



Religious as quest and its relationship with intrinsic and extrinsic orientation

La religiosidad como búsqueda y su relación con la orientación intrínseca y extrínseca



Research

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Article History:

Received: 05-08-2013

Revised: 10-10-2013

Accepted: 15-10-2013

ARTICLE INFO

ABSTRACT

Allport and Ross (1967) originally developed the religious orientation concept, identifying two types: intrinsic and extrinsic orientation. Later, Batson (1976) conceptualized a third type: the quest orientation, measured by the unidimensional Quest Religious Orientation Scale. However, subsequent works have reported the presence of a three-factor structure: preparation, self-criticism and openness. The aim of this work was the adaptation of the Quest Religious Orientation Scale to the Argentinean context in order to account for its dimensionality and to analyze its relationship with I-E Age Universal Scale (intrinsic and extrinsic orientation) in a sample of 334 university students (36.2% men) with an age range of 18 to 42 years ($M = 24.8$, $SD = 2.63$). The main results indicate a better fit of the data to the three correlated dimensions model of the Quest Religious Orientation Scale. This model allowed us to distinguish the relationship of each factor and the intrinsic and extrinsic orientations discovering significant differential relationships.

Key Words:

Quest, Religious orientation, Intrinsic, Extrinsic, Adaptation

RESUMEN

El concepto de orientación religiosa fue originalmente desarrollado por Allport y Ross (1967), quienes identificaron dos tipos: intrínseca y extrínseca. Luego, Batson (1976) conceptualizó un tercer tipo: la orientación Quest, evaluada a través de la escala unidimensional de orientación religiosa Quest. Sin embargo, trabajos posteriores señalaron la presencia de una estructura trifactorial: preparación, autocrítica y apertura. El presente trabajo tuvo como objetivo principal la adaptación de la escala Quest al contexto argentino, analizando su dimensionalidad y las relaciones con las orientaciones extrínseca e intrínseca (I-E Age Universal Scale) en una muestra de 334 estudiantes universitarios (36.2% hombres) con una edad que oscilaba entre los 18 y los 42 años ($M = 24.8$, $SD = 2.63$). Los resultados indican un mejor ajuste de los datos al modelo de tres dimensiones correlacionadas de la escala de orientación religiosa Quest. Este modelo permitió distinguir la relación de cada factor con las orientaciones extrínseca e intrínseca descubriendo relaciones significativas diferenciales.

Palabras Clave:

Quest, Orientación religiosa, Intrínseca, Extrínseca, Adaptación

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1. INTRODUCTION

Although religion has been considered to be a relevant object of study for the field of psychology since its beginnings in the late nineteenth century (Belzen, 2006; Cutting, & Walsh, 2008; Muñoz, 2004; Paloutzian, 1996; Wulff, 1997), its systematic study began in the 1960s with the work of Allport and Ross (1967). These authors introduced the notion of religious orientation to refer to the process that controls and organizes the behavior of those individuals who consider themselves to be religious. According to this definition, people with an extrinsic religious orientation live their religious practices in an instrumental way, as a mean towards achieving personal or social objectives (e.g. group acceptance); while intrinsically oriented individuals interpret religion as an end in itself, as central to their identity, and as a systematic study of a source of motivation for their lives (e.g. praying privately). In other words, while some individuals participate in religious activities in order to establish or maintain social networks without necessarily adhering to the precepts or teachings of religion, others perceive it as a driving force to which all others are subordinate in the context of their lives (Batson & Schoenrade, 1991a).

