



The Open Psychology Journal

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RESEARCH ARTICLE

Religious Fundamentalism between Traits and Values

Leonardo Carlucci^{1,*}, Armin W. Geertz², Laura Picconi¹ and Michela Balsamo¹

¹School of Medicine and Health Sciences, "G. d'Annunzio" University of Chieti, Pescara, Italy

²School of Culture and Society, Department of the Study of Religion, Aarhus University, Aarhus, Denmark

Abstract:

Introduction:

Religious fundamentalism is a complex religious phenomenon that involves cultural and social domains. Like values, it would potentially provide a description of how human beings should be. Nevertheless, extensive research has focused on the association between traits and fundamentalism, while the link with values has so far been neglected.

Methods:

We examined how traits and values might predict religious fundamentalism in a sample of 250 Italian Catholics (57.5% females).

Results:

Results partially confirmed the significant positive correlation between neuroticism and consciousness traits and religious fundamentalism, and highlighted the strong positive association with openness to change/conservative dimension value. In addition, when the overlap between traits and values was controlled for, hierarchical regression showed that values predicted fundamentalism better than traits.

Conclusion:

These findings could support the hypothesis that religious fundamentalism can be conceptualized as a motivational-goal attitude trait more than an enduring disposition.

Keywords: Religious fundamentalism, Values, Traits, Personality, Openness, Disposition.

Article History

Received: July 22, 2020

Revised: September 24, 2020

Accepted: November 02, 2020

1. INTRODUCTION

Religious fundamentalism embodies social, political, and psychological aspects. Different definitions of religious fundamentalism have been proposed in the literature [1 - 3]. In this study, we followed Altemeyer & Hunsberger's definition of religious fundamentalism:

"The belief that there is one set of religious teaching that clearly contains the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity; that this essential truth is fundamentally opposed by evil forces which must be vigorously fought against . . . and those who believe and follow these fundamental teachings have a special relationship with deity." (p. 118) [1].

* Address correspondence to this author at the School of Medicine and Health Sciences, G. d'Annunzio University of Chieti-Pescara, Via dei Vestini, 31, 66100 Chieti, Italy; Tel +39 0871 355 5310; Fax +39 0871 355 5314; E-mail l.carlucci@unich.it

According to the dual component theory of religious fundamentalism [4, 5], two components are conceivable: 1) an *authoritarian structure* that represents the way in which religious beliefs are held; and 2) a *religious component* that represents the content of the religious beliefs.

The coexistence of an authoritarian structure and a religious content belief has accounted for the religious fundamentalism paradox [6]. Prejudice [1, 7] and Christian orthodoxy [8] were found to be positively correlated with religious fundamentalism but negatively with each other. The dual component theory was also supported by Laythe and colleagues and Rowatt & Franklin's studies [5, 9]. They found that when authoritarianism was partialled out, the relationship of religious fundamentalism was inversely related to prejudice.

A number of studies in the literature have been carried out to assess religious fundamentalism as specific religious experiences across cognitive, trait, and socio-cultural domains.

Some have focused extensively on the relationship between religious fundamentalism and personality traits (see Saroglou’s meta-analysis) [10], the need for cognitive closure and of low cognitive complexity [11], and authoritarianism and prejudice [12 - 15].

The relationship between values and religion, in general, has been examined extensively in the past using a variety of measures of global religiosity [16]. However, the term “religiosity” does not take into account the plurality and diversity of specific religious dimensions and their relationships with values [17]. To our knowledge, there are only a few studies in the literature focused on how values relate to specific religious domains [18], and specifically, two studies have been found to be concerned with religious fundamentalism [19, 20]. This makes it difficult to compare similarities and differences between global religiosity and specific religious dimensions. Religiosity is conceived as a “quest” in contrast with conservation values, but privilege involves openness to change values, whereas extrinsic religion differs from intrinsic religion by the absence of the valorization of benevolence and by the valorization of power [21]. On the contrary, religious fundamentalism promotes values such as tradition, conformism and security, as well as ingroup prosociality attitudes over hedonistic and individual fulfillment values (*i.e.*, achievement, self-direction) [14, 19].

