

The Roles of Religion, Spirituality, and Genetics in Paranormal Beliefs

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Recent studies indicate that people who are spiritual but do not participate in organized religion may have the strongest belief in psychic abilities. Also, emerging research indicates that genetic factors may have a role in spiritual and paranormal beliefs.

Recent articles by Erich Goode (2000) and Glenn Sparks (2001) discussed the relationship between religious and paranormal beliefs. Goode proposes that they share a common foundation of belief in phenomena that are outside conventional science. Sparks is less certain of a relationship between traditional religion and paranormal beliefs. However, both writers agree that there are multiple dimensions of both religious and paranormal belief and that these dimensions need further investigation.

Recent research may provide insight into the dimensions of, and the relationships among, these beliefs. These findings bring into focus the fundamentally different views of paranormal phenomena found among followers of traditional

religions compared to parapsychological writings, and the importance of distinguishing between religion and spirituality. Recent studies also suggest that genetic factors may have a role in both religious and paranormal beliefs.

Divine Miracles Versus Human Abilities

People with traditional religious beliefs may view psychic phenomena as miracles or divine interventions by God. Popular parapsychological writings, however, view psychic phenomena as widespread (if commonly undeveloped) human abilities. A religious person may believe that divine interventions can occur, but may not believe that people generally have psychic abilities.

Research questionnaires that do not explicitly address this distinction may find inconsistent or misleading results about belief in the paranormal. The results may depend on subtle differences in the wording of the questions and on the context of the surveys.

The data suggest that psychic experiences, belief in the paranormal, and spirituality may be mutually interacting and reinforcing.

These distinctions can be seen in a 1995 representative national survey in Canada. For the question "Do you believe that miraculous healing can sometimes occur?" 74 percent of the respondents answered "Yes, definitely" or "Yes, I think so." Responses to this question were significantly correlated ($r=.39$, $p<.0001$) with a question on how important religion is to the respondent. On the other hand, questions about belief in ESP and that "some people have psychic powers" were both answered yes by 57 percent of the respondents. These beliefs were not significantly correlated with importance of religion.

These results suggest that very different outcomes can be obtained if the phenomena are framed as miracles rather than as human abilities.

Religion Versus Spirituality

The distinction between religion and spirituality is increasingly being recognized as important for research on religion. In a review of several recent studies, Marljar and Hadaway (2002) noted that people who are religious also consider themselves spiritual. However, a smaller group of people consider

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themselves spiritual but not religious. These people reject participation in organized religion and have a greater interest in direct personal sacred experience.

Belief in paranormal phenomena may be greatest among those who are spiritual but reject organized religion. In an analysis of the Canadian data noted above, Orenstein (2002) reported that belief in the paranormal is positively related to religious belief but negatively related to religious participation. For the respondents who had high religious belief but low church attendance, 78 percent scored high on six paranormal belief questions. For those who had high religious belief and high church attendance, 24 percent scored high on paranormal beliefs. For those who had low religious belief and low church attendance, 11 percent scored high on paranormal beliefs.

These results are consistent with reports on the after-effects of experiences strongly inspire a personal spirituality that is independent of institutionalized religion and that de-emphasizes formal religious practices. He also reported cases that suggest that experiences interpreted as ESP or other types of psychic phenomena can have the same effects. Other studies have found that psychic experiences seem to cause increased interest in spirituality (Kennedy and Kantharnam 1995; Palmer 1979).

These findings suggest that psychic spirituality may be mutually interacting and reinforcing. One way to examine this hypothesis is to look at the extreme believers and extreme skeptics. The Canadian data were divided into those who answered "Yes, definitely" to all three questions on belief in ESP, psychic powers, and miraculous healing and those who answered "No, definitely not" to the same questions. For the extreme believers, 86 percent indicated that spirituality was very or somewhat important to them. For the extreme skeptics, 38 percent indicated that spirituality was important and 62 percent indicated that spirituality was not important.

Genetics and Belief in the Paranormal

Research on twins separated at birth and human genetics demonstrate that personality characteristics have genetic components (Hamer and Copeland 1998). The long-standing controversy about the origins of human personality suggest that both genetics and environment have important roles. In fact, it is likely that humans have evolved genetically-based personality characteristics that are highly adaptive to environmental conditions (Plotkin 1998).

Research with twins indicates that genetic personality factors include characteristics that are associated with reports of psychic experiences. Absorption, an "openness to experience emotional

has a substantial genetic component (Tellegen et al. 1988). Absorption and related traits associated with psychic experiences indicate an ability and willingness to suspend logical thought and externally directed perceptions in favor of internal experience. These traits also appear to reflect a more open exchange of information between conscious and unconscious processes. Given what is now known about the operation of the brain and neurotransmitters, it seems plausible that genetic differences could

Twin research also indicates a genetic component for interest in spirituality (Kirk et al. 1999) and religion (Bouchard et al. 1999; Waller et al. 1990). Unfortunately the relationship between the genetic components for spirituality and absorption have not yet been investigated.

These findings suggest that interest in spirituality and the paranormal may be very deep-seated. Some of the most intriguing research relates to gender differences.



Genetic Gender

Women tend to be more spiritual and religious than men. This pattern has been found consistently across cultures, across religions, and throughout history (Stark 2002). Rodney Stark, who has long investigated religion and the paranormal, recently concluded that the gender differences in religiousness are best explained by biological differences. He pointed out the universal finding that males more frequently engage in high-risk behaviors and commit more violent crimes than females, and noted that research with twins and adoptees indicates a genetic component for violent behavior and that other research indicates that high levels of testosterone are associated with impulsive, violent behavior. He argued that the evidence for gender differences in religious faith is almost as universal as for violent behavior and has not been successfully explained by social factors.

