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Marginalized, Secularized, and Popularized? The Prevalence and Patterns of Paranormal Belief in the United Kingdom

Tom Clark ^a, Joseph O. Baker ^b, and Christopher D. Bader ^c

^aDepartment of Sociological Studies, University of Sheffield, Sheffield, UK; ^bDepartment of Sociology and Anthropology, East Tennessee State University, Johnson City, Tennessee, USA; ^cInstitute for Religion, Economics and Society, Chapman University, Orange, California, USA

ABSTRACT

There is growing recognition of the prevalence of paranormal beliefs in Western countries. However, most of this interest has been focused on the United States and robust, comparative data remain limited. This study extends this literature to report findings from a national survey of the United Kingdom designed to assess the prevalence and patterns of paranormal beliefs. Although there are many similarities to previous research, the results also suggest that there are significant differences in the scope, clustering, and patterns of paranormalism across contexts. The study makes four contributions to research on the paranormal by a) reiterating the continuing popularity of paranormal beliefs, even in highly secularized locations, with over 70% of people in the United Kingdom believing in something paranormal; b) demonstrating that these beliefs are differentiated across contexts where they might otherwise be assumed to be similar; c) demonstrating the applicability of social control and bounded affinity theories for explaining belief in the paranormal; and, d) documenting how conventional religiosity relates to paranormalism in a relatively secular cultural context. These findings highlight the need for further research on diffuse forms of supernaturalism and the potential for such studies to contribute to important questions about theory and research in sociology.

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Introduction

The paranormal presents an arena of study useful for analyzing sociological dynamics in several important fields. This includes, but is not limited to, religion (Bader, Baker, and Molle 2012; Baker, Bader, and Mencken 2016; Mencken, Bader, and Kim 2009; Wuthnow 1978), institutional (and amateur) science (Collins and Pinch 1979; Hess 1993), deviance and conformity (Bader and Baker 2019), and tourism and the economy (Drinkwater et al. 2022). Despite some important advances in the social scientific study of paranormal beliefs, practices, and subcultures, wider scholarly interest in the topic remains limited. Research on the topic also carries a courtesy stigma (Goffman 1963) conferred by the deviant designation occupied by ideas and practices culturally labeled as paranormal. Consequently, studies of the paranormal often remain blithely ignored, even in areas

CONTACT Tom Clark  t.clark@sheffield.ac.uk  Department of Sociological Studies, University of Sheffield, Sheffield S10 2AH, UK.

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where they offer potential insights, such as theory and research about secularization in contemporary societies.

Although there are myriad ways that social scientific inquiry into cultural practices that are deemed “paranormal,” “occult,” “spectral,” or any analogous cultural designation can be informative for the study of social dynamics (see, for example, Eaton 2020, on symbolic interaction), this study focuses on four specific areas that can inform extant lines of scholarly interest. First, our most basic goal is to accurately track the relative diffusion, popularity, and patterns of paranormalism in contemporary societies. Second, we explore how paranormalism might be structured to form distinct subsets of beliefs in the United Kingdom (U.K.).¹ Third, we analyze sociological patterns of paranormalism through the lens of theories about marginalization and social control, with the paranormal offering a suite of beliefs, practices, and experiences that are simultaneously widespread *and* socially stigmatized. Our final area of interest concerns the study of religion and secularization in post-industrial contexts, where the current lack of scholarly understanding about paranormalism in late modernity severely limits the scope and accuracy of discussions about secularization.

Therefore, this study represents a significant expansion in the sociological examination of paranormal and alternative belief systems. It extends the range of paranormal beliefs that are of interest to sociologists and offers further insight into how they might be studied as a distinctly *social* phenomena (Castro, Burrows, and Wooffitt 2014). We document important trends in paranormalism related to both organized religion and social marginalization, and we examine the demographic predictors of different kinds of paranormal beliefs. We also explore the relationship between religion and paranormalism in the relatively secular context of the United Kingdom. In outlining key dimensions of paranormalism in this new context, the research also provides an important point of comparison with similarly robust population data from North America. Overall, we demonstrate how the study of the paranormal can inform ongoing research, theory, and discourse on several substantive areas of interest to social scientists.

Previous Sociological Research and Theory on the Paranormal

The Popularity and Marginalization of the Paranormal

Since the mid-2000s, the United States has experienced growth in public interest in the paranormal, as evidenced by the rapid expansion of U.S.-based paranormal entertainment and the number of paranormal investigation teams operating across the country (Eaton 2015). Paranormal beliefs are, currently, quite common in the United States (Bader, Baker, and Mencken 2017; Ridolfo, Baxter, and Lucas 2010; Silva and Woody 2022). When asked about the reality of alien visitations, haunted places, creatures such as Bigfoot, and four other paranormal phenomena, roughly three-fourths (72%) of Americans expressed some level of belief in at least one item (Bader, Baker, and Mencken 2017). While relatively few Americans express belief in a wide range of paranormal topics, believing in *something* paranormal is no longer rare, if it ever was (Mowen, Heitkamp, and Boman 2022). Declining rates of organized religious participation and identity, combined with sustained belief in the supernatural, have provided an opportunity for paranormalism to thrive in modern North America.

Although a lack of consistent, historical data constrains the ability to draw strong conclusions about the long-term growth in paranormalism before the 2000s (Kim et al. 2015; Silva and Woody 2022), recent research has also improved our understanding of how to measure the paranormal. This includes which demographic characteristics best predict related beliefs, and how the paranormal and “conventional” religion are related to one another (Baker, Bader, and Mencken 2016).

Despite their relative popularity, however, paranormal beliefs and experiences also remain stigmatized by mainstream institutions such as science and medicine. Consequently, at the individual level, theories of social control (Hirschi 1969) have been shown to have efficacy for predicting patterns of paranormalism (Bader and Baker 2019; Bader, Baker, and Mencken 2017). In short, social control theory predicts that individuals with lower stakes in conformity—for instance, lower levels of social class, or greater levels of social marginalization—will be the most likely to engage in beliefs and practices labeled as culturally deviant. The distribution of paranormalism along lines of social marginalization within the public makes sense, given that the paranormal as a cultural category is designated as “stigmatized knowledge” (see Barkun 2015; Robertson 2015). As a result, the relative social costs of accepting and advocating stigmatized knowledge are greater for those in positions of privilege, and lesser for those who are already socially marginalized.

At the same time, it is important not to let the observation that people of lower social class and status positions are more likely to express interest in the paranormal lead us to the erroneous conclusion that people of privilege do not engage in paranormal beliefs and practices. Paranormalism provides an available reservoir of ideas and practices that can be used for creative purposes, be they in the arts, or in founding new religions. Many new religious movements have centered around beliefs about extraterrestrials (see Partridge 2003). Some such groups, such as the Aetherius Society (Rothstein 2014) and Scientology (Urban 2011), have found longevity as organized religious groups. Notably, the people most likely to join these types of novel religious groups are of higher social status, with the relative social privilege necessary to pursue spiritual experimentation (Bader 2003; Bader and Demaris 1996). Theories of social control are thus useful for understanding both higher rates of beliefs and experiences among individuals occupying marginalized social statuses, as well as how paranormalism may be used by people of privilege for purposes of spiritual novelty and experimentation.