An interesting datum that could reveal the difference between fundamentalism and global religiosity is the value of universalism [22]. Tarakeshwar and colleagues highlighted that religiosity does not correspond to pro-environmental attitudes and that religious fundamentalism is negatively related to these environmental attitudes [22].

Fundamentalist Christians in Finland were found to place the highest emphasis on the values of benevolence and universalistic concern. Societal security was also highly rated, but the mean score for the values of personal security and interpersonal conformity was lower than hypothesized. As expected, power and hedonism were rated very low [20]. In a sample of Italian Roman Catholics, religious fundamentalism scores correlated positively and highly with the values of tradition and conformity. Unlike the Finnish study, a weak association was found between religious fundamentalism and security and benevolence. Surprisingly, no correlation was found with the value of benevolence. On the contrary, hedonism, self-direction, stimulation, achievement and power correlated weakly with religious fundamentalism [19]. The most comprehensive theory of values was developed by Schwartz [23, 24], who defined values as “*desirable goals, varying in importance, that serve as guiding principles in people’s lives*” (p. 21). Schwartz derived 10 different values (power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security), graphed in a circular manner (Fig. 1).

Values are arranged in opposite directions from the central point while matching values are in close proximity, emphasizing the conflict between values. The conflict and congruities among all the values yield an integrated structure composed of two orthogonal dimensions: (1) *openness to change/conservation* opposes self-direction and stimulation values to conformity, tradition and security values; and (2) *self-transcendence/self-enhancement* opposes universalism and benevolence values to achievement and power values. A unique exception is hedonism, which shares elements of both openness and self-enhancement.

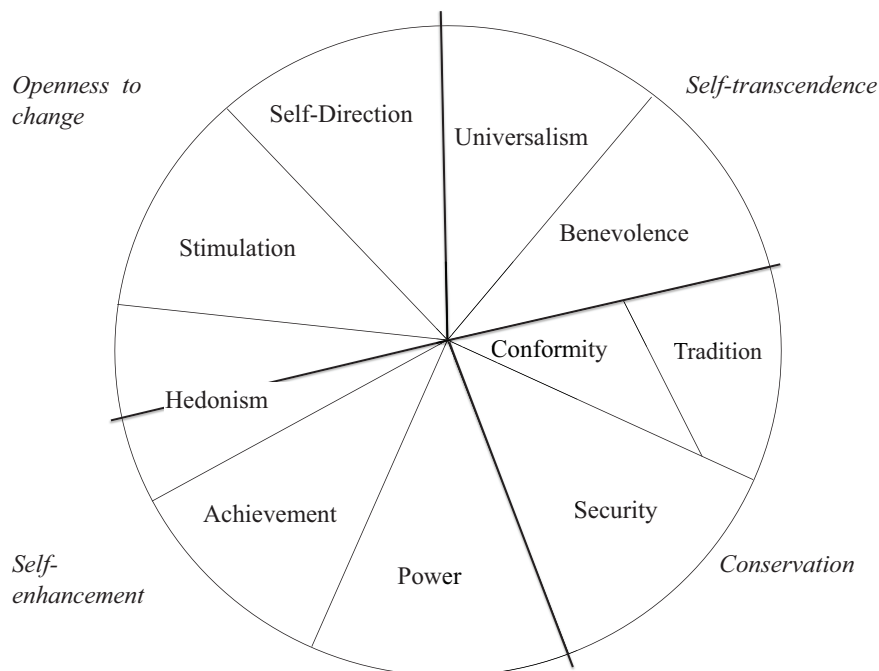


Fig. (1). Theoretical model of relations among 10 motivational types of values (Adapted from Schwartz [62], p. 9).

Like personality traits, values drive human behaviour and shape human beliefs. Specifically, traits describe what people are like, whereas values denote what people consider important. Traits are *enduring* dispositions that vary in the frequency and intensity of their occurrence; values are *enduring* goals and vary in their importance in guiding people [25]. Both traits and values show different patterns of correlations with religiosity and spirituality, associated primarily with values but not traits [18, 25, 26], and with positive effect associated primarily with traits but not values [27]. However, according to Lassander & Nynäs, religious fundamentalism can be viewed as negotiations between personal values, religious subjectivities, and societal and contextual cultural behavioural influences [20].

