

The Relationship between Protestant Fundamentalism, Religiosity, and Intelligence



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Introduction

Religion plays an important role in the lives of most Americans today. A recent poll found that 83% of Americans claim that religion is at least a fairly important part of their lives and that 82% of Americans considered themselves to be Christians (Gallup, Inc., 2007). A person's religious values can impact multiple areas of life, from choice of a marriage partner to accrual of wealth (for a review, see Lehrer, 2004). Past research has shown that religious fundamentalism typically correlates with lower levels of educational attainment (Darnell & Sherkat, 1997; Hunsberger, 1978; Lounsbury, 2004) and those who have a fundamentalist upbringing are less likely than their non-religious or liberally religious counterparts to enter a scientific profession, a field which generally necessitates higher education (Larson & Witham, 1999). Numerous hypotheses have been put forth to explain this relationship, including that those who adopt more fundamentalist religious attitudes have in some way lower intellectual abilities (e.g., Foy, 1976). Information regarding fundamentalism's relationship with measures of intelligence is virtually non-existent. The current study was designed to assess the relationship between Protestant fundamentalist beliefs, religiosity, and level of intelligence by directly measuring these factors in college students.

Method

Participants

A predominantly female (68%) sample of 216 students was drawn from a small, state university. Respondents ranged in age from 17 to 54, with the mean age being 20 years old. Most respondents (48.4%) reported that they were in their first year of college, 30.7% were sophomores, 10.7% were juniors, and the remaining 10.2% were seniors. The majority of participants self-identified as Caucasian (88.9%), with African-Americans and Latinos making up 4.2% and 3.7% of the sample, respectively. The overwhelming majority of participants reported being either Protestant (74.3%) or Catholic (11.7%). Approximately 66.8% reported that they were members of a church. Most respondents reported attending religious services more than once a week (25.7%) or once a week (25.7%).

Measures

All participants completed a series of questionnaires that included a demographic questionnaire, the Santa Clara Strength of Religious Faith Questionnaire (SCSORF; Plante & Boccaccini, 1997), the Revised Religious Fundamentalism Scale (RRFS; Altemeyer & Hunsberger, 2004), and the Copeland Fundamentalism Scale (CFS; Copeland, 1995; see Table 1). Based on religious measures scores, qualifying participants were also asked to complete the Wechsler Abbreviated Scale of Intelligence (WASI; The Psychological Corporation, 1999).

Table 1

Copeland Fundamentalism Scale

- To question the authority of your pastor is wrong.
- There are always definite right or wrong answers to religious questions.
- The church should take a strong stand against "liberal" politics.
- People who disagree with a spiritual authority figure are probably not in line with God's will for their lives.
- Christian people should always vote for Christian political candidates.
- Many of the miracles in the Bible did not happen exactly as they are written.
- If I am a true Christian, God will make many of my choices for me.
- Most mental illnesses would be cured if people would get right with God.
- There are no errors of any kind in the Bible.
- Happiness or unhappiness depends mostly upon personal choices, not what God causes to happen to you.
- The more you expose yourself to non-Christian ideas, the more likely you are to weaken your faith.
- It's always better to have a Christian teacher than a non-Christian teacher.
- People would be better off if they depended upon God, rather than medicine, for their physical health.
- God will deliver people from their problems if their faith is strong enough.
- To be a strong Christian, you don't have to believe every word of the Bible is true.
- Some illnesses are God's judgment on individuals for their sins.

Table 2

Revised Religious Fundamentalism Scale

- God has given humanity a complete, unflinching guide to happiness and salvation, which must be totally followed.
- No single book of religious teachings contains all the intrinsic, fundamental truths about life.
- The basic cause of evil in this world is Satan, who is still constantly and ferociously fighting against God.
- It is more important to be a good person than to believe in God and the right religion.
- There is a particular set of religious teachings in this world that are so true that you can't go any "deeper" because they are the basic, bedrock message that God has given humanity.
- 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.
- Scriptures may contain general truths, but they should NOT be considered completely and literally true from beginning to end.
- To lead the best, most meaningful life, one must belong to the one, fundamentally true religion.
- "Satan" is just the name people give to their own bad impulses. There really is no such thing as a diabolical "Prince of Darkness" who tempts us.
- Whenever science and sacred scripture conflict, science is probably right.
- The fundamentals of God's religion should never be tampered with or compromised with others' beliefs.
- All of the religions in the world have flaws and wrong teachings. There is no perfectly true, right religion.