In order to evaluate this phenomenon, Allport and Ross (1967) built the Religious Orientation Scale (ROS), composed of 20 items grouped into two factors: the intrinsic orientation and extrinsic orientation. Since its construction to the present, the religious orientation measure underwent a series of modifications, amongst which we can highlight, on the one hand, the reduction of items provoked by discussions on its dimensionality (Gorsuch, 1988; Gorsuch & McPherson, 1989; Kirkpatrick, 1989; Leong & Zachar, 1990; Maltby, 1999, 2002; Maltby & Lewis, 1996) and, on the other hand, the changes in the response format to match the scale to non-religious people (Maltby & Lewis, 1996). The discussion about the dimensionality of the scale was initiated by Kirkpatrick (1989), when he conducted a study that analyzed 12 samples of subjects who professed different religions, in which the scale was used. According to their results, the authors found a three-factor structure instead of two, as originally suggested (Allport & Ross, 1967). The extrinsic orientation (E) was composed of two associated second-order factors: the personal extrinsic orientation (EP) and the social extrinsic orientation (ES). Since the EP factor referred to the use of religion as safety, security, comfort or relief, the ES factor referred to the use of religion as a medium that contributes to social relationships. Thereafter, Maltby (1999) took up the work of Kirkpatrick

(1989) and modified the response format of the scale, so that it became valid for use in non-religious populations. This new scale developed by Maltby (1999) was called "Age Universal" IE-12 (hereinafter IE-12) allowed for a clear distinction between the three factors used for evaluating religious orientation: I, EP and ES.

Although the intrinsic and extrinsic distinction in assessing religious orientations presented a great acceptance in the academic environment (Altemeyer & Hunsberger, 1992; Brown, & Westman, 2011; Flere, Edwards, & Klanjsek, 2008; Maltby et al., 2010; Watson, & Morris, 2006), it has been suggested that these dimensions are not exhaustive for the study of the religious orientation (Batson, Schoenrade, & Ventis, 1993). In this sense, the religious orientation of an individual does not refer only to a mean or an aim (as described by intrinsic and extrinsic orientations), but also should consider those whose religious orientation is a search for knowledge and answers to existential questions raised by life. In addition, Batson et al. (1993) observed that is plausible to identify three main dimensions of people motivated by a quest orientation: (a) preparation to face existential questions without reducing their complexity, (b) self-criticism and the perception of religious doubts as positive and (c) openness to change. Furthermore, according to Beck and Jessup (2004), the religious quest orientation is also characterized by ecumenism (acceptance of other religious points of view), exploration (review of religious teachings), and religious anxiety (feelings of doubt and uncertainty about personal religious beliefs). As a result of these characteristics, people with high quest orientation are often less dogmatic, and present a strong belief in spiritual development of the self through experience (Batson, 1976). Such an open and flexible approach that reflects a tendency to challenge, question and doubt of the established religious truths, enables the individual to face the existential questions raised by life (Batson et al., 1993). In order to evaluate this construct, Batson (1976) developed the Quest Religious Orientation Scale, which originally had nine items grouped in one dimension. Then, Batson & Ventis (1982) proposed a new version composed of 6 items which received three major criticisms: first, its construct validity was criticized by different authors (Donahue, 1985; Kojetin, McIntosh, Bridges, & Spilka, 1987), because they considered that the scale evaluated agnosticism and anti-orthodoxy. Second, Hood & Morris (1985) noted that the quest orientation was not genuinely a single factor; instead, it overlapped with intrinsic and extrinsic factors. Thirdly, Gorsuch (1988), Griffin, Gorsuch, & Davis (1987) and Spilka,

Kojetin, & McIntosh (1985) discussed the reliability of the scale because the 6-item version did not have adequate internal consistency.