Despite their distinctiveness, values and traits are broad categories of individual differences that are mutually influenced [25, 28]. Indeed, people try to behave in line with their values [29]. A person with a specific personality trait could explain his/her behaviour by referring to his/her personal values. Both values and traits are used to justify choices or actions; but more often, values are used by people to judge themselves and others.

Many researchers conceive religious fundamentalism as a conformist personality trait [10, 30, 31], associating it with a closed-minded personality dimension [32], a need for closure, and a preference for order and predictability [33]. On the other hand, it may be identified as a set of beliefs [1] related to social dimensions such as authoritarianism, prejudice and ethnocentrism, anti-modernist sociological phenomena [34], and an expression of socio-demographic variables [35].

The first aim of this study was to confirm the association between religious fundamentalism and values. In addition, we tried to replicate the association between traits and religious fundamentalism [19]. We expected that religious fundamentalism correlated strongly and positively with specific values that promote tradition, conformity and security [14], and negatively with values that destabilize the authoritarian fundamentalist structure (universalism, achievement, and power) [20]. With regard to traits, we expected to replicate the negative association between religious fundamentalism and the openness to experience trait [10, 30, 31].

Following the exploratory studies of Roccas *et al.* and Saroglou & Muñoz-García [18, 25], the second aim of this study was to replicate the hypothesis that personal values contribute to understanding fundamentalism more than personality dimensions. In performing hierarchical regression analysis, we hypothesized that personal values more than personality traits provide normative descriptions of how the world or human beings should be [36, 37].

2. METHODS

2.1. Participants

The sample included 250 religious Italian people (42.5% males and 57.5% females). The mean age was 41.04 years (SD = 14.42), and the range of age was 18–76 years. The mean years of education of the sample were 14.15 (SD = 3.25). All the participants defined themselves as Christian Roman

Catholics. The sample professed regular “church-attendance” (M = 3.11, SD = 1.30) with a medium-high level of religiosity (M = 4.39; SD = 1.74). For church attendance (how frequently people participate in worship), the scale ranged from 1 “once a day” to 6 “never”. Their religiosity was assessed by a 7-point Likert scale from 1 “not religious” to 7 “very religious”, as indicated by Schwartz and Huismans [38].

The tests were administered, after collecting informed consent from each participant, through visits by the researchers to the places of worship or through contacts with the clergy. The participants participated voluntarily and provided written informed consent. All questionnaires were anonymous and took approximately 15 minutes to be completed. The study protocol was reviewed and approved by the local research ethics review board, with the assurance that data would be reported anonymously and in aggregate form. All procedures were in accordance with the ethical standards of the 1964 Declaration of Helsinki and its later amendments.

2.2. Measures

The Portrait Values Questionnaire (PVQ) [39, 40], includes 40 short verbal portraits of different people, each describing an individual’s wishes, purposes, or aspirations, that point implicitly to the importance of a value. Respondents judge how similar the person in the portrait is to themselves. For each item, ratings are on a 6-point Likert scale starting from 1 (“not at all similar to me”) to 6 (“very similar to me”). Statements including “It is important for him to listen to people who are different from him”, and “Even when he disagrees with them, he still wants to understand them” describe a person who holds universalism values as being important. Studies in seven countries supported the reliability of the PVQ for measuring the 10 values [40].

The shortened version of the Big Five Questionnaire (BFQ-S) [41], includes 60 items with the best psychometric properties from the original version of the BFQ [42]. These items form five domain scales (Openness [O], Conscientiousness [C], Extraversion [E], Agreeableness [A], Neuroticism [N]), according to the five-factor personality model [43]. The five domain scales are measured by 10 facet scales: Openness to experience and Openness to culture [O]; Scrupulousness and Perseverance [C]; Dynamism and Dominance [E]; Cooperativeness and Politeness [E]; Emotion control and Impulse control [N], with six items on each scale. Respondents indicate agreement with the extent to which each item describes themselves, on a 5-point Likert scale ranging from 1 (“very false for me”) to 5 (“very true for me”). The short form includes the items with the best psychometric properties from the original version of the BFQ [42]. Total scores were computed as the average of the items making up the facets scales.

