HOMOSEXUALITY: INNATE AND IMMUTABLE?

A. Dean Byrd & Stony Olsen*

I. INTRODUCTION

Is the practice of homosexuality medically or psychologically harmful? Is homosexuality an immutable, biological characteristic, or is it the product of one's environment? Can a homosexual be "cured"? The answers to these questions foster some of the more controversial debates and have many implications for policy makers, touching the very foundations of society and morality in America. There is an inordinate amount of conflict and politicization surrounding the topic. Controversies range from what to teach our children (recall the debate over whether the Boy Scouts of America should be allowed to bar homosexual scoutmasters) to questions about marriage and the nature of the family in general.

First, it is useful to define "homosexuality." Homosexual behavior refers to overt sexual activities between two partners of the same sex. Homosexual orientation refers to overall sexual responsiveness of someone to members of his or her same sex. Homosexual identity refers to the labeling of oneself as gay or lesbian.

This article examines the status of science in answering the question of whether being homosexually oriented is a choice or whether the T-shirt thanking mom for the "gay gene" is accurate. Attention is given next to whether homosexuality is changeable. Gay activists loudly proclaim, "Once a homosexual, always a homosexual." In contrast, some professionals and ministries claim that homosexuality can be "cured." This article also discusses how homosexuality has in the period of

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twenty-five years evolved from an outcast practice to one that is promoted by some to constitute normality. Finally, the consequences of homosexual practices are addressed through examination of various statistics and their implications.

Since almost all available data is on homosexual men, this article focuses on homosexual men and excludes discussion of lesbianism for the most part. There is not enough data on lesbianism to make a worthwhile review at the moment, although the same conclusions will most likely apply. It should also be noted that this article differentiates between: 1) homosexual men who have homosexual attraction and may or may not engage in homosexual behavior and 2) gays who assume a social and political identity and tend to be political activists. They are two separate groups.

II. THE BIOLOGY OF HOMOSEXUALITY: THE SCIENTIFIC EVIDENCE EXAMINED

One of the most fundamental questions to ask in any discussion of homosexuality, or indeed any behavior, is what causes the behavior. Here, not surprisingly, gay rights activists and their opponents have great disagreements. The basic question is whether homosexuality is "in the genes" or a product of the environment. Perhaps homosexual attraction is a conscious choice that a person makes, with no other influences other than falling prey to temptation? Or maybe the cause is a combination of these factors. Research has addressed this issue and is best summarized by Evan S. Balaban, Dr. Balaban, one of the most influential neurobiologists in the United States, noted that the search for the biology of complex human traits has had a relatively low success rate. Recently, Balaban stated that while genes linked to alcoholism, mental illness, and homosexuality supposedly have been "discovered," none of these claims have been confirmed.2

Gay activists trumpet that homosexuality is in the genes, and the media has focused great attention on these claims. The activists point to three main studies that "prove" that a man is born homosexual, has no choice in the matter, and therefore cannot change. These studies include research by Simon LeVay,³ Dean H. Hamer,⁴ and J.M. Bailey and R.C.

John Horgan, Gay Genes, Revisited, Sci. Am., Nov. 1995, at 26.

Id. at 26.

Simon LeVay, A Difference in Hypothalamic Structure Between Heterosexual and Homosexual Men, 253 Science 1034 (1991).

⁴ Dean H. Hamer et al., A Linkage Between DNA Markers on the X Chromosome and Male Sexual Orientation, 261 SCIENCE 321 (1993).

Pillard.⁵ Although there are other studies, these are the ones primarily responsible for the popular and politicized impression that being homosexual is something that cannot be helped, since being homosexual means "you were born that way." In addition to these three main studies, another prominent theory suggests that prenatal hormonal irregularities cause some people to be born with homosexual attraction.

A. Simon LeVay: Homosexuality and the Brain

The LeVay study, conducted by Simon LeVay of the Salk Institute for Biological Studies in San Diego, reported that "subtle but significant differences" had been found between the brains of homosexual men and heterosexual men.⁶ LeVay performed a study on the brains of two groups of men: 1) homosexuals and 2) men LeVay presumed were heterosexual.⁷ LeVay researched the area of the brain known as the hypothalamus, focusing on a cluster of cells called the INAH-3.⁸ Previously, research had found that, consistent with the general proposition that men's brains are generally larger than women's brains,⁹ this cluster of cells in the hypothalamus is also larger in men than in women.¹⁰ LeVay noted in his study that in homosexual men this cluster of cells was smaller than in heterosexual men.¹¹

As a result of LeVay's research, the media immediately concluded that homosexual men have something different about their brains that makes them homosexual. LeVay's study, however, presents several problems. He had a small sample size: just sixteen allegedly heterosexual men and nineteen homosexual men. 12 In addition, since the men's brains were examined post-mortem, it is not possible to confirm the heterosexuality of the presumedly heterosexual group or anything about their sexual lifestyles. 13 LeVay himself enumerates some of the difficulties with his research in his book, *Queer Science*:

But it is important to stress several limitations of the study. First, the observations were made on adults who had already been sexually active for a number of years. To make a really compelling case, one

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J. Michael Bailey & Richard C. Pillard, A Genetic Study of Male Sexual Orientation, 48 ARCHIVES GEN. PSYCHIATRY 1089 (1991).

