# **Religiosity and Personality in a Mexican Sample**

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# Abstract

We analyzed the relationship of religiosity, in terms of attitudes towards religion and religious affiliation, with the five factor model of personality and with honesty. The sample consisted of 1982 participants from five Mexican states. As previous studies have, we found both measures of religiosity related significantly and positively with agreeableness, conscientiousness, and honesty; whereas not with neuroticism or openness. Unexpectedly, extraversion also related significantly and positively with both religiosity measures. The results' implications are discussed. This study provides relevant data for cross-cultural psychology of religion.

Keywords: religiosity, personality, five factor model, honesty

## Introduction

According to Mexico's national census, about 92.6% of its population self-identifies with a religion (Instituto Nacional de Estadística y Geografía, 2010). An analysis of religiosity and personality in this country is relevant for further reaching a multi-cultural understanding of the psychology of religion.

McCrae and Costa (1996) argued that religiosity is a cultural adaptation resulting from the five factor model of personality traits. Specifically, agreeableness and conscientiousness have been found to correlate positively with religiosity (Aghababaei, 2012; McCullough, Tsang, & Brion, 2003; Saroglou, 2010; Taylor & McDonald, 1999). These two can be considered as socially positive traits, for they motivate religious people to conform to social rules and conventions, due to their concern for the feelings and rights of others and to their rule-governed behavior tendency (McCullough et al., 2003). Religious individuals have also been evaluated by different informants as high in conscientiousness, agreeableness, and in other constructs related to these traits such as honesty, altruism, and empathy (Perrin, 2000; Saroglou, Pichon, Trompette, Verschueren, & Dernelle, 2005; Saroglou & Fiasse, 2003). They have likewise been found to favor values that promote conservation of individual and social order like tradition, conformity, and security (Saroglou, Delpierre, & Dernelle, 2004). On the other hand, religiosity has been reported as being unrelated to neuroticism, extraversion, and openness (Saroglou, 2010), weakly correlated with extraversion (Saroglou, 2002), and unrelated to extraversion and neuroticism as evaluated by the Eysenck Personality Questionnaire (Lewis, 1999; Maltby & Lewis, 1997; Francis & Katz, 1991; Francis, Katz, Yablon, & Robbins, 2004).

As for assessing religiosity, Francis (1978) proposed the attitudinal dimension of religion as the core measure for research. He argued that attitudes are preferable to other dimensions (e.g. affiliation, practice, or beliefs) for being more stable and deep-seated, less likely to be contaminated by society or specific doctrines, and more precisely assessed by scales. Attitudes toward religion (ATR) will therefore be considered as the main index for religiosity in this study. We included as well the variable of religious affiliation as a complement for our assessment of religiosity because it has been linked to differences in personality (Silva & Laher, 2011; Taylor & McDonald, 1999).

The objectives of this study are to analyze the relationship between religiosity and personality in Mexico and to discuss possible implications regarding socially positive attributes.

In line with the reviewed literature, our hypotheses are as follows: 1) ATR will correlate positively with agreeableness, conscientiousness, and honesty, and not with neuroticism, extraversion, or openness; and 2) religiously affiliated individuals will have higher levels of ATR, agreeableness, conscientiousness, and honesty, compared to non-affiliated participants.

#### Method

#### Participants

A convenience sample of 1,982 individuals from the general population of Mexico was used. People from five states across northern, mid, and southern Mexico participated in the study: Yucatán (22%), Distrito Federal (20%), Michoacán (20%), Guanajuato (20%), and Coahuila (19%). The ages ranged from 18 to 90 years, with an average of 29.7 years (SD = 12.15 years). Fifty-seven percent of the sample was comprised of women. As for education level, 56% reported having finished or currently studying university, 16.1% high school, 10.6% trade school, 8% postgraduate, 2.8% middle school, 3% elementary school, and 0.5% none. Furthermore, 76.2% of participants indicated being affiliated to the Catholic religion, 16% non-affiliated, 3.8% other, 2.6% Protestant, 0.8% Jewish, 0.6% Buddhist, and 0.1% Muslim.

Instruments

All the instruments were originally in English and were adapted to Spanish versions using the translation back-translation method. All instruments were presented in a five point Likert scale format (1= strongly disagree to 5= strongly agree).

- 1. Attitudes toward Religion Scale: adapted from the Attitudes toward Catholicism, Judaism, Hinduism, and Islam scales (Francis & Enger, 2002; Francis & Katz, 2007; Francis, Santosh, Robbins, & Vij, 2008; Sahin & Francis, 2002). It consists of 19 items that evaluate beliefs toward a God (e.g. God helps me carry on a better life), religious practices or symbols (e.g. I think the religious scripts are antiquated), and religious beliefs in general (e.g. My religious beliefs truly shape the global scope of my life).
- 2. NEO-FFI (Costa & McCrae, 2008): an adaptation of the validated five-factor model, the NEO Personality Inventory. It measures five dimensions with twelve items for each: 1) neuroticism (e.g. I am not a person who worries much), 2) extraversion (e.g. I really like having a lot of people around me), 3) openness (e.g. I frequently try new foods or food from other countries), 4) agreeableness (e.g. I try to be friendly toward everyone I meet), and 5) conscientiousness (e.g. I keep my belongings clean and in order).
- 3. Honesty Scale (Nel et al., 2013): conformed by fifteen items that assess a self-evaluation of the subject's honesty in a single dimension (e.g., I am honest in everything I do). We included honesty as an additional personality measure due to its reported link to religiosity (Perrin, 2000) and to its socially positive nature (Staats, Hupp, Hagley, 2008).

