

Countervailing Forces: Religiosity and Paranormal Belief in Italy

CHRISTOPHER D. BADER
Department of Sociology
Chapman University

JOSEPH O. BAKER
Department of Sociology
East Tennessee State University

ANDREA MOLLE
Department of Sociology
Chapman University

Due to the unique cultural niche inhabited by “paranormal” beliefs and experiences, social scientists have struggled to understand the relationship between religion and the paranormal. Complicating matters is the fact that extant research has primarily focused upon North America, leaving open the possible relationship between these two spheres of the supernatural in less religiously pluralistic contexts. Using data from a random, national survey of Italian citizens, we examine the nature of the relationship between religiosity and paranormal beliefs in a largely Catholic context. We find a curvilinear relationship between religiosity and paranormal beliefs among Italians, with those at the lowest and highest levels of religious participation holding lower average levels of “paranormal” belief than those with moderate religious participation. This pattern reflects how two influential social institutions, religion and science, simultaneously define the paranormal as outside of acceptable realms of inquiry and belief.

Keywords: *paranormal, Italy, religion.*

INTRODUCTION

In Western cultures, the “paranormal” occupies a curious nether-region between science and religion.¹ The diverse beliefs and practices classified under the term exist simultaneously beyond the cultural boundaries of mainstream religion and those of institutional science. Concerning religion, some small, fringe groups have utilized extraterrestrials as a key component of their theology, such as the Raelian movement, Aetherius Society, Unarius, and the unfortunate Heaven’s Gate UFO group; however, these movements failed to generate serious followings.² Other paranormal subjects such as ghosts, extrasensory perception (ESP), and mysterious creatures (e.g., Bigfoot, the Loch Ness Monster) have also failed to reach the religious mainstream. At the same time, these beliefs also lie beyond what is recognized as valid knowledge by institutional science (Goode 2000).

Due to the unique cultural niche inhabited by paranormal beliefs and experiences, social scientists have struggled to understand the relationship between religion and the paranormal. Scholars have hypothesized different relationships and many existing studies have produced seemingly contradictory results. Further complicating matters is the fact that extant research has

Correspondence should be addressed to Christopher Bader, Department of Sociology, Chapman University, 1 University Drive, Orange, CA 92866, USA. E-mail: bader@chapman.edu

¹There are many other terms that may be applied to beliefs and practices outside of institutionalized religion, such as occult, New Age, esoterica, etc. We apply the term paranormal for generality and also because it overtly conveys the symbolic boundary of being “beyond” conventionality.

²Scientology is perhaps the most successful religion to incorporate extraterrestrials, although this typically occurs only at higher levels of engagement with the religion.

primarily focused upon the relationship between religion and the paranormal in North America (for notable exceptions, see Glendinning 2006; Sjodin 2002), leaving open the possible relationship between these two spheres of the supernatural in less religiously pluralistic contexts.

We begin by sketching existing research on religion and the paranormal and positing our theoretical perspective for understanding this relationship. Then we provide a brief background on the Italian religious economy and the limited existing research on the paranormal in Italy before conducting analyses of a random, national sample of Italian citizens to examine the nature and direction of the relationship between religiosity and paranormal beliefs in a predominantly Catholic context.

RESEARCH ON RELIGION AND THE PARANORMAL

Linear Assumptions

Some researchers have argued that paranormal beliefs and standard Judeo-Christian theologies occupy independent spaces in the religious market (Emmons and Sobal 1981; Hess 1993; Stark 2008). More specifically, Wuthnow (1976, 1978) argued that traditional religious beliefs decrease, but do not eliminate, tendencies to believe in and to experience ESP. He found that Protestants were less likely to believe in or experience ESP than nonreligious or Eastern/mystical respondents. Stark and Bainbridge (1980) initially hypothesized that conventional Christian beliefs and paranormal beliefs were negatively related to each other. They found that paranormal beliefs tended to be strong in areas where traditional Christianity was weak, and vice versa. More recently, Krull and McKibben (2006) also found that those with conventional Christian beliefs scored low on paranormal beliefs. Similarly, in a Swedish sample, Sjodin (2002) found that agreement with the statement "there is a personal God" was related to lower belief in paranormal phenomena.

In contrast, some research has found a positive relationship between religion and the paranormal. Glendinning (2006) found religious beliefs to be positively related to paranormal beliefs in a Scottish sample, particularly among those who do not attend religious services. Similarly, Orenstein (2002) found a positive relationship between religious beliefs, church attendance, and paranormal beliefs in Canada. In response to Orenstein, McKinnon (2002) demonstrated a previously unspecified interaction effect between church attendance and religious belief in predicting paranormal belief in the same sample, with the relationship between religious belief and paranormal belief being strongest among infrequent attenders. This provided an initial indication of a more complex relationship between religion and the paranormal than a general positive or negative correlation.

Some theorists have noted that paranormal subjects have much in common with religious beliefs (Bainbridge 2004; Draper and Baker 2011; Goode 2000). Until and unless there exists institutionally legitimated scientific evidence for the existence of UFOs, ghosts, and the like, acceptance of such topics requires belief in something beyond "empirical proof." The "institutional" modifier added to science is noteworthy, as members of paranormal subcultures may reference "science" in ways not accepted by the scientific community (Ben-Yehuda 1985; Cross 2004). Paranormal beliefs are often engendered by personal, transformative experiences, such as a "successful" psychic reading or a perceived encounter with a ghost. However, the audience for paranormal beliefs typically remains transitory and diffuse, organized around conferences, television shows, magazines, and blogs, rather than a stable denominational structure (Stark and Bainbridge 1995).

Finally, some researchers found no definitive pattern to the relationship between religiosity and paranormal beliefs (Donahue 1993; MacDonald 1995; Rice 2003; Sparks 2001).

Countervailing Forces

Recent research attempts to explain these divergent findings by arguing that they are the result of using linear modeling techniques to examine a nonlinear relationship (Bainbridge 2004; Baker and Draper 2010). Specifically, the highest levels of paranormal belief have been found at moderate levels of religiosity. People who have little interest in religion showed lower levels of paranormal belief, as did those who were strongly committed to a single religion. Drawing upon Bader, Mencken, and Baker (2010), we argue this pattern is due to two societal institutions, religion and science, and their relationships to paranormal subjects.