The *Religious Fundamentalism Scale* (RFS [1],) is composed of 20 items, half of which are worded in co-trait direction to control for a response-set bias. The RFS scale is designed to measure a fundamentalist way of holding individuals’ religious beliefs, and its items are free from doctrinal content. A brief version composed of 12 statements has been derived from the full-length scale (RFS-12) [7, 44];

with the same characteristics. For each item, ratings are on a 9-point Likert scale starting from -4 (“you strongly disagree”) to +4 (“you strongly agree”). Examples of items include “No single book of religious teachings contains all the intrinsic, fundamental truths about life”, and “When you get right down to it, there are basically only two kinds of people in the world: the Righteous, who will be rewarded by God, and the rest, who will not”. Total scores ranged from 20 to 120, with a midpoint equal to 100. High scores on this scale are associated with high levels of religious fundamentalism.

2.3. Statistical Analyses

Descriptive statistics and reliability were calculated for all the questionnaires involved in the study. Partial correlations were computed in order to clarify the role of age and education in the relationships between values, traits and religious fundamentalism (i.e., the first aim). Both age and education were found to have a strong effect on religiousness and fundamentalism [45]. Empirical findings suggested an overall aging effect in religious intensity and strength of beliefs over the adult lifespan [45 - 47]. Equally, low levels of education consistently predicted fundamentalists’ beliefs promoting conformity and tradition [19, 45, 48]. The same effects were found between background variables (age, education) and

values /personality traits [39].

To pursue the second aim, following Roccas et al. [25] and Saroglou & Muñoz-Garcia [18] concerning the impact of traits and values domains on RFS, we used hierarchical regression, with Bonferroni correction, controlling for age and education. We used the ten BFQ facets rather than the five domain scales in order to provide common metrics to measure values and personality traits for comparing their predictive power. In the statistical analyses, the value data were controlled for individual differences by centering responses to each item, as recommended by Schwartz [23].

3. RESULTS

In order to test the relationships between traits, values and fundamentalism, we performed partial correlations, controlling for age and education (Table 1). The religious fundamentalism scale measure was positively correlated with emotion control ($r = .13, p < .05$) and impulse control ($r = .14, p < .05$). In addition, the religious fundamentalism scale correlated positively with the politeness facets scale of agreeableness ($r = .15, p < .05$). Surprisingly, no significant difference was found between fundamentalism and openness facets, probably due to the age-education partialized effect.

Table 1. Descriptive statistics, reliabilities and partial correlations for BFQ, PVQ and RFS (N=250).