Overall, theoretical frameworks of marginalization and social control provide useful tools for understanding both the macro and micro social dynamics of paranormalism in modern societies. Here we employ social control theories as a lens for understanding patterns of paranormal beliefs and experiences in relation to key social statuses; namely, education, income, social grade, work status, marital status, and gender.

Demographics of Paranormal Belief

Perhaps the most commonly studied dimension of the sociological aspects of the paranormal has been research outlining the demographic characteristics most associated with said beliefs (*cf.* Fox 1992; Goode 2000, 2012). In line with social control theory, several studies using U.S. samples, for example, have found that those with higher levels of education report lower levels of belief in certain paranormal subjects

(Mowen et al. 2022; Silva and Woody 2022). Elsewhere, higher educational achievement is associated with lower levels of belief in astrology and ESP, but has no effect on belief in UFOs and extraterrestrials (Rice 2003). Other researchers have found negative relationships between education and belief in fortune-tellers, astrology, hauntings and Bigfoot, but no effect of education on the belief in UFOs, prophetic dreams or Atlantis, controlling for other factors (Baker, Bader, and Mencken 2016). More recently, Silva and Woody (2022) found negative effects of education on belief in extraterrestrial visitations, hauntings, Bigfoot and Atlantis. When predicting overall level of paranormal belief, as opposed to belief in specific topics, there is a significant negative effect of education (Baker, Bader, and Mencken 2016). Similarly, education and income levels have been found to reduce overall paranormalism (Corcoran, Scheitle, and DiGregorio 2024).

Gender effects are also commonly reported. In the United States, women are more likely to believe in Atlantis, hauntings and psychic powers than men (Silva and Woody 2022). Similarly, women in the United States were more likely to believe in astrology, ESP, ghosts and psychic healing, while men were more likely to believe in extraterrestrials (Rice 2003). Bader, Baker, and Mencken (2017) also found men more likely to believe in Bigfoot and UFOs, while women were likely to believe in fortune-tellers, astrology and hauntings. Similarly, in a sample of Canadians, women reported significantly higher levels of belief in ghosts, psychics, and telekinesis (Silva 2023). Notably, gender atypicality—meaning higher levels of femininity among men and higher levels of masculinity among women—were both associated with higher levels of paranormal belief, again highlighting the importance of social marginalization and control. A recent study in Sweden also documented higher levels of paranormal belief and practice among women (Tideliu 2024). Using a dataset that combined (non-representative) samples from several U.K.-based studies, Drinkwater et al. (2017) concluded that women report higher levels of paranormal belief than men.

Secularization and Bounded Affinity Theories

Secularization theories about the decline of organized religion have transitioned from taken-for-granted (Hadden 1987) to contested (Gorski and Altinordu 2008) to re-accepted (Kasselstrand, Zuckerman, and Cragun 2023). These theories are most useful and accurate when, rather than simply continuing to adopt the theories of old (e.g., Bruce 2011), they modify (Chaves 1994) and nuance the understanding of processes of secularization to include liminal considerations such as “believing without belonging” (Davie 2008), “spiritual but not religious” (Ammerman 2013), and other forms of diffuse spirituality.

A somewhat neglected area of understanding that is important to both religion and secularization in contemporary societies is a consideration of the paranormal. Being rejected from both organized religion and mainstream science—the preferred institution of secularists—the paranormal often occupies the middle ground between traditional religions and organized science. The cultural category of the paranormal, and its attendant fluid subcultures, absorb all manner of culture related to magic, conspiracies, demonology, superstitions, and other diffuse and damned ritual technologies. Rejected scientific fields such as cryptozoology (Lewis and Bartlett 2024) and parapsychology (McClenon 1984) sit

alongside supernatural rituals and experiences related to spiritualist pursuits (Skultans [1974] 2019), psychics (Lavin 2021), and magic (Kripal 2010). Indeed, there is now a vast economy related to spiritual practices and forms of “dark tourism” (Ironsides 2018).

Debates over secularization that assume a binary between religion and secularity miss the middle ground of diffuse supernaturalism, which includes the paranormal. Indeed, understanding the prevalence and patterns of paranormalism in relatively secular societies offers potential insights into how the secularization of traditional religions may (or may not) open up cultural space for more diffuse forms of supernatural beliefs, practices, and experiences.

Early research on the relationship between religion and the paranormal produced a host of mixed findings. Some argued that religious and paranormal beliefs should be positively related to one another, as one is but a “small step” from the other (Brown 1992; Rice 2003). An abundance of other studies, however, reported simple, negative relationships between conventional religious beliefs and paranormal beliefs (Orenstein 2002; Rice 2003; Sjodin 2002; Sparks 2001; Stark 2008).

Other evidence suggests that the paranormal and religion occupy separate niches. Schofield et al. (2016) examined religious and paranormal beliefs amongst students, finding that while some respondents fell into categories of complete skeptics or complete believers, most preferred either religious or paranormal beliefs; believing in one, but being skeptical of the other. Research amongst university students in Turkey similarly found that items related to conventional religious beliefs (heaven, hell, god, etc.) loaded separately from paranormal items such as the belief in extraterrestrials, ghosts and astrology (Sen and Yesilyurt 2014).

More recent research has proposed a curvilinear relationship between traditional religiosity and the paranormal, such that the non-religious and highly religious are the least paranormal in orientation, with the highest levels of paranormal belief occurring at moderate levels of religiosity (Baker, Bader, and Mencken 2016; Possamai et al. 2022). Baker, Bader, and Mencken (2016) theorize this relationship as a “bounded affinity,” arguing that the references to supernatural agents and powers that appear in both paranormal and religious settings lead to a positive correlation between the two, but only within certain boundaries. Those who are entirely non-religious or atheistic in orientation will tend to disbelieve all supernatural claims, whether religious or paranormal in orientation. On the other hand, those who belong to intensive, exclusivist religions will tend to have negative opinions of beliefs outside of their doctrinal boundaries, leading to a negative relationship between strong religiosity and paranormal beliefs. Someone who is moderately religious—expressing belief in supernatural agents but not confined by an exclusivist doctrine, will tend to be attracted to paranormal claims as well (Baker, Bader, and Mencken 2016). While there has been support for bounded affinity theory in the United States and other relatively religious countries such as Italy (Bader, Baker, and Molle 2012), the relationship between the paranormal and mainstream religion may look different in more thoroughly secular social contexts.

Paranormal Belief in the United Kingdom

While there are non-representative studies in other countries, the most robust body of sociological research related to the paranormal has mostly involved representative samples from the United States (Kim et al. 2015). Therefore, it remains uncertain whether findings

about the clustering, patterns, and social correlates of paranormal beliefs identified in American samples also apply in other cultural contexts.

Indeed, most of the contemporary research on the paranormal in the United Kingdom has been confined to psychology.² For example, Dagnall et al. (2016) surveyed 1215 adults from a U.K. university regarding their paranormal beliefs and experiences, finding that men tended to report more UFO and psychokinesis experiences, while women were more likely to report contact with the dead or astrological experiences (for other examples, see Schofield et al. 2016; Dean et al. 2021; Drinkwater et al. 2017, 2018, or; French and Stone 2017, for a recent overview).

