eight items (Items 6 and 9 of the internal scale of the RLI) are phrased in a negative way, so their values should be recoded when computing the aggregate score. We believe that this particular set of items is able to capture an important feature of the mature form of religiosity originally proposed by Allport, related to the importance of religion as the meaningful core of an individual's whole life.

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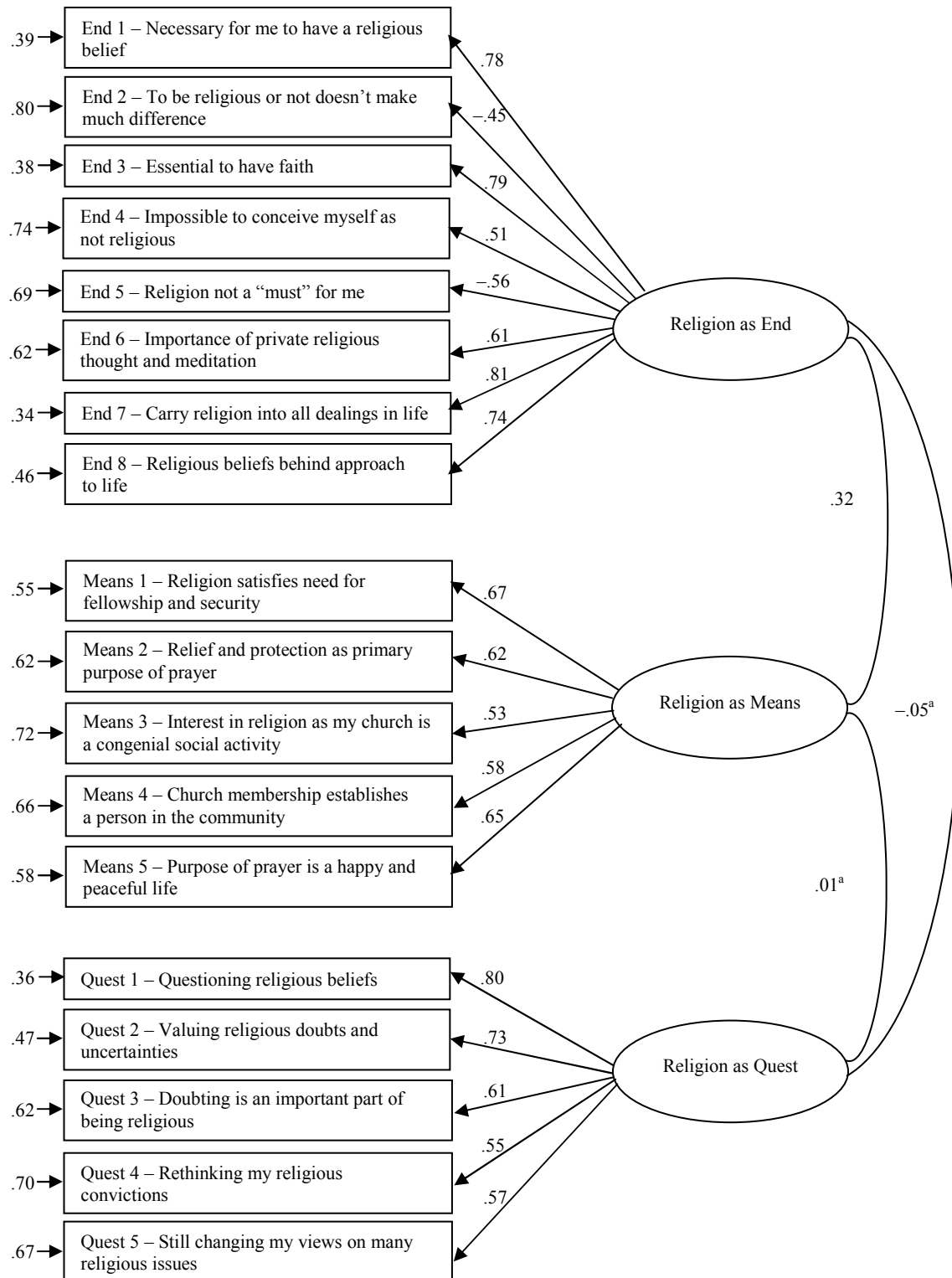Religious Life and Orientation Scale

FIGURE 1
Confirmatory factor analysis of the Religious Life and Orientation Scale.
All parameters are standardized and, unless noted, significant with $p < .001$; [a] nonsignificant.