In response to these objections, Batson & Schoenrade (1991a) drew up a new 12-item scale, composed of three subscales of four items which assessed the dimensions of readiness, self-criticism and openness, with adequate psychometric properties in two different samples from undergraduate university students ($.75 > \alpha > .82$). In addition, the new Quest measure (Batson & Schoenrade, 1991a; 1991b) was tested with its two versions (Batson, 1976; Batson & Ventis, 1982) verifying that there were high levels of correlations between the three of them thus proving that they assess the same construct. This new scale greatly enhanced the test-retest reliability over that of the six-item scale. In this sense, Flere et al. (2008) explored Quest dimensionality in three different samples of undergraduate university students. The results showed Cronbach's alpha adequate for the subscales Openness ($.67 < \alpha < .76$) and Readiness ($.62 < \alpha < .74$), whereas the third, Self-criticism, had an inadequate internal consistency ($.43 < \alpha < .50$). Thereafter Batson, Denton and Vollmecke (2008) surveyed data from more than 50 studies which showed that the correlations between the Quest and E-I were low to medium, demonstrating that they assessed different constructs. Religion has been widely researched in Argentina (Forni, Cárdenas, & Mallimaci, 2003; Mallimaci, 2007; Mallimaci & Giménez Béliveau, 2007), but there is a lack of research within the religious orientations framework (Simkin & Etchezahar, 2013). The main aim of this article was the adaptation and validation of the Quest Religious Orientation Scale (Batson & Schoenrade, 1991a; 1991b) to the Argentine context by analyzing its dimensionality and relationship to the intrinsic, extrinsic social and extrinsic personal orientations (Maltby, 1999; Simkin & Etchezahar, 2013).

2. METHOD

2.1. Participants

We worked with an intentional, non probabilistic sample, composed of 334 students from the University of Buenos Aires (36.2% men and 63.8% women) from the School of Psychology (42,4% freshmen and 57,6% senior) with an age range of 18 to 42 years ($M = 24.8$, $SD = 2.63$). Also, the student sample was composed of 12,3 % low SES, 64,2% middle SES and 23,5% high SES. Previously, we asked the potential participants if they considered themselves to be religious. Those who responded negatively were automatically dismissed.

2.2. Measures

The data was collected using an instrument of self-administered assessment measures, ensuring the anonymity of participants. It consisted of the following variables: *Quest Religious Orientation*: to evaluate this construct we used the Quest Religious Orientation Scale (Gorsuch & Venable, 1983) composed of 12 items that assesses three dimensions which has four items each: openness (e.g., "There are many religious issues on which my view keeps changing"), self-criticism (e.g., "In my religious experience, the questions are more important than the answers"), and readiness (e.g., "I was not very interested in religion until I began to wonder about the meaning of the life"). The response format of the Likert scale was with 5 anchorages ranging from 1 = "Strongly agree" to 5 = "Strongly disagree".

Age Universal IE Scale-12: in order to evaluate the Allport's religious orientations version, the Argentinean version (Simkin & Etchezahar, 2013) of the Age Universal IE scale (Maltby, 2002) was used; this is composed of 12 items, six of which assess intrinsic religious orientation (e.g., "my whole approach to life is based on my religion"), three personal extrinsic orientation (e.g., "I pray mainly to gain relief and protection") and three social extrinsic orientation (e.g., "I go to church mostly to spend time with my friends"). The response format was a Likert scale, with 5 anchorages ranging from 1 = "Strongly agree" to 5 = "Strongly disagree".

Personal Information: We asked the sex and age of participants.

2.3. Procedure

The subjects were invited to participate in the study on a voluntary basis, after requesting their informed consent. The data was collected by Junior Research Fellows at School of Psychology in the Buenos Aires University. Before answering the evaluation instrument, we pointed out to the participants that the resulting data of the research would be exclusively destined towards scientific purposes under the Argentine National Law 25,326 of personal data protection. In order to translate Quest Religious Orientation Scale, we considered one facet at a time, studying facets definitions within their theoretical framework and translated the items for every subscale as a set. Literal, word-for-word translation was not as important as retaining the psychological sense of each item. After translating the items, they were reassembled in the same item order than the original scale. Then, we found another translator, unfamiliar with the Quest Scale

in English, who provided a back translation into English. Finally, we compared both Quest Scales in English in order to evaluate if the psychological sense of each ítem was conserved.

Initially, descriptive statistics of the 12 items that conformed the Quest's scale were analyzed (Table 1). Three of them were dismissed (3, 7 and 11) due to a low correlation item-factor ($r < .35$).