⁶ Horgan, supra note 1, at 26.

⁷ *Id*.

 $^{^{3}}$ Id.

⁹ William Byne, Science and Belief: Psychobiological Research on Sexual Orientation, 28 J. HOMOSEXUALITY 303, 327 (1995).

 $^{^{10}}$ Id.

 $^{^{11}}$ $\,$ Horgan, supra note 1.

William Byne & Bruce Parsons, Human Sexual Orientation: The Biological Theories Reappraised, 50 Archives Gen. Psychiatry 228, 235 (1993).

 $^{^{13}}$ Id

would have to show that these neuroanatomical differences existed early in life preferably at birth. Without such data, there is always at least the theoretical possibility that the structural differences are actually the *result* of differences in sexual behavior perhaps on the "use it or lose it" principle. Furthermore, even if the differences in the hypothalamus arise before birth, they might still come about from a variety of causes, including genetic differences, differences in stress exposure, and many others. It is possible that the development of INAH3 (and perhaps other brain regions) represents a "final common path" in the determination of sexual orientation, a path to which innumerable prior factors may contribute.

Another limitation arises because most of the gay men whose brains I studied died of complications of AIDS. Although I am confident that the small size of INAH3 in these men was not an effect of the disease, there is always the possibility that gay men who died of AIDS are not representative of the entire population of gay men. For example, they might have a stronger preference for receptive anal intercourse, the major risk factor for acquiring HIV infection. Thus, if one wished, one could make the argument that structural differences in INAH3 relate more to actual behavioral patterns of copulation than to sexual orientation as such. It will not be possible to settle this issue definitively until some method becomes available to measure the size of INAH3 in living people who can be interviewed in detail about their sexuality. 14

LeVay wisely made a cautionary statement about the possibility that the differences in the INAH-3 area are caused by behavior and not genes.

The research by Dr. Marc Breedlove also addresses the relationship between the brain and behavior. An experiment by Dr. Breedlove, a professor of neuroscience at the University of California at Berkeley, tested neurological changes in the brains of male rats as they engaged in copulatory behavior. ¹⁵ Breedlove concluded that the brain is not a static organ. ¹⁶ It changes and adjusts to behavior and, in the case of his study, specifically to sexual behavior. ¹⁷ Thus, when someone engages in a

17 Id. Breedlove states:

Copulatory experience can therefore alter the size of neurons. Whether the sensory experience or motor activity of copulation induced these changes, interpretations of correlations between human behavior and neural morphology must acknowledge that the two are reciprocally related. It is possible that differences in sexual behavior cause, rather than are caused by, differences in brain structure.

¹⁴ SIMON LEVAY, QUEER SCIENCE 143-45 (1996).

¹⁵ S. Marc Breedlove, Sex on the Brain, 389 NATURE 801 (1997).

¹⁶ *Id*.

Id. These findings give us proof for what we theoretically know to be the case: sexual experience can alter the structure of the brain, and just as x genes can alter it, it is possible that differences in sexual behavior cause (rather than are caused by) differences in brain structure.

particular act repeatedly, certain neural pathways in the brain are strengthened. Since the brain is a physical organ, when these neural pathways are strengthened, it is reflected in the chemistry of the brain. Someone who repeatedly plays basketball will have a different brain than someone who studies rocket science. Likewise, a homosexual person's behavior likely causes a different resulting brain structure. Studies such as LeVay's, even if conclusive, show only what science already knows about the brain. Furthermore, the response of the brain to repeated habits also explains why ingrained habits, such as smoking, drug abuse, alcoholism, and promiscuous sex are so hard to change, since over time the brain becomes wired accordingly.

William Byne and Bruce Parsons raised similar concerns about LeVay's work in an article published in 1993 in the *Archives of General Psychiatry*, one of the most prestigious journals in the field of psychiatry. They state, "LeVay's study can be faulted for a number of technical flaws, such as a variable method of tissue fixation, inadequate sexual histories, and small sample sizes." And LeVay himself in recent years has denied that there is something in an individual's biology that makes him homosexual. In his book, *Queer Science*, published in 1996, LeVay states.