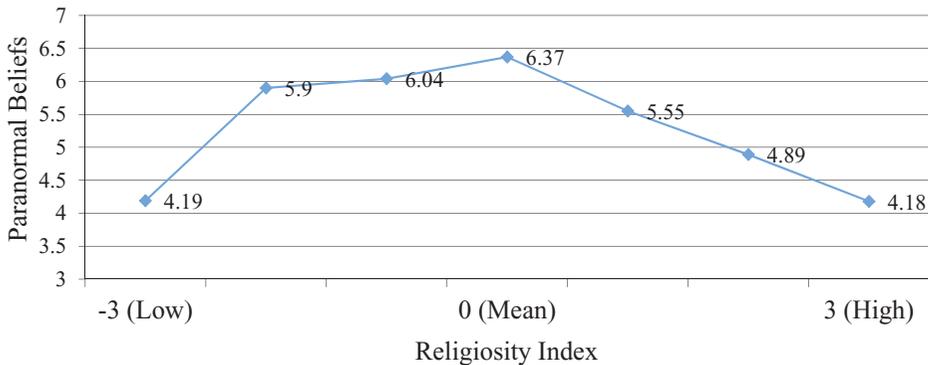
First, we assume that paranormal beliefs and religious beliefs do not differ in their inherent qualities, but rather in their level of acceptance by and incorporation into conventional social institutions. Paranormal and religious beliefs both require the willingness to believe in things that are unseen and not amenable to definitive empirical proof. The status of a phenomenon as “paranormal” is not necessarily permanent. Should researchers capture a Bigfoot specimen or bottle a ghost, the phenomenon will move into the realm of scientific (de-stigmatized) knowledge (Barkun 2003). But barring such unlikely events, advocates of science will protect its boundaries and reject paranormal claims by branding them as pseudoscience or superstition.

Given the similarities between religious and paranormal beliefs and the tendency for the irreligious to appeal to science for adjudicating truth claims (Baker 2012), interest in the paranormal should increase as participation and interest in religion increases. A tendency for religious consumers to “diversify” their supernatural assets further compels religious believers to hold paranormal beliefs. Religion has some characteristics of a risky investment, particularly when considering the potentially great scope of the rewards involved and the difficulty of evaluating many of them (Stark and Bainbridge 1987). Given the opportunity, religious consumers will attempt to reduce their religious risk by holding “diversified portfolios of competing . . . assets” (Iannaccone 1995:285). In other words, an individual may belong to a particular religion while investigating alternative spiritualities or beliefs in her spare time. Should one religious investment strategy “fail,” then other possibilities for “salvation” remain. If rejection by science and the desire to diversify religious assets were the only forces in operation we would expect a linear, positive relationship between religiosity and paranormal beliefs; however, just as advocates of science desire to protect its boundaries, religious organizations have compelling reasons to marginalize paranormal beliefs.

Members of religious groups have only a finite amount of time, effort, and financial resources available. The more a person spreads these resources around competing belief systems, the less s/he has to provide to any single system. Therefore, it is in the interest of religious organizations to discourage outside experimentation, lest members who belong but provide little of themselves in return—“free riders” in economic terms—plague them (Iannaccone 1994). Accordingly, stricter religious groups tend to hold negative views of alternative beliefs to retain exclusive access to the religious resources of members. Concerning the paranormal, this is done by directly condemning such beliefs and practices as evil or otherwise theologically antithetical (Bader, Mencken, and Baker 2010). In strict religious groups “[p]otential members are forced to choose: participate fully or not at all,” resulting in higher average levels of adherent religiosity (Iannaccone 1995:287).

Taken together these countervailing forces suggest that belief in the paranormal will initially increase as religiosity increases. This will reach a tipping point, however, when stricter, more exclusive levels of religiosity are reached (McKinnon 2003; Mencken, Bader, and Kim 2009; Mencken, Bader, and Stark 2008). The combination of these forces will result in a general curvilinear relationship between religiosity and paranormal beliefs, with the highest average levels of paranormalism occurring at moderate levels of religiosity and the lowest levels of paranormal belief at the highest and lowest levels of religiosity.

Figure 1
Paranormal Beliefs in the U.S. by Religiosity



Note: Overall mean for paranormal beliefs = 5.3; index ranges 0 to 12.

Source: Baylor Religion Survey Wave II (2007).

Data from Wave II (2007) of the Baylor Religion Survey demonstrate this trend among Americans.³ An index of belief in the paranormal was created from items asking about extraterrestrials, psychics, Bigfoot, and ghosts. Answer options for the individual items were on a four-point scale from “absolutely not” (0) to “absolutely” (3). An index of religiosity was created from measures for frequency of attendance at religious services (0 to 8) and religious salience (0 to 3).⁴ These items were standardized before being summed into an index ranging from -3.33 to 2.56 (Cronbach’s $\alpha = .80$). Figure 1 shows the average score on the paranormal belief index by religiosity after grouping the religiosity index into whole number categories. Paranormal belief peaks at the mean level of religiosity. Although a curvilinear relationship is apparent in this U.S. sample, whether this pattern applies in other cultural contexts is an open question.

RELIGION IN ITALY

Although Italy has no official state religion and all religious faiths are provided equal freedoms in the Italian Constitution, the Roman Catholic Church could be considered the unofficial state religion, with 89 percent of Italians claiming Catholic affiliation in 1994.⁵ The meaning of an Italian Catholic identity, however, varies widely. For some, it is largely cultural, with only sporadic religious practice and a general influence of Catholic doctrine on everyday life.⁶ For others, Catholicism represents a strict religious identity, with frequent practice and a strong desire for the social order to conform to biblical mandates. Italian Catholicism encapsulates varying levels of commitment and piety, similar to the differences between evangelical and mainline Protestants in the United States (Steenland et al. 2000). Despite such varying levels of personal commitment, the social power of the church remains strong. Since 1870, the legal status of the

³The sample was collected using a random-digit dialing method to gain compliance and mailing addresses of respondents for the questionnaire. There were a total of 3,500 potential respondents successfully contacted by phone. 1,648 questionnaires were returned. For more info on the BRS II, see: <http://www.thearda.com/Archive/Files/Descriptions/BAYLORW2.asp>.

⁴These items were used because they most closely matched those available in the Italian sample.

⁵Source: Religion in Italy, 1994. See Data and Measures.

⁶Based on reported attendance rates, only about 20 percent of Catholics attend Mass every Sunday. Assuming that survey respondents likely inflate their levels of attendance (see Hadaway, Marler, and Chaves 1993), this figure is likely lower.

Catholic Church in Italy has been determined by a series of treaties with the Italian government. Under the Lateran Pacts of 1929, Vatican City is recognized as an independent, sovereign entity.

In 1984, the Italian government and the Vatican updated several provisions of the 1929 agreement. The 1984 treaty ended Catholicism's status as the formal state religion, yet maintained the practice of state support for the church, support that could theoretically be extended to non-Catholic confessions as well. State support is governed by an agreement (*intesa*) between the government and the "church." An *intesa* allows ministers of religion access to state hospitals, prisons, and military barracks; allows for automatic civil registry of religious marriages; facilitates religious practices regarding funerals; and exempts students from school attendance on religious holidays. If a religious community so requests, an *intesa* may provide for state routing of revenue to the religious community via a check-off on individual taxpayer returns. Although the presence of an *intesa* bestows great benefits upon a religious community, its absence does not impact the ability of a group to worship freely under Italian law.

