Are People Born "Gay"?

Are people born gay? Many people think so, but science actually says "no." So where did this thinking begin? In 1993 *Time* magazine featured a cover story, "Born Gay: Science Finds a Genetic Link." Researcher Dean Hamer had published an article demonstrating there might be "... linkage between DNA markers on the X chromosome and male sexual orientation." *Time* also spotlighted the work of three other research studies. Major news outlets in the early 90's, such as *National Public Radio, The Wall Street Journal,* and *The New York Time*s trumpeted the possibility that people were "born gay" because of a "gay gene."

More than 20 years later, a great deal of research has been done, and despite the hype from different news outlets:

- there is no "gay gene";
- twin studies show homosexuality is primarily environmental; and,
- homosexuality is not caused by a "gay brain."

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IS THERE A "GAY GENE?"

Most scientists who study genetics know that only a portion of how we behave is affected by genes. Other determining factors include our environment—the family and culture we are born into—and our decisions, or choices we make.

In 1993, researcher Dean Hamer performed what is called a "linkage study" for behavior: Hamer and his team looked at 40 families with two gay-identified brothers in each family.

He also studied their extended families and found more homosexual identified relatives on the mother's side of the family, leading him to suspect a genetic link on the X chromosome.

Hamer found that 33 of the pairs of brothers shared five markers on their X chromosome at a position on the chromosome known as "Xq28."

Although scientists have found genes for numerous physical conditions, they have not had the same success in finding genetic markers for behaviors. When researchers tried to replicate Hammer's initial findings, they were unable to do so.

One Canadian research team tried to replicate Hamer's findings using a larger sample of 52 gay-identified sibling pairs from 48 families. The team looked for markers at the same site, Xq28, and said, "These results do not support an X-linked gene underlying male homosexuality."

Not only was Hamer's work not replicated in other studies, it was critiqued because there was no control group. Perhaps other men, who didn't identify as gay, had the same genetic markers on their X chromosome.

The study was also criticized because of lack of statistical significance in the findings. In 2006, Dr. Francis Collins, head of the Human Genome Project, summed up the research on homosexuality by saying: *"...sexual orientation is genetically influenced but not hardwired by DNA, and that whatever genes are involved represent predispositions, not pre-determinations."*

In fact, Collins indicated that the potential genetic component for homosexuality is much less than the genetic contribution that has been found for common personality traits like extroversion, agreeableness or conscientiousness.

Today, there is a clear consensus among scientists that a gay gene does not exist. Complex psychosocial behaviors, such as sexual orientation, cannot be

directly traced to the activity of a single gene or even a group of genes.

WHAT ABOUT "TWIN STUDIES?"

Michael Bailey and Richard Pillard's study examined 56 pairs of identical twins, 54 pairs of fraternal twins, 57 adoptive brothers of twins and 142 biological siblings of twins. They found the following:

- 52% of the time, both identical (MZ) twins were gay-identified;
- 22% of the time, both fraternal (DZ) twins were homosexual-identified;
- 9.2% of the time, both non-twin brothers were gay-identified; and
- 11% of the time, both adoptive brothers identified as homosexual.

However, Pillard and Bailey's findings actually indicate that something besides genes must account for homosexuality. If 48 percent of identical twins, who are closely linked genetically, do not share the same sexual orientation, then genetics alone cannot account for homosexuality. Bailey admitted as much by stating, *'There must be something in the environment to yield the discordant twins.'*

As Dr. Neil Whitehead has noted, "Over the last decade, studies of twins have provided some of the strongest numerical evidence that '**our genes do not make us do it**.' ... In a nutshell, if you take pairs of identical twins in which one twin is homosexual, the identical co-twin (a monozygotic [MZ] twin) is usually not homosexual.

"That means, given that identical twins are always genetically identical, homosexuality cannot be genetically dictated. No one is born gay. The predominant things that create homosexuality in one identical twin and not in the other have to be post-birth factors."

DO SOME HAVE "GAY BRAINS"?

Simon LeVay is a neuroscientist who studied the brains of 41 cadavers, a very small sample size. Nineteen of the men were reportedly homosexual, sixteen other men were reported to be heterosexual, and six women were reportedly heterosexual.

He focused on measuring a region of the brain in the hypothalamus, known as the "interstitial nuclei of the anterior hypothalamus" or INAH3, and found that the area was smaller in the homosexual men than the heterosexual men, closer to the size of that in the women.

A number of issues marred LeVay's study. For example, his results were inconsistent. Three of the reportedly heterosexual men did not fit his conclusion, because their INAH3 region was smaller than the average of the allegedly homosexual men, and three of the reportedly homosexual men did not fit his conclusion, as the INAH3 region in their brains was larger than the heterosexuals.

CONCLUSION

Research has not demonstrated that homosexuality is inborn or genetic. Scientists have not found a gene or brain wiring that leads, in some predetermined way, to homosexuality.

- Highlights taken from Jeff Johnston's Are People Born Gay? Focus on the Family, March 2016. Full document available at: FOTF.org