

Sexist 'sexplanation' for men's brilliance debunked

December 17 2021



Credit: Steve Harvey/Unsplash

Deeply entrenched scientific beliefs that for more than a century have explained why more men than women are high achievers because of biology are not backed up by evidence, according to new research from The Australian National University (ANU).

The researchers say the long-held "sexplanation" has been used to argue

why there are more high-achieving men than women.

"The idea that biology determines greater diversity of behavior among male than [female animals](#) is often used to explain why more men than women are considered geniuses or go on to become CEOs," lead author Lauren Harrison, a Ph.D. scholar from the ANU Research School of Biology, said.

"There is a history of scientists using the notion of greater male [variability](#) to explain why science, technology, engineering and mathematics (STEM) are dominated by men, rather than considering other reasons why we see fewer women in these professions, such as historical exclusion or gender stereotyping.

"Based on our data, if we assume that humans are like other [animals](#), there is equal chance of having a similar number of high-achieving women as there are high-achieving men in this world.

"Based on this logic, there is also just as great a chance of having a similar number of men and women that are low achievers."

The ANU team reviewed more than 10,000 biological studies and analyzed behavioral traits of males and [females](#) in more than 200 [animal species](#), from insects to dolphins.

The researchers found males and females have similar levels of "variability," which is contrary to beliefs held by biologists that have long assumed [male animals](#) are more variable than females.

"The significance of greater male variability for evolution goes back to Charles Darwin. He suggested that male species often look or behave far more differently from each other compared to females of the same species," Ms Harrison said.

"He also suggested this greater male variability is due to sex-specific selection."

The concept of variability and its effects can be illustrated using IQ scores.

"If males are more variable than females, it would mean there are more men than women with either very low or very high IQs," co-author Professor Michael Jennions said.

"But our research in over 200 animal species shows variation in male and female behavior is very similar. Therefore, there is no reason to invoke this argument based on biology to explain why more men than women are Nobel laureates, for example, which we associate with high IQ."

The ANU research also challenges biologists' wider understanding of evolution. It suggests that a female's choice for the most attractive male, for example, a deer with the biggest antlers, does not, as often claimed, lead to greater variation among males than females—at least for their personalities.

According to Ms Harrison, if humans don't follow the trend of similar variability in each sex as seen in animals, and men are in fact more variable than women, then this is likely caused by uniquely human factors rather than biology.

"Instead of using [biology](#) to explain why there are more male CEOs or professors, we have to ask what role culture and upbringing play in pushing men and women down different pathways," Ms Harrison said.

"This includes the many ways that [women](#) are discouraged from a career in male-dominated professions, especially STEM fields."

To conduct their research the ANU scientists looked at five types of behavioral traits used to measure personality in animals: boldness, aggressiveness, exploration, sociability and activity.

The research is published in *Biological Reviews*.

More information: Lauren M. Harrison et al, A meta-analysis of sex differences in animal personality: no evidence for the greater male variability hypothesis, *Biological Reviews* (2021). [DOI: 10.1111/brv.12818](https://doi.org/10.1111/brv.12818)

Provided by Australian National University

Citation: Sexist 'sexplanation' for men's brilliance debunked (2021, December 17) retrieved 24 May 2024 from <https://phys.org/news/2021-12-sexist-sexplanation-men-brilliance-debunked.html>

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