The Catholic Church, nevertheless, continues to enjoy unique privileges over other faiths stemming from its sovereign status, its historical political authority, and its majority share of the religious market. Many public office buildings display a cross or a religious statue. Each city, town, or village has a patron saint. Children are often named for a particular saint and, especially in the South, celebrate their patron saint's day as if it were their own birthday. Further, the Vatican enjoys tax-exempt status for all of its Italian properties, including hotels, clinics, and other commercial enterprises and is allowed to select Catholic teachers (paid by the state) to provide optional religious courses in public schools. Although the special privileges afforded the Catholic Church have drawn some criticism and led to lawsuits, the majority status of the church ensures those privileges remain in place.

Given the power and influence of the Catholic Church we should expect its teachings on the paranormal to influence Italians' beliefs and practices. Indeed, the church has commented specifically upon several types of paranormal beliefs. For example, according to the Catechism of the Catholic Church, all practices related to "fortune-telling," or determining one's fate through psychic means, are strictly forbidden and suggested to be Satanic in nature. Per section 2116:

All forms of divination are to be rejected: recourse to Satan or demons, conjuring up the dead or other practices falsely supposed to "unveil" the future. Consulting horoscopes, astrology, palm reading, interpretation of omens and lots, the phenomena of clairvoyance, and recourse to mediums all conceal a desire for power over time, history, and, in the last analysis, other human beings, as well as a wish to conciliate hidden powers. They contradict the honor, respect, and loving fear that we owe to God alone.⁷

The church also decries any attempt to use supernatural powers for personal gain of any kind, including attempts at healing and/or the wearing of charms:

All practices of magic or sorcery, by which one attempts to tame occult powers, so as to place them at one's service and have a supernatural power over others—even if this were for the sake of restoring their health—are gravely contrary to the virtue of religion. These practices are even more to be condemned when accompanied by the intention of harming someone, or when they have recourse to the intervention of demons. Wearing charms is also reprehensible. Spiritism often implies divination or magical practices; the Church for her part warns the faithful against it. Recourse to so-called traditional cures does not justify either the invocation of evil powers or the exploitation of another's credulity.⁸

⁷The complete catechism of the Catholic Church is available from the Vatican's website. This specific section is located at: http://www.vatican.va/archive/ccc_css/archive/catechism/p3s2c1a1.htm.

⁸Section 2117 of the Catechism of the Catholic Church (http://www.vatican.va/archive/ccc_css/archive/catechism/p3s2c1a1.htm).

Such statements suggest that strong Catholics might be wary of holding paranormal beliefs or engaging in paranormal practices; however, research on the paranormal in Italy remains sparse, so it remains to be seen whether this is the case.

RESEARCH ON THE PARANORMAL IN ITALY

Although skeptical organizations within Italy have commented upon the paranormal, such research has typically been designed to discount paranormal claims and to paint such beliefs as the result of gullibility (cf. Parisi 2002; Pinotti 2006). Academic research on the paranormal is much more limited and tends to be nonrepresentative. For example, some Italian researchers have conducted ethnographic research on specific “New Age” religious groups or movements (e.g., Berzano 1999; Introvigne 1999), or examined the role of “occult” rituals in the lives of specific populations in Italy (Del Vecchio and Pitrelli 2011).

The work of De Martino (1959) on magic and religious rituals among the populations of southern Italy is an example of anthropological research on paranormal beliefs. De Martino’s key finding was that for many southern Italians, so-called magical or paranormal beliefs and practices were held symbiotically with traditional Catholic beliefs. Folk healing rituals and beliefs in the “evil eye” proved especially common. Although the Catholic Church often has a negative view of such practices or denies their utility, those who used folk magic for healing or protection often called upon the saints when doing so, and did not see themselves as at odds with the church (De Martino 1959). Fieldwork on popular religion and charismatic leaders also suggests that some Italians integrate practices such as visiting psychics, the use of amulets, and the reading of horoscopes into their broader Catholic identities (Maciotti 1991).

Other research, such as that of Introvigne (1997), focuses upon the difficulties of defining the paranormal and in understanding its unique place in the religious landscape. He notes that some paranormal beliefs and practices, such as communication with the dead, are in conflict with mainstream Catholic teaching. However, the church does not directly forbid others, such as alternative medicine and UFOs. Since paranormal beliefs are rarely institutionalized, and consequently holding them does not require a religious conversion, Introvigne (1997) argues that the existence of paranormal beliefs call into question the generality of standard categories used in religious research, such as institutional membership and religious affiliation.

Of greatest relevance to the current study is the work of Areni and Chirumbolo (2006), who asked a sample of 1,200 university students to indicate levels of belief in a number of paranormal phenomena including UFOs, telekinesis, communication with the dead, telepathy, ESP, vampirism, werewolves, and several other topics. Overall, they found that students had a generally negative attitude about paranormal phenomena. They also found higher levels of paranormal belief among those with mid-range levels of reported church attendance and lower levels of belief among those who never attended church and those who attended frequently. This provides an initial indication of a nonlinear relationship between religiosity and paranormal belief in Italy, but it is unclear whether the general population will mirror bivariate findings from a convenience sample of students or the findings hold after controlling for other variables related to paranormal belief. To examine these possibilities, we test the following hypothesis:

H1: Personal religiosity will exhibit a curvilinear relationship with paranormal beliefs in Italy, with the highest levels of paranormal belief at moderate levels of religiosity.

DATA

The data analyzed are from *Religion in Italy 1994* (RII) a survey project led by the Catholic University of Milan. Supported by a grant from the Italian Ministry of Instruction, University

and Research (MIUR), RII was designed to measure religious beliefs, practices, and experiences among the adult Italian population.

Respondents were selected via a stratified random sampling technique. The country was first divided into 20 regions (Abruzzo, Basilicata, Calabria, Campania, Emilia Romagna, Friuli V.G, Lazio, Liguria, Lombardia, Marche, Molise, Piemonte, Puglia, Sardegna, Sicilia, Toscana, Trentino A.A., Umbria, Valle D'Aosta, Veneto) and seven municipality sizes (<2,000, 2–5k, 5–10k, 10–30k, 30–100k, 100–500k, 500k+). Regions and municipalities were selected to ensure diversity in geographical position, prevalent industries, and cultural and religious traits. Once invalid combinations were removed (i.e., some regions did not have municipalities of a particular size), this technique resulted in 126 strata. The researchers randomly selected adult respondents from each stratum using population lists from the municipality (Cesareo et al. 1995).

