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Religious Orientation and the Influence of Nurture: The Examination of Environmental Influences In Critical Developmental Periods

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Social psychologists are increasingly interested in the growth of irreligion, defined by Lugo (2015) as identification with no particular religious affiliation. Findings that suggest that religion is a product of evolution (For review see Wilson, 2002; Richerson, & Christiansen, 2013; Purzycki, Haque, & Sosis, 2014) have influenced this social psychological research, warranting the question: If religious tendencies were strictly a product of evolution, then how does one explain the phenomenon of irreligion? Current research on the topic indicates that there might be an overlap between heredity traits that influence underlying evolutionary community tendencies and the heritable influences behind religiosity (Lewis, 2013). However, in another recent study, Brandon Burr and colleagues found that most test subjects believed that their personal religious beliefs developed as a result of childhood exposure to a particular religion (Burr, Kuns, Atkins, Bertram, & Sears, 2015). While Lewis's research examined the potential genetic influence that might underpin religiosity, I, like Burr, take the environmental nurture approach and examine the correlation between attendance of religious services during development and religious affiliation as an adult. After analyzing data collected by the Pew Research Center's Forum on Religion & Public Life for their study, *Faith in Flux: Change in Religious Affiliation in the U.S.* (Lugo, 2008), I find significant mean differences in attendance of religious services across three groups of individuals: those who identified as religious during childhood and are now atheist, those who identified as religious during childhood and are now agnostic, and finally those who identified as religious during childhood and are now unaffiliated with any particular religion. I find that members of all groups of rare to occasional attendance of religious services, during adolescent development, have converted from their former religion to one of the three irreligious categories.

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Introduction

In the past century, the number of people in the U.S. who are irreligious, or who do not identify with a particular religious affiliation, has grown (Lugo, 2015). This trend is becoming one of the most widely studied areas for anthropologists, sociologists and psychologist alike. Findings that posit religion could be a product of evolution (For review see Wilson, 2002; Richerson, & Christiansen, 2013; Purzycki, Haque, & Sosis, 2014) have influenced this research. Currently, there exists two schools of thought on the exact mechanisms underpinning the evolution of these religious propensities. One prevailing theory is that religion itself provided a distinct evolutionary advantage and that natural selection rewarded those with a higher religious propensity. Alternatively, other scholars argue that religious beliefs and behaviors may have emerged as by-products of other adaptive traits. Both theories posit that religion served an evolutionary function and that the capacity for religious belief is genetic (Pyysiäinen, & Hauser, 2010).

Current Research in Support of Evolutionary Psychology of Religion

Recent research on the overlap between heredity traits that influence underlying evolutionary community tendencies and the heritable influences behind religiosity supports this theory (Lewis 2013). In a study of nationally representative twin pairs, the researchers found that the genetic influences that underlie community integration and existential uncertainty overlapped with the genetic influences that underpin religiosity. These findings are consistent with previous research concerning religiosity and the influence of biological factors on the satisfaction of an individual's social and existential needs (See Bouchard, & McGue, 2003; Bouchard, 2004; Lewis & Bates, 2013).

Current Research in Support of a Multi-determinant Model

The evolutionary literature neither addresses the irreligious population nor acknowledges the influence of environmental factors, namely parental influence and exposure to religion during formative years. Brandon Burr and colleagues investigated the relationship between socialization and religiosity, especially the intergenerational reproduction of religion within individual families. In interviews with thirteen adults who identified as being religiously inclined, the authors found that most participants believed that their personal religious beliefs had resulted from childhood exposure to a particular religion (Burr et. al, 2015). This paper seeks to expand on these results by examining the correlation between childhood and adolescent religious service attendance and adult religious affiliation, particularly focusing on those who self identify as religiously unaffiliated.

Data Collected by Pew Research Forum on Religion and Public Health

I examined survey data collected by Pew Research Center's Forum on Religion & Public Life for their study Faith in Flux: Change in Religious Affiliation in the U.S. focusing those who claim religious affiliation. The survey found that roughly 28% of American adults have converted from the religious tradition in which they were raised. However this number only includes those participants in the study who have changed from one major religion to another, such as from Catholicism to Protestantism or from no religion to Judaism. If this number were expanded to include inter-religious changes (e.g., from one denomination of Islam to another), then the percentage of Americans who profess to be of a different religion than their religious background would be closer to 44%.The approximately 30% of participants who have converted from their former religion to an irreligion are the target population for my examination (Lugo 2008).

Purpose

The current published research lacks an examination of the motivations for religious people converting to various types of irreligion. This study examines the correlations between the religious orientation of individuals' parent, and the individual's attendance of religious services during development, and the individual's adult religious affiliation. I predict that those who identified as religious when they were younger and who now identify irreligious were less likely to have attended religious services as children and adolescents.

