# Religious Orientations in the Colombian Population: Validation of the Universal IE Scale in Colombia

Orientaciones Religiosas en la Población Colombiana: Validación de la Escala Universal IE en Colombia

Orientações religiosas na população colombiana: validação da Escala Universal IE na Colômbia

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## Abstract

**Introduction:** The psychology of religion studies various variables, including religious orientation, initially proposed by Allport and Ross (1967). This construct distinguishes between intrinsic orientation, which reflects authentic and committed faith, and extrinsic orientation, which considers religion to be utilitarian (Kirkpatrick & Hood, 1989). Maltby (2002) developed the Age Universal IE-12 scale to measure religious orientation, which has been adapted and validated in different countries, such as the United States, Greece, England, and Ireland (Darvyri et al., 2014; Maltby, 1999). **Objective:** This study aimed to evaluate the psychometric properties of the Age Universal IE-12 scale in a Colombian sample to determine its reliability and validity in this context. **Methodology:** We included 201 participants from different religious groups: Adventists (25.4%), Catholics (49.3%), and Pentecostals (25.4%), of whom 38% were men and 62% were women. The Age Universal IE-12 scale (Maltby, 2002) was administered, and exploratory and confirmatory factor analysis was performed to evaluate its psychometric properties. **Results:** Exploratory factor analysis revealed a three-factor structure, explaining 72% of the variance, with a Cronbach's alpha of 0.82. Confirmatory factor analysis showed that all fit indices supported the proposed model. **Conclusions:** The scale demonstrated reliability and validity consistent with findings.

**Keywords:** Age Universal IE scale; Extrinsic religiosity; Intrinsic religiosity; Psychometrics; Religious motivation; Religious orientation.

## Resumen

**Introducción:** La Psicología de la Religión estudia diversas variables, entre ellas la Orientación Religiosa, propuesta inicialmente por Allport y Ross (1967). Este constructo distingue entre la orientación intrínseca, que refleja una fe auténtica y comprometida, y la orientación extrínseca, que considera la religión como utilitarista (Kirkpatrick & Hood, 1989). Maltby (2002) desarrolló la escala Age Universal IE-12 para medir la orientación religiosa, que ha sido adaptada y validada en diferentes países, como Estados Unidos, Grecia, Inglaterra e Irlanda (Darvyri et al., 2014; Maltby, 1999). **Objetivo:** Este estudio tuvo como objetivo evaluar las propiedades psicométricas de la escala Age Universal IE-12 en una muestra colombiana para determinar su confiabilidad y validez en este contexto. **Metodología:** Se incluyeron 201 participantes de diferentes grupos religiosos: adventistas (25,4%), católicos (49,3%) y pentecostales (25,4%), de los cuales el 38% eran hombres y el 62% mujeres. Se administró la escala Age Universal IE-12 (Maltby, 2002) y se realizó un análisis factorial exploratorio y confirmatorio para evaluar sus propiedades psicométricas. **Resultados:** El análisis factorial exploratorio reveló una estructura trifactorial, que explica el 72% de la varianza, con un alfa de Cronbach de 0,82. El análisis factorial confirmatorio mostró que todos los índices de ajuste respaldan el modelo propuesto. **Conclusiones:** La escala demostró confiabilidad y validez consistente con hallazgos previos en México (Rivera-Ledesma et al., 2016) y Argentina (Simkin & Etchezahar, 2013), apoyando su aplicabilidad en el contexto colombiano.

**Palabras clave:** Escala Universal de IE por edad; Religiosidad extrínseca; Religiosidad intrínseca; Psicometría; Motivación religiosa; Orientación religiosa.