The final sample consisted of 4,500 Italians of age 17 or older, from 166 cities in four major geographical areas (Northwest, Northeast, Central, and Southern Italy, including its two main islands) and had a 66 percent response rate. Surveys were conducted in person by trained interviewers.

The researchers created a weight variable to correct for education, profession, and ethnicity. Specifically, the weight variable accounts for an overrepresentation of those with a college education, an underrepresentation of those with only an elementary level education, and underrepresentation of blue-collar workers, homemakers, and immigrant groups (Cesareo et al. 1995). The data file is available for public download from the Association of Religion Data Archives.⁹

The RII provided data well suited for our purposes. In addition to detailed batteries on religious belief, practice, and affiliation, these data include, to our knowledge, the most recent and comprehensive set of paranormal belief items administered to an Italian sample. Because our hypothesis is related to the individual's level of interest in a broad range of paranormal phenomena rather than a particular paranormal subject, it was important to analyze data collected on a diverse set of beliefs. Here, the RII proved ideal, with questions about phenomena ranging from ghosts and séances, to a variety of psychic powers such as telepathy and palmistry, and other phenomena such as curses and astrology.¹⁰

Paranormal Beliefs

Respondents were asked to indicate their level of belief in astrology (the ability of the stars to influence behavior), communication with the dead, séances (and related phenomena such as dancing tables), palmistry, telepathy, the “evil eye” and curses, the existence of spirits/ghosts, and the belief that certain people can foresee or influence the future. For each of these subjects respondents answered using the options “do not believe,” “partly believe,” “believe,” or “don't know.” Table 1 provides frequencies for these items.

Because we are less interested in any particular paranormal belief than general levels of paranormalism, the dependent variable in the following analyses is an index of paranormal belief. Higher values on the index indicate higher levels of belief in paranormal subjects. The eight paranormal belief questions were recoded such that categories were ordered (0) “do not believe,” (1) “don't know,” (2) “partly believe,” and (3) “believe.” Once each item was recoded, they were

⁹The data are available at: <http://www.thearda.com/Archive/Files/Descriptions/RELITALY.asp>.

¹⁰The European Values Survey for 1999 also includes questions on paranormal beliefs for an Italian sample; however, there are only five items relating to a limited range of phenomena. One item asks about reading horoscopes, which is problematic as a measure of paranormal belief since newspaper horoscopes are often more a matter of entertainment than belief. Two items ask about “lucky charms”—whether the respondent owns a lucky charm and if s/he believes in the power of lucky charms. The final two items relate to reincarnation, itself potentially problematic to classify as a paranormal belief (though not as much in an Italian context) and telepathy. Collectively, these items produced a relatively unreliable scale of paranormal belief (Cronbach's $\alpha = .52$).

Table 1: Paranormal beliefs in Italy (valid percent with frequency in parentheses)

	Believe (3)	Partly believe (2)	Do not know (1)	Do not believe (0)	Missing
Astrology	7.7% (348)	23.8% (1071)	6.1% (272)	62.4% (2801)	(8)
Communication with the Dead	9.2% (411)	19.0% (854)	9.2% (413)	62.6% (2813)	(9)
Séances	5.8% (259)	11.0% (494)	9.1% (409)	74.1% (3324)	(15)
Palmistry	3.3% (147)	13.4% (600)	6.1% (273)	77.3% (3468)	(13)
Telepathy	12.4% (556)	25.5% (114)	8.6% (385)	53.4% (2392)	(23)
Curses	11.4% (512)	19.0% (852)	4.6% (204)	65.0% (2918)	(14)
Spirits	10.6% (474)	15.0% (671)	9.1% (406)	65.4% (2929)	(20)
Sorcery	1.7% (74)	7.0% (315)	4.4% (198)	86.9% (3901)	(12)

Source: Religion in Italy 1994.

summed to create the paranormal belief index (Cronbach's $\alpha = .77$).¹¹ The final index ranged from 0 (indicating no belief in any of the eight subjects) to 24 (belief in all eight subjects). The mean for the scale was 5 with a standard deviation of 4.9.

Religiosity

To test for a curvilinear relationship between personal religiosity and paranormal beliefs, we created a religiosity index from five items. First, respondents were asked their frequency of attendance at "religious rites," with seven possible responses: (1) never, (2) once or twice a year, (3) several times a year, (4) once a month, (5) two to three times a month, (6) weekly, and (7) several times a week. Second, respondents were asked: "What is the place of religion in your life?" Possible responses were: (1) "irrelevant," (2) "not so important," (3) "somewhat important," (4) "important," or (5) "key." Respondents were also asked to report how often they received communion (ranging from [1] "never" to [8] "several times a week"), how often they approached confession (ranging from [1] "never" to [6] "more than once a month"), and how often they prayed (ranging from [1] "never" to [6] "several times a day"). Due to the different ranges of response options, these items were standardized before being summed to create an index of religiosity (Cronbach's $\alpha = .89$).¹² To test for a curvilinear relationship between religiosity and paranormal beliefs, we included both the baseline religiosity index and the religiosity index squared (Religiosity²) in our models. A significant negative effect for the quadratic term would

¹¹Due to the ambiguity of the "don't know" category, we created two alternative measurements of the paranormal belief index. The first omitted the "don't know" as missing data and the second combined the "don't know" and "partly believe" categories. The quadratic term in the multivariate model remained significant at the .001 level when predicting these alternative indices. Results available upon request.

¹²The religiosity effect presented did not change appreciably regardless of how the religiosity measure was constructed. For example, in separate models we did not use the religiosity index, but entered the importance of religion, service attendance, and service attendance (squared) as separate variables. The quadratic term for attendance was significant.

indicate a nonlinear relationship between religiosity and paranormal belief consistent with our hypothesis.

Religion Controls

We used a set of dummy variables to control for religious tradition. Catholics were used as the contrast category with variables created for Protestant respondents, respondents of other (non-Catholic/non-Protestant) traditions, and those who reported no religion. As would be expected in Italy, the sample consisted primarily of Catholics (88.4 percent), followed by those with no religion (8.8 percent), Protestants (1.2 percent), and those of other religions (1 percent). Because previous research has found that an individual's view of the Bible is a key predictor of paranormal beliefs (cf. Mencken, Bader, and Kim 2009), we also created dummy variables for respondents' level of agreement with the statement that the "Word of God is revealed in the Scriptures." Possible responses were: "not at all," "somewhat," or "strongly believe." Those who answered "somewhat" were used as the contrast category. Nearly half of respondents (48.5 percent) indicated strong belief in the Bible as God's word, with 32 percent saying they somewhat believed and 18.5 percent not believing the Bible to be God's word.