However, there are some exceptions. Hay and Morisy (1978) used a two-stage stratified random sample of British citizens ($n = 1865$) and found that 36.4% of Britons reported “being aware of or influenced by a presence or power.” Haraldsson (1985) used data from the Multinational Human Values Survey to demonstrate differences in the “paranormal experiences” of 16 countries, including Great Britain, Northern Ireland, and the United States. Telepathy was reported by 32% of all respondents, contact with the dead by 23%, and clairvoyance by 20%. While the United States reported the highest rates of belief in telepathy at 58% (with clairvoyance and contact with the dead at 27% and 24%, respectively), 36% of those surveyed in Great Britain suggested they had experienced telepathy, 26% reported contact with the dead, and 14% reported a clairvoyant experience. In a later study using the same data, Haraldsson and Houtkooper (1991:145) would further suggest that while age and education did not seem to influence incidence of paranormal experiences, both gender and marital status had “rather striking effects.”

Castro, Burrows, and Wooffitt (2014) is the most notable contemporary exception to the dominance of psychological research on the paranormal in the United Kingdom. Using a nationally representative sample of 4069 adults in Great Britain, they report that 37% of adults claim to have had at least one paranormal experience. They further note that women, people in mid-life, and those living in the Southwest are more likely to report a paranormal experience. Castro et al. demonstrate that a considerable minority of people continue to report paranormal experiences within Britain and, perhaps more importantly, argue that the paranormal is of clear interest to scholars as a *social* phenomenon.

Although research has consistently found relationships between education, gender and paranormal beliefs, those findings are idiosyncratic. No doubt part of this lack of consistency results from the varied instruments by which researchers measure the paranormal. As is perhaps appropriate, given their elusive and diverse nature, paranormal subjects straddle many cultural boundaries. The supernatural, superstition, pseudoscience, and religion have distinctive meanings, but are often included in paranormal scales.

Within psychology, much attention has been devoted to the assessment of two scales (Dagnall et al. 2016): The Australian Sheep-Goat Scale (ASGS) (Thalbourne and Delin 1993) and the Revised Paranormal Belief Scale (RPBS) (Lange, Iwrin, and Houran 2000; Tobacyk 2004; Tobacyk and Milford 1983). The most frequently used version of the ASGS includes 18 items that group into three broad factors, ESP, psychokinesis and life after death (Drinkwater et al. 2018). The RPBS asks respondents their level of agreement with a series of 26 statements about the existence of phenomena ranging from the Loch Ness Monster and psychokinesis, but also including the devil and reincarnation (see Tobacyk 2004 for a complete list). Subsequent research has found the RPBS items to load on seven different

factors (traditional religious belief, psi beliefs, witchcraft, superstition, spirituality, extraordinary life forms and precognition) (Drinkwater et al. 2017; Tobacyk 2004).

Within sociology, there has been greater focus upon the predictors of paranormal beliefs than on the development and testing of scales. As a result, items used to measure the paranormal have tended to vary between studies (Baker, Bader, and Mencken 2016; Kim et al. 2015; Silva and Woody 2022). Most sociological research in the United States has measured paranormal beliefs with some combination of items referring to ghosts and haunted houses, psychic powers, astrology/fortune-telling, UFOs and aliens, Atlantis, and cryptids such as Bigfoot and the Loch Ness monster (see Bader, Baker, and Mencken 2017 for a review).

Collecting new, high-quality data from the United Kingdom with extensive measures of both paranormalism and religiosity provides an opportunity to expand the sociological research agenda on the paranormal by examining four key questions that have, to date, been addressed primarily using North American data (although see Bader, Baker, and Molle 2012; Possamai et al. 2022 for exceptions). First, using a random, national sample of U.K. respondents, we examine the population parameters of paranormal beliefs among the general public. Second, using exploratory and confirmatory factor analyses, we explore how paranormal beliefs are related and determine whether, in the U.K. context, there appear to be meaningful distinctions between different types of paranormal belief. After identifying subsets of paranormalism, we then examine which demographic characteristics are significantly related to specific kinds of paranormal beliefs, with particular attention to social class and marginalization. Finally, we explore the relationship between conventional religiosity and paranormal beliefs using several measures of religion, including frequency of religious service attendance, private prayer, personal religious salience, and affiliation/membership. We also test for a curvilinear relationship between religiosity and paranormal beliefs, as suggested by previous research. We frame these findings within theories of social control and marginalization with regard to sociodemographic patterns, and within secularization and bounded affinity theories with regard to connections between religion and the paranormal.

Methods

Data

The data used in this study are from the Chapman and Sheffield Paranormal and Religion Survey (CASPAR) (Bader, Baker, and Clark 2024), collected by the marketing and polling firm IPSOS MORI UK (IPSOS). IPSOS's U.K. KnowledgePanel consists of over 20,000 adults, aged 16–75, from across the United Kingdom (Wales, Scotland, Northern Ireland and England). Modeled on the IPSOS US KnowledgePanel, U.K. panelists are recruited using unclustered, address-based sampling with quotas for age, gender, region and working status. Every household in the United Kingdom has a chance to be recruited to join the panel. Surveys are completed online. If a recruited household does not have internet access, IPSOS UK provides access to both equipment and the internet.

The survey consisted of items related to conventional religious behaviors, belief, and affiliation, as well as paranormal beliefs, paranormal experiences, and other alternative beliefs. Respondents completed the survey between August 31 and September 1, 2021. Of

the 26,249 invitations sent to respondents in the panel, a total of 2,866 agreed to take the survey. Approximately 73% of respondents ultimately completed the survey, for a final sample of 2,100 adults. All analyses are weighted by region, working status, age, gender, and social grade to be nationally representative. The project gained ethical approval from the Chapman University Institutional Review Board and written informed consent was given to the provider in all cases.

Measures

Dependent Variables

The survey asked respondents their level of belief in a wide range of paranormal items. We focus on eighteen paranormal belief items included in two different question batteries. The first battery asks respondents their level of agreement with statements about paranormal subjects using the possible responses: “strongly agree,” “tend to agree,” “neither agree nor disagree,” “tend to disagree,” “strongly disagree,” and “prefer not to say.” All items were coded such that higher values equate to greater agreement, with “prefer not to say” coded as missing. The statements related to belief in alien visitations in earth’s past, alien visitations in modern times, fortune tellers, hauntings, Bigfoot, Atlantis and telekinesis. A second battery asked respondents to gauge the truth of several statements using the possible responses: “definitely true,” “probably true,” “probably not true,” “definitely not true,” and “prefer not to say.” All items were coded such that higher values equate to greater belief that the statement is true, with “prefer not to say” coded as missing. These items related to dowsing, ley lines, black magic, mysterious creatures, curses, crop circles, “alien big cats,” psychics, the abominable snowman, and faeries.

Independent Variables

Demographic variables in CASPAR (2021) include gender (men = 1) and age (16–24, 25–34, 35–44, 45–54, 55–64, 65–75). Socioeconomic status variables used include income, which is on a ten-point scale (under £5,000, £5,000–£9,999, £10,000–£14,999, £15,000–£19,999, £20,000–£24,999, £25,000–£34,999, £35,000–£44,999, £45,000–£54,999, £55,000–£99,999, £100,000 or more). Social grade is based on NS-SEC categories (see Office for National Statistics (ONS) 2005) and has six ranks: “lower level of subsistence” (1); “working class” (2); “skilled working class” (3); “lower middle class” (4); “middle class” (5); and “upper middle class” or higher (6). Education is measured using a seven-categories (primary school, secondary school, GNVQ/GSVQ/GCSE/SCE, NVQ1/NVQ2, NVQ3/SCE Higher Grade/Advanced GNVQ/GCE A/AS or similar, NVQ4/HNC/HND/Bachelor’s degree or similar, NVQ5 or post-graduate diploma).³ For work status, we use dummy variables for full-time employment (reference category); part-time employment; unemployed and looking for work; unemployed and not looking for work; homemaker; student; and retiree.