¹⁸ *Id*.

¹⁹ Id

Byne & Parsons, supra note 12, at 235. The following paragraph of the Byne & Parsons article is very instructive on LeVay's research as a whole, as Byne and Parsons make a number of suggestions about why LeVay came up with his results:

LeVay's study can be faulted for a number of technical flaws, such as a variable method of tissue fixation, inadequate sexual histories, and small sample sizes (19 homosexual men, all of whom died of acquired immunodeficiency syndrome [AIDS]; 16 presumed heterosexual men of unknown sexual history, six of whom died of AIDS; and six women presumed to have been heterosexual). Although it is unlikely that variations in fixation could account for a selective reduction in the volume of INAH3 in the homosexual men, one can hypothesize a plausible mechanism by which human immunodeficiency virus infection could do this. This is because significant reductions of testosterone levels have been documented in end-stage human immunodeficiency virus infection, and in some mammals, the volume of a cell group presumed to be comparable with INAH3 is dependent on adulthood testosterone levels. To account for the fact that the heterosexual men with AIDS had larger nuclei than the homosexual men with AIDS, one could propose that the heterosexual men had a different disease course or died at an earlier stage of infection than did the homosexual men. This does not seem unlikely, because the major AIDS risk factor for heterosexual men in the United States is intravenous drug abuse, and compared with such men homosexuals tend to have superior health care. Alternatively, a differential incidence of AIDS-related opportunistic fungal infections between the homosexual and heterosexual subjects might have influenced the results, as some antifungal agents decrease testosterone levels when administered systematically. Unfortunately, the medical histories available in the LeVay study are not adequate to test this hypothesis.

Id. (footnotes omitted).

Although there are significant differences between the attitudes of lesbians and gay men, it is clear that both groups are far more inclined to consider their sexual orientation a biological "given" than is the general population.

Should one take these assertions seriously? Not entirely, of course. No one even remembers being born, let alone being born gay or straight. When a gay man, for example, says he was born gay, he generally means that he felt different from other boys at the earliest age he can remember. Sometimes the difference involved sexual feelings, but more commonly it involved some kind of gender-nonconformist or "sex-atypical" traits—disliking rough-and-tumble play, for example, that were not explicitly sexual. These differences, which have been verified in a number of ways, suggest that sexual orientation is influenced by factors operating very early in life, but these factors could still consist of environmental forces such as parental treatment in the early postnatal period.²¹

LeVay is correct in pointing out that no one remembers being born homosexual, and his study has enough imperfections that his proposition that homosexuality is caused by the brain's biology is unreliable. Therefore, it is unknown whether there is any genetic difference between the brains of homosexuals and heterosexuals. LeVay's own conclusions about his research are telling:

It is important to stress what I didn't find. I did not prove that homosexuality is genetic, or find a genetic cause for being gay. I didn't show that gay men are born that way, the most common mistake people make in interpreting my work. Nor did I locate a gay center in the brain. INAH 3 is less likely to be the sole gay nucleus of the brain than a part of a chain of nuclei engaged in men and women's sexual behavior. . . . Since I looked at adult brains, we don't know if the differences I found were there at birth, or if they appeared later.²²

B. Bailey and Pillard: Twin Studies

The next significant study often quoted by gay activists was conducted by Bailey and Pillard.²³ It is known as the "twin study," since Bailey and Pillard focused on homosexuality in identical twins, nonidentical twins, and regular siblings. They studied the incidence of homosexuality in one twin and then correlated it with whether the other twin also displayed homosexual tendencies. Bailey and Pillard studied fifty-six sets of identical twins and fifty-four sets of nonidentical twins.²⁴ They found a correlation of 52% in identical twins, meaning that for every homosexual twin the chances were about 50% that his twin would

 $^{^{21}}$ LeVay, supra note 14, at 6 (internal cross-reference omitted).

 $^{^{22}}$ David Nimmons, $S\!e\!x$ and the $B\!rain,$ DISCOVER, Mar. 1994, at 64-71.

²³ Bailey & Pillard, supra note 5.

²⁴ Id. at 1090.

also be homosexual.²⁵ For nonidentical twins, the rate of concordance was 22%, thereby showing only one in five twins had a homosexual brother.²⁶ The concordance for non-twin brothers was only 9.2%.²⁷ These findings were hailed as showing that homosexuality is genetic, since identical twins have the exact same genetic makeup, and there was a much higher likelihood of homosexuality where all the genes were about the same.