3. RESULTS

Table 1. Original and translated Quest Religious Orientation's Items, Mean (M), Standard Deviation (SD), Item-total correlation (rjx) and Cronbach's alpha if item Deleted (α.-x)

Original version*	Argentinian versión	M	SD	rjx	α.-x
Readiness		Preparación			
1. I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.	1. No estaba muy interesado en la religión hasta que empecé a preguntarme sobre el sentido de la vida.	1,70	1,15	.66	.70
2. I have been led to ask religious questions out of a growing awareness of the tensions in my world and in my relation to my world.	2. Me he visto conducido a hacerme preguntas religiosas a partir de las tensiones que hay en mi mundo y en mi relación con el mundo.	2,17	1,39	.57	.77
4. God wasn't very important for me until I began to ask questions about the meaning of my own life.	3. Dios no era muy importante para mí hasta que comencé a preguntarme sobre el sentido de mi vida.	1,76	1,15	.69	.66
Self-criticism		Autocrítica			
5. It might be said that I value my religious doubts and uncertainties.	4. Se puede decir que valoro mis dudas e incertidumbres religiosas.	2,59	1,44	.73	.73
6. To me, doubt is an important part of the meaning of being religious.	5. Para mí, dudar es una parte importante de lo que significa ser religioso.	2,49	1,41	.67	.67
8. Questions are far more central to my religious experience than are answers.	6. Para mi experiencia religiosa, las preguntas son más importantes que las respuestas.	2,35	1,32	.76	.76
Openness		Apertura			
9. As I grow and change, I hope that my religion will also grow and change.	7. Al crecer y cambiar, espero que mi experiencia religiosa también crezca y cambie.	2,48	1,42	.68	.68
10. I question constantly my religious beliefs.	8. Estoy constantemente cuestionándome sobre mis creencias religiosas.	2,06	1,33	.69	.69
12. My point of view on some religious issues changes constantly.	9. Hay muchos temas religiosos en los que mi punto de vista continúa cambiando.	2,55	1,47	.62	.62

*. Three items were dismissed from original version of the scale (3, 7 and 11) because they presented a low correlation item-factor ($r < .35$).



The nine items that composed the Argentinean version of Quest's scale contribute to their respective dimensions, and each one of them presents a relatively high correlation with the total of each factor. The elimination of any item would imply a diminution in the reliability of its respective dimension. The total scale's explained variance was 71, 75%, distributed in a 27,43% for the first factor (Readiness), 24,29% the second one (Self-criticism) and 20.02%, the third (Openness).

Later, a confirmatory factorial analysis was conducted in order to compare the adjustment of the data to the one and three dimensions models (Gorsuch & McPherson, 1989; Maltby, 1999, 2002). We used the maximum authenticity method as an estimation method and the correction of non-normal data (Satorra & Bentler, 2001) through Satorra-Bentler's (S-B) robust estimation.

The information in reference to the adjustment of data of both models is presented in Table 2, taking into account the suggestions of Hu, Bentler and Kano (1992) and considering the distribution X^2 and its degrees of freedom (with ML estimation and the correction of S-B X^2) and the ratio between S-B X^2 along with its degrees of freedom, acceptable values being less than four (Byrne, 1989; Carmines & McIver, 1981). It also informed the Non Normed Fit Index (NNFI), Comparative Fit Index (CFI) and Bollen's Incremental Fit Index (IFI or $\Delta 2$), and the values above .90 are indicators of a good adjustment (MacCallum & Austin, 2000). In addition, the root mean-square error of approximation (RMSEA) was considered: punctuations of less than a .80 were accepted as an indicator of an appropriate adjustment (Browne & Cudeck, 1993).

Table 2: Comparison of one and three factor model of Quest Religious Orientation Scale

	$X^2_{(gl)}^*$	S-B $X^2_{(gl)}^*$	$\Delta S-B X^2_{(gl)}$	NNFI	CFI	IFI	RMSEA
One factor	212.03 (27)	152.02 (27)	5,63	.85	.88	.88	.121
Three factor	76.60 (24)	55.13 (24)	2,29	.96	.97	.97	.064

*. $p < .001$

Once we tested the factor structure of the scale, we proceeded to analyze the associations between its subdimensions and the I-E Age Universal 12 Scale dimensions (Table 3).

Table 3: Correlation between subdimensions of Quest Religious Orientation Scale and I-E Age Universal 12 Scale

	α	1	2	3	4	5
1. Quest – Readiness	.79	-				
2. Quest - Self-criticism	.79	.53**	-			
3. Quest – Openness	.75	.55**	.64**	-		
4. Intrinsic	.92	.59**	.48**	.46**	-	
5. Extrinsic - Social	.86	.40**	.22**	.26**	.54**	-
6. Extrinsic –Personal	.83	.53**	.41**	.50**	.76**	.44**

**. $p < .01$

All correlations were statistically significant ($p < .01$) and positive. A high association force between the three dimensions of force orientation ($.53 < r < .64$; $p < .01$), as well as the relationships between the extrinsic (social and personal) and intrinsic dimensions ($.44 < r < .76$; $p < .01$) were particularly significant results.

We couldn't observe any significant statistical difference between the participants' gender and age with regards to their scores in the three factors of the Quest Religious Orientation Scale.

4. DISCUSSION

The study's main objective was to validate the Batson and Schoenrade's Quest scale (Batson & Schoenrade, 1991a; 1991b) in the Argentinean context in order to observe its relationship with IE. Based on the results obtained, we can assert that the adaptation of the Quest Religious Orientation Scale has adequate measurement properties. The final version of the scale contains nine of the twelve items of the original Batson and Schoenrade's scale (Batson & Schoenrade, 1991a; 1991b). The remaining three items were dismissed because they had low item-factor correlation ($r < .35$) and cross-factor loadings (Hair, Black, Babin, Anderson, & Tatham, 2006). This same problem was noted by Leak (2011) when he analyzed the Batson and Schoenrade's scale (Batson & Schoenrade, 1991a; 1991b), realizing that items 7 and 11 had squared multiple correlation values below 10, indicating less than 10% of the item variance was due to the underlying factor and more than 90% to a measurement error. In our study, using the same criteria, in addition to items 7 and 11, item 3 was dismissed. One of the possible reasons why these items were not suitable values of item-total correlation could be that, in our context, the content of the items proves to be ambiguous and therefore does not allow for a good discrimination between the three factors.

Once the final version's items were identified, we proceeded to test its dimensionality in order to verify which model fits better to our context, whether the unidimensional originally informed by Batson (1976) or the three dimension model proposed by Batson and Schoenrade (1991a; 1991b). The results suggest a better adjustment to the three dimensions correlated model (preparation, openness and self-criticism) than the unidimensional model. Furthermore, the reliability of the three dimensions that compose the Quest Religious Orientation Scale was adequate, evaluated by Cronbach's alpha (Table 3).

This three dimension model allows distinguishing the relation of each factor with other religious orientations such as I, ES and EP (Ghorbani, Watson & Mirhasani, 2007). Thus, we found that the Openness and Self-criticism subfactors have low correlations with ES and high correlations with I and EP, while the subfactor Readiness has similar correlations with I, ES and EP. These results provide evidence for Batson's hypothesis (Batson, 1976; Batson & Ventis, 1982), which states that the quest orientation comprises a third independent factor, who is related to intrinsic and extrinsic orientations (social and personal), in contrast to

what is proposed by Hood and Morris (1985), whom noted that quest orientation was not an isolated factor, but that it overlapped with IE factors.

Finally, we suggest that future works analyze the religious orientations in different Spanish-speaking contexts (Núñez-Alarcon, Moreno-Jiménez, Moral-Toranzo, & Sanchez, 2011; Ramírez de la Fe, 2006). Besides, it should be considered the limitations of this study, such as the reference population (university students) which limits the possibility to achieve greater generalizability and representativeness of the results. In this sense, it would be appropriate to increase the sample size and working with general population. Moreover, it is suggested to include subjects with different religious beliefs.