We control for region with twelve dummy variables for Northeast, Northwest, Yorkshire, East Midlands, West Midlands, East, Southwest, Southeast, Wales, Scotland, and Northern Ireland, with London used as the reference category. Region of the country is used as a control in all multivariable models, but not shown on the tables, for the sake of space. We also include controls for marital status (dummy variables for single, cohabiting, separated, divorced, and widowed, with married as the reference category), and whether or not the respondent has children under 18 living at home (yes = 1).

We used two key religion measures: religious affiliation, and an additive index of religiosity consisting of frequency of attendance at religious worship services, frequency of private prayer, and religious salience. Religious affiliation was assessed using the provider's standard seventeen-fold item—"What is your religion, if any?"⁴ We recoded respondents into a smaller set of categories, ensuring that each category has at least 30 cases: Catholic, Church of England, Protestant, Muslim, Agnostic, Atheist, and all other religions. Church of England is used as the reference category for multivariable modeling, because it is the largest category ($n = 527$), as well as the most mainstream religion in the U.K. The "other religions" catchall category deserves further detail, as it includes Jews ($n = 8$), Eastern religious traditions such as Hindus ($n = 18$), Buddhists ($n = 13$), and Sikhs ($n = 8$), but also traditions that directly incorporate culturally paranormal beliefs, such as Spiritualists ($n = 8$), Wiccans ($n = 6$), and Pagans ($n = 4$).⁵

We measure religious service attendance using the question: "How often do you attend religious services at a church, mosque, synagogue or other place of worship?" (never; less than once a year; once or twice a year; several times a year; once a month; two to three times a month; weekly; several times a week). Frequency of private prayer is measured with a question that asked: "About how often do you pray, if at all, outside of religious services?" Response options ranged on a six-point scale from "never" to "several times a day." Religious salience was measured by asking: "To what extent do you consider yourself a religious person?" Answer choices were on a four-point scale, from "not religious at all" to "very religious." These measures were mean standardized to account for their different measurement ranges, then combined into an additive index (Cronbach's $\alpha = .876$). To assess the possibility of a nonlinear relationship between conventional religiosity and paranormal belief, we also created a quadratic term (religiosity²), and include both the lower-order and squared term for religiosity in multivariable models (see Aiken and West 1991:63).

At the insistence of the survey provider, "due to the personal nature of the questions," all items included a "prefer not to say" response option. All such returns were coded as missing. Missing cases for variables included in multivariable models were handled with listwise deletion.

All variables were mean standardized before entry into multivariable models to facilitate the comparison of magnitude across independent variables, and to center the constant for accurately graphing the nonlinear effects of religiosity. For graphing the effects of religiosity on paranormalism, the outcome scales of paranormal belief were mean-standardized so that the effects could be compared and graphically displayed together.

Results

Prevalence of Paranormal Belief

Table 1 shows that belief in the paranormal is relatively common in the United Kingdom. The highest levels of belief were reported for issues related to earth mysteries, with belief in dowsing (45.6%) and ley lines (41.5%) registering the highest affirmative responses. Beyond this, the highest levels of belief were reported for black magic (36.3%), hauntings (35.9%), mysterious creatures (32.9%), and curses (30.0%). The lowest levels of belief were reported for belief in Bigfoot (14.8%), the U.K. Wildman (14.8%), and fairies (15.4%). Still, even on

Table 1. Belief in paranormal subjects in the United Kingdom.

Statement	Belief (%)
Dowsing can be used to detect water, minerals and other elements	46.5
Lines of energy, sometimes called “ley lines,” connect ancient structures	41.5
Black Magic exists	36.3
Places can be haunted by spirits	35.9
Mysterious creatures, previously thought extinct, still inhabit this world	32.9
Curses can be used to inflict harm or punishment on someone	30.0
The ancient, advanced civilization of Atlantis, once existed	26.3
Aliens have visited the Earth in our ancient past	25.6
Some crop circles are created by non-human forces or energies	25.4
Alien Big Cats (ABCs) roam the British countryside	21.6
Aliens have come to Earth in modern times	21.6
Some people can move objects with their minds (telekinesis)	19.5
The Loch Ness Monster exists	19.5
Fortune tellers and psychics can foresee the future	18.9
The Abominable Snowman exists	15.9
Fairies have the power to influence the human world	15.4
Bigfoot is a real creature	14.8
The U.K. Wildman, sometimes known as “the British Bigfoot,” exists	14.8
Believe in at least one item above	78.3
Believe in at least one item above (excluding earth mysteries)	71.5

Source: Bader, Baker, and Clark 2024.

Note: For the purposes of this table, respondents were coded as believing if they strongly or tended to agree for agreement-based items, or stated that the phenomenon in question was definitely or probably true.

Table 2. Factor loadings based on principal axis factoring with promax rotation.

	Factor			
	Cryptids	Magic and Spirits	Aliens	Earth Mysteries
Abomin. Snowman	.89	−.08	−.04	.02
Loch Ness Monster	.80	.07	−.02	−.10
U.K. Wildman	.82	.09	−.06	.09
Alien Big Cats	.64	−.04	−.04	.16
Bigfoot	.60	.11	.22	−.13
Mysterious creatures	.54	−.03	.05	.23
Black Magic	.03	.79	−.15	.11
Curses	.08	.78	−.15	.10
Hauntings	−.09	.79	.10	−.01
Psychics	.05	.70	.10	−.08
Telekinesis	.11	.52	.22	.00
Ancient Aliens	−.04	−.04	.88	.01
Modern aliens	.00	−.01	.90	.08
Ley lines	.04	.03	.09	.77
Dowsing	−.05	.09	.01	.67
Cronbach's α	.88	.88	.89	.76

Source: Bader, Baker, and Clark 2024.

the lower end of population levels of belief in specific items, well over 10% of people in the United Kingdom believe in these paranormal phenomena.

Nearly four-fifths (78.3%) of respondents expressed belief in at least one of the items shown in Table 1. Given that ley lines and dowsing were the most popular, but also represent a distinct set of beliefs (see Table 2 below), we also assessed what percentage of U.K. residents believe in at least one paranormal item when earth mysteries are excluded. Even with these items not included, over 7 out of 10 people (72%) still believe in *something* paranormal. So, while paranormal belief occurs only

among a statistical minority of the population for specific topics, these beliefs are nonetheless prevalent and widespread overall.

Types of Paranormal Belief

We used exploratory factor analysis (EFA) to determine whether there was a latent factor structure within the 18 paranormal belief items, with a confirmatory factor analysis (CFA) subsequently performed to confirm that structure. We split the dataset randomly into two, with the first dataset used to develop the model (EFA) and the second to confirm it (CFA).

Principal Axis Factoring (PAF) was chosen to conduct the EFA, with the 18 variables meeting all the standard recommendations for analysis. Using listwise deletion for missing data, the final sample exceeded the recommended ratio of over 12 cases per variable; all items correlated at least .3 with at least one other item; the Kaiser-Meyer-Olkin measure of sampling adequacy was .950; and, Bartlett's test of sphericity was significant ($\chi^2 = 11580.4$; $df = 153$; $p < .01$). The diagonals of the anti-image correlation matrix were also all over .5, with communalities also all above .3. Oblique promax rotation was used to perform the exploratory analysis.