Since it is so important and prevalent in the work on twin studies, a definition of "heritability" is needed. Neil Whitehead explains that heritability is

not a measure of how much a trait is inherited. It is, more accurately, a measure of the balance between environment and genetic input into a trait at any one place at a point of time. Heritability is something that rises and falls in direct response to the amount of environmental intervention. An opposite environmental influence can reduce a genetic effect to something negligible.²⁸

Even substantial heritability does not equate to inevitable inheritability. Heritability is expressed as a percentage; the higher the percentage, the more likely that genetic influences predominate over other influences.

There are several caveats that the study by Bailey and Pillard failed to explain. As Byne and Parsons point out, although identical twins have the same genetic code, nonidentical twins and regular siblings share the same proportion of genetic material.²⁹ This is because nonidentical twins and two siblings of different ages are each conceived from a different egg and a different sperm. Therefore, the genetic theories should show a similar proportion of homosexual concordance between nonidentical twins and regular siblings.³⁰ The different rates, that of 22% for the nonidentical twins and 9.2% for siblings, is puzzling if only genetic factors are determinative. The low 9.2% factor should reflect the higher rate of the nonidentical twins.³¹ Byne and Parsons also criticize the validity and findings of the study in other ways.³² First, they note the fact that the study rests on the assumption that the relevant environment is the same for identical twins and nonidentical twins.³³ Second, the effects of potential bias in the sample are called into

 $^{^{25}}$ Id.

²⁶ *Id*.

 $^{^{27}}$ Id.

 $^{^{28}}$ $\,$ Neil Whitehead & Briar Whitehead, My Genes Made Me Do It! A Scientific Look at Sexual Orientation 163 (1999).

 $^{^{29}~}$ Byne & Parsons, supra note 12, at 229.

 $^{^{30}}$ Id.

 $^{^{31}}$ *Id*.

³² Id. at 230.

³³ *Id*.

question, as Bailey and Pillard recruited their homosexual research subjects by advertising in various homosexually oriented publications.³⁴ This may affect the truth of responses or at least result in an unknown, and therefore uncorrectable, bias in the results. Third, there was no way to separate the intermingling of environmental and genetic effects, since all sets of twins in the study had been raised together and were presumably subject to most, if not all, of the same environmental effects.³⁵ Fourth, all that the study really showed was that there was a "non-zero heritability," or that some traits were genetic.³⁶

The most interesting question, however, is that if there is something in the genetic code that makes a person homosexual, why did not all of the identical twins become homosexual, since they have the exact same genetic code?³⁷

Furthermore, William Byne explains how the Bailey and Pillard study is a strong argument *for* environmental influences on the development of homosexuality:

Moreover, Bailey and Pillard found that the incidence of homosexuality in the adopted brothers of homosexuals (11%) was much higher than recent estimates for the rate of homosexuality in the population (1 to 5%). In fact, it was equal to the rate for non-twin biological brothers. This study clearly challenges a simple genetic hypothesis and strongly suggests that environment contributes significantly to sexual orientation.³⁸

Byne goes on to conclude,

Indeed, perhaps the major finding of these heritability studies is that despite having all of their genes in common and having prenatal and postnatal environments as close to identical as possible, approximately half of the identical twins were nonetheless discordant for orientation. This finding underscores just how little is known about the origins of sexual orientation.³⁹

What if Bailey and Pillard are correct, in spite of the flaws in their study, and there is a 50% heritability rate of male homosexuality? Neil Whitehead tabulated other twin studies on other topics and those traits' heritability:⁴⁰

Characteristic Studied	Heritability Found
	(often +/- 20%)
Smoking	0%
Hostility	0%

 $^{^{34}}$ Id.

 35 *Id*.

³⁶ *Id*.

³⁷ *Id*.

 $^{^{38}}$ William Byne, The Biological Evidence Challenged, Sci. Am., May 1994, at 54.

³⁹ Id.

WHITEHEAD & WHITEHEAD, supra note 28, at 158-59.

Cynicism	0%
Paranoid Alienation	0%
Obsessive-compulsive Disorder	0%
Narcissism	0%
Anxiety	20%
Attitude to Family	24%
Schizophrenia	28%
Multiple Sclerosis	28%
Fertility	30%
Neurosis	36%
Psychosis	39%
Lying	43%
Anorexia Nervosa	44%
Fear of the Unknown	46%
Psychological Inpatient Care	47%
Extroversion	50%
Depression	50%
Criminality	50-60%
Alcoholism	0-60%
Altruism	50%
Religiosity	50%
Fundamentalism	50%
Homosexuality (male)	50%
Divorce	52%
Self Realization	58%
Racial Prejudice, Bigotry	70%
Dyslexia	76%
Height	90%
Phenylketonuria	100%
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Whitehead noted that phenylketonuria is a genetic disorder dealing with enzymes and that it was added to the table to show the contrast between a "genuine genetic condition and a behavioral trait." He recognizes that even height is influenced by environmental factors such as poor nutrition (which reduces a person's height). Whitehead points out that "we know that divorce, alcoholism, religiosity, criminal behavior, and inpatient care are not genetically destined. The authors of the paper which found such a high heritability for divorce were apologetic. Obviously, they remarked with some embarrassment, divorce does depend on another person."