TABLE 2
Items of the RLOS: Psychometric characteristics (Step 3)

RLOS code	Item	ROS and RLI code	Skewness	Kurtosis	alpha if item is deleted	*r* with factor score	*M*	*SD*
End 1	Necessary for me to have a religious belief	Internal 3	−0.51	−0.73	.81	.73***	4.94	1.70
End 2	To be religious or not doesn't make much difference (reverse)	Internal 6	−0.43	−1.01	.84	.58***	4.79	1.86
End 3	Essential to have faith	Internal 7	−0.44	−0.90	.80	.77***	4.79	1.74
End 4	Impossible to conceive myself as not religious	Internal 8	−0.27	−1.14	.83	.63***	4.27	1.97
End 5	Religion not a "must" for me (reverse)	Internal 9	−0.49	−0.87	.83	.67***	4.96	1.80
End 6	Importance of private religious thought and meditation	Intrinsic 1	−0.18	−0.99	.82	.77***	4.16	1.77
End 7	Carry religion into all dealings in life	Intrinsic 3	0.05	−1.19	.80	.72***	3.84	1.88
End 8	Religious beliefs behind approach to life	Intrinsic 8	−0.17	−1.16	.81	.72***	4.17	1.85
Means 1	Religion satisfies needs for fellowship and security	External 4	0.10	−0.97	.68	.67***	3.51	1.70
Means 2	Relief and protection as primary purpose of prayer	Extrinsic 3	−0.25	−0.82	.69	.66***	4.13	1.73
Means 3	Interest in religion as my church is a congenial social activity	Extrinsic 8	0.38	−1.07	.68	.70***	3.32	1.84
Means 4	Church membership establishes a person in the community	Extrinsic 10	1.00	0.00	.66	.71***	2.47	1.67
Means 5	Purpose of prayer is a happy and peaceful life	Extrinsic 11	0.88	−0.20	.65	.71***	2.60	1.65
Quest 1	Questioning religious beliefs	Quest 2	−0.16	−1.26	.69	.78***	4.20	1.94
Quest 2	Valuing religious doubts and uncertainties	Quest 3	−0.35	−0.93	.70	.75***	4.37	1.81
Quest 3	Doubting is an important part of being religious	Quest 5	−0.34	−0.94	.73	.70***	4.38	1.81
Quest 4	Rethinking my religious convictions	Quest 9	−0.28	−1.21	.74	.68***	4.34	2.01
Quest 5	Still changing my views on many religious issues	Quest 10	−0.61	−0.56	.73	.68***	4.63	1.80

Note. RLOS = Religious Life and Orientation Scale; ROS = Religious Orientation Scale; RLI = Religious Life Inventory. Items are reported in a synthesized version.
*** *p* < .001.

TABLE 3
Inter-item correlations (Step 3)

Items	E1	E2	E3	E4	E5	E6	E7	E8	M1	M2	M3	M4	M5	Q1	Q2	Q3	Q4
E1	–																
E2	.31***	–															
E3	.62***	.28***	–														
E4	.36***	.25***	.38***	–													
E5	.41***	.46***	.39***	.25***	–												
E6	.40***	.31***	.49***	.28***	.28***	–											
E7	.52***	.31***	.54***	.37***	.35***	.47***	–										
E8	.44***	.24***	.53***	.31***	.33***	.44***	.65***	–									
M1	.30***	–.03	.28***	.10	.07	.10	.25***	.27***	–								
M2	.24***	–.01	.20***	.13*	.06	.16**	.16**	.17**	.37***	–							
M3	.19**	–.02	.06	.03	–.06	.04	.11*	.11*	.29***	.28***	–						
M4	.17**	–.15***	.10	.03	–.11*	–.03	.22***	.19**	.36***	.20***	.43***	–					
M5	.21**	–.10	.09	.03	–.06	.03	.24***	.21***	.28***	.41***	.33***	.49***	–				
Q1	–.14*	–.09	–.12*	–.09	–.14*	.03	–.21***	–.17**	.01	–.03	.07	–.01	–.06	–			
Q2	.04	.09	.12*	.08	.03	.19**	.01	.07	.07	.06	.02	–.00	.01	.57***	–		
Q3	.06	–.01	.01	.08	–.03	.07	–.04	–.04	.00	.04	.14*	.02	.09	.42***	.45***	–	
Q4	.03	.02	.15**	.03	–.04	.08	.02	.07	.16**	–.01	.03	.02	–.03	.36***	.32***	.35***	–
Q5	–.12*	–.09	–.02	.14*	–.05	.06	–.13*	–.15**	.03	–.03	.01	–.10	–.14*	.42***	.38***	.29***	.35***

Note. E = items of the end subscale; M = items of the means subscale; Q = items of the quest subscale.

