



## **Satinover: Bogus Neurology Leads to a Bogus Conclusion: Homosexuality Is a “Natural Variant of Human Sexuality”; Are Basketball Players Born that Way?**

**Do Brain Differences Make a Difference?** The belief that homosexuality is "genetic" tends to translate into a more positive attitude toward it. Gay activists know this and research studies confirm it. (p. 77)

Public relations have precipitated a recent media outpouring on the biology and genetics of homosexuality. Starting in 1991, media all across the country have trumpeted the discovery of a series of supposed brain differences between homosexuals and heterosexuals. Commentators claim that these findings will halt any remaining uncertainty that homosexuality is either a choice or a consequence of factors in upbringing. In this light, to continue supporting anything less than full acceptance of homosexual behavior would be proof positive of prejudicial hatred.

The outpouring began in August of 1991 when a San Francisco neuroanatomist, Simon LeVay, published an article in *Science*. It reported his finding that a localized cluster of cells in the brains of "homosexual" men was twice as large by volume on autopsy as in "heterosexual" men. ("Homosexual" and "heterosexual" are in quotations because in this study the definitions of each were extremely imprecise, nor was there any way of verifying sexual orientation as the subjects were dead.) (pp. 78-79)

But this was not the first such discovery. One year before a group reported in *Brain Research* that they had found a similar difference—in both volume *and* number of cells—in a different brain nucleus. The media, however, did not report this first study because *Brain Research*, unlike *Science*, is read only by neuroscientists. And in contrast to journalists, the neuroscientists understood the research and its limitations and refrained from grand pronouncements.

The specifics of these findings are not as important as realizing that unless group differences are dramatic, individual studies of such differences mean almost nothing. It would take hundreds, perhaps thousands, of such studies before meaningful trends emerge. Thus it is wrong for the media, or parties with vested interests, to argue the significance of something so complex as human nature on the basis of one or a handful of findings and then derive public policy implications.

Furthermore, even if such brain differences were convincingly demonstrated to be present, their significance would be on a par with the discovery that athletes have bigger muscles than nonathletes. For though a genetic tendency toward larger muscles may make it easier to become an athlete (and therefore such an individual will more likely be one) becoming an athlete will certainly give one bigger muscles. One researcher comments: "The brain's neural networks reconfigure themselves in response to certain experiences. One fascinating NIH study found that in people reading Braille after becoming blind, the area of the brain controlling the reading finger grew larger." (p. 79)

Two prominent geneticists, Paul Billings and Jonathan Beckwith, writing in *Technology Review* (published at the Massachusetts Institute of Technology, July 1993, 60) write: LeVay "could not really be certain about his subject's sexual preferences, since they were dead." His "research design and subject sample did not allow others to determine whether it was sexual behavior, drug use, or disease history that was correlated with the observed differences among the subjects' brains. LeVay's very method of defining homosexuality was very likely to create inaccurate or inconsistent study groups." (pp. 80-81)

30. Dr. Satinover has done an exceptional job of debunking the deception of both media and homosexual propaganda that the behavior is strictly genetic.
31. This is another case of science catching up with the Bible. Even if we were to imagine for the sake of argument that homosexuality were genetic its presence in the gene pool would of necessity have to be recessive.



32. Consequently, as is the case with all recessive genes it would gradually have disappeared from the gene pool or become so rare that its incidences of occurrence would be quite rare.
33. This principle is emphasized by Dr. Frank G. Zavisca (M.D., Ph.D.) in his letter to the editor of WorldNetDaily, 10 January 2004:

#### **Dr. Dean a disgrace to the profession**

As much as I dislike "alternative practitioners" calling themselves "doctor," there is one thing I dislike even more – "real doctors" disgracing their profession.

As a physician, one thing I learned at a very early age – people expect more of you because of your profession. Likewise, people expect honesty from a journalist like you. And what I do reflects on others in the profession, not just myself. The authority to write prescriptions and be "in charge" is just awesome – but along with this authority comes awesome responsibility. One responsibility is to be scrupulously honest when it comes to discussing scientific evidence.

Howard Dean's statement about the "overwhelming" evidence that homosexuality is genetic was the single greatest assault on medical science in a long time. This just isn't true – there is NO scientific evidence that supports this hypothesis – only speculation and people repeating it over and over again and wishing it is true. And even without the religious argument, this stuff just isn't true.

One common argument is that homosexuals just don't remember why they are so. This in no way means it is genetic; they simply may be unaware of environmental influences. Also against the genetic theory is the successful "re-orientation" of some who are not married; this has been done by serious psychiatrists, not cranks.

And just think – what would be the result for a gene that discouraged reproduction? It would disappear or be greatly decreased in the population.