Whitehead also explains the rules of twin study analyses which need to be followed to obtain accurate results.

⁴¹ *Id.* at 159.

⁴² *Id.* at 160.

For twin studies to be accurate in their conclusions about homosexuality, it would have to be shown that:

- 1. the identical homosexual twins did not volunteer for the study at higher rates than fraternal homosexual twins,
- 2. families really do treat each twin identically (the "shared environments" assumption),
- 3. homosexuality has a statistically "normal" distribution in the population,
- 4. there is no interaction between genes and environment,
- 5. people with the "homosexual gene" very rarely mate with others carrying the "homosexual gene,"
- 6. the twins do not imitate each other—particularly, identical twins, do not encourage each other to be homosexual,
- 7. the twins, apart from being twins, are very similar to the rest of the population (e.g., in physical characteristics and in incidence). By incidence, it is meant that because about 1% of the population is exclusively homosexual, about 1% of people who are one of a twin pair should also be exclusively homosexual.⁴³

Whitehead then explains how homosexual twin studies violate most of these rules to varying degrees. There is a degree of "volunteer error" with twin studies, as more identical homosexual twins will volunteer than normal if they know the study is about them. Also, fraternal twins are not treated the same, by family and others, as identical twins. The environment interacts with genes in organisms. For instance, if a man had a genetic predisposition to become homosexual, would that predisposition become a reality in an all-female environment? No, of course not. How could he become homosexual without other men present? However, if the same man were in an environment where the expression of homosexual attractions was encouraged (via pornography or advances from other men), would that environment increase the probability that he would embrace homosexuality? Of course it would! Twins imitate each other frequently, and they typically are different from the general population. For instance, they are significantly more likely to remain unmarried and have a higher incidence of homosexuality than the general population (around four times higher).⁴⁴ Whitehead concludes that these problems with twin studies could reduce the heritability rate to as low as 10% instead of 50%.

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⁴³ Id at 151-52

⁴⁴ Elke D. Eckert et al., *Homosexuality in Monozygotic Twins Reared Apart*, 148 BRIT. J. PSYCHIATRY 421 (1986). See also L.L. Heston & James Shields, *Homosexuality in Twins*, 18 ARCHIVES GEN. PSYCHIATRY 149 (1968).

There are enough flaws with Bailey and Pillard's study to prevent them from making any valid claims. The only essential point that surfaced from Bailey and Pillard's research actually proved that environmental influences play a strong role in the development of homosexuality.

C. The Gay Gene: Dean Hamer

The most sensationalized of the three main studies is one by Dean H. Hamer *et al.* Dean Hamer, at the time of the study, was a researcher at the National Cancer Institute. Hamer's group focused on a small area of the X chromosome. He found that out of 40 pairs of homosexual brothers, 33 (83%) received the same sequence of markers within the studied region of the X chromosome. In this, claimed Hamer, meant that instead of the 50% of homosexual brothers which genetics would predict to have these sequences (due to the fact that a brother should have a 50% chance of having the same X chromosome marker as another brother), there is a 33% increase in the natural percentage. In other words, 33% more homosexuals had this sequence of genes as compared to a sample of the heterosexual population. If true, this would imply that there is something about this sequence which helps produce homosexuality.

Hamer's work resulted in the loudly pronounced discovery of the socalled "gay gene." His study seemed to suggest that there is a genetic component to homosexuality; this was widely misinterpreted to mean that homosexuality is inherited, in spite of the fact that his study focused exclusively on male and not female homosexuals.

There are several concerns with Hamer's study. First, there was no control group from the general population.⁴⁸ If the same sequence from the X chromosome that appeared in the homosexual men also appears in the general population of non-homosexual men, then the gene is insignificant.⁴⁹ Hamer also did not test the heterosexual brothers of the homosexual men to see if they had the gene, but some of the data from those heterosexual brothers did have the gene sequence.⁵⁰ This would tend to show that the particular sequence would not be as influential as Hamer's study would suggest. Furthermore, seven of Hamer's pairs of homosexuals did not have the gene sequence at all.⁵¹ It is not known

Hamer et al., supra note 4.

⁴⁶ Id. at 324.

 $^{^{47}}$ Id. at 325.

 $^{^{48}}$ Whitehead & Whitehead, supra note 28, at 141.