Methods

The 2008 Conversion Recontact Survey was a follow-up to the 2007 "U.S. Religious Landscape Survey" in which a surprisingly large number of people were found to have left their childhood faith. This data was collected via phone survey and was comprised of a quota sampling of the original 35,000 participants of the 2007 survey. Target participants were selected if they indicated that they had undergone a change in the religious affiliation. Interviewers followed a script that allowed for scores to be coded according to responses given by the interviewee. The full prompt and codebook are available on the Pew Research Center's website. The specific question I examined for my target hypothesis were the former religion, current religion, and two questions regarding attendance of religious services as a child and as a teenager. The former religion (FRMREL2) and current religion (CURREL2) were both coded using numeric values to represent various religious groups, 1 equaling Baptist, 2 equaling Methodist, etc. Question 7 and question 10, regarding attendance of religious services as a child and as a teenager, were coded in a Likert-type scale in which 1 indicated frequent attendance, 2 occasional attendance, 3 rare attendance, and 4 being never attended. Due to the limited scope and specific set of test subjects I wanted to examine from this data set, I eliminated and reduced the database by altering the examination parameters to only include answers to the CURREL2>100000. This narrowed the test parameters from 2666 participants down to 854 participants, which then only included those who currently identify as being Atheist, Agnostic, or unaffiliated with any particular religion. I also cross checked those CURREL2>100000 with those FRMREL2 who were greater than 100000 and eliminated all participants who were FRMREL2<100000. This allowed for testing of only subjects who had changed from a religious background to a non-religion, which gave me 801 testable participants.

Calculating the mean score from the participants responses to Question 7 regarding religious service attendance as a child and question 10 regarding religious service attendance as a teenager yielded a new score for developmental attendance. First, I checked to see if these two factors were correlated and as I had predicted, they were highly correlated with $r=.55$, $p<.05$. Next I created the developmental attendance scores by averaging the two scores given for each question, giving me a new score for each participant that followed the same four-point Likert scale: one being frequently attended religious services, two being occasionally attended religious services, three being rarely attended religious services, and four being never attended religious services. Now having averaged these scores and arriving at a new developmental attendance score, I could analyze the mean difference across these three groups. For this, I ran a one-way ANOVA test because it allowed me to examine the mean difference across these properties.

Results

The results of the test indicated that across all groups, there was a consistent trend of rare to occasional attendance of religious services during development, by irreligious participants who have converted from their former religion to one of the three irreligious categories, $F(2,2) = 2.17$, $MSE = 3.18$, $p > .05$. Figure 1 shows the breakdown of each of the three categories of irreligion and their mean attendance of religious services during development. Atheist ($M = 2.97$, $SD = 1.35$), Agnostic ($M = 2.8$, $SD = 1.19$), Unaffiliated with any particular religion ($M = 2.69$, $SD = 1.19$). The mean score for each of the three groups falls between 2 and 3, indicating occasional to rare attendance. The data show that there were significant mean differences in attendance of religious services across the three groups of individuals. These results support my original hypothesis that there is a correlation between attendance of religious services during development and future religious affiliation.

Discussion

These results indicate that some religious notions may not be as heritable as previous research suggests. These findings are consistent with those of Burr and colleagues, stating that most participants who identified as being religiously inclined self-reported that their personal religious beliefs developed as a direct result of childhood exposures to a particular religion (Burr et. al, 2015) . However, to further these findings I would need to not only take a cross religious perspective, but an even larger cross cultural examination to gain a greater understanding of human development of religion. This still warrants the question though, how much of religion might be heritable and how much might be influenced by your environment. Similar to the understanding of the influences of many human behaviors, there is evidence to support both genetic and environmental influences, but there is still much work to be done to gain a more developed and complete understanding. To supplement this research, I would need to expand to the whole group of surveyed participants from the Faith in Flux: Change in Religious Affiliation in the U.S. study, and see if there is a similar trend across other religious changes. Nevertheless, I believe these findings have contributed sufficient evidence to add to the existing debate about the nature of how we develop religious tendencies.

Figures

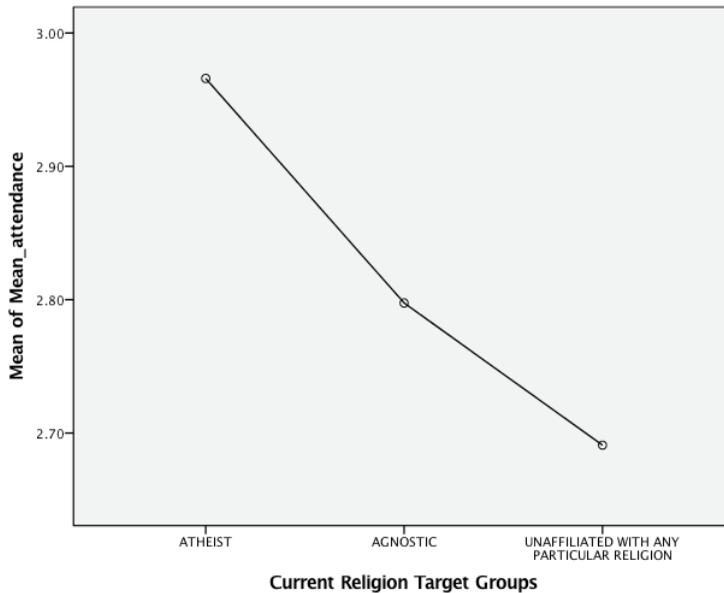


Fig. 1: Mean Attendance Across Different Types of Irreligion

Author's Note

Pew Research Center's Religion & Public Life Project collected and coded the data for this study, Faith in Flux: Changes in Religious Affiliation in the U.S. The Pew Research Center bears no responsibility for the interpretations presented or conclusions reached based on analysis of this data. Any questions or concerns regarding this analysis should be addressed to Nolan Branson at nbranson@vols.utk.edu.

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