

Researcher compiles evidence in support of Darwin's theory of sexual selection

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In 1871, Charles Darwin sparked debate that continues today when he proposed that human sex differences evolved based on sexual selection. Sexual selection is Darwin's theory that certain physical, mental or psychological traits evolved because they aid in competition among individuals for access to preferred mates or because they are enhancements of traits that help to attract mates.

Now, in a much expanded update of his book, *Male, Female: The Evolution of Human Sex Differences*, a University of Missouri researcher has compiled research that shows how Darwin's sexual selection is the best explanation of the differences between women and men including from infancy, relationships with friends, mate choices, to brain and cognition. The MU researcher also explains how the expression of these differences can vary across cultures and historical periods.

"Choosing a mate is one of the most important decisions made in one's lifetime and one of Darwin's core components of sexual selection," said David Geary, author and Curators' professor in the Department of Psychological Sciences in the MU College of Arts and Science. "Sex and reproduction complicate our lives in many ways, the most fundamental of which involve the demands of finding a mate. These choices are important because they echo through subsequent generations. The [social dynamics](#) that emerge as a result of [sexual reproduction](#) usually involve competition with members of the same sex for access to mates or control of the resources that will attract mates."

In his book, Geary documents how sex differences found in humans and many other species can be explained by Darwin's sexual selection. One of these sex differences is the level of [parental involvement](#) by [males](#). Male parenting is found in less than 5 percent of [mammal species](#). Because the males in many species do not provide any

parental investment, [females](#) in many species do not compete for mates. In humans, however, men have a significant role in parenting, compelling women to compete for mates.

"The more men have to offer, the more valuable they become to women as a reproductive resource," Geary said. "For this reason, men in all cultures are highly motivated to attain social status and control of culturally significant resources. The resources can vary from land to herds of cattle to large paychecks. Male-male competition is about making themselves attractive to women but the competition also can lead men to compete in lethal ways to gain control of social resources."

Female competition may include how they dress or adorn themselves in ways that enhance their traits that men find attractive. Women may degrade these same traits in potential competitors and manipulate social information and relationships to drive competitors away from potential romantic partners. Male-male competition may explain factors, such as greater male mortality, risk-taking and rough-and-tumble play. Female-female competition may account for greater female emotional sensitivity and greater language proficiency, Geary said.

In 1998, Geary wrote the first edition of *Male, Female: The Evolution of Human Sex Differences*, which compiled the research to that point on sex differences and synthesized it based on Darwin's theory.

"Since then, research on human sex differences has exploded with the emergences of new technologies, such as brain imaging techniques that allow us to understand men and women and boys and girls in ways that Darwin could have only dreamed of," Geary said.

As a result of this new research, Geary's second edition of *Male, Female*, includes references to

nearly 2,500 studies across biology, psychology, anthropology, genetics and neuroscience.

Geary integrates [sexual selection](#) with what is known about the evolution of lifespan, primate behavior, the evolution of fatherhood, and the evolution and development of the human mind, sex differences in human [infancy](#), human social development, folk psychology, folk biology and folk physics.

The second edition of Geary's book, *Male, Female: The Evolution of Human Sex Differences*, was published in 2010 by the American Psychological Association.

Provided by University of Missouri-Columbia

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