Demographic Controls

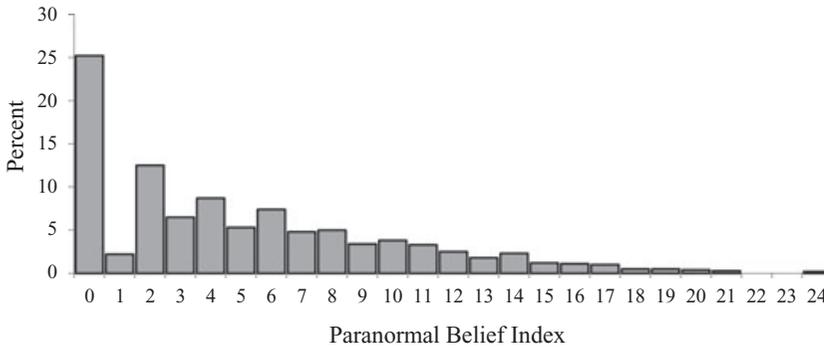
Analyses also included a number of demographic controls previously found to be related to paranormal belief (e.g., Bader, Mencken, and Baker 2010; Orenstein 2002; Rice 2003). Gender was a dichotomous variable (1 = male; 49.5 percent). Education was measured in attainment categories from less than elementary school completion (0) to college graduate (6). Dichotomous variables were used to represent marital status (1 = married; 62.6 percent) and employment status (1 = currently employed fulltime; 44.1 percent). The RII survey does not include a raw income variable. Rather, we included an occupational status/prestige variable that codes 20 occupational types (e.g., "clerical worker," "school teacher") into "low," "medium-low," "medium-high," and "high" income categories. We included this as an ordinal variable in our models. A full listing of the 20 occupational types and their coding is available from the authors upon request.

Region was included as a series of dichotomous variables by splitting the sample into three groupings: Northern Italy (Friuli Venezia Giulia, Liguria, Lombardia, Piemonte, Trentino Alto Adige, Valle D'Aosta, and Veneto), Central Italy (Abruzzo, Emilia Romagna, Lazio, Marche, Molise, Toscana, and Umbria) and Southern Italy and the Islands (Basilicata, Calabria, Campania, Puglia, Sardegna, and Sicilia). Roughly 38 percent of respondents lived in Northern Italy, 34 percent were from Southern Italy, and the remaining 28 percent lived in Central Italy. Southern Italy and the Islands have a significantly higher mean score on the religiosity index (.637) than do Northern (-.200) and Central Italy (-.370) using a one-way ANOVA with Scheffe's *post hoc* tests. Due to its unique religious culture, we used Southern Italy as the contrast category in our models.

ANALYTIC TECHNIQUE

In general, Italian respondents exhibited skepticism about the paranormal. More than one-fourth (25.2 percent) of respondents did not believe in any paranormal topics whereas only 10 (.2 percent) exhibited strong belief in all eight subjects. Given the right-skewed and overdispersed distribution of the dependent variable (Figure 2), we used Poisson regression to test our hypothesis

Figure 2
Distribution of Paranormal Belief Index in Italy ($\alpha = .77$)



Source: Religion in Italy 1994.

(Berk and MacDonald 2008).¹³ We present three models. The first predicts paranormal belief using demographic controls, religious tradition, and view of the Bible. The second model adds the religiosity index. The third model includes the quadratic term for religiosity to test for a curvilinear relationship with paranormal beliefs. The Appendix provides descriptive information on all the variables used for multivariable modeling.

RESULTS

Table 2 provides information on the bivariate relationships between the categorical predictors and paranormal belief using means. Women and the unmarried averaged higher average levels of paranormalism. Central Italy had the highest level of paranormal belief; Northern Italy had the lowest. Regarding religious tradition, Protestants had the highest average level of paranormal belief, but the results were nonsignificant due to the small number of respondents in the category ($n = 56$). As for view of the Bible, the middle category (“somewhat” believe) had the highest level of belief, lending some initial support to a nonlinear connection between religious commitment and paranormalism. In addition, a Pearson correlation between the religiosity index and the paranormal index was weak and nonsignificant ($r = -.03$), indicating no linear pattern.

Table 3 presents the results of the Poisson regression models predicting degree of belief in paranormal topics. Several demographic controls were significant predictors of paranormal beliefs in Model 1. Females tended to exhibit stronger belief in the paranormal than did males ($b = -.242, p < .001$), as did those of higher occupational status ($b = .029, p < .001$). Unmarried people also held stronger paranormal beliefs, on average, than did married people ($b = -.132, p < .001$). Older respondents ($b = -.012, p < .001$) and those with higher levels of educational attainment ($b = -.022, p < .001$) had significantly lower levels of paranormal belief. Compared to more religious Southern Italians, Central Italians held higher levels of belief in paranormal phenomena ($b = .076, p < .001$). Considering only demographics, a young, unmarried female of low education and high occupational status from Central Italy is the person most likely to hold paranormal beliefs.

Compared to Catholics, Italian Protestants tend to believe more strongly in the paranormal ($b = .114, p < .05$). Those who “somewhat” believed that God’s word was “revealed in the

¹³We also conducted negative binomial models. The quadratic term for religiosity remained significant in the final model. Model fit statistics indicated that the Poisson models better matched the data.

Table 2: Mean scores on paranormal belief index by categorical predictors

	Mean on paranormal index
Gender*	
Female	5.6
Male	4.5
Employed fulltime	
No	5.2
Yes	5.0
Married*	
No	4.7
Yes	5.8
Region**a	
North	4.8
Central	5.3
South	4.9
Religious tradition	
Catholic	5.1
Protestant	6.2
“Other”	5.0
None	5.0
Bible view***b	
Do not believe Bible is “God’s word”	4.7
Somewhat believe	5.3
Strongly believe	5.1

Source: Religion in Italy 1994.

* $p < .001$; ** $p < .01$; *** $p < .05$ (t -test for binary categories; one-way ANOVA for more than two categories).

^aSignificant difference ($p < .05$) between North and Central (Scheffe’s *post hoc* test).

^bSignificant difference ($p < .05$) between “somewhat” and “not at all” (Scheffe’s *post hoc* test).