	Schwartz values											Personality facets									
	RFS	CO	TR	BE	UN	SD	ST	HE	AC	PO	SE	Dy	Do	Sc	Pe	EC	IC	Co	Po	OC	OE
RFS		.26**	.45**	.15*	-.02	-.22**	-.20**	-.26**	-.19**	-.13*	.14*	.06	-.06	.05	.07	.13*	.14*	-.01	.15*	-.08	-.10
CO			.33**	.21**	.17*	-.36**	-.50	-.48	-.35	-.37**	.27**	-.10	-.28**	.02	-.10	.06	.23**	.08	.21**	-.14*	-.26**
TR				.34**	.25**	-.27**	-.47**	-.43**	-.51**	-.40**	.10	-.11	-.49**	-.13*	-.22**	-.07	.21**	.09	.22**	-.11	-.30**
BE					.56**	-.05	-.31**	-.45**	-.58**	-.62**	-.17*	.12	-.51**	.00	-.18*	-.04	.26	.50**	.56**	.20*	.12
UN						-.03	-.34**	-.46**	-.64**	-.65**	-.06	-.03	-.58**	-.07	-.17*	.01	.29**	.36**	.47**	.16*	.00
SD							.27**	.05	-.05	-.03	-.26**	.08	.11	.07	.05	.08	-.03	.04	-.10	.17*	.27
ST								.48**	.27**	.31**	-.46**	.16*	.33**	.00	.20	.01	-.22**	-.14	-.24**	.04	.36**
HE									.32**	.31**	-.17*	.05	.33**	-.07	.11	.05	-.20*	-.17*	-.32**	-.02	.19*
AC										.65**	-.16*	.04	.62**	.12	.23**	-.09	-.37**	-.30**	-.33**	-.06	.07
PO											-.18*	-.04	.61**	-.01	.13	.02	-.28**	-.33**	-.40**	-.12	.01
SE												-.13*	-.08	.08	-.01	.00	.08	-.16*	-.16*	-.09	-.36**
Dy													.21**	.27**	.41**	.20*	-.04	.32**	.20**	.22**	.42**
Do														.25**	.30**	.01	-.38**	-.27**	-.39**	-.03	.20*
Sc															.38**	-.09	-.04	.14*	.03	.20**	.19*
Pe																.20**	-.05	.10	-.05	.16*	.24**
EC																	.54**	.07	.11	.05	.09
IC																		.19*	.37**	.03	-.06
Co																			.53**	.36**	.31**
Po																				.23**	.18*
OC																					.39**
OE																					
M	89.4	4.34	3.97	4.57	4.77	4.57	3.63	3.7	3.56	2.87	4.47	3.5	2.77	3.51	3.56	2.89	2.95	3.51	3.23	3.52	3.44
SD	27.63	0.88	0.84	0.84	0.74	0.76	1.02	1.17	1.1	1.17	0.86	0.68	0.72	0.69	0.62	0.8	0.81	0.57	0.66	0.74	0.65
α	0.88	0.64	0.57	0.71	0.74	0.57	0.64	0.79	0.79	0.79	0.72	0.71	0.70	0.70	0.65	0.76	0.78	0.56	0.65	0.72	0.68

*, $p < .05$; **, $p < .01$; Note: RFS, Religious Fundamentalism Scale; CO, Conformity; TR, Tradition; BE, Benevolence; UN, Universalism; SD, Self-direction; ST, Stimulation; HE, Hedonism; AC, Achievement; PO, Power; SE, Security; Dy, Dynamism; Do, Dominance; Sc, Scrupulousness; Pe, Perseverance; EC, Emotion Control; IC, Impulse Control; Co, Cooperativeness; Po, Politeness; OC, Openness to Culture; OE, Openness to Experience.

No significant correlations were found between the religious fundamentalism scale, consciousness and extraversion traits. In addition, religious people who scored high on the religious fundamentalism scale tended to be kind, civil and trusting towards others and their needs [14]. They were able to control proper emotional and impulsive reactions, but were low in exploration of novelty and tolerance of diversity [1, 5, 12, 49]. With regard to values, religious fundamentalism showed positive correlations with tradition ($r = .45, p < .01$), conformity ($r = .26, p < .01$), benevolence ($r = .15, p < .05$), and security ($r = .14, p < .05$). Negative associations were found with hedonism ($r = -.26, p < .01$), self-direction ($r = -.22, p < .01$), stimulation ($r = -.20, p < .01$), achievement ($r = -.19, p < .01$), and power ($r = -.13, p < .05$). In line with the comparative religion literature [16, 38, 50], the religious content of fundamentalism was associated with high importance attributed to tradition, conformity, benevolence and security [19, 20]. Low importance was attributed to hedonism, self-direction, stimulations and achievement. Fundamentalistic people at the same time firmly held certain beliefs and values, that is, conservation of the social order and prosocial values (except universalism), therefore de-emphasizing autonomy and hedonism.