Initial examination of the eigenvalues indicated that four factors had eigenvalues above one, explaining 61% of the variance. However, the crop circles item did not have a primary factor loading above .4, and there was some evidence of cross-loading with respect to the faeries item and the Atlantis item. As a result, these items were removed from the analysis as they did not contribute to a simple factor structure.⁶

Following the removal of these items, the first, second, and third factors explained 21.2%, 17.8%, 11.7%, and 7.9% of the total variance, with all four factors having eigenvalues above 1. Therefore, a four-factor solution, which explained 71.0% of the total variance, was preferred because of: (a) theoretical resonance; (b) the "levelling off" of eigenvalues on the scree plot after fourth factors; and (c) the difficulty of interpreting the fifth and subsequent factors. The factors were subsequently labeled as Cryptids, Magic and Spirits, Aliens, and Earth Mysteries. The Factor Loadings are presented in [Table 2](#). Reliability analysis using Cronbach's α shows high internal consistency for the cryptids, (.88), magic and spirits (.88), and aliens (.87) items, and moderate consistency for the earth mysteries items (.76).

Following the EFA, the second half of the dataset was subjected to a Confirmatory Factor Analysis. Facilitated within the lavaan (0.6–11) platform in R (Rosseel 2012), missing data was handled using listwise deletion. The final sample ($n = 827$) exceeded general recommendations of 5 cases per estimated parameter, and 15 cases per parameter when not multivariable normal (Stevens 1996). Indeed, multivariable normality was estimated with Mardia's multivariable kurtosis test and Mardia's multivariable skewness test (Mardia 1970). The null hypothesis was rejected for both tests, returning p-values less than 0.01. This suggested multivariable normality could not be assumed.

Several solutions to problems of non-normality in CFA have been proposed, although there is no firm agreement on the most appropriate countermeasures, or when they should be applied. One method of Maximum Likelihood (ML) estimation that has been used with non-normal data is the "Satorra and Bentler correction" (Satorra and Bentler 1994)—and there has been some evidence to support its general utility (Curran, West, and Finch 1996). Another approach is to use the diagonally weighted least squares (DWLS) or unweighted

Table 3. Goodness-of-fit indicators for four factor model of paranormal belief.

Method	n	χ^2	df	CFI	TLI	RMSEA	SRMR
ML	792	498.18***	84	.944	.930	.077	.042
MLSB	792	344.10***	84	.960	.950	.061	.042
DWLS	792	127.76***	84	.998	.997	.025	.038
DWLS (robust)	792	357.47***	84	.994	.993	.039	.038
ULS	792	161.76	84	.997	.996	.033	.039
ULS (robust)	792	346.36***	84	.995	.993	.043	.039

Source: Bader, Baker, and Clark 2024.

*** $p < .001$.

Note: The ULS estimation is distribution free and therefore significance is not estimated.

least squares (ULS) methods that are frequently also applied to categorical variables. Within the literature there is now evidence to suggest that the DWLS and ULS estimators are more reliable than their ML counterparts (see Sellbom and Tellegen 2019, for a brief review). In the interest of completeness, Table 3 reports the results of the CFA using ML, ML with the Satorra-Bentler correction (MLSB), DWLS, and ULS estimation methods. “Robust” variants of the DWLS and ULS estimators that are currently offered by the lavaan platform are also reported.

Several fit measures were used to determine the adequacy of the model. It is generally considered that models of any complexity that are based on real-world data rarely satisfy the test of exact fit to achieve a non-significant χ^2 statistic. Instead, we use four additional indices of approximate fit to provide a more reasonable means to assess the adequacy of the model (Hu and Bentler 1999). The Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI) are considered to be high when over .95, with very good fit also being suggested when the Root Mean Squared Error of Approximation (RMSEA) is below .05, with $< .07$ considered adequate. However, there is some evidence to suggest that the Standardized Root Mean Squared Error (SRMR) is both more accurate and more powerful than the RMSEA, with good fit being suggested below .05 (Shi and Maydeu-Olivares 2020).

Examination of Table 3 demonstrates that the test of exact fit (χ^2) is significant in all cases. However, as previously suggested, the χ^2 statistic is known to be sensitive to large samples, particularly where multivariable non-normality has been detected. Instead, Table 3 reveals that the CFI and the TLI are adequate ($>.90$) to high ($>.95$) across the different methods of estimation, with both the RMSEA and SRMR suggesting very good fit in all cases ($<.05$). Given these results, it can be concluded that the model has empirical utility and should not be rejected.

Patterns of Paranormal Belief

Table 4 shows the results (standardized coefficients) for OLS regression models predicting the four paranormal scales as outcomes, using sociodemographic and religious characteristics as independent variables. Each model includes a quadratic term testing for a curvilinear relationship between religiosity and paranormalism.⁷

There are some distinct patterns regarding gender, socioeconomic status, and marital status. For the models predicting belief in earth mysteries ($\beta = -.058$; $p < .05$), and especially magic and spirits ($\beta = -.129$; $p < .001$), men reported significantly lower levels of belief than women. For aliens and cryptids, however, there was relative gender parity in belief, with small coefficients and non-significant results for both. This is similar to findings from the

Table 4. OLS regression models predicting belief in aliens, cryptids, magic & spirits, and earth mysteries.

Variables	Aliens	Cryptids	Magic & Spirits	Earth Mysteries
Income	-.033	-.145***	-.098***	-.079*
Social grade	-.090***	-.012	-.073**	-.001
Education	-.051	-.093***	-.077**	-.041
Part-time employed ^a	-.084**	-.083**	-.050*	.007
Self-employed ^a	-.024	.005	-.021	.021
Looking for work ^a	-.041	-.040	-.049*	-.015
Not looking for work ^a	-.035	-.009	.025	.020
Homemaker ^a	-.007	-.013	-.015	.007
Retired ^a	-.081**	-.074*	-.069*	-.029
Student ^a	-.065*	-.102***	-.072**	-.041
Men	.011	-.030	-.129***	-.058*
Single ^b	-.015	-.048	.027	-.062
Cohabiting ^b	.036	-.012	.034	-.022
Separated ^b	.057*	.081***	.077***	.018
Divorced ^b	-.011	-.051	.005	-.006
Widowed ^b	-.015	-.051*	-.024	.001
Children	.058*	.045	.056*	-.035
Age 25 to 34 ^c	.006	-.023	-.004	-.015
Age 35 to 44 ^c	.013	-.047	-.027	.002
Age 45 to 54 ^c	.020	-.068	-.024	.064
Age 55 to 75 ^c	.000	-.111*	-.068	.164***
Catholic ^d	.070*	.012	.052*	.015
Protestants ^d	-.045	-.025	.003	-.020
Muslim ^d	.005	-.048	-.017	-.034
Other religions ^d	.105***	.125***	.080***	.139***
Atheist ^d	-.037	-.083*	-.157***	-.078*
Agnostic ^d	.014	-.039	-.059*	-.033
Religiosity	.200***	.340***	.405***	.241***
Religiosity ²	-.179***	-.116**	-.161***	-.085*
Model stats				
Constant	6.914	5.209	4.571	.644
N	1586	1442	1494	1483
Adjusted R ²	.076	.179	.271	.124

Source: Bader, Baker, and Clark 2024.