Scriptures” had the highest levels of paranormal belief, significantly higher than those who did not believe the Bible to be God’s word ($b = -.103$, $p < .001$) and those who exhibited strong belief in the Bible as God’s word ($b = -.056$, $p < .001$). In Model 2, the religiosity index had a significant negative impact on paranormal beliefs ($b = -.012$, $p < .001$). The addition of religiosity attenuates the difference between “somewhat” and “strongly” believing that the Bible is God’s word to nonsignificance and removes the effects for religious tradition.¹⁴

In Model 3, the quadratic term for religiosity was significant and negative ($b = -.004$, $p < .001$), supporting the hypothesis. The lower-order term for religiosity, the dummy variables for attitude toward the Bible, and the same demographic measures that were significant in Model 2 remain so in Model 3. Figure 3 shows the predicted values on the paranormal belief index by religiosity, with values given at the endpoints and midpoint. The vertex of the curve (highest level of paranormal belief) occurs at the mean level of religiosity. As in the United States, the relationship between paranormal belief and religiosity in Italy is nonlinear,

¹⁴The inclusion of practices more likely to be found in Catholicism in the religiosity index (such as communion and confession) created a strong relationship between the index and the religious tradition categories. An alternate version of the index excluding these practices resulted in a significant difference between Protestants and Catholics, as well as between “nones” and Catholics; however, this operationalization had a lower PRE and poorer model fit statistics. Moreover, since 98 percent of religious affiliates in the survey were Catholic, the tradition-specific measure is appropriate. Results from alternate models are available upon request.

Table 3: Poisson regression models predicting paranormal belief in Italy

	Model 1		Model 2		Model 3	
	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE
Demographics						
Gender (1 = male)	-.242*	.016	-.258*	.017	-.259*	.017
Age	-.012*	.001	-.011*	.001	-.011*	.001
Education ^a	-.022*	.005	-.023*	.005	-.022*	.005
Employment (1 = fulltime)	-.071*	.017	-.064*	.017	-.060**	.017
Occupational status ^b	.029*	.009	.027***	.010	.027**	.010
Marital status (1 = married)	-.132*	.017	-.137*	.017	-.146*	.017
Region: Northern Italy ^c	-.026	.019	-.031	.019	-.031	.019
Region: Central Italy ^c	.076*	.020	.070*	.020	.079*	.020
Religion						
Protestant ^d	.114***	.064	.125	.068	.126	.068
Other religion ^d	-.114	.076	-.047	.083	-.070	.083
No religion ^d	.004	.029	-.029	.031	.058	.033
Do not believe Bible is God's word ^e	-.103*	.024	-.128*	.025	-.093*	.026
"Strongly believe" Bible is God's word ^e	-.056*	.017	-.025	.019	-.016	.019
Religiosity	-	-	-.012*	.003	-.010*	.003
Religiosity ²	-	-	-	-	-.004*	.001
Intercept	2.408*	.037	2.399*	.037	2.409*	.037
Model fit statistics						
Log likelihood	-12861.97		-12586.70		-12561.07	
Bayesian information criterion	25837.98		25295.29		25252.15	
Pearson chi-square/df	4.581		4.567		4.558	

Source: Religion in Italy 1994.

* $p < .001$; ** $p < .01$; *** $p < .05$; $N = 4,353$.

^aEducation ranges from less than elementary school completion (0) to college graduate (6).

^bOccupational status ranges from low (1) to high (4).

^cReference category is Southern Italy.

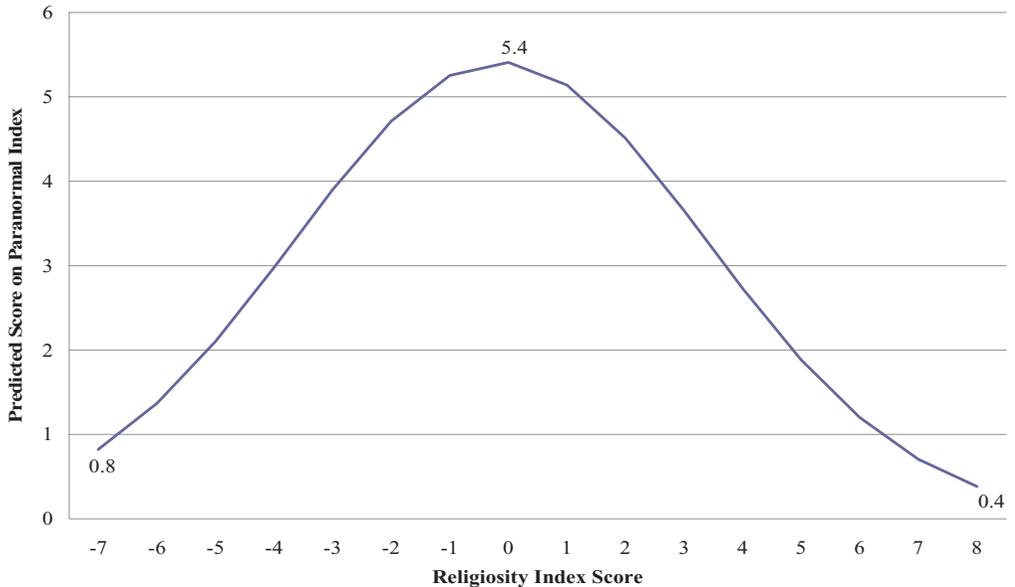
^dReference category is Catholic.

^eReference category is "somewhat believe."

with increasing religiosity opening one up to such beliefs, but with devout religiosity curtailing paranormalism.

We also calculated Beta weights for Model 3 by multiplying the unstandardized coefficients by the standard deviation of the respective independent variables. The strongest variables in the model were: (1) age, (2) gender, and (3) the quadratic religiosity term. These results for age match those found in Canada (Orenstein 2002), England (Francis 2009), Ireland (Anderson 2010), Norway (Botvar 2009), Scotland (Glendinning 2006), Sweden (Sjodin 2002), and the United States (Baker and Draper 2010). This suggests that (1) paranormal beliefs are increasing among younger generations, and (2) noninstitutionalized supernatural beliefs fill at least some of the cultural space vacated as institutional religious authority wanes. To the extent that young paranormal believers do not abandon their beliefs as they age and Catholicism in Italy moves towards more moderate forms (Pace 2007), paranormal beliefs and practices should increase in popularity, assuming the religious market does not restructure toward a substantial rise in firm irreligion.

Figure 3
Predicted Score on Paranormal Belief Index by Religiosity in Italy



Note: Based on results from Model 3, all other variables set to their respective means
Source: Religion in Italy 1994.

DISCUSSION

The general relationship between conventional religiosity and paranormal belief in Italy exhibits curvilinear features similar to those found in the United States; however, caveats remain about assuming uniform institutional responses to all aspects of the paranormal. For instance, considering its powerful rebuke of other paranormal subjects, the Catholic Church has shown surprising openness to the possibility of extraterrestrial life in recent years. While the topic is not officially addressed in the Catechism, prominent church authorities have made statements suggesting that belief in extraterrestrials is acceptable for Catholics. This position is quite different from that of some U.S. evangelicals who believe that an extraterrestrial would be satanic in nature (e.g., Hardy 1999; Hutchings, Spargimino, and Glaze 2000; Larson 1997; Rhodes 1998).