To declare sexual orientation as a "genetic trait" and base public policy on this belief is a broadside to science.

Frank G. Zavisca, M.D., Ph.D.

34. How ridiculous the assertion that homosexuality is an inherited genetic absolute is illustrated by Dr. Satinover as he takes these same rationales to "prove" that:

#### **Basketball Players Are Born that Way**

Suppose you are motivated to demonstrate for political reasons--that there is a basketball gene that *makes* people grow up to be basketball players. You would use the same methods that have been used with homosexuality: (1) twin studies; (2) brain dissections; (3) gene "linkage" studies.

The basic idea in twin studies is to show that the more genetically similar two people are, the more likely it is that they will share the trait you are studying.

So you identify groups of twins in which *at least one* is a basketball player. You will probably find that if one identical twin is a basketball player, his twin brother is *statistically more likely* to be one, too. You would need to create groups of different kinds of pairs to make further comparisons--one set of identical twin pairs, one set of nonidentical twin pairs, one set of sibling pairs, etc.

Using the "concordance rate" (the percentage of pairs in which *both* twins are basketball players, or *both* are not), you would calculate a "heritability" rate. The concordance rate would be quite high--just as in the concordance rate for homosexuality.

Then, you announce to the reporter from *Sports Illustrated*: "Our research demonstrates that basketball playing is strongly heritable." (And you would be right. It would be "heritable"--but not directly inherited. Few readers would be aware of the distinction, however.)

Soon after, the article appears. It says:



"...New research shows that basketball playing is probably *inherited*. Basketball players are apparently 'born that way!' A number of outside researchers examined the work and found it substantially accurate and well-performed..."

*But no one* (other than the serious scientist) *notices* the media's inaccurate reporting.

### What All Neuroscientists Know: The Brain Changes with Use

Then you move on to conduct some brain research. As in the well-known LeVay brain study which measured parts of the hypothalamus, your colleagues perform a series of autopsies on the brains of some dead people who, they have reason to believe, were basketball players.

Next, they do the same with a group of dead nonbasketball players. Your colleagues report that, on average, "Certain parts of the brain long thought to be involved with basketball playing are much larger in the group of basketball players."

A few national newspapers pick up on the story and editorialize, "*Clearly, basketball playing is not a choice*. Not only does basketball playing run in families, but even these people's *brains* are different."

You, of course, as a scientist, are well aware that the brain changes with use...indeed quite dramatically. Those parts responsible for an activity get larger over time, and there are specific parts of the brain that are more utilized in basketball playing.

Now, as a scientist, you will not *lie* about this fact, *if asked* (since you will not be), but neither will you go out of your way to offer the truth. The truth, after all, would put an end to the worldwide media blitz accompanying the announcement of your findings.

### Gene Linkage Studies: "Associated With" Does Not Mean "Caused By"

Now, for the last phase, you find a small number of families of basketball players and compare them to some families of nonplayers. You have a hunch that of the innumerable genes likely to be associated with basketball playing (those for height, athleticism, and quick reflexes, for example), some will be located on the x-chromosome.

You won't say these genes *cause* basketball playing because such a claim would be scientifically insupportable, but the public thinks "caused by" and "associated with" are synonymous.

After a few false starts, sure enough, you find what you are looking for: among the basketball-playing families, one particular cluster of genes is found more commonly.

### With a Little Help from the Media

Now, it happens that you have some sympathizers at National People's Radio, and they were long ago quietly informed of your research. They want people to come around to certain beliefs, too. So, as soon as your work hits the press, they are on the air: "**Researchers are hot on the trail of the Basketball Gene**. In an article to be published tomorrow in *Sports Science*..."

Commentators pontificate about the enormous public-policy implications of this superb piece of science. Two weeks later, there it is again, on the cover of the major national newsweekly: "Basketball Gene?"

Now what is wrong with this scenario? It is simple: of course basketball playing is associated with certain genes; of course it is *heritable*. But it is those intermediate physiological traits—muscle strength, speed, agility, reflex speed, height, etc.—which are themselves directly *inherited*. Those are the traits that make it likely one will be *able* to, and will *want to*, play basketball.

In the case of homosexuality, the inherited traits that are more common among male homosexuals might include a greater than average tendency to anxiety, shyness, sensitivity, intelligence, and aesthetic abilities. But this is speculation. To date, researchers have not yet sought to identify these factors with scientific rigor.



What the majority of respected scientists now believe is that homosexuality is attributable to a combination of **psychological, social, and biological factors**.

**From the American Psychological Association:**

"[M]any scientists share the view that sexual orientation is shaped for most people at an early age through complex interactions of biological, psychological and social factors." (The American Psychological Association's pamphlet, "Answers to Your Questions about Sexual Orientation and Homosexuality.")