In order to pursue the second aim of this study (*i.e.*, personal values contribute to understanding religious fundamentalism more than personality dimensions), two series of hierarchical regression analyses were carried out. In each series, religious fundamentalism was entered each time as the predicted variable controlled by age and years of education. In the first series (Model 1), age and education (socio-demographic block), the 10 personality facets (BFQ block) and then the 10 values (PVQ block) were entered as predictors of the fundamentalism variable. In the second series, (Model 2) the Socio-demographic block, first the PVQ block and then the BFQ block were entered. The goal of Model 1 was to test whether the PVQ added any value once the variance explained by Big Five traits was partialled out of fundamentalism as a dependent variable. Conversely, in Model 2, the influence of the Big Five traits on RFS was tested. Table 2 details the

incremental variance (R^2) and the Adjusted R^2 (Adj. R^2) in religious fundamentalism accounted for in each step of each model. In Model 1, the PVQ block ($R^2 = .229, p < .01$) provided a significant increment in the R^2 after the Big Five traits block ($R^2 = .069, p < .01$) was partialled out. In Model 2, the Big Five traits block ($R^2 = .066, n.s.$) confirmed the small, not significant, increment when the PVQ block ($R^2 = .232, p < .01$) was partialled out. Regression coefficients and the significance of each PVQ and BFQ dimensions are displayed in Appendix A.

4. DISCUSSION

This study, firstly, sought to examine the relations between values and traits in religious fundamentalism in order to clarify some issues regarding the nature of religious fundamentalism. Correlations revealed that conformity, tradition and security values provided an increased association with fundamentalism. It is well documented that believers with a high personal mindset towards dependence on and submission to authority need to refer to religious traditions (beliefs and practices) and authorities as indispensable sources legitimizing their behaviours and emotions [17]. In the same manner, traditional values express the motivation to maintain the customs, traditions, and hierarchy of one's social groups. Not surprisingly, both conformity and tradition were found to be positively related to the cooperative aspect of agreeableness [25, 51].

These correlation patterns may represent a sort of protective mechanism, which safeguards the fundamentalist against ambiguity. Not surprisingly, fundamentalistic believers have been found to be marginally prone to anxiety resulting from questioning one's belief system (the doubt syndrome) [52]. Adherence to doctrinal beliefs allows for a reduction of cognitive uncertainty, to deal with confusion, and to reduce existential anxiety [11]. High levels of uncertainty and reactivity experienced by fundamentalists were found to have important implications for personality and identity development [53].

Table 2. Incremental variance in the RF measure accounted for in hierarchical regression analyses (N=250).

Predictor	Religious Fundamentalism	
	Incremental R^2 -squared	Adj. R^2
Model 1		
Socio-demographic block	.128**	.121
BFQ block	.069 ^{ns}	.156
PVQ block	.229**	.372
Model 2		
Socio-demographic block	.128**	.121
PVQ block	.232**	.330
BFQ block	.066 ^{ns}	.372

** $p < .01$ with Bonferroni correction.

Appendix A. Summary of hierarchical regression of Model 1 and 2 for variables predicting, in turn, religious fundamentalism.

