

Further evidence that genetics has a role in determining sexual orientation in men

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Is sexual orientation something people are born with - like the colour of their skin and eyes - or a matter of choice?

Canadian scientists have uncovered new evidence which shows genetics has a role to play in determining whether an individual is homosexual or heterosexual.

The research was conducted by Dr. Sandra Witelson, a neuroscientist in the Michael G. DeGroote School of Medicine at McMaster University, and colleagues at Sunnybrook Health Sciences Centre in Toronto who studied the brains of healthy, right-handed, 18- to 35-year-old homosexual and heterosexual men using structural Magnetic Resonance Imaging (MRI).

About 10 years ago, Witelson and Dr. Cheryl McCormick, then a student of Witelson's, demonstrated there is a higher proportion of left-handers in the homosexual population than in the general population – a result replicated in subsequent studies which is now accepted as fact.

Handedness is a sign of how the brain is organized to represent different aspects of intelligence. Language, for example, is usually on the left - music on the right.

In other research, Witelson and research associate Debra Kigar, had found that left-handers have a larger region of the posterior corpus callosum – the thick band of nerve fibres connecting the two

hemispheres of the brain – than right handers.

This raised the hypothesis for the current study – whether the anatomy of the brain of the sub-group of right-handed homosexual men is similar to that of left-handers.

They found that the posterior part of the corpus callosum is larger in homosexual than heterosexual men.

The size of the corpus callosum is largely inherited suggesting a genetic factor in sexual orientation, said Witelson “Our results do not mean that heredity is destiny but they do indicate that environment is not the only player in the field,” she said.

While this is not a litmus test for sexual orientation, Witelson said this finding could prove to be one additional valuable piece of information for physicians and individuals who are trying to determine their sexual orientation. “Sometimes people aren’t sure of their sexual orientation.”

The researchers also undertook a correlational analysis which included size of the corpus callosum, and test scores scores on language, visual spatial and finger dexterity tests. “By using all these variables, we were able to predict sexual orientation in 95 per cent of the cases,” she said.

Source: McMaster University

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