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

TABLE 4
Correlations between subscales of Religious Life and Orientation Scale, Religious Orientation Scale,
and Religious Life Inventory (Step 4)

Subscales	1	2	3	4	5	6	7
1. Intrinsic RLOS	–						
2. Extrinsic RLOS	.15[**]	–					
3. Quest RLOS	.04	.04	–				
4. Intrinsic ROS	.83[***]	.25[***]	.18[***]	–			
5. Extrinsic ROS	–.16[**]	.80[***]	.06	–.01	–		
6. Internal RLI	.92[***]	.21[***]	–.01	.70[***]	–.09	–	
7. External RLI	.62[***]	.34[***]	.08	.61[***]	.05	.63[***]	–
8. Quest RLI	.09	.06	.91[***]	.23[***]	.06	.04	.09

Note. RLOS = Religious Life and Orientation Scale; ROS = Religious Orientation Scale; RLI = Religious Life Inventory.
*** $p < .001$. ** $p < .01$.

Specifically, the end dimension seems to be mainly characterized by the relevance of re-ligion both for one's own self-definition (internal items; e.g., "I find it impossible to conceive of myself not being religious") and for one's own life and activities (intrinsic items; e.g., "I try hard to carry my religion over into all my other dealings in life"). Notably, compared to the ROS, this set of items seems to be polished from aspects linked to extrinsic dimension or fundamentalism (see, e.g., Kirkpatrick & Hood, 1990). The end scale thus detects only the internalized form of religiosity, as theorized by Allport and Ross (1967).

The five items of the *means* subscale come mainly from the extrinsic dimension of the ROS, with only one item from the external dimension of the RLI. Two of the five items refer to the achievement of social aims (Items 8 and 10 of the extrinsic scale from ROS), two relate to personal benefits (Items 3 and 11 of the extrinsic scale from ROS), and one combines these two aspects together (Item 4 of the external scale from RLI). Notably, the RLOS does not include the extrinsic items of the ROS that emerged as reverse measures of the intrinsic orientation (Kirkpat-rick, 1989). Additionally, this set of items exhaustively captures the core aspect of the extrinsic way of living religion, which is the use of religion for the fulfilment of both *social* and *personal* goals (Kirkpatrick, 1989). Nevertheless, differently from the ROS extrinsic scale (Gorsuch & McPherson, 1989), this means subscale can be considered as unidimensional, as suggested by the satisfactory fit indexes in the confirmatory factor analysis.

Finally, the five items on the *quest* subscale all come from the corresponding subscale in the RLI. Despite their different length, the five-item scale substantially overlaps with the 12-item scale (the correlation in Step 4 was $r = .91$). Moreover, the reduction from 12 to five items does not seem to have weakened the possibility to detect the core aspect of the quest orientation. In-deed, the five items selected for the RLOS are representative of aspects of mature religiosity as conceived by Allport (1950): using the terminology proposed by Batson and colleagues (1993), one item relates to a readiness to face existential questions without reducing their complexity (Item 9 in the original quest scale), two measure self-criticism and the perception of religious doubts as being positive (Items 3 and 5), and two refer to openness to change (Items 2 and 10).

In conclusion, the three subscales of the RLOS seem to be a concise but complete measure of the religion orientations, which in our opinion presents some important advantages. First, in comparison to ROS and RLI, this synthetic integration seems able to capture the three religious orientations without overlaps or redundancies. In this sense, the RLOS limits some problematic aspects of the parent scales, such as the correspondence between some intrinsic items and the extrinsic and fundamentalist dimensions, and the fact that the original extrinsic scale included items that measured the reverse of intrinsic orientation (see, e.g., Kirkpatrick & Hood, 1990). Second, the number of items has been reduced from 47 to 18, thus eliminating the inconvenience of requiring all the items of the ROS and RLI in the assessment of the three religious orientations. Third, despite this reduction, the three subscales seem able to detect the core aspects of the respective religious orientation. Therefore, this instrument may be conceived as a reliable, concise, but at the same time complete, measure of religion as end, means, and quest.

The present study has some limitations that we have to acknowledge. Although our sample was quite large (1194 religious respondents were involved in all), the generalizability of our findings is limited by the fact that we only considered Italian Catholics. Future research should test the proposed scale with respondents in other countries and with other religious affiliations. Moreover, the administered items were an Italian translation of the original versions in English. Although we tried to maintain, as closely as possible, the meaning of the English version, in future research it will be necessary to test the structure of the RLOS also using the original items in English. Additionally, we explored the relations of the RLOS only with ROS and RLI, which are its parent scales. It would be recommendable to test its relation also with alternative measures of religiosity, such as the Centrality of Religiosity Scale (Huber & Huber, 2012), a measure of the importance and salience of religious meanings in personality, or the Christian Religious Internalization Scale (Ryan, Rigby, & King, 1993), which assesses the motives underlying engagement in religious behaviors. Finally, further studies are needed in order to establish the predictive validity of the RLOS, for example, exploring its relationship with prejudice, prosociality, and quality of life indexes. Despite these limitations, the results that we obtained clearly suggest that in the investigated context the RLOS is a reliable and concise tool for measuring a multidimensional conceptualization of religiosity.

NOTE

1. The Italian version of the items is available upon request from the first author.

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