

# What Percentage is the Genetic Contribution to Homosexuality?

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*My Genes Made Me Do It! –  
A Scientific Look at Sexual Orientation*  
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Scientists have long (and understandably) waffled over the extent of genetic contribution to homosexuality—preferring to say simply that homosexuality results from a combination of genes and environment — a statement that no one can disagree with, but which leaves everyone none the wiser about the relative contributions of each.

But after about eight years studying this field, we believe a very good scientific case can be made for an estimate of the current genetic contribution to homosexuality as only about 10%. We have arrived at the 10% estimate from a study of the fields of anthropology and sociology, as well as research on intersexes, twins, and gene linkage studies.

## Twin Studies

During the last decade, twin studies have come up with figures that suggest a genetic contribution of about 50% for homosexuality — much higher than the estimated contribution suggested by other disciplines. But increasing refinement of twin study methodology (particularly that relating to the use of twin registers rather than twin volunteers) has brought that figure down to something consistent with 10% both for male and female homosexuality.

But let's look more closely at what a 10% genetic factor means in twin studies. This is easily misunderstood. The 10% figure does not mean that 10% of homosexuals are forced into homosexuality as a result of their genes. It means that for the average male homosexual individual, 10% of the strength of the influences is genetic, and 90% is environmental. (The errors are such that 10% might be 0% or 20%, but would not be 50%.) This is for the population as a whole, and may not apply so well to clinical samples.

## 10% is Fluid

But more importantly, twin studies do not mean that the 10% figure is set in concrete for all time. In fact, that 10% figure is merely a snapshot of the social and environmental conditions occurring at any one time. Any change in cultural conditions has an effect on the genetic factor. For example, anti-sodomy laws of fifty years ago (an environmental factor), would have decreased the relative genetic influence in relation to the negative environmental social and legal stigma. But in today's culture, in which it can be "cool" to experiment with bisexuality, any slight genetic

tendency towards homosexuality in a student would now be encouraged.

Environmental factors also include individual idiosyncratic responses to the environment, and behavioral geneticists are finding these are extremely important. For example, different children raised in the same family can respond quite differently to the same sort of fathering (Plomin and Daniels 1987).

Just as society can choose to emphasize or de-emphasize the genetic contribution by acting upon it or suppressing it, so can individuals. For example, I may have genes for strong muscles and quick reflexes, making me a potential Olympic gold medal winner. But I have two choices: I can train strenuously and win the gold (thus raising the comparative influence of my genetic contribution) or I can choose to become a couch potato and TV-watcher, and watch someone else win my gold (declining to develop the genetic contribution). If I have a genetic tendency to poor coordination, that may increase the genetic influence on homosexuality, since inadequacy on the sports field characterizes 80-90% of those boys called sissy as youngsters, and "sissiness" is one of the strongest predictors of later homosexuality. On the other hand, one-on-one coaching might possibly lower that genetic influence to practically nothing, as athletic competence decreased the likelihood of negative peer labeling and sense of masculine inadequacy which many male homosexuals report from their childhoods.

So we see that society and individuals can cultivate a genetic tendency towards any behavior, or bring an opposite-effect environmental factor to bear, thus changing the relative strength of the genetic factor. Choice becomes very important both for society and individuals.

Therapy is another influence on the environmental side. Behavioral genetics predicts that change in orientation is possible through a change in one's life circumstances, as well as through psychotherapy.

## Other Disciplines

Our estimate of a 10% genetic factor is supported through the evidence we see from other disciplines. For instance in the U.S., about 90% of intersexes (people born with

ambiguous genitalia) chose to remain with their gender-of-rearing when puberty later revealed their true biological gender. This was true even when there was significant physical discordance with the gender of upbringing. In other words, by a factor of about nine to one, the influence of environment overrode genetic and biological factors in a person's choice of gender identity (Hampson and Hampson 1961).

Dean Hamer's gene linkage study (Hamer et al. 1993), which purported to find a relationship between the X chromosome and homosexuality, found a possible genetic effect on only 5% percent of homosexual men. Interestingly, a more recent West Ontario study was unable to replicate even that level of effect (Rice et al 1999). And a major sociological study shows an environmental effect consistent with the 90% figure (Laumann et al. 1994).

### Always Responsive to Environment

So there is good support for a 10% genetic influence on homosexuality. But if a society sets about encouraging homosexuality, as some have begun to do, then the comparative influence of environment increases, and the genetic influence of 10% will drop even further. Then the "born gay" myth will be but an ever more distant memory.

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**"In my decades of experience as a research scientist, I have never seen such politicization of any subject."**

### Editor's Note:

*Neil and Briar Whitehead were recently in the U.S. on a book tour promoting My Genes Made Me Do It! for several months, and Neil reports the following:*

*"Response to the book on radio interviews has been interesting. Usually the only message we have time to convey in*

*radio interviews is 'Genetic influence is trivial' and 'Change is possible.' Perhaps because our approach to this subject has been mild and non-combative, there have been very few responses from either the extreme left or the extreme right.*

*"The radio hosts thought the 'NOT born that way' idea was new in science (even though it is well known to NARTH members), and listeners were often grateful for this information, which they were hearing for the first time. Some radio hosts were surprised they weren't criticized for having us on the air, then concluded that gay activists were reluctant to argue with genuine scientific material.*

*"As visitors to this country from New Zealand, we have been amazed at the extent to which the American Psychiatric Association and related groups have been politicized in their attitudes towards homosexuality. In my decades of experience as a research scientist and biochemist, I have seen no parallel in any other professional societies.*

*"This politicization of the facts may represent the most extreme example ever, outside of Communist societies. I suggest the APA should be declared of unsound mind.*

*"However, this might have to be done using their own diagnostic manuals!"*