		MODEL 1							MODEL 2				
Step		B	SE	β	<i>t</i>	<i>p</i>	Step	B	SE	β	<i>t</i>	<i>p</i>	
1a	Age	.023	.006	.239	3.956	.000	1a	Age	.023	.006	.239	3.956	.000
	Education	-.214	.056	-.232	-3.844	.000		Education	-.214	.056	-.232	-3.844	.000
2b	Age	.017	.006	.176	2.749	.006	2b	Age	.005	.006	.058	.961	.338
	Education	-.183	.057	-.199	-3.188	.002		Education	-.115	.051	-.125	-2.256	.025
	Dy	.117	.148	.059	.794	.428		CO	.172	.159	.093	1.078	.282
	Do	-.037	.144	-.020	-.255	.799		TR	.711	.136	.424	5.234	.000
	Sc	.126	.134	.065	.943	.347		BE	.184	.162	.102	1.135	.257
	Pe	.146	.156	.066	.934	.351		UN	-.376	.192	-.189	-1.961	.051
	EC	.169	.134	.100	1.259	.209		SD	-.165	.160	-.075	-1.027	.306
	IC	.009	.142	.005	.062	.951		ST	.205	.135	.137	1.523	.129
	Co	-.266	.183	-.112	-1.454	.147		HE	-.165	.126	-.127	-1.311	.191
	Po	.392	.162	.190	2.421	.016		PO	.061	.149	.050	.412	.680
	OC	-.141	.128	-.077	-1.104	.271		SE	.226	.182	.113	1.242	.215
	OE	-.301	.152	-.145	-1.973	.050	3c	Age	.002	.006	.023	.372	.710
3c	Age	.002	.006	.023	.372	.710		Education	-.095	.052	-.104	-1.837	.068
	Education	-.095	.052	-.104	-1.837	.068		CO	.172	.161	.093	1.070	.286
	Dy	-.043	.130	-.021	-.327	.744		TR	.881	.144	.526	6.123	.000
	Do	.333	.154	.178	2.162	.032		BE	.302	.171	.169	1.764	.079
	Sc	.067	.119	.035	.567	.571		UN	-.220	.201	-.110	-1.095	.275
	Pe	.209	.138	.095	1.509	.133		SD	-.134	.163	-.061	-.822	.412
	EC	.275	.118	.163	2.338	.020		ST	.220	.135	.147	1.631	.104
	IC	-.077	.123	-.046	-.628	.531		HE	-.099	.128	-.076	-.773	.440
	Co	-.273	.164	-.115	-1.663	.098		PO	.052	.150	.042	.347	.729
	Po	.272	.152	.132	1.784	.076		SE	.315	.185	.157	1.702	.090
	OC	-.048	.113	-.026	-.427	.670		Dy	-.043	.130	-.021	-.327	.744
	OE	.041	.146	.020	.282	.778		Do	.333	.154	.178	2.162	.032
	CO	.172	.161	.093	1.070	.286		Sc	.067	.119	.035	.567	.571
	TR	.881	.144	.526	6.123	.000		Pe	.209	.138	.095	1.509	.133
	BE	.302	.171	.169	1.764	.079		EC	.275	.118	.163	2.338	.020
	UN	-.220	.201	-.110	-1.095	.275		IC	-.077	.123	-.046	-.628	.531
	SD	-.134	.163	-.061	-.822	.412		Co	-.273	.164	-.115	-1.663	.098
	ST	.220	.135	.147	1.631	.104		Po	.272	.152	.132	1.784	.076
	HE	-.099	.128	-.076	-.773	.440		OC	-.048	.113	-.026	-.427	.670
	PO	.052	.150	.042	.347	.729		OE	.041	.146	.020	.282	.778
	SE	.315	.185	.157	1.702	.090		<i>Models fit</i>					
	<i>Models fit</i>							a	R= .358	R ² = .128	R ² adj.= .121		
a	R=.358	R ² = .128	R ² adj.= .121				b	R= .600	R ² = .360	R ² adj.= .330			
b	R=.444	R ² = .197	R ² adj.= .156				c	R= .653	R ² = .426	R ² adj.= .372			
c	R=.653	R ² = .426	R ² adj.= .372										

Note.

CO= Conformity; TR= Tradition; BE= Benevolence; UN= Universalism; SD= Self-direction; ST= Stimulation; HE= Hedonism; PO= Power; SE= Security; Dy= Dynamism; Do= Dominance; Sc= Scrupulousness; Pe= Perseverance; EC= Emotion Control; IC= Impulse Control; Co= Cooperativeness; Po= Politeness; OC= Openness to Culture; OE= Openness to Experience.

Bold font indicates statistical significance values (p< .05).

Tradition, with regard to acceptance of the customs and ideas that religion provides, represents the value best associated with religious fundamentalism, more than conformity and security [19]. A remarkable aspect of religious fundamentalism is the positive association with benevolence but not with universalism. This finding supports the in-group prosociality attitude in line with previous studies found in the

literature [14]. The benevolence value has been conceptualized as the preservation and enhancement of the welfare of people with whom one is in frequent personal contact, whereas universalism concerns the welfare of all people and nature [38]. The association between religious fundamentalism and values that emphasize openness to change, like novelty, challenge in life (stimulation), and explorative and independent thought and

action choices (self-direction) was lower [19, 20, 38].

Correlations confirm part of the relationship between traits and religious fundamentalism found in the literature [10, 53, 54]. Emotional stability and politeness facets of the BFQ correlated positively with religious fundamentalism. The link with the openness domain, extensively reported in the literature [31, 54], was not confirmed in this study. This can be due to the age-education moderation effect since our sample was mainly composed of young, old and well educated. As highlighted in the study by Carlucci *et al.* [45], years of education (less educated) and age (older adults) were found respectively to play a direct and indirect role in religious fundamentalism.