#### Procedure

The instruments were applied by research assistants in diverse locations (e.g. universities, offices, and homes) of the five Mexican states, in both individual and group sessions, and using standard instructions. All respondents participated voluntarily and anonymously. They employed fifteen minutes on average for completing the three instruments for this study, although a more extensive battery was applied at the time for the purpose of further studies. Participants were recruited by convenience and no economical compensation was given for participation.

#### Results

All instruments were tested on the Cronbach's alpha reliability analysis. The coefficients resulted higher than .60, thus proving evidence of satisfactory internal reliability (see table 1). Exploratory factor analyses were run on all instruments and the results confirmed the previous findings regarding their dimensionality.

The first hypothesis was assessed by means of the Pearson's r correlation test, in which the personality scores were associated with ATR (see table 2). ATR had medium correlations with agreeableness, conscientiousness, and honesty; and a small correlation with extraversion. Note that honesty correlated strongly with conscientiousness, and medially to extraversion and agreeableness.

For the second hypothesis, a t-test was performed to compare religiously affiliated and non-affiliated participants (see table 3). As expected, religiously affiliated individuals scored significantly higher on ATR, agreeableness, conscientiousness, and honesty.

They also scored significantly higher in extraversion, which was not expected. Non-affiliated respondents scored significantly higher in openness. There was no significant difference in neuroticism. We additionally ran the Cohen's d test; resulting in a large effect size in ATR and small effect sizes for the rest of the variables. Discussion

We replicated previous findings, in a substantial Hispanic sample, that agreeableness, conscientiousness, and honesty tend to be salient in religious people (Aghababaei, 2012; McCullough et al., 2003; Perrin, 2000; Saroglou, 2010; Taylor & McDonald, 1999); whether indexing religiosity as attitudes towards religion or as religious affiliation. McCullough et al. (2003) proposed that agreeableness and conscientiousness motivate people to conform to social rules, whereas Staats, Hupp & Hagley (2008) stated that honesty diminishes one's ability to neutralize or deny undesirable aspects of one's behavior. Therefore, as did Saroglou (2010), we argue that religious people tend to present a consistent pattern of socially positive attributes.

Extraversion unexpectedly related positively with both operationalizations of religiosity; in contradiction of prior studies. This trait has been nevertheless linked with greater happiness derived from more enjoyment and participation in social activities (Argyle & Lu, 1990), meaning it may be another link in religious individuals with socially positive traits.

Our study's biggest limitation is the assessment of personality only through self-reports.

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## **Declaration of Conflicting Interests**

We declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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					Range				
Scales and							-	Theoretical	
dimensions	n	М	SD		Potential	Real	Skewness	M	
ATR	1830	61.79	15.36	.95	19-95	17-85	-0.57	57	
Neuroticism	1825	19.47	6.88	.71	0-48	0 -45	0.29	24	
Extraversion	1787	25.13	5.26	.64	0-48	4-40	-0.31	24	
Agreeableness	1887	23.38	5.16	.65	0-48	4-36	-0.34	24	
Conscientiousness	1825	32.6	6.99	.80	0-48	5-48	-0.38	24	
Openness	1869	16.30	4.50	.62	0-48	0-28	0.06	24	
Honesty	1844	58.4	8.61	.87	15-75	17-75	-0.42	45	

# **Table 1: Summary of the Descriptive Statistics**

Note:

Cronbach's alpha, ATR= Attitudes toward Religion.

Scales and dimensions	1	2	3	4	5	6	7
1. ATR	-						
2. Neuroticism	10**	-					
3. Extraversion	.25**	37**	-				
4. Agreeableness	.35**	36**	.37**	-			
5. Conscientiousness	.32**	37**	.38**	.35**	-		
6. Openness	03	13**	.19**	.05*	.16**	-	
7. Honesty	.31**	44**	.40**	.48**	.58**	.20**	-

# **Table 2: Correlations between Variables**

*Note:* ATR= Attitudes toward Religion. \*p < .05. \*\*p < .01.

## Table 3: Comparisons between Religiously Affiliated Participants and Non-Affiliated Participants

		Religiously Affiliated		Non-Af	Non-Affiliated				
Scales dimensions	and	М	DE	М	DE	t	df	р	Cohen's d
ATR		64.59	12.96	45.55	15.22	-22.30	1683	.000	1.82
Neuroticism		19.41	6.81	20.08	7.11	1.48	418.67	.139	-0.10
Extraversion		25.46	5.11	23.50	5.68	-5.44	399.35	.000	0.36
Agreeableness		23.76	5.01	21.52	5.19	-6.84	421.44	.000	0.44
Conscientiousness	5	33.11	6.98	30.52	6.68	-6.03	447.61	.000	0.38
Openness		16.00	4.31	17.57	4.91	5.57	1717	.000	-0.34
Honesty		58.74	8.57	56.59	8.29	-4.07	453.40	.000	0.26

*Note:* ATR= Attitudes toward Religion.