

New evidence that many genes of small effect influence economic decisions and political attitudes

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Genetic factors explain some of the variation in a wide range of people's political attitudes and economic decisions – such as preferences toward environmental policy and financial risk taking – but most associations with specific genetic variants are likely to be very small, according to a new study led by Cornell University economics professor Daniel Benjamin.

The research team arrived at the conclusion after studying a sample of about 3,000 subjects with comprehensive genetic data and information on economic and political preferences. The researchers report their findings in "The Genetic Architecture of Economic and Political Preferences," published by the [Proceedings of the National Academy of Sciences](#) Online Early Edition, May 7, 2012.

The study showed that unrelated people who happen to be more similar genetically also have more similar attitudes and preferences. This finding suggests that genetic data - taken as a whole – could eventually be moderately predictive of economic and [political preferences](#). The study also found evidence that the effects of individual genetic variants are tiny, and these variants are scattered across the genome. Given what is currently known, the molecular genetic data has essentially no predictive power for the 10 traits studied, which included preferences toward environmental policy, foreign affairs, financial risk and economic fairness.

This conclusion is at odds with dozens of previous papers that have reported large genetic associations with such traits, but the present study included ten times more participants than the previous studies.

"An implication of our findings is that most published associations with political and economic outcomes are probably false positives. These studies are implicitly based on the incorrect assumption that there are common genetic variants with large effects," said Benjamin. "If you want to find genetic variants that account for some of the differences between people in their economic and political behavior, you need samples an order of magnitude larger than those presently used," he added.

The research team concluded that it may be more productive in future research to focus on behaviors that are more closely linked to specific biological systems, such as nicotine addiction, obesity, and emotional reactivity, and are therefore likely to have stronger associations with specific genetic variants.

Provided by Cornell University

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