These findings, in part, are in line with the previous literature showing that emotional stability facets [45] and agreeableness domain are personality traits related to religious fundamentalism, and this holds true across different cultures, religions, and cohorts [10].

CONCLUSION

Summarizing, our findings highlighted the association between religious fundamentalism and openness to change/conservative dimension and emotional stability trait. In particular, the great effects observed of tradition, conformity and security on religious fundamentalism draw attention to anxiety control versus growth and self-expansion values and principles [24]. In other words, fundamentalists seek to avoid threats (conformity) and preserve the status quo (tradition, security) through emotion and impulse control (emotional stability facets) and in-group pro-sociality behaviors (benevolence and politeness trait). Similar to a homeostatic process, this anxiety mechanism regulates avoidance of punishment, makes people focus on the goal of preventing loss, regulates pursuit of rewards, and makes people focus on the goal of promoting gain [24, 55].

The second aim of the study was to measure the contribution that personality traits and personal values provide to predicting religious fundamentalism. We hypothesized that values provided a major contribution to understanding religious fundamentalism, compared to traits. A cultural adaptation variable seems to predict religious fundamentalism better than personality traits. In particular, values explained a great part of religious fundamentalism variance in our hierarchical regression analysis.

Religious fundamentalism, similar to values, may concern the evaluation and justification of choices and actions. Strong religious believers characterized by a strong need for cognitive closure tend to minimise the amount of cognitive work used in making decisions (a fundamentalist attitude [56]). In religious people, goal-driven behaviours were found to operate under at least partial cognitive control [25], rather than a set of predispositions to certain behaviours. This, in part, can explain the “parental transmission” hypothesis and the “conversion” hypothesis which involve how people decide to convert to a fundamentalist religion [13]. Conversion processes promote changes (cognitive reframing) in terms of goals, purposes, values and identity dimensions [57, 58], leading to a new meaning system [57] and not to a personality traits level. At the

same time, shared family environment, familial religious education and religious socialization represent carriers of strong values. Following Roccas and colleagues [25], traits may affect more strongly behaviours and tendencies subject to minimal cognitive control, while values may influence more strongly behaviours and attitudes that are under more voluntary control.

Our results suggest that religious fundamentalism represents how individual differences are closer to values than to traits when socio-demographic variables are mediators. More than traits, values promote a conservative attitude that reinforces fundamentalistic beliefs. Our findings replicate previous research carried out on the role of values and traits in religiousness and spirituality [18, 25] and have extended it to religious fundamentalism.

This study has several limitations. A particular sample from a specific culture and religion (*i.e.*, Italian Roman Catholics in the present study) could influence the generalizability of our results. In addition, the cross-sectional nature of the present study makes it susceptible to biases such as responder bias, and because the exposure and outcome are simultaneously assessed, there is generally no evidence of a causal relationship between them [59, 60]. In addition, the extensive use of self-report measures to assess religious phenomena is biased by both intentional and unintentional distortions. Paper-and-pencil measures may be limited when studying religion and spirituality due to the importance of religious beliefs and practices, which are evidently difficult to detect through self-statements (for example, persons may feel a social pressure to affirm certain religious beliefs) [61]. Further studies are necessary to discern the role of values and traits in religious fundamentalism, using different methodologies and instruments.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study was approved by the review board of the Department of Psychological Sciences, Health and Territory, University of Chieti, Italy.

HUMAN AND ANIMAL RIGHTS

No animals were used in this study. All human procedures were followed in accordance with the ethical standards of the 1964 Declaration of Helsinki and its later amendments.

CONSENT FOR PUBLICATION

The participants participated voluntarily and provided written informed consent.

AVAILABILITY OF DATA AND MATERIALS

The data and materials used to support the findings of this study are available from the corresponding author (L.C) upon reasonable request.

FUNDING

None.

CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

ACKNOWLEDGEMENTS

Declared none.

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