

# Personality is the result of nurture, not nature, suggests new study on birds

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Environmental effects are more important than genetic effects in explaining variation in personality in zebra finches. Credit: Jan Stipala

Researchers at the University of Exeter and the University of Hamburg investigated how personality is transferred between generations. They found that foster parents have a greater influence on the personalities of fostered offspring than the genes inherited from birth parents.

Dr Nick Royle from the University of Exeter said: "This is one of the first experiments to show that behaviour can be non-genetically transmitted from parents to offspring. Our study shows that in zebra finches, personality traits can be transmitted from one generation to another through behaviour not just genetics."

The research, published in the journal *Biology Letters*, measured personality by placing the zebra finches in a new environment and counting the number of features they visited. Some were shy, staying mainly in one place while others explored widely demonstrating a more outgoing personality. Male and [female birds](#) were then paired up and allowed to breed. Each clutch of eggs was fostered

by another pair just prior to hatching. Offspring personality was measured once they were adults. Offspring size was also measured and was found to be primarily genetically inherited and not significantly influenced by foster parent size.

Although this study considers personality inheritance in [zebra finches](#), it raises questions about the inheritance of personality in other species, including humans. Do adopted children inherit the [personality characteristics](#) of their birth parents or their adoptive parents? Is the environment more important than [genetic inheritance](#) in the development of personality?

The results of this study indicate that non-genetic transmission of behaviour can play an important role in shaping animal personality. Further studies will build on this research to assess how widespread behavioural inheritance is for [personality traits](#) across other species.

**More information:** Environmental transmission of a personality trait: Foster parent exploration behaviour predicts offspring exploration behaviour in zebra finches, [rsbl.royalsocietypublishing.org/.../1098/rsbl.2013.0120](http://rsbl.royalsocietypublishing.org/doi/10.1098/rsbl.2013.0120)

Provided by University of Exeter

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