**From "Gay Brain" Researcher Simon LeVay:**

"At this point, the most widely held opinion [on causation of homosexuality] is that *multiple factors* play a role." (LeVay, Simon (1996). *Queer Science*, MIT Press.)

**From Dennis McFadden, University of Texas neuroscientist:**

"Any human behavior is going to be the result of **complex intermingling of genetics and environment**. It would be *astonishing* if it were not true for homosexuality." ("Scientists Challenge Notion that Homosexuality's a Matter of Choice," *The Charlotte Observer*, August 9, 1998.)

**From Sociologist Steven Goldberg:**

"I know of no one in the field who argues that homosexuality can be explained without reference to environmental factors." (Goldberg, Steven (1994). *When Wish Replaces Thought: Why So Much of What You Believe is False*. Buffalo, New York: Prometheus Books.)

As we have seen, there is no evidence that homosexuality is simply "genetic"--and none of the research itself claims there is. Only the press and certain researchers do, when speaking in sound bites to the public.

NOTE: Adapted from two sources: a paper entitled, "The Gay Gene?" by Jeffrey Satinover, M.D., in *The Journal of Human Sexuality*, 1996, available by calling (972) 713-7130; and past issues of the National Association of Research and Therapy of Homosexuality (NARTH) Bulletin.

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35. It is my studied opinion that the problem of homosexuality is far more complex than the present debate is willing to consider. From the biblical perspective sodomy is an unnatural act that is in direct opposition to the standards of divine righteousness. But on the other hand, from the viewpoint of science, it is a natural expression of biological forces and thus classified as a "natural variant of human sexuality."
36. Traditionalists believe that homosexuality is sinful. Progressives do not. Hostility exists between these two opinions because of competing worldviews.
37. Our system of jurisprudence was established on the foundation of Judeo-Christian ethics which recognizes that man is sinful and thus needs the constraint of moral law and the restraint of promised punishment for the violation of these laws.
38. The men who conceived and developed our Constitution were traditionalists but even they fell into disagreement during the debates leading up to the document's submission to the States for ratification.
39. Benjamin Franklin observed the petty squabbling and although one of the few Founders who was not a believer in Jesus Christ, he did comprehend the importance of a "superintending Providence" in the founding of a free nation.
40. Franklin, an unbeliever, brought order to the Convention by his appeal for prayer. I will quote from two sources in order to reconstruct the entirety of Franklin's comments. The first is:



Allison, Andrew M. *Benjamin Franklin: Printer, Philosopher, Patriot. Part 1 in The Real Benjamin Franklin.* (Washington: National Center for Constitutional Studies, 1987), 258-59.

The second is:

Marshall, Peter and David Manuel. *From Sea to Shining Sea.* (Tarrytown: Fleming H. Revell Co., 1986), 18-19:

Mr. President (George Washington presiding),

The small progress we have made ... is, methinks, a melancholy proof of the imperfection of the human understanding. In this situation of this assembly, groping, as it were, in the dark to find political truth, and scarce able to distinguish it when presented to us, how has it happened, Sir, that we have not hitherto once thought of humbly applying to the Father of Lights to illuminate our understandings?

In the beginning of the contest with Britain, when we were sensible of danger, we had daily prayers in this room for Divine protection. Our prayers, Sir, were heard—and they were graciously answered. All of us who were engaged in the struggle must have observed frequent instances of a superintending Providence in our favor. And have we forgotten this powerful friend? Or do we imagine that we no longer need his assistance?

I have lived long, Sir, a long time; and the longer I live, the more convincing proofs I see of this truth, “that God governs in the affairs of men.” And if a sparrow cannot fall to the ground without his notice, is it probable that an empire cannot rise without his aid? We have been assured, Sir, in the sacred writings that “except the Lord build the house, they labor in vain that build it.” I firmly believe this; and I also believe that, without his concurring aid, we shall succeed in this political building no better than the builders of Babel; we shall be divided by our little, partial, local interests; our projects will be confounded; and we ourselves shall become a reproach and a byword down to future ages. And what is worse, mankind may hereafter, from this unfortunate instance, despair of establishing government by human wisdom and leave it to chance, war, or conquest.

I therefore beg leave to move that, henceforth, prayers imploring the assistance of heaven and its blessings on our deliberations be held in this assembly every morning before we proceed to business, and that one or more of the clergy of this city be requested to officiate in that service.

41. The Founders finally got it together and the Constitution with its amended Bill of Rights was put to law by the States. Christian men and sensible patriots such as Franklin sought to form a “more perfect union” by appealing to the truth that “God governs in the affairs of men.”