For example, in a 2008 article in the Vatican newspaper titled “The Extraterrestrial is My Brother” the current director of the Vatican Observatory, Fr. José Gabriel Funes, argues that extraterrestrial life is not contrary to church doctrine:

As there is multiplicity of creatures on earth, so there could be other beings even intelligent, created by God. This does not contradict our faith, because we cannot put limits on the creative freedom of God. St. Francis would say if we consider earthly creatures as our “brother” and “sister”, why could we not consider an extraterrestrial being as our brother? We are still part of creation.¹⁵

Extraterrestrials can also achieve redemption, Funes argued. Although he did not claim to know exactly how the process would work, he stated that “Jesus has been incarnated once and for all,” and God would provide some means for aliens to receive “God’s mercy.” Funes’s comments

¹⁵Article is available on the Vatican website: http://www.vatican.va/news_services/or/or_quo/interviste/2008/112q08a1.html.

suggest that the Catholic Church is not fundamentally opposed to the idea of extraterrestrials, at least as abstracted, distant life forms. Where some beliefs such as astrology are strongly condemned, others such as ETs are detachedly permitted. Perhaps this is the result of the limited threat that ETs beliefs pose as organized alternatives to institutionalized religion, as we noted at the outset; or perhaps these statements reflect an intended distinction between SETI (search for extraterrestrial intelligence) and ufology (Ben-Yehuda 1985:146–67).

Regardless, recent Catholic openness toward the idea of extraterrestrial life demonstrates the potential fluidity and range of institutional responses to the paranormal. Catholic leadership has not expressed open belief in UFOs or UFO abductions nor actively encouraged its membership to develop such beliefs. Were the Catholic Church to fully incorporate the possibility of extraterrestrials and their visitation into church doctrine, the relationship between religiosity and belief in UFOs would likely become positive among committed Catholics over time. However unlikely, this would transform UFOs from paranormal to religious. Because what is considered “paranormal” is shaped in a field relation to “religion,” the relationship between the paranormal and institutionalized religion exhibits some generalizable features; however, how religious and scientific communities define their cultural boundaries—and therefore approach paranormal subjects—varies by time and context.

CONCLUSION

Advocates conducting symbolic boundary work on behalf of both organized religion and institutional science doubly stigmatize beliefs and practices labeled “paranormal.” Religionists claim this area of culture represents illegitimate work of evil. Accordingly, the devout tend to have lower levels of paranormal belief. From a different angle, scientists claim that the paranormal is pseudoscience or superstition. Considering these patterns, cultural environments with a strong institutional presence of both science and religion should exhibit a “curvilinear” relationship between participation in conventional religion and paranormal beliefs. This is the case in both the United States and Italy, providing initial support for a more general application of our theory.

The relationship between organized religion and more diffuse supernaturalism is nonlinear because of how these practices and beliefs come to be defined as paranormal. Representatives of institutional science dictate what is considered beyond the realm of natural explanation or study. Meanwhile, advocates for organized religion work to limit parishioners’ experimentation with supernatural beliefs external to the group, thereby encouraging exclusive commitment to the semiology of the religious community. Given that the irreligious typically appeal to institutional science for their metaphysical stance, and the devout appeal to their religious group in a similar manner, it is those “in between” who are most likely to express interest in beliefs and practices rejected by both institutions.

Further empirical tests in different contexts are needed to determine the extent of the generalizability of our theory. In particular, future work could expand upon previous research done in other locations by testing for curvilinear relationships between religiosity and paranormal beliefs. In addition, studying how religion and the paranormal interact in societies where dominant religious traditions tend toward syncretism rather than exclusivity, making expansive supernatural portfolios the norm, would be instructive. In such contexts the cultural category of “paranormal” may be inapplicable, or at least apply to sets of cultural practices with different attributes. Future research exploring the role of noninstitutionalized beliefs and practices in shaping the religious cultures of Asia would be interesting in this regard. As Morioka (1982) noted almost 30 years ago when discussing the limitations of applying standard conceptual frameworks in the sociology of religion to Asian traditions, most theories and instruments are devised and applied in Euro-American contexts (Cadge, Levitt, and Smilde 2011). The complexities and fluidity of contemporary religion and spirituality require assessment, consideration, and measurement of nontheistic supernatural beliefs and practices. Understanding how institutionally marginalized

phenomena such as paranormal beliefs and practices are defined and experienced in a variety of contexts is indispensable to this task.