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## Resumo

**Introdução:** A Psicologia da Religião estuda diversas variáveis, entre elas a Orientação Religiosa, proposta inicialmente por Allport e Ross (1967). Este conceito distingue entre a orientação intrínseca, que reflete uma fé autêntica e comprometida, e a orientação extrínseca, que considera a religião como utilitária (Kirkpatrick & Hood, 1989). Maltby (2002) desenvolveu a escala Age Universal IE-12 para medir a orientação religiosa, que foi adaptada e validada em diferentes países, como Estados Unidos, Grécia, Inglaterra e Irlanda (Darvyri et al., 2014; Maltby, 1999). **Objetivo:** Este estudo teve como objetivo avaliar as propriedades psicométricas da escala Age Universal IE-12 numa amostra colombiana para determinar a sua confiabilidade e validade neste contexto. **Metodologia:** Foram incluídos 201 participantes de diferentes grupos religiosos: adventistas (25,4%), católicos (49,3%) e pentecostais (25,4%), dos quais 38% eram homens e 62% mulheres. A escala Age Universal IE-12 (Maltby, 2002) foi administrada e uma análise fatorial exploratória e confirmatória foi realizada para avaliar as suas propriedades psicométricas. **Resultados:** A análise fatorial exploratória revelou uma estrutura trifatorial, que explica 72% da variância, com um alfa de Cronbach de 0,82. A análise fatorial confirmatória mostrou que todos os índices de ajuste apoiam o modelo proposto. **Conclusões:** A escala demonstrou confiabilidade e validade consistentes com descobertas anteriores no México (Rivera-Ledesma et al., 2016) e na Argentina (Simkin & Etchezahar, 2013), apoiando a sua aplicabilidade no contexto colombiano.

**Palavras-chave:** Escala Universal de IE por idade; Religiosidade extrínseca; Religiosidade intrínseca; Psicometria; Motivação religiosa; Orientação religiosa.

**Pensamiento** Americano

## INTRODUCTION

Religious orientation is a component of spiritual life that has not been extensively addressed in psychology. The validation of this instrument in Colombia is important because it can help to provide a more rigorous diagnosis in psychological manifestations that involve religious aspects. bridge that allows a closer approach to specific symptoms or pathologies.

The validation of instruments in this field of knowledge between different cultures requires contributions in the field of psychometry, considering the difference between beliefs according to time and the psychosocial environment. Although the scale has been translated into Spanish, this language has eight types of dialects that have variations in their phonetics, grammar and vocabulary according to geographical location or social and cultural characterization; therefore, it is very important to have instruments adapted to the indigenous cultural context.

In Colombia, although we find studies that refer to the presence of evaluation of religious orientation, no academic validation has been published on this scale, which reduces the degree of reliability of the instruments used and therefore the results of the research. The objective of this article is the academic validation of the Age Universal scale in the Colombian context.

## THEORETICAL FRAMEWORK

### 2.1  Intrinsic and extrinsic religious orientations

Human motivations have been the object of study in psychology since its inception (Chiavenato, 1967; Herzberg, 1959; Maslow, 1962; Mcclelland, 1965).

Woolfolk (2006) defined it as an internal state that activates, directs, and maintains behavior. According to the literature, the internal energy that moves us to action, as an innate tendency, has two reaction factors that human beings use based on their interest and the meaning given to the task  requiring said action. The first is an intrinsic factor that is described as performing the action without an external incentive, meaning the individual is self-motivated to do the task without depending on external stimuli or rewards. The second factor is extrinsic: energy is directed to the task only if external enhancers motivate the individual to perform the task (Deci & Ryan, 1985).

In the same sense, Allport (1950) observed that in the religious sphere, human beings can be motivated or guided toward religion that can be classified into two factors, which he called intrinsic religiosity and extrinsic religiosity. Based on the theory of religious orientation, he constructed a scale to measure two factors or orientations at the spiritual level (Allport, 1966).

The religious orientation model distinguishes between parishioners for whom religion represents an end in itself (intrinsic religiosity) and parishioners whose religious motivation pursues other non-religious purposes (Allport & Ross, 1967). Indicate that individuals with extrinsic religiosity use religion in a utilitarian way to satisfy their needs for security, protection, comfort, sociability, distraction, power, or self-justification. The embraced creed is held either lightly or selectively to satisfy their most basic needs.