* $p < .05$; ** $p < .01$; *** $p < .001$.^aReference is employed full time^bReference is currently married^cReference is ages 18–24^dReference is Church of England

United States, where women have been found to report higher levels of belief in “Enlightenment” paranormal, while men have been found to have higher levels of belief in “Discovery” paranormal (Bader, Baker, and Mencken 2017). Indeed, the data from the United Kingdom provide an additional example of gender differences across varying types of paranormalism, and specifically the pattern of higher belief in “spiritual” forms of the paranormal among women.

For social class, the overall pattern is that higher socioeconomic status correlates with lower levels of paranormal belief. The most consistent relationship is for income level, which has a significant and negative relationship to three outcomes ($\beta = -.145$; $p < .001$ for cryptids; $\beta = -.098$; $p < .001$ for magic and spirits; and $\beta = -.079$; $p < .05$ for earth mysteries). Similarly, higher levels of educational attainment are significantly and negatively related to belief in cryptids ($\beta = -.093$; $p < .001$), and magic and spirits ($\beta = -.077$; $p < .01$). Higher social status grade rank is also significantly and negatively related to belief in aliens ($\beta = -.090$; $p < .001$) and magic and spirits ($\beta = -.073$; $p < .01$). Overall, there was a strong and consistent pattern across the different domains of paranormal belief, such that respondents

who were more socioeconomically marginalized exhibited significantly higher levels of paranormal belief.

At the same time, the results for work status help nuance this general finding about the connection between marginalization and paranormalism. Specifically, those working full-time had significantly higher levels of paranormal beliefs compared to part-time workers ($[\beta = -.084; p < .01$ for aliens]; $[\beta = -.083; p < .01$ for cryptids]; $[\beta = -.050; p < .05$ for magic and spirits]), retirees ($[\beta = -.081; p < .01$ for aliens]; $[\beta = -.074; p < .05$ for cryptids]; $[\beta = -.069; p < .05$ for magic & spirits]), and students ($[\beta = -.065; p < .05$ for aliens]; $[\beta = -.102; p < .001$ for cryptids]; $[\beta = -.072; p < .01$ for magic and spirits]). People who were unemployed (and looking for work) also had significantly lower levels of belief in magic and spirits compared to those employed full time ($\beta = -.049; p < .05$). Thus, the picture that emerges from the data about how social class factors predict paranormal belief is a combination of social marginalization (lower income, education, and social status), but also full-time labor. The sigh of the oppressed proletariat turns out to be belief in magic and spirits.

For marital status, compared to those who were currently married, separated respondents reported significantly higher levels of belief in aliens ($\beta = .057; p < .05$), cryptids ($\beta = .081; p < .001$), and magic and spirits ($\beta = .077; p < .001$). It is notable that it is being separated, rather than being single, cohabitating, divorced, or widowed which is correlated with significantly higher levels of paranormal belief. This suggests that it is *liminal* social relationships—such as separated marital partners—where paranormal beliefs are more likely to flourish, rather than in isolated (single, widowed, or divorced) or partnered arrangements (married or cohabitating). Indeed, this again points toward marginalization, rather than isolation, as a key component of the social arrangements most conducive to paranormal beliefs. Taken together, these findings from the survey support the application of marginalization and social control theories for understanding sociological patterns of paranormalism (Bader and Baker 2019; Mowen, Heitkamp, and Boman 2022).

Turning to religion, respondents grouped into the “other” religion category reported significantly higher paranormal beliefs across all the scales ($[\beta = .105; p < .001$ for aliens]; $[\beta = .125; p < .001$ for cryptids]; $[\beta = .080; p < .001$ for magic and spirits]; and $[\beta = .139; p < .001$ for earth mysteries]), compared to Church of England members. It is important to remember that members of alternative religions directly incorporating paranormalism (such as Pagans) are included in this category. Notably, Catholics reported significantly higher levels of belief in aliens ($\beta = .070; p < .05$) and magic and spirits ($\beta = .052; p < .05$), compared to Church of England members. In contrast, compared to Anglicans, atheists reported significantly lower levels of belief across three of the different paranormal domains ($[\beta = -.083; p < .05$ for cryptids]; $[\beta = .078; p < .05$ for earth mysteries]; and especially $[\beta = -.157; p < .001$ for magic & spirits]). Agnostics also reported significantly lower levels of belief in magic and spirits ($\beta = -.059; p < .05$).

Looking at the composite measure of religiosity, it was significant and positive across all the different paranormal belief scales and was by far the strongest predictor in the models.⁸ Generally speaking, religiosity is strongly and positively related to paranormal belief in the United Kingdom.

The quadratic terms for religiosity are significant and negative in each of the models, indicating a convex shape to the effects of religiosity. Figure 1 graphs the curvilinear relationship between religiosity and paranormal belief, holding controls at their respective means and standardizing the dependent variables, for comparable scale

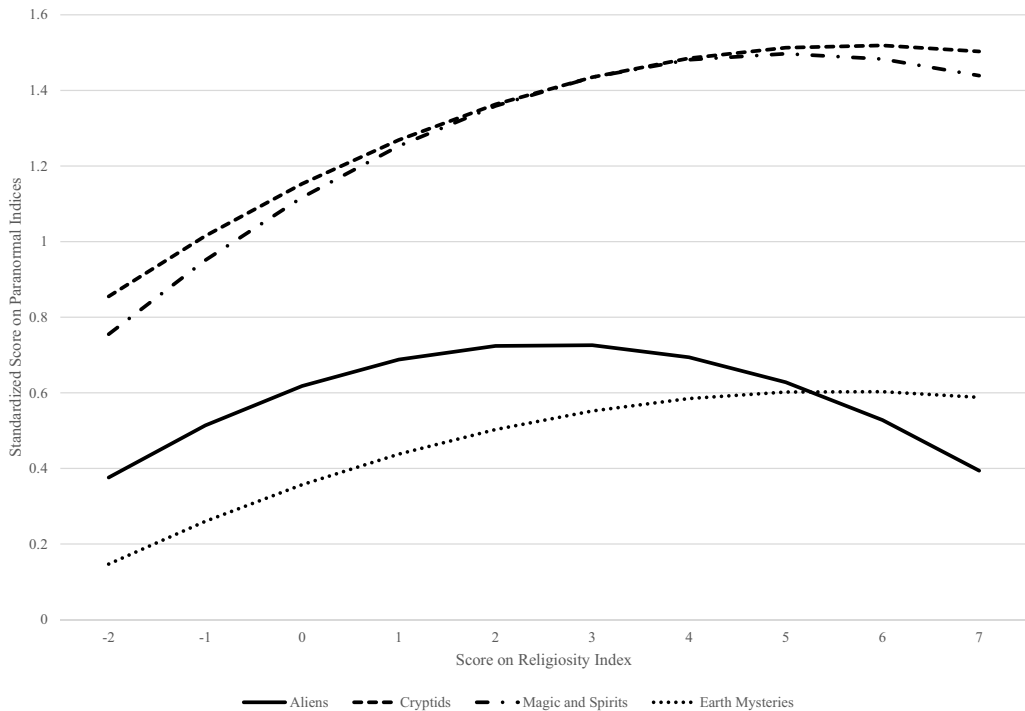


Figure 1. Curvilinear effects of religiosity on paranormal beliefs.

so that the effects could be compared and graphically displayed together. The lowest average levels of paranormal belief occur among people with the lowest levels of religiosity. The strong positive effects for religiosity on belief in cryptids, earth mysteries, and magic and spirits all have a ceiling effect starting around the mid-point of the religiosity measure.⁹ The apex for each line occurs before the maximum level of religiosity. Meanwhile, the curvilinear effects of religiosity on belief in aliens are more distinctly rainbow-shaped, with the highest levels of belief occurring at mid-levels of the religiosity index.

