Genes contribute to religious inclination

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Maggie McKee

Genes may help determine how religious a person is, suggests a new study of US twins. And the effects of a religious upbringing may fade with time.

Until about 25 years ago, scientists assumed that religious behaviour was simply the product of a person's socialisation - or "nurture". But more recent studies, including those on adult twins who were raised apart, suggest genes contribute about 40% of the variability in a person's religiousness.

But it is not clear how that contribution changes with age. A few studies on children and teenagers - with biological or adoptive parents - show the children tend to mirror the religious beliefs and behaviours of the parents with whom they live. That suggests genes play a small role in religiousness at that age.

Now, researchers led by Laura Koenig, a psychology graduate student at the University of Minnesota in Minneapolis, US, have tried to tease apart how the effects of nature and nurture vary with time. Their study suggests that as adolescents grow into adults, genetic factors become more important in determining how religious a person is, while environmental factors wane.

Religious discussions

The team gave questionnaires to 169 pairs of identical twins - 100% genetically identical - and 104 pairs of fraternal twins - 50% genetically identical - born in Minnesota.

The twins, all male and in their early 30s, were asked how often they currently went to religious services, prayed, and discussed religious teachings. This was compared with when they were growing up and living with their families. Then, each participant answered the same questions regarding their mother, father, and their twin.

The twins believed that when they were younger, all of their family members - including themselves - shared similar religious behaviour. But in adulthood, however, only the identical twins reported maintaining that similarity. In contrast, fraternal twins were about a third less similar than they were as children.

"That would suggest genetic factors are becoming more important and growing up together less important," says team member Matt McGue, a psychologist at the University of Minnesota.

Empty nests

Michael McCullough, a psychologist at the University of Miami in Coral Gables, Florida, US, agrees. "To a great extent, you can't be who you are when you're living under your parents' roof. But once you leave the nest, you can begin to let your own preferences and dispositions shape your behaviour," he told **New Scientist**.

"Maybe, ultimately, we all decide what we're most comfortable with, and it may have more to do with our own makeup than how we were treated when we were adolescents," says McGue.

About a dozen studies have shown that religious people tend to share other personality traits, although it is not clear whether these arise from genetic or environmental factors. These include the ability to get along well with others and being conscientious, working hard, being punctual, and controlling one's impulses.

But McGue says the new work suggests that being raised in a religious household may affect a person's long-term psychological state less than previously thought. But he says the influence from this early socialisation may re-emerge later on, when the twins have families of their own. He also points out that the finding may not be universal because the research focused on a single population of US men.

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