⁴⁹ *Id*.

⁵⁰ *Id*.

⁵¹ *Id*.

whether the same sequence is carried across from one set to another. In other words, Hamer did not check to see if the sequence was the same for all the homosexual brothers as a whole.

Hamer was also criticized for his statistical methodology. One of the criticisms came from the man who invented the method used by Hamer, George Risch. Risch, from the Yale University School of Medicine, had this to say: "Hamer et al. suggest that their results are consistent with xlinkage because maternal uncles have a higher rate of homosexual orientation than paternal uncles, and cousins related through a maternal aunt have a higher rate than other types of cousins. However, neither of these results [are] statistically significant."52 Risch further mentioned that the results could be more apparent than real. "The small sample sizes make [this] data compatible with a range of possible genetic and environmental hypotheses," and because "so few homosexual men tend to have children, a study of male homosexual orientation will reveal few opportunities for male to male transmission, giving the appearance of an x-linkage."53 In addition, Hamer appeared to claim that the odds of his findings being real were ten thousand to one.⁵⁴ A paper soon afterward reduced those odds to twenty to one, which is barely scientifically significant.55

Hamer himself states in his book, The Science of Desire, "The pedigree study failed to produce what we originally hoped to find: simple Mendelian inheritance. In fact, we never found a single family in which homosexuality was distributed in the obvious sort of pattern that Mendel observed in his pea plants."56

Hamer candidly points out in his book just what the significance of a "gay gene" really is and how limited his study, or any study on genetic behavior, can be.

We knew also that genes were only part of the answer. We assumed the environment also played a role in sexual orientation, as it does in most if not all behaviors. To most people, the environment means nonbiological factors, such as family upbringing, life experiences, and religion

. . . Such independent environmental factors would affect DNA studies in much the same way as multiple independent genes: Some individuals would be gay even if they didn't have the "gay gene." 57

⁵² Neil Risch et al., Male Sexual Orientation and Genetic Evidence, 262 SCIENCE 2063, 2064 (1993).

⁵³ *Id*.

⁵⁴ Hamer et al., *supra* note 4, at 325.

⁵⁵ Eric S. Lander & Nicholas J. Shchork, Genetic Dissection of Complex Traits, 265 SCIENCE 2037, 2037 (1994).

⁵⁶ DEAN HAMER & PETER COPELAND, THE SCIENCE OF DESIRE 104 (1994).

⁵⁷ *Id.* at 82. The complete quote reads as follows:

Hamer's work has been replicated, but not duplicated. As recently as April 1999, a study by George Rice concluded that the sharing of genetic markers is statistically insignificant.⁵⁸ The Rice study used fifty-two gay sibling pairs, in comparison to the forty used by Hamer.⁵⁹ Doing the same study and searching for the same genetic marker for which Hamer looked, Rice found no evidence of an influence on sexual orientation and, in fact, had this to say about his study:

It is unclear why our [Hamer and his researchers] results are so discrepant from Hamer's original study. Because our study was larger than that of Hamer *et al.*, we certainly had adequate power to detect a genetic effect as large as was reported in that study. Nonetheless, our data do not support the presence of a gene of large effect influencing sexual orientation at position Xq28 [the position of the gene that Hamer and Rice studied].⁶⁰

And Hamer concluded the following about his own work:

In fact, the results that we published do not allow scientists to learn anything about the sexual orientation of an individual, either living or unborn. This is because we did not actually isolate a gene, which would be essential for such a test. We just detected linkage -- the degree of gene sharing between related individuals with a known characteristic. Our experiments were designed to determine whether or not genes influence sexual orientation, not to test for the presence or effect of these genes on individuals. Our results were based purely

We knew also that genes were only part of the answer. We assumed the environment also played a role in sexual orientation, as it does in most if not all behaviors. To most people, the environment means nonbiological factors, such as family upbringing, life experiences, and religion. To geneticists, however, the word environment means anything and everything that is not inherited, including some factors that are purely biological. So from our point of view, undergoing prenatal development in a womb swimming with male hormones is as much an environmental factor as growing up in a devoutly religious household.

Roughly speaking, an environmental factor can act with genes either independently or interactively. When it acts independently, an environmental factor by itself can cause a particular characteristic. If this hypothetical environmental factor were spread out randomly among the population, then many families might have only a single gay person, which could cause an underestimation of the genetic component of sexual orientation because homosexuality wouldn't appear to run in families. On the other hand, if the environmental factor were more common in some families than in others, it might mimic genetic inheritance and cause an overestimation of heritability. Such independent environmental factors would affect DNA studies in much the same way as multiple independent genes: Some individuals would be gay even if they didn't have the "gay gene."