Procedure

Participants were recruited from undergraduate psychology classes and were compensated with extra course credit for their participation. Consent forms and questionnaire packets were administered using the online survey research tool, QuestionPro. The most extreme scorers (25 highest and 23 lowest) on a composite of two fundamentalism scores were then contacted via e-mail and invited to return for completion of the WASI for additional credit.

Results

Initial Analysis

The mean SCSORF score was 31.05 (SD=7.04) for the overall sample. The mean RRFS score for the overall sample was 70.83 (SD=21.57), and the mean CFS score was 56.99 (SD=17.31). From the overall sample, those with the highest (above 170) and lowest (below 82) RRFS and CFS score composite were selected. These cut-offs were determined by identifying where the lowest 10% (LF) and highest 10% (HF) of respondents fell on a frequency distribution of composite scores. Differences between the two groups on the fundamentalism scales were significant at the $p < .001$ level. Descriptive statistics for the two groups are presented in Table 2.

Table 3

Descriptive Statistics for Demographic & Religious Questionnaires: Split by Fundamentalism Groups

Variable	Low Fundamentalism			High Fundamentalism		
	N	M	SD	N	M	SD
SCSORF	22	21.82	8.06	26	36.88	6.50
RRFS	23	31.83	11.73	26	97.96	5.92
CFS	23	28.22	5.88	26	81.19	8.35
RRFS/CFS Composite	23	60.04	15.12	26	179.15	7.16

Comparative Analysis

Descriptive statistics for the intelligence test results of the HF and LF groups are presented in Table 4. A one-way ANOVA was conducted to test for significance of differences between the LF and HF groups on intelligence measures. Verbal, Performance, and Full Scale IQs were evaluated, as were individual subtests. No significant differences were found between the LF and HF groups on these intelligence measures. Pearson Product Moment correlations were also run to test for significant relationships between variables. No significant correlations were found between any of the variables of interest in this study (the religion scales and intelligence scales). The SCSORF was found to have a significant relationship with the RRFS ($r = .701, p = .000$) and CFS ($r = .691, p = .000$). SCSORF scores were not significantly correlated with intelligence measures.

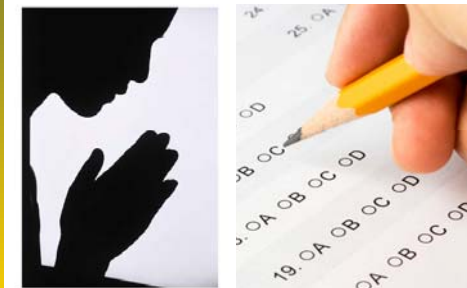
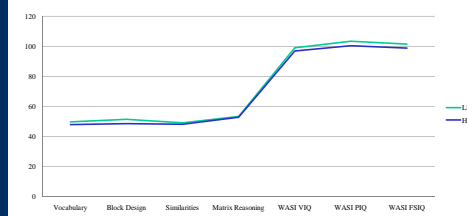


Table 4
Descriptive Statistics of WASI Results:
Split by Fundamentalism Groups

Variable	Low Fund. (N=15)		High Fund. (N=16)	
	M	SD	M	SD
WASI Subtests				
Vocabulary	49.60	8.53	47.81	7.46
Block Design	51.27	6.73	48.44	10.59
Similarities	49.00	9.63	48.06	9.04
Matrix Reasoning	53.27	7.23	52.69	5.81
WASI VIQ	99.00	11.82	96.88	10.80
WASI PIQ	103.33	9.93	100.38	10.28
WASI FSIQ	101.40	9.96	98.75	10.43



Discussion

Previous research has indicated that Protestant fundamentalists are likely to obtain less education than their non-fundamentalist peers (Altemeyer & Hunsberger, 1992; Beyerlein, 2004; Burton, Johnson, & Tamney, 1989; Darnell & Sherkat, 1997; Sherkat & Darnell, 1999) and are less likely to enter a scientific field of study than are others (Ecklund & Scheitle, 2007; Larson & Witham, 1999). The goal of this study was to examine the construct of intelligence itself rather than a proxy measure. No difference in intelligence was found between individuals who subscribe to fundamentalist beliefs and those who do not. Also, intelligence scores of those who reported a strong religious faith did not differ significantly from those who did not.

One of the most obvious limitations of this study is that the sample was drawn from a college population. This is problematic because of the abovementioned research showing that as a group Protestant fundamentalists have characteristically low educational attainment. Another drawback in this study was the small number of participants. Post-hoc power analyses indicated that the sample would have needed at least 81 participants per group in order to detect a small effect size (0.20). Future research should include a larger sample size from a more heterogeneous group.

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