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Current practices in reporting on behavioural genetics can mislead the public

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"Media reports about behavioural genetics unintentionally induce unfounded beliefs, therefore going against the educational purpose of scientific reporting," writes the University of Montreal's Alexandre Morin-Chassé, following his study of 1,500 Americans. "Among other things, we wanted to know if the public understood (or misunderstood) popular science articles about a new research field, genopolitics, and whether this popularization indeed helped people have an informed opinion on human genetics," Morin-Chassé explained.

The study participants first had to read a news article about research on the influence of a gene on one of the following three traits: breast cancer, political ideology (liberal or conservative), or the tendency to go into debt. After reading the article assigned to them, they were then asked to estimate the influence of genetics on various biological (e.g., hair colour, height) or behavioural (e.g., violence, alcoholism) traits on a scale from 0% genetic to 100% genetic. They were told that there were no right or wrong answers. The purpose of the study was simply to examine the interpretation of facts.

The conclusions were troubling, to say the least. Morin-Chassé observed that after reading an article published in the British Daily Telegraph in October 2010 about a "gene responsible for liberal ideas," the readers tended to generalize the influence of genetics to other behaviours or social orientations of which there was no mention in the news article (including sexual orientation and intelligence). The same phenomenon was observed among the readers of the other article, originally published

in the Scientific American MIND magazine in June 2010, which associated a gene with susceptibility to debt.

However, public misunderstanding is not the only thing to blame for this misinterpretation. "Generally, science reporters' first goal is to inform the public about scientific developments. However, this practice is not disinterested; some news is purposely written in a manner intended to catch the public's attention with startling results in order to increase or to maintain market shares," Morin-Chassé explained.

Genetic research into behaviour is certainly a minefield. It is often associated with other more controversial theoretical work, for example, in sociobiology, which attempts to explain social inequalities using the theory of evolution and the concept of natural selection. In contrast, current trends in research are based on empirical analysis of DNA data. "Personally, I am in favour of this innovative approach to better understand our world, but I can't argue with the facts: the field is often misunderstood or even disregarded," Morin-Chassé said. "Some reduce it to its most deterministic form. The danger, which, in my mind, is present, is that scientific research findings could be manipulated for ideological purposes by certain social groups. Hence the importance of making sure the public understands the scope and limitations of such research."

Provided by University of Montreal

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