Id

⁵⁸ George Rice et al., *Male Homosexuality: Absence of Linkage to Microsatellite Markers at Xq28*, 284 Science 665, 667 (1999) (footnote omitted).

⁵⁹ *Id*.

⁶⁰ *Id*.

on statistical measurements of a group and can say nothing about individual people. 61

Ruth Hubbard, the renowned professor of biology at Harvard, has written a book that dispels myths about behavioral traits that are claimed to be transmitted by a specific gene. Following are various quotes from her book: "The myth of the all-powerful gene is based on flawed science that discounts the environmental context in which we and our genes exist." [G] enetic conditions involve a largely unpredictable interplay of many factors and processes A gene does *not* determine a phenotype [noticeable trait] by acting alone; a gene cannot act by itself." It is an oversimplification to say that any gene is the gene for a trait. Each gene simply specifies one of the proteins involved in the process." When addressing homosexuality specifically, she stated,

Many modern researchers continue to believe that sexual preference is to some extent biologically determined. They base this belief on the fact that no single environmental explanation can account for the development of homosexuality. But this does not make sense. Human sexuality is complex and affected by many things. The failure to come up with a clear environmental explanation is not surprising, and does not mean that the answer lies in biology.

. . .

... [S]uch studies are bound to come up with plenty of meaningless correlations which will get reported as further evidence of genetic transmission of homosexuality.⁶⁵

Currently the research has failed to prove there is a "gay gene." Hamer's genetic sequences have been calculated to affect about 5% of the homosexual population, so even if he is correct, there must be some other explanation for what causes the vast majority of homosexuality. 66

D. The Effect of Prenatal Hormonal Influences

Besides the three studies discussed previously, yet another method has been advanced to suggest a biological cause for homosexuality: prenatal hormonal influence. In brief, the theory states that abnormal levels of various hormones in the womb cause a person to become attracted to his or her same sex.⁶⁷ It has been established that human sexual development in the womb depends on various levels of hormones

⁶¹ HAMER & COPELAND, supra note 56, at 217.

⁶² RUTH HUBBARD & ELIJAH WALD, EXPLODING THE GENE MYTH 6 (1993).

 $^{^{63}~}$ Id. at 36-37 (quoting DAVID T. SUZUKI ET AL., AN INTRODUCTION TO GENETIC ANALYSIS 83 (4th ed. 1989)).

⁶⁴ HUBBARD & WALD, supra note 62, at 44.

⁶⁵ *Id.* at 94, 98.

WHITEHEAD & WHITEHEAD, supra note 28, at 144-45.

⁶⁷ Id. at 113.

such as estrogen, testosterone and androgen.⁶⁸ As a matter of course, the natural levels of these hormones are typically produced at the proper times in a fetus's development. Sometimes, however, something goes wrong either in the amount of a hormone produced or the time in which it is produced. The prenatal hormonal theory states that either increased levels of estrogen, a female hormone, or reduced levels of androgen/testosterone, a male hormone, can influence future sexual preferences. It has been demonstrated that increased levels of hormones in rats and other animals do cause this effect; however, this effect has not been replicated in humans to any degree of certainty.⁶⁹

An artificial female sex hormone called diethylstilbestrol (the infamous DES) was administered in the middle part of this century to pregnant women who suffered from severe morning sickness.⁷⁰ This hormone, in addition to helping with morning sickness, had been observed to increase masculine behavior in female guinea pigs and decrease male behavior in rats, with the natural conclusion that it might have the same effect in humans.⁷¹ However, Dr. D.J. West explains how rats and humans differ in regard to sexual behavior: "In higher animals, and particularly in human beings, sexual behavior ceases to be . . . directly and immediately dependent upon the hormone concentration at any given moment."72 Along with other studies of the devastating side effects of this hormone, such as malformed children and other things, at least five studies were performed on the female children of the women taking this hormone.73 The purpose of the studies was to see if the hormonal treatment had any effect on the child's sexual behavior later in life. These studies were inconclusive; two showed a slight increase in lesbianism, two showed no difference between these women and the control groups, and the last, most definitive study showed no difference.⁷⁴ Diethylstilbestrol, when administered to boys in the womb, had apparently no effect at all, at least on their later sexual development.⁷⁵ Byne and Parsons state that "[p]renatal exposure to the

⁶⁸ *Id*.

⁶⁹ Id. at 121.

⁷⁰ *Id.* at 114.

⁷¹ Id.

⁷² JOSEPH NICOLOSI, REPARATIVE THERAPY OF MALE HOMOSEXUALITY 89 (1997) (citing D.J. WEST, HOMOSEXUALITY RE-EXAMINED 64-65 (1977)).