REFERENCES

- Anderson, Karen. 2010. Irish secularisation of religious identities: Evidence of an emerging new Catholic habitus. *Social Compass* 57(1):15–39.
- Areni, Alessandra and Antonio Chirumbolo. 2006. Atteggiamenti e credenze nei riguardi dei fenomeni sovranaturali e paranormali [Attitudes and beliefs on supernatural and paranormal phenomena]. *Rassegna di Psicologia [Review of Psychology]* 1:47–67.
- Bader, Christopher D., F. Carson Mencken, and Joseph O. Baker. 2010. *Paranormal America: Ghost encounters, UFO sightings, bigfoot hunts, and other curiosities in religion and culture*. New York: New York University Press.
- Bainbridge, William S. 2004. After the new age. *Journal for the Scientific Study of Religion* 43(3):381–94.
- Baker, Joseph O. 2012. Perceptions of science and American secularism. *Sociological Perspectives* 55(1):167–88.
- Baker, Joseph O. and Scott Draper. 2010. Diverse supernatural portfolios: Certitude, exclusivity, and the curvilinear relationship between religiosity and paranormal beliefs. *Journal for the Scientific Study of Religion* 49(3):413–24.
- Barkun, Michael. 2003. *A culture of conspiracy: Apocalyptic visions in contemporary America*. Berkeley: University of California Press.
- Ben-Yehuda, Nachman. 1985. *Deviance and moral boundaries: Witchcraft, the occult, science fiction, deviant science and scientists*. Chicago: University of Chicago Press.
- Berk, Richard and John MacDonald. 2008. Overdispersion and Poisson regression. *Journal of Quantitative Criminology* 24(3):269–84.
- Berzano, Luigi. 1999. *New age*. Bologna: Il Mulino.
- Botvar, Pal Ketil. 2009. Alternative religion—A new political cleavage? An analysis of Norwegian survey data on new forms of spirituality. *Politics and Religion* 2(3):378–94.
- Cadge, Wendy, Peggy Levitt, and David Smilde. 2011. De-centering and re-centering: Rethinking concepts and methods in the sociological study of religion. *Journal for the Scientific Study of Religion* 50(3):437–49.
- Cesareo, Vincenzo, Roberto Cipriani, Franco Garelli, Clemente Lanzetti, and Giancarlo Rovati. 1995. *La religiosità in Italia [Religiosity in Italy]*. Milano: Mondadori.
- Cross, Anne. 2004. The flexibility of scientific rhetoric: A case study of UFO researchers. *Qualitative Sociology* 27(1):3–34.
- Del Vecchio, Gianni and Stefano Pitrelli. 2011. *Occulto Italia [Occult Italy]*. Milano: Rizzoli.
- De Martino, Ernesto. 1959. *Sud e magia [South and magic]*. Milano: Feltrinelli.
- Donahue, Michael J. 1993. Prevalence and correlates of new age beliefs in six Protestant denominations. *Journal for the Scientific Study of Religion* 32(2):177–84.
- Draper, Scott and Joseph O. Baker. 2011. Angelic belief as American folk religion. *Sociological Forum* 26(3):623–43.
- Emmons, Charles F. and Jeff Sobal. 1981. Paranormal beliefs: Functional alternatives to mainstream religion? *Review of Religious Research* 22(4):301–12.
- Francis, Leslie J. 2009. Contacting the spirits of the dead: Paranormal belief and the teenage worldview. *Journal of Research on Christian Education* 18(1):20–35.
- Glendinning, Tony. 2006. Religious involvement, conventional Christian, and unconventional nonmaterialist beliefs. *Journal for the Scientific Study of Religion* 45(4):585–95.
- Goode, Erich. 2000. *Paranormal beliefs: A sociological introduction*. Prospect Heights, IL: Waveland Press.
- Hadaway, C. Kirk, Penny Long Marler, and Mark Chaves. 1993. What the polls don't show: A closer look at U.S. church attendance. *American Sociological Review* 58(6):741–52.
- Hardy, Diana. 1999. *Des masquerade: An exposé on Satan in the new age movement*. Kirkwood, MO: Impact Christian Books.
- Hess, David J. 1993. *Science in the new age: The paranormal, its defenders and debunkers, and American culture*. Madison: University of Wisconsin Press.
- Hutchings, Noah, Larry Spargimino, and Bob Glaze. 2000. *Marginal mysteries: A biblical perspective*. Oklahoma City: Hearthstone Publishing.
- Iannaccone, Laurence. 1994. Why strict churches are strong. *American Journal of Sociology* 99(5):1180–1211.
- . 1995. Risk, rationality and religious portfolios. *Economic Inquiry* 33(2):285–95.
- Introvigne, Massimo. 1997. *Heaven's Gate: Il paradiso non può attendere [Heaven's Gate: Heaven cannot wait]*. Torino: Leumann.
- . 1999. Damanhur: A magical community in Italy. In *New religious movements: Challenge and response*, edited by Bryan Wilson and Jamie Cresswell, pp. 183–94. New York: Routledge.
- Krull, Douglas S. and Eric S. McKibben. 2006. Skeptical saints and critical cognition: On the relationship between religion and paranormal beliefs. *Archiv für Religionspsychologie [Archive for the Psychology of Religion]* 28(1):269–85.
- Larson, Bob. 1997. *UFOs and the alien agenda*. Nashville: Thomas Nelson.

- MacDonald, William L. 1995. The effects of religiosity and structural strain on reported paranormal experiences. *Journal for the Scientific Study of Religion* 34(3):366–76.
- Maciotti, Maria Immacolata. 1991. *Fede mistero magia: Lettere a un sensitivo [Faith mystery magic: Letters to a psychic]*. Bari: Dedalo.
- McKinnon, Andrew M. 2003. The religious, the paranormal, and church attendance: A response to Orenstein. *Journal for the Scientific Study of Religion* 42(2):299–303.
- Mencken, F. Carson, Christopher D. Bader, and Ye Jung Kim. 2009. Round trip to hell in a flying saucer: The relationship between conventional Christian beliefs and paranormal beliefs in the United States. *Sociology of Religion* 69(1): 65–85.
- Mencken, F. Carson, Christopher D. Bader, and Rodney Stark. 2008. Conventional Christian beliefs and experimentation with the paranormal. *Review of Religious Research* 50(2):194–205.
- Morioka, Kiyomi. 1982. Methodological problems in the sociology of religion in Japan. *Japanese Journal of Religious Studies* 9(1):41–52
- Orenstein, Alan. 2002. Religion and paranormal belief. *Journal for the Scientific Study of Religion* 41(2):301–11.
- Pace, Enzo. 2007. Religion as communication: The changing shape of Catholicism in Europe. In *Everyday religion*, edited by Nancy Ammerman, pp. 37–49. New York: Oxford University Press.
- Parisi, Daniele. 2002. Il fenomeno UFO come costruzione sociale: Dai dischi volanti al culto dell'extraterrestre. [*The UFO phenomenon as a social construction: From flying saucers to the cult of the extraterrestrial*]. Ph.D. diss., University of Torino.
- Pinotti, Roberto. 2006. *La capitale esoterica: Da Roma occulta all'urbe cosmica [The esoteric capital: Hidden cosmic Rome]*. Milano: Oscar Mondadori.
- Rhodes, Ron. 1998. *Alien obsession*. Eugene, OR: Harvest House.
- Rice, Tom W. 2003. Believe it or not: Religious and other paranormal beliefs in the United States. *Journal for the Scientific Study of Religion* 42(1):95–106.
- Sjodin, Ulf. 2002. The Swedes and the paranormal. *Journal of Contemporary Religion* 17(1):75–85.
- Sparks, Glenn G. 2001. The relationship between paranormal beliefs and religious beliefs. *Skeptical Inquirer* 25(5):50–56.
- Stark, Rodney. 2008. *What Americans really believe*. Waco, TX: Baylor University Press.
- Stark, Rodney and William S. Bainbridge. 1980. Towards a theory of religion: Religious commitment. *Journal for the Scientific Study of Religion* 19(2):114–28.
- . 1987. *A theory of religion*. New York: Peter Lang.
- Steenland, Brian, Jerry Z. Park, Mark D. Regnerus, Lynn D. Robinson, W. Bradford Wilcox, and Robert D. Woodberry. 2000. The measure of American religion: Toward improving the state of the art. *Social Forces* 79(1):291–318.
- Wuthnow, Robert. 1976. Astrology and marginality. *Journal of the Scientific Study of Religion* 15(2):157–68.
- . 1978. *Experimentation in American religion*. Berkeley: University of California Press.

SUPPORTING INFORMATION

The following supporting information is available for this article:

Appendix. Variables Used for Modeling

Supporting Information may be found in the online version of this article at wileyonlinelibrary.com.

Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting information supplied by the authors. Any queries (other than missing material) should be directed to the corresponding author for the article.