Taken together, we find that some of the bounded affinity dynamics identified in other locations—such as rainbow-patterned religiosity effects—hold in the U.K. context; but only in a limited sense. Instead, the more secularized context of the United Kingdom reveals a general positive relationship between conventional religiosity and types of paranormal belief other than aliens, albeit with a significant ceiling effect past a certain level of religiosity.

Discussion

Our study reveals four key findings that expand the sociological study of the paranormal. First, a considerable majority of the U.K. public believe in some form of the paranormal, and believing in earth mysteries, cryptids, magic and spirits, and even alien visitation is commonplace. Collectively, 78% of the British public believe in at least one topic culturally classified as paranormal. Consequently, paranormalism among the public deserves greater

attention from social scientists, as it represents a relatively widespread dimension of culture and an ongoing point of fascination for the British public.

Second, there are distinct types of paranormal belief clustered around aliens, cryptids, magic and spirits, and earth mysteries. Although there is considerable overlap in interest among these topics for many enthusiasts, they represent related, but distinct, areas of interest, at least among our U.K. sample. Further exploration of other paranormal topics, especially those that straddle the boundaries between religion and the paranormal (such as belief in supernatural evil) would be informative for further understanding distinctive paranormal subcultures, as well as what types of beliefs and practices may serve as a bridge across different areas of interest.

Third, not only are there differences in types of paranormal belief, there are also some notable differences in the patterns of belief. Specifically, women are considerably more likely to believe in magic and spirits, mirroring findings from the United States that enlightenment-style paranormalism has gendered cultural dimensions. We also find strong evidence for the application of social control and marginalization frameworks to understand paranormal belief in the United Kingdom. Education, income, and social grade all have consistent negative relationships to paranormal belief, across different types of paranormalism. Similarly, those who are maritally separated exhibited consistently higher levels of belief. Overall, there is a clear pattern in these data, such that members of more marginalized social statuses (lower socioeconomic status, maritally estranged) are more likely to report greater belief in the paranormal. At the same time, the fact that paranormal beliefs are more common among full-time workers does nuance this pattern, and suggest that paranormalism is, perhaps, linked to labor alienation, in addition to social marginalization.

Fourth, our findings regarding religion and the paranormal extend the developing literature on this topic. In particular, our findings offer an important corrective to binary theories of secularization, and an extension of bounded affinity theory regarding the intersection of religion and paranormalism. In terms of religiosity, there is a general positive relationship to paranormal belief, but this positive effect plateaus, and in the case of belief in aliens, declines at the highest levels of religiosity. At the same time, the shape of the results from the U.K.-based sample also shows some important differences to previous, similar examinations in the United States (Baker, Bader, and Mencken 2016) and Italy (Bader, Baker, and Molle 2012). The United States and Italy—outliers among Western countries in terms of average levels of religiosity (Norris and Inglehart 2011)—exhibit more dramatic curvilinear relations between religiosity and paranormalism than the United Kingdom. In contrast, the United Kingdom offers a more extensively secularized cultural context, albeit one where extensive religious residue remains (Woodhead 2016). Consequently, our findings suggest an extension of bounded affinity theory that takes the relative secularization of a cultural context into account, and incorporates how the “affinity” dimension becomes more positive once the “bounds” of organized religion have been loosened by processes of secularization.

Our findings also offer an important corrective to secularization theories, and to scholars’ lack of consideration about beliefs and practices related to diffuse forms of supernaturalism. As the influence of institutional religion wanes in modern societies, more space becomes available for non-institutionalized forms of supernaturalism to flourish. The United Kingdom may well now be majority non-religious, but it is also the case that over

7 in 10 still believe in something paranormal, that considerable religious diversity remains, and that religious practices and paranormal beliefs now go hand-in-hand for many.

It would be of interest to see how these results on religion and the paranormal compare in other Western and non-Western contexts. To these ends, there is already some evidence to suggest that in certain comparative contexts, measurement invariance can be achieved with supernatural belief scales. Using the Supernatural Belief Scale (Jong, Bluemke, and Halberstadt 2013), Bluemke et al. (2016) compared the responses of Croatians and New Zealanders and found that supernatural beliefs associated with religion could demonstrate measurement invariance, if enough attention was given to what was being measured. While the research did not assess more general supernatural beliefs, their findings highlight the nuances associated with more precise unidimensional conceptions of “religion” and further research extending these findings to paranormal beliefs could be beneficial.

Additionally, more research is needed on how paranormal beliefs predict outcomes related to social marginalization, such as health, social trust, and political attitudes. For example, a relatively robust literature now exists on how beliefs about supernatural evil are related to a wide range of social outcomes, including attitudes about sexual politics (Baker, Molle, and Bader 2020), gun control (Ellison et al. 2021), criminal justice (Baker and Booth 2016), and presidential politics (Nie 2024). Paranormal beliefs are strongly tied to views of supernatural evil, as well as belief in conspiracy theories (Bader et al. 2020), which have also been shown to be socially and politically consequential (see Uscinski and Enders 2023, for a recent overview). Initial studies in this area have found that paranormal beliefs can have important consequences for behaviors such as vaccine hesitancy and resistance (Corcoran, Scheitle, and DiGregorio 2023) and substance abuse (Heitkamp, Mowen, and Boman 2022), but much work remains to be done in mapping the social and political consequences of paranormalism.

Although our study advances research in these areas, there are important limitations to note. Because our data are cross-sectional, we cannot assess how social class, gender, or religion relate to paranormal belief over time. Regarding religion, although we have outlined the general relationship to the paranormal, a more granular examination of religion that included measures of intensive religious experience and supernatural beliefs would be informative for further detailing the complex relationships at play. Another key limitation is that our data do not include extensive psychometric batteries that would allow us to follow up on findings about paranormal belief from research in psychology. Similarly, our data did not contain a standard measure of ethnicity, so further research on how ethnic identification is related to paranormal beliefs in the United Kingdom is needed. Likewise, because our survey was conducted in English, the data are limited in terms of understanding paranormal belief within the many diverse immigrant communities of the United Kingdom. Lastly, although quantitative data are informative about overall trends and patterns, our analysis necessarily misses differences in styles of paranormal beliefs, subcultural engagement, and the lived experiences of the paranormal for individuals (see Ironside and Wooffitt 2022, for example).