⁷³ *Id*.

⁷⁴ Id. For the last conclusive study, see J.D. Lish et al., Prenatal Exposure to Diethylstilbestrol (DES): Childhood Play Behavior and Adult Gender-Role Behavior in Women, 21 ARCHIVES SEXUAL BEHAV. 423 (1992).

⁷⁵ WHITEHEAD & WHITEHEAD, supra note 28, at 114. See LOUIS GOOREN, Biomedical Theories of Sexual Orientation: A Critical Examination, in Homosexuality/Heterosexuality 71 (D.P. McWhirter et al. eds., 1990).

very potent estrogenic progestogen diethylstilbestrol has not been found to influence sexual orientation in men."⁷⁶

Another study involved exposing young females in the womb to massive doses of androgen, some of the strongest doses of this male hormone on record.⁷⁷ This produces a condition known as adrenogenital syndrome in females, which is routinely corrected today. However, some of these children's syndromes were not corrected and were intensively studied. One study found that 37% (a rather large percentage) of these young women are bisexual.⁷⁸ They are, however, not exclusively lesbian.79 This study seems to be flawed because a survey of diabetic patients who were the same age and had the same hospital experience of these girls also had about 37% bisexuality rate as well.80 Both sets of girls were frequently hospitalized, thereby suggesting that other factors common to both groups of girls may have been involved.81 In addition, the study had very poor interviewing techniques.82 Byne and Parsons commented on the apparent bisexuality of a large number of these females: "Perhaps an equally plausible alternative is the speculation by Bleier that the adaptations of congenitally virilized women grow out of an ambiguous situation: having boy-like genitalia and being told that you are a girl. Gender must seem a fragile and arbitrary construct if it depends upon plastic surgery."83

If any hormonal imbalance would seem to cause homosexuality, then one involving males and lack of androgen or testosterone would be it, but this is not the case. Dr. West examined this scenario and concludes, "A deficit of androgens in adult men diminishes the sensitivity and reactivity of the sexual apparatus, reduces lust and eventually produces physical impotence, but does not abolish heterosexual orientation." Apparently, if no androgen or testosterone is produced, the person is born, looks like, and grows up as a female with female development, but the person has testes instead of ovaries. But

⁷⁶ Byne & Parsons, supra note 12, at 232. This article is an excellent review of all the theories regarding abnormal hormonal environments and covers the various studies performed regarding prenatal hormonal environments and homosexuality.

WHITEHEAD & WHITEHEAD, supra note 28, at 115.

⁷⁸ Id. To review this study, see J. Money et al., Adult Erotosexual Status and Fetal Hormonal Masculinization and Demasculinization: 46, XX Congenital Virilizing Adrenal Hyperplasia and 46, XY Androgen-insensitivity Syndrome Compared, 9 PSYCHONEUROENDOCRINOLOGY 405 (1984).

⁷⁹ WHITEHEAD & WHITEHEAD, *supra* note 28, at 115.

⁸⁰ *Id*.

⁸¹ *Id*.

⁸² *Id*.

 $^{^{83}}$ Byne & Parsons, supra note 12, at 233 (citing R. BLEIER, SCIENCE AND GENDER: A CRITIQUE OF BIOLOGY AND ITS THEORIES ON WOMEN 101 (1984)).

⁸⁴ NICOLOSI, supra note 72, at 88.

they develop female gender identities and are sexually attracted to males, indistinguishable from normal females. Drs. Byne and Parsons comment on this set of abnormal hormones: "[T]here are no solid data to suggest that these hormones affect future sexual orientation."85 They further state that "psychosexual assessments of these individuals suggest that they are indistinguishable from heterosexual genetic females in terms of sexual arousal and erotic imagery."86 They go on to say that "[b]ecause individuals with Tfm [a technical term for androgen insensitivity] are reared as females, this syndrome clearly cannot provide unequivocal evidence favoring a major role of hormones in the development of psychosexual orientation."87

If a hormonal imbalance was responsible for homosexuality, then perhaps a simple dose of hormones to an adult would cure homosexuality. This is not the case, as has been demonstrated several times. The available literature also suggests that there is not much hormonal difference between homosexuals and heterosexuals. Meyer-Bahlberg reviewed the literature and concluded that three studies found lower levels of testosterone in male homosexuals than heterosexuals. Twenty studies found levels were the same in both. Two studies found higher levels of testosterone in homosexuals than in heterosexuals. Cooren, who also reviewed the biomedical literature on the subject, states that "[n]ot only have the best designed studies failed to find differences in hormone levels between homosexuals, but . . . the scientific principles of endocrinology do not make that plausible."

Dr. Whitehead summarizes it well when he states,

