Genetic components of political preference

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Rose McDermott, professor of political science at Brown University, will discuss the growing field of research that explores possible links between genetics and political preferences at the annual meeting of the American Association for the Advancement of Science (AAAS), the world's largest general scientific society.

Joining a Feb. 15, 2013, panel discussion titled "The Science of Politics," McDermott will discuss her own research in this area as well as a recent review of research that she co-authored pointing to a genetic contribution to social attitudes, including political preferences.

Political science has traditionally assumed that social and political behaviors have social causes. McDermott will discuss how discoveries beginning in the late 1970s began to demonstrate genetic influences on political orientations. Work in this area has burgeoned in the last decade, showing that a very large proportion of political preferences along the spectrum of conservative to liberal come from hereditary components.

As McDermott will explain, this genetic component does not indicate whether a person will affiliate as a Democrat or a Republican. Rather, individuals tend to have a broad, evolution-based orientation toward being more conservative or liberal about various elements, such as protecting their in-group. That in-group orientation can translate into preferences on political issues such as reproductive rights, immigration, and war, as well as political behaviors such as voting behavior and political participation.
"It's those topics that you can imagine humans over millennial time had repeated challenges around," McDermott said. "We always had to worry about finding a mate and having children and raising our children. We always had to worry about defending ourselves against predators. And today, that may look like opposition to gay marriage and immigration and support for war, but the underlying propensity is along that [conservative–liberal] spectrum."

Much of the research in this area involves twin studies using identical twins and fraternal twins. By looking at differences between the twins, researchers can see what part of a variance in an outcome across a population can be attributed to what is hereditary or genetic, what comes from a shared environment, and what part is personal experience that happens to one person but not to a sibling. Through a series of statistical tests, researchers can pinpoint which differences in attitudes and ideology are attributable to a genetic or hereditary component.

After finding this genetic link, McDermott said the next step in the research is to better map how genes influence those psychological processes and biological mechanisms that interact with an individual's upbringing, social environment, and personal experience in ways that may be expressed as differences on the liberal-conservative spectrum.

Further research can lead to a better understanding of how best to target certain groups to affect policy issues such as obesity or immigration, according to McDermott.

Provided by Brown University

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