Women also tend to believe in psychic phenomena more than men (reviewed in Irwin 1993, also see Orenstein 2002). In the Canadian survey, 72 percent of the extreme skeptics were males and 64 percent of the extreme believers were females.

The tendency for men to be more skeptical may reflect a genetic tendency to be more inclined toward rational, practical thinking and competition whereas women tend to be more interested in people, relationships, and connections. In a study in twenty-five countries, Williams and Best (1986) found that the traits commonly associated with males across cultures include

have more interest in inanimate objects and females more interest in people. In relationships, men have a greater emphasis on competition, power, and dominance, whereas women have relatively more emphasis on altruistic, reciprocal relationships and stable communities (Campbell 2002; Geary 1998).

The emerging evidence indicates that men have evolved characteristics that have adaptive value for competing for resources, developing tools, and producing and providing for regarding spirituality and the paranormal may reflect these underlying traits.

It is important to remember that these gender differences occur within the context of genetic diversity. Diversity of genetic traits is an underlying principle of evolution and must be present for natural selection to occur. Many biological mechanisms promote diversity (most notably sexual reproduction). The traits that differ between males and females can be assumed to be similar to the differences in

genetic tendency to be taller than women, but, because of diversity, many women are taller than many men. The differences manifest as statistical trends. In addition, human personality and behavior depend on interactions between these genetic factors and environmental conditions, including social forces and previous experiences.

As we have seen, genetic factors appear to have a role in spiritual beliefs, and possibly in paranormal beliefs; these factors may help to explain the widespread and persistent interest in these topics.

Notes

1. The data are from the Project Canada survey directed by Reginald Bibby of the University of Lethbridge. The data and description of the methodology are available through the Web site of the American Religion Archives at the Department of Sociology of Pennsylvania State University. The 1995 survey obtained data from 1,765 people, which was a 64 percent response rate. Weights for community size, gender, and age were applied to make the sample "highly representative of the Canadian population." The 95 percent confidence interval for the weighted data is four percentage points.

2. To evaluate the possibility that the associations with spirituality may be due primarily to the miraculous healing question, the data were examined separately for this question. For those who definitely believed in ESP and psychic powers, 81 percent indicated that spirituality was important. For those who definitely believed in miraculous healing, 87 percent indicated that spirituality was important.

References

- Bouchard, T.J., M. McGue, D. Lykken, and A. Tellegen. 1999. Intrinsic and extrinsic religiousness: Genetic and environmental influences and personality correlates. *Twin Research* 2, 88-98.
- Campbell, A. 2002. *A Mind of Her Own: The Evolutionary Psychology of Women*. Oxford, England: Oxford University Press.

- Geary, D.C. 1998. *Male, Female: The Evolution of Human Sex Differences*. Washington, D.C.: American Psychological Association.
- Goode, E. 2000. Two paranormalisms or two and a half? An empirical exploration. *SKEPTICAL INQUIRER* 24(1): 29-35.
- Hamer, D., and P. Copeland. 1998. *Living with Our Genes*. New York: Doubleday.
- Irwin, H. 1993. Belief in the paranormal: A review of the empirical literature. *Journal of the American Society for Psychical Research* 87(0): 1-39. Kennedy, J., and H. Kanthamani. 1995. An exploratory study of the effects of paranormal and spiritual experiences on peoples' lives and well-being. *Journal of the American Society for Psychical Research* 89(3): 249-264.
- Kirk, K.M., L.J. Eaves, and N.G. Martin. 1999. Self-transcendence as a measure of spirituality in a sample of older Australian twins. *Twin Research* 2, 81-87.
- Iarlar, P., and K. Hadaway. 2002. "Being religious" or "being spiritual" in America: A zero-sum proposition? *Journal for the Scientific Study of Religion* 41(2): 289-300.
- Orenstein, A. 2002. Religion and paranormal belief. *Journal for the Scientific Study of Religion* 41(2): 301-311.
- Palmer, J. 1979. A community mail survey of psychic experiences. *Journal of the American Society for Psychical Research* 73(3): 221-251.
- Plotkin, H. 1998. *Evolution in Mind*. Cambridge, Massachusetts: Harvard University Press.
- Ring, K. 1984. *Heading Toward Omega: In Search of the Meaning of the Near-Death Experience*. New York: William Morrow.
- Roche, S., and K. McConkey. 1990. Absorption: Nature, assessment, and correlates. *Journal of Personality and Social Psychology* 59(1): 91-101.
- Sparks, G. 2001. The relationship between paranormal beliefs and religious beliefs. *SKEPTICAL INQUIRER* 25(5): 50-56.
- irk, R. 2002. Physiology and faith: Addressing the "universal" gender difference in religious commitment. *Journal for the Scientific Study of Religion* 41(3), 495-507.
- Tellegen, A., D.T. Lykken, T.J. Bouchard, K.J. Wilcox, N.L. Segal, and S. Rich. 1988. Personality similarity in twins reared apart and together. *Journal of Personality and Social Psychology* 54(6): 1031-1039.
- Waller, N.G., B.A. Kojetin, T.J. Bouchard, D.T. Lykken, and A. Tellegen. 1990. Genetic and environmental influences on religious interests, attitudes, and values: A study of twins reared apart and together. *Psychological Science* 1(2), 138-142.
- lliams, J.E., and D.L. Best. 1986. Sex stereotypes and Intergroup Relations. In S. Wörchel and W.G. Austin (Eds.) *Psychology of Intergroup Relations* (pp. 244-259). Chicago: Nelson-Hall Publishers. □