Conclusion

Paranormalism in the United Kingdom is widespread, and patterns of belief are relatively similar to those in North America with regard to social marginalization. People with lower

levels of socioeconomic status (education, income, and social rank) were significantly more likely to hold paranormal beliefs. At the same time, there are unique clusters of belief present in the United Kingdom, along with some key differences in the patterning of beliefs, such as a more positive relationship to religiosity, and a ceiling effect to this relationship, rather than a sharp curvilinear downturn among the highly religious. This provides an important extension of bounded affinity theory, and an important correction to secularization theories. Specifically, secularization theories must take explicit account of paranormalism in evaluating the relative secularity of modern societies. Meanwhile, for bounded affinity theory, the relationship between conventional religiosity and paranormalism can become more positive in secularized contexts, as the affinity between religion and the paranormal becomes “unbounded.” By documenting the prevalence and patterns of paranormal belief amongst the U.K. population, and demonstrating how empirical research on these topics can inform relevant theoretical debates in sociology, we are hopeful that other social scientists will further explore this interesting and consequential form of culture, across a wider range of social contexts.

Notes

1. The United Kingdom is a shortened version of the United Kingdom of Great Britain and Northern Island. It is typically used to refer to the countries of England, Wales, Scotland, and Northern Ireland. Great Britain (or simply Britain), on the other hand, is a geographic term that is used to describe the island of Britain, which includes the countries of England, Wales, and Scotland. We follow these conventions in this study.
2. There are, of course, any number of opinion polls conducted in the United Kingdom that contain some attempt to measure particular aspects of the paranormal. However, the data is not typically publicly available beyond some headline aggregate statistics, and with the items often being somewhat ad-hoc.
3. These qualifications can be broadly understood as a continuum. Primary and secondary school are stages of compulsory education, with GNVQs, GSVQs, GCSEs or SCEs being taken at the culmination of schooling. NVQ1/NVQ2 are lower-level technical qualifications, with NVQ3s, SCE Higher Grades, Advanced GNVQs, GCE A/AS levels or similar being taken in further education contexts. NVQ4, HNCs, HND, and Bachelor's degree or similar are typically university level qualifications, with NVQ5 or post-graduate diploma typically operating at post-graduate level.
4. The seventeen-fold classification system included the following options: Roman Catholic, Church of England/Anglican/Episcopal, Presbyterian/Church of Scotland, United Reform Church (URC)/Congregational, Plymouth Brethren, Jehovah's Witness, Baptist, Methodist, Judaism/Jewish, Islam/Muslim, Buddhist, Hindu, Sikhism/Sikh, Atheist, Agnostic, other (please specify), and prefer not to say.
5. In supplemental analyses, we further subdivided the “other” religion category into Wiccans/Pagans/Spiritualists and other magic-based religions ($n = 27$), Jews ($n = 8$), Hindus/Buddhists/Sikhs ($n = 39$), and all other remaining religious minorities ($n = 14$). Wiccans had the highest levels of belief in all four different paranormal scales. In full regression models, Jewish respondents had significantly higher levels of belief in cryptids, aliens, and earth mysteries compared to Church of England members. Respondents from Eastern traditions such as Hinduism had significantly higher levels of belief in cryptids, but no other type of paranormalism. The mixture of respondents remaining in the “other” category had significantly higher levels of belief in cryptids, aliens, and earth mysteries. Due to the small sample sizes, we consider these findings preliminary and exploratory. Religion and the paranormal among religious minorities, particularly from non-Western traditions, is an important area in need of further research.

6. In supplemental analyses, we ran OLS regression models predicting scores on the items for belief in faeries, crop circles, and Atlantis. For belief in faeries, income ($\beta = -.112$; $p < .001$) and education ($\beta = -.075$; $p < .01$) were both strong and significant negative predictors. Religiosity had a strongly curvilinear effect on belief in faeries. For belief in crop circles, income ($\beta = -.116$; $p < .001$) and being martially separated ($\beta = .079$; $p < .001$) had relatively strong effects, while education ($\beta = -.051$; $p = .054$) and social grade ($\beta = -.051$; $p = .065$) had marginally significant negative effects. Religiosity had a significant positive effect on belief in crop circles, but did not exhibit a strongly curvilinear pattern in relation to crop circle belief. It is debatable whether belief in Atlantis should be included with the other measures about belief in aliens, given its borderline factor loading (.402), as well as the prominent role played by lost civilization in many narratives about ancient aliens; however, we have excluded it from the belief in aliens scale for conceptual clarity. People with higher income ($\beta = -.097$; $p < .001$), higher education ($\beta = -.059$; $p < .05$), men ($\beta = -.069$; $p < .01$), those living in the Northeast ($\beta = -.054$; $p = .05$), Muslims ($\beta = -.059$; $p < .05$), and atheists ($\beta = -.144$; $p < .001$) all had significantly lower levels of belief in Atlantis. Members of non-mainstream religions ($\beta = .105$; $p < .001$) had significantly higher levels of belief in Atlantis. Religiosity was again the strongest predictor ($\beta = .142$; $p < .001$), and interestingly did not show strong evidence of a ceiling effect, with the quadratic term for religiosity falling just beyond marginal statistical significance ($\beta = -.068$; $p = .104$).
7. Each model also controls for region of the country (with London as reference category), although those coefficients are not shown on the table in order save space. The following were the only regional differences identified that were significant at $p < .05$: lower levels of belief in magic and spirits in Northern Ireland ($b = -1.187$; $p = .042$) and higher levels of belief in earth mysteries in the East Midlands ($b = .468$; $p = .025$).
8. In supplemental models that included only a standard linear term for religiosity, it was the strongest predictor of cryptids, magic and spirits, and earth mysteries. It was only a marginally significant predictor of belief in aliens however, as the convex pattern shown in Figure 1 is not well captured using a standard linear term.
9. Notably, the composite measure of religiosity is right-skewed (skewness = 1.05), but non-kurtotic (kurtosis = .01), with a high number of respondents clustered at the lowest ($n = 507$) and second-lowest possible scores on personal religiosity ($n = 313$). This provides an in-sample example of the relative secularity of the U.K. public, at least with regard to institutional religiosity.

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Notes on Contributors

Tom Clark is a Lecturer in Research Methods at the University of Sheffield. He is interested in all aspects of research methods and methodology and is the first named author of the textbook *Bryman's Social Research Methods*. His other interests have variously focused on the sociology of evil, the sociology of higher education, and soccer fandom.

Joseph O. Baker is a Professor in the Department of Sociology & Anthropology at East Tennessee State University, and former editor of *Sociology of Religion*. His current research interests include Christian nationalism, xenophobia, and deviant belief systems. He is the author of *American*

Secularism (NYU Press), *Paranormal America* (NYU Press), *Deviance Management* (University of California Press), and *Fear Itself* (NYU Press).

Christopher D. Bader is a Professor of Sociology at Chapman University and Campbell Professor of Behavioral Sciences. He is affiliated with the Institute for Religion, Economics, and Society (IRES) and is co-director of the annual Chapman University Survey of American Fears. He is associate director of the Association of Religion Data Archives (ARDA), funded by the Templeton Foundation and Lilly Foundation. Christopher is the author of five books and over 50 articles and chapters in the fields of sociology, deviance, criminology, the sociology of religion, and education.

ORCID

Tom Clark  <http://orcid.org/0000-0001-6871-629X>

Joseph O. Baker  <http://orcid.org/0000-0002-8378-1679>

Christopher D. Bader  <http://orcid.org/0000-0001-8495-1919>

Data Availability Statement

The data in this study are available upon reasonable request.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Approval Statements

The project received ethical approval from the Chapman University Institutional Review Board (IRB-21-275 and written informed consent was given to the survey provider by participants in all cases.

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