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In contrast, with intrinsic orientation, people are motivated by religion itself and other needs are subordinate to it and because they are subordinated to religious beliefs and principles. As the author suggests, "intrinsic people find their main motivation in religion" (Allport & Ross, 1967, p.434).

### 2.2. Assessing religious orientation: From ROS to Age Universal IE-12

Assessing religious orientation was originally introduced by Allport and Ross (1967) by developing the Religious Orientation Scale (ROS). The technique was first constructed to be applied to the Judeo-Christian population using 20 items: 11 items assess intrinsic orientation and 9 items assess extrinsic orientation. The Cronbach's alpha for this test was 0.73, showing an adequate reliability index.

Since its initial development, the scale proposed by Allport and Ross (1967) has been revised several times. For the technique to be applied in children and adolescents, Gorsuch and Venable (1983) modify the items by offering a new version called the Age Universal IE Scale. Later, Kirkpatrick (1989) discusses the factorial structure of the instrument, proposing a three-factor model instead of the initial two-factor model. According to the results of his study, intrinsic religiosity is the first factor, and the extrinsic factor would be composed of two facets which are called social extrinsic religiosity and personal extrinsic religiosity. Gorsuch and McPherson (1989) later confirm this same structure. Maltby and Lewis (1996) modify the scale's response format adapted to the non-religious population. Finally, Maltby (2002) presents the Age Universal IE-12 scale composed of 12 items, which are grouped into three factors: Intrinsic orientation, social extrinsic orientation, and personal extrinsic orientation.

The Age Universal IE scale has been adapted and validated in recent years in different countries such as the United States, Greece, England, Northern Ireland, and the Republic of Ireland (Darvyri et al., 2014; Maltby, 1999) Portugal (Gonçalves et al., 2016), the United Kingdom (Annick & Stephen, 2004), Korea (Choi et al., 2002) and Norway (Kaldestad & Stifoss-Hanssen, 1993). In addition, it has been used in various contexts such as prison settings (Adler et al., 2008), and with different religions such as Catholic, Eastern, Islamic, or Greek Orthodox (Flere & Lavrič 2008; Mora et al., 2014).

In Latin America, the psychometric properties of the Age Universal IE have also been validated in Argentina (Simkin & Etchezahar, 2013), Mexico and Peru (Acosta Cruzado & Sánchez, 2017). In this context, the scale has been used to study the relationship between religious orientation, centrality of religion, and authoritarianism. Brussino and Etchezahar (2015) analyze the link between religious orientation and religiosity with fundamentalism (González & Reyes, 2015) and link religious orientation and depression in older adults (Acosta Cruzado & Sánchez, 2017). However, so far no studies have been found that explore the psychometric properties of the technique in Colombia, which is the objective of this article.

## METHODOLOGY

### 3.1. Participants

An intentional non-probability sample was used, involving the participation of 201 individuals from the three most representative religions in Medellín (Beltrán, 2013): Adventist (25.4%), Catholic (49.3%), and Pentecostal (25.4%), divided into Unitarian Pentecostal (11.9%) and Trinitarian-Baptist

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Pentecostal (13.4). In the sample, 38% were men and 62% were women, with an age ranging from 25 to 80 years (M=35, SD=13).

### 3.2. Instrument.

The data were collected using a self-administered assessment instrument composed of the following techniques:

#### 3.2.1. Sociodemographic Data Questionnaire

An ad hoc questionnaire was developed to identify the age, gender, and education level of the participants.