5. REFERENCES

- Allport, G. W., & Ross, J. M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5, 432-443.
- Altemeyer, B., & Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *The International Journal for the Psychology of Religion*, 2(2), 113-133.
- Batson, C. D. (1976). Religion as prosocial: Agent or double agent? *Journal for the Scientific Study of Religion*, 15(1), 29-45.
- Batson, C. D., & Schoenrade, P. (1991a). Measuring religion as quest: 1. Validity concerns. *Journal for the Scientific Study of Religion*, 30, 416-429.
- Batson, C. D., & Schoenrade, P. (1991b). Measuring religion as quest: 2. Reliability concerns. *Journal for the Scientific Study of Religion*, 30, 430-447.
- Batson, C. D., & Ventis, W. L. (1982). *The religious experience: A social-psychological perspective*. New York: Oxford University Press.
- Batson, C. D., Denton, D. M., & Vollmecke, J. T. (2008). Quest religion, anti-fundamentalism, and limited versus universal compassion. *Journal for the Scientific Study of Religion*, 47(1), 135-145.
- Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). *Religion and the individual: A social-psychological perspective*. New York: Oxford University Press.
- Beck, R., & Jessup, R. K. (2004). The multidimensional nature of quest motivation. *Journal of Psychology and Theology*, 32(4), 283-294.
- Belzen, J. A. (2006). The varieties of functions of religious experience. James' varieties

- reconsidered. *Archives de Psychologie*, 72, 49-65.
- Brown, S. R., & Westman, A. (2011). Refining Christian Religious Orientations through Cluster Analyses. *Archive for the Psychology of Religion*, 33(2), 229-239.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. Bollen & J. S. Long (Eds.), *Testing Structural Equation Models* (pp. 136-162). Beverly Hills, CA: Sage.
- Byrne, B. (1989). *A primer of LISREL: Basic applications and programming for confirmatory factor analytic models*. New York: Springer-Verlag.
- Carmines, E. G., & McIver, J. P. (1981). Analyzing models with unobserved variables: Analysis of covariance structures. In G. Bohrnstedt & E. Borgatta (Eds.), *Social measurement: Current issues* (pp. 65-115). Beverly Hills: Sage Publications, Inc.
- Cutting, M., & Walsh, M. (2008). Religiosity scales: what are we measuring in whom? *Archive for the Psychology of Religion*, 30(1), 137-153.
- Donahue, M. (1985). Intrinsic and extrinsic religiousness: review and meta-analysis. *Journal of personality and social psychology*, 48(2), 400-419.
- Flere, S., Edwards, K. J., & Klanjsek, R. (2008). Religious orientation in three central European environments: Quest, intrinsic, and extrinsic dimensions. *The International Journal for the Psychology of Religion*, 18(1), 1-21.
- Forni, F. H., Cárdenas, L. A., & Mallimaci, F. (2003). *Guía de la diversidad religiosa de Buenos Aires* (Vol. 2). Buenos Aires: Biblos.
- Ghorbani, N., Watson, P. J., & Mirhasani, V. S. (2007). Religious commitment in Iran: Correlates and factors of quest and extrinsic religious orientations. *Archive for the Psychology of Religion*, 29(1), 245-257.
- Gorsuch, R. L. (1988). Psychology of religion. *Annual review of psychology*, 39(1), 201-221.
- Gorsuch, R. L., & McPherson, S. E. (1989). Intrinsic/extrinsic measurement: I/E-revised and single-item scales. *Journal for the Scientific Study of Religion*, 28(3), 348-354.
- Gorsuch, R. L., & Venable, G. D. (1983). Development of an "Age universal" IE scale. *Journal for the Scientific Study of Religion*, 22(2), 181-187.
- Griffin, G. A. E., Gorsuch, R. L., & Davis, A. L. (1987). A cross-cultural investigation of religious orientation, social norms, and prejudice. *Journal for the Scientific Study of Religion*, 26(3), 358-365.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate Data Analysis*. New Jersey: Pearson.
- Hood Jr., R. W., & Morris, R. J. (1985). Conceptualization of quest: A critical rejoinder to Batson. *Review of Religious Research*, 26(4), 391-397.
- Hu, L. T., Bentler, P. M., & Kano, Y. (1992). Can test statistics in covariance structure analysis be trusted? *Psychological bulletin*, 112(2), 351.
- Kirkpatrick, L. A. (1989). A psychometric analysis of the Allport-Ross and Feagin measures of intrinsic-extrinsic religious orientation. In M. L. Lynn & D. O. Moberg (Eds.), *Research in the social scientific study of religion: A research annual* (pp. 1-31). Stamford, CT: JAI.
- Kojetin, B. A., McIntosh, D. N., Bridges, R. A., & Spilka, B. (1987). Quest: Constructive search or religious conflict? *Journal for the Scientific Study of Religion*, 26(1), 111-115.
- Leak, G. K. (2011). Confirmatory factor analysis of the Quest Religious Orientation Scale. *Social Behavior and Personality*, 39(9), 1289-1290.
- Leong, F. T. L., & Zachar, P. (1990). An evaluation of Allport's Religious Orientation Scale across one Australian and two United States samples. *Educational and Psychological Measurement*, 50, 359-368.
- MacCallum, R. C., & Austin, J. T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of Psychology*, 51, 201-226.
- Mallimaci, F. (2007). Catolicismos sin Iglesia: Mirada histórica y sociológica en Argentina. Continuidades de largo plazo de una modernidad católica en un estado y una sociedad impregnados de laicidad católica. *Religioni e società*, 57, 53-61.
- Mallimaci, F., & Giménez Béliveau, V. (2007). Creencias e increencia en el Cono Sur de América: Entre la religiosidad difusa, la pluralización del campo religioso y las relaciones con lo público y lo político. *Revista argentina de sociología*, 5(9), 44-63.
- Maltby, J. (1999). The internal structure of a derived, revised, and amended measure of the Religious Orientation Scale: the 'Age-Universal' I-E Scale-12. *Social Behaviour and Personality*, 27, 407-412.
- Maltby, J. (2002). The Age Universal I-E Scale-12 and orientation toward religion: Confirmatory factor

- analysis. *The Journal of Psychology*, 136, 555-560.
- Maltby, J., & Lewis, C. A. (1996). Measuring intrinsic and extrinsic orientation toward religion: Amendments for its use among religious and framework. *Mental Health, Religion & Culture*, 13, 749-759.
- Muñoz, A. (2004). Cuestiones epistemológicas relativas al estudio psicológico de la vivencia religiosa. *Psyche*, 13(1), 131-140.
- Núñez-Alarcón, M., Moreno-Jiménez, P., Moral-Toranzo, F., & Sánchez, M. (2011). Validación de una escala de orientación religiosa en muestras cristiana y musulmana. *Metodología de Encuestas*, 13(1), 97-120.
- Paloutzian, R. F. (1996). *Invitation to the psychology of religion* (2ª ed.). Boston, MA: Allyn & Bacon.
- Ramírez de la Fe, M. C. (2006). Una adaptación española de la escala de orientación religiosa de Batson y Ventis. *Revista de psicología general y aplicada*, 59(1-2), 309-318.
- Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, 66(4), 507-514.
- nonreligious samples. *Personality and Individual Differences*, 21, 937-946.
- Maltby, J., Lewis, C. A., Freeman, A., Day, L., Cruise, S. M., & Breslin, M. J. (2010). Religion and health: The application of a cognitive-behavioural
- Simkin H., & Etchezahar, E. (2013). Las Orientaciones Religiosas Extrínseca e Intrínseca: Validación de la "Age Universal" I-E Scale en el Contexto Argentino. *Psyche*, 22(1), 97-106
- Spilka, B., Kojetin, B., & McIntosh, D. (1985). Forms and measures of personal faith: Questions, correlates, and distinctions. *Journal for the Scientific Study of Religion*, 24, 437-442.
- Watson, P. J., & Morris, R. J. (2006). Intolerance of ambiguity within a religious ideological surround: Christian translations and relationships with religious orientation, need for cognition, and uncertainty response. *Archive for the Psychology of Religion*, 28(1), 81-101.
- Wulff, D. M. (1997). *Psychology of religion: Classic and contemporary*. New York: John Wiley & Sons.