#### 3.2.2. Age Universal Ie Scale (Maltby, 2002).

The Age Universal IE scale is a self-administered questionnaire comprised of 12 items that assess two religious orientations among the adolescent and adult population: Intrinsic Religious Orientation (items 1, 2, 3, 4, and 5), and Extrinsic Religious Orientation (items 6, 7, 8, 9, 10, 11, and 12). In turn, this second orientation includes two facets: Personal Extrinsic Religious Orientation (items 9, 10, and 11) and Social Extrinsic Religious Orientation (items 6, 7, and 8). The scale offers a Likert response format with five options that range from 1 = "Completely disagree," 2 = "Disagree," 3 = "Neutral," 4 = "Agree" and 5 = "Completely agree." The scale validated in the Argentine context by Simkin and Etchezahar (2013) was used to assess religious orientation because it uses the same language as in Colombia, in addition to the adaptations for Mexico and Peru (Acosta Cruzado & Sánchez, 2017; Rivera-Ledesma et al., 2016).

### 3.3. Procedure

People attended the religious services held in their churches and were invited to participate in the study on a voluntary basis. They were provided an explanation of what the research entailed, and were informed about the ethical protocol that allowed them to leave the trial at any time if they did wished to do, ensuring that the study was only for academic purposes governed by National Law 1581 of 2012 on the protection of personal data, that they had the opportunity to receive feedback on the results if they wished, and that this research was classified as minimal risk as established in the parameters of resolution No. 008430 of October 4, 1993, issued by the Ministry of Health regarding minimal-risk research involving humans. The inclusion criteria were: people over 25 years old, that they belonged to one of the religious denominations listed, and that they completed the entire survey.

### STATISTICAL ANALYSIS

After building the database, the psychometric reliability and validity analyses of the three-factor and 12-item test were performed. The analysis was performed using the SPSS-SP 25 statistical program and EQS 6.3 software. A univariate analysis was performed to establish the measures of central tendency and a multivariate analysis to measure the test's degree of reliability and validity. The scale's reliability was measured using Cronbach's alpha coefficient, which showed good internal consistency at >0.826. Upon obtaining an optimal analysis of the Kaiser-Meyer-Olkin test and Bartlett's test for Sphericity, the exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were completed. The exploratory

factor analysis was performed using Varimax rotation with a value of >1 and the confidence interval was calculated to be 95%. For the confirmatory factor analysis, the Non-Normalized Fit Index (NNFI), Comparative Fit Index (CFI), Incremental Fit Index (IFI), and the root mean square error of approximation (RMSEA) were analyzed.Results

### 4.1. Exploratory factor analysis

The exploratory factor analysis was performed with the 12 test items. The adequacy measure of the Kaiser-Meyer-Olkin sample showed appropriate behavior, with > 0.60 and Bartlett's test of sphericity showed statistical significance as it was 0.05, supported by the factor analysis (KMO= 0.829; Bartlett p= 0.000).

The test in the rotated matrix component conserved its factorial structure and its 12 items since all showed indices above 0.40. An adequate factor loading was found that made visible the three factors proposed by the theory. In the analysis of variance, 72.05% of total variance was obtained, explained by its three main factors and an adequate total Cronbach's Alpha (0.82). See Tables 1 and 2.

**Table 1**
*Principal Component Analysis of the IE-12 Scale*

| ITEM | 1 | 2 | 3 |
|---|---|---|---|
| 2. I strive to live my life according to my religious beliefs | 0,793 | 0,072 | 0,141 |
| 4. My religion is important because it answers many questions about the meaning of life | 0,844 | 0,037 | 0,078 |
| 3. I have frequently had a strong sense of God's presence | 0,81 | -0,168 | 0,117 |
| 5. I enjoy reading about my religion | 0,811 | 0,032 | 0,128 |
| 1. My whole approach to life is based on my religion | 0,819 | 0,073 | 0,109 |
| 6. It is important for me to spend time thinking and praying in private | 0,718 | -0,058 | 0,305 |
| 8. I go to church mainly because I enjoy seeing the people I know there | -0,031 | 0,869 | 0,062 |
| 7. I go to church mainly to spend time with my friends | 0,042 | 0,913 | 0,006 |
| 9. I go to church because it helps me make friends | -0,003 | 0,874 | 0,133 |
| 10. I pray mainly for comfort and protection | 0,113 | 0,091 | 0,861 |
| 11. Religion mainly offers me comfort in difficult and sad times | 0,127 | 0,171 | 0,822 |
| 12. Praying is for finding peace and happiness | 0,32 | -0,059 | 0,796 |

**Table 2**
*Variance and reliability analysis*

| Factor | % variance | % collected | Cronbach's Alpha |
|---|---|---|---|
| 1 | 37,930 | 37,930 | 0.90 |
| 2 | 21,040 | 58,971 | 0.87 |
| 3 | 13,081 | 72,052 | 0.81 |

*Note:* analysis of main components.

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### 4.2. Confirmatory factor analysis

After analyzing the results of the EFA, a CFA was carried out to verify the three-factor model proposed by Maltby (2002). Estimators are calculated for the observable variables of each of the latent variables and the correlations of the latent variables can be observed, with their respective measurement errors. The Non-Normalized Fit Index (NNFI) (Tucker & Lewis, 1973) is presented below, which compares the fit by degrees of freedom of the proposed and null model. Values greater than 0.90 are considered acceptable. In this case, the index was 0.91. Comparative Fit Index (CFI) values close to 1 are a good fit (Bentler & Bonett, 1980). Our score was 0.94. The Incremental Fit Index (IFI) is assumed to be close to 1 (Bollen, 1989), and in this case, the value was 0.94. In addition, the root mean square error of approximation (RMSEA) was considered, with scores less than or equal to 0.08 being acceptable as an indicator of an adequate fit (Steiger & Lind, 1980), which was 0.08. Table 6 shows the indices and Figure 1 shows the structural model with their respective values.

**Table 3**

*Confirmatory Factor Analysis of Universal Age IE. Fit indices*

|  | $X^2_{(gl)}$ | NFI | NNFI | CFI | IFI | RMSEA (IC) |
|---|---|---|---|---|---|---|
| I-E* | 126.05/48 | 0.90 | 0.91 | 0.94 | 0.96 | 0.08(.0.07- 0.10) |

*Note:* * Three-factor model

**Figure 1.**

*Age Universal IE scale structural model*

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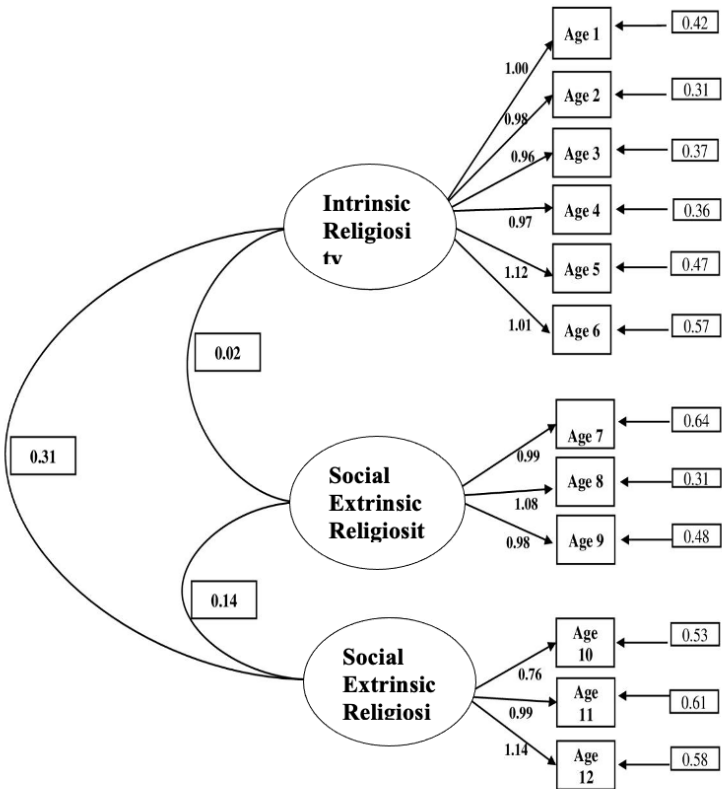
### 4.3. Correlation analysis

Next, factor correlations are evaluated where a high correlation is identified between intrinsic orientation and personal extrinsic orientation (r=0.40**) while personal extrinsic and social extrinsic orientation were negatively correlated in a moderate way (r=-0.17*), intrinsic orientation is negatively and significantly correlated with social extrinsic orientation as shown in Table 4.

**Table 4**

*Correlations between the subdimensions of Age Universal IE 12*

|  | Intrinsic | Social Extrinsic | Personal Extrinsic |
|---|---|---|---|
| Intrinsic | 1 |  |  |
| Social Extrinsic | -57** | 1 |  |
| Personal Extrinsic | ,40** | -,17* | 1 |

*Note:* *p<0.05, **p<0.01 bilateral

### DISCUSSION AND CONCLUSIONS

The psychology has begun to offer important analyses that contribute to the understanding of behavior and humanity's deepest motivations on topics as insurmountable as religion.

The religious orientation scale continues to be a valid topic to understand the phenomenon of religion, since it has been accused of promoting prejudice, segregation, and suggestion (Dawkins, 2017; Ellis, 1986; Pierre, 2001). By differentiating the different ways in which religion is experienced, we can identify which forms of religiosity may be associated with mental health and/or pathology, psychological well-being or discontent, prejudice or openness, etc. This scale enables this differentiation to be made, since when evaluating religious orientation, we identify correlations between extrinsic religious orientation and negative behaviors such as prejudice (Batson et al., 1986), guilt, fear of death, and anxiety (Batson et al.,1993), positive relationships between extrinsic religiosity and schizophrenia (Maltby & Day, 2002), an association between extrinsic religiosity and unhealthy guilt (Maltby, 2005). Contemporary works have studied religious orientation measured using the Age Universal IE scale in Protestants and Catholics (Francis et al., 2016). There are also differences between the type of religious orientation that social extrinsic appears to be related to poorer physical health and an intrinsic religious orientation is related to responsible behaviors in self-care and stress management (Homan & Boyatzis, 2010) and linked to dogmatism (Mora et al., 2014). When differentiating factors, other studies identify that people with an intrinsic religious orientation could also have utilitarian motivations as well as extrinsic ones (Lavrič & Sergej, 2011). This theoretical domain must be studied further since religiosity is a broad and complex construct.

The scale had adequate psychometric properties with a resulting level of variance of 72% in its three factors, very similar to that found in the Argentine context by Simkin and Etchezahar (2013) (70.3%). This suggests that it is possible that religious orientation involves more than three factors or that they are not as opposed as Allport & Ross (1967) initially suggested. This research yields data in favor of the three-factor model since personal extrinsic orientation differs in the correlation from social extrinsic

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(-17*) but also presents a significant correlation (0.40**) with intrinsic religious orientation. This confirms the close relationship between these factors, as other authors have already mentioned, suggesting that personal extrinsic and intrinsic religiosity are closely related (Gonçalves et al., 2016) and/or that they could be one in the same (Flere & Lavričavric, 2008; Mora et al., 2014).

The results of the Colombian validation coincide with the findings of Simkin and Etchezahar (2013) in Argentina and Rivera-Ledesma et al. (2016) in Mexico, which suggests that the grammatical approach is very similar for the Colombian context. In Colombia, as in Mexico, the term "rezar" [to pray] continues to cause disagreement in the Protestant population that prefers the term "orar" [to pray] because the second has a deeper and less mechanical relationship as indicated by Rivera-Ledesma et al. (2016).

This study has some limitations. Test-retest reliability calculations could not be provided in the current study, as the sample was only assessed once. This type of information could provide additional information on the scale's reliability.

**RESEARCH ARTICLE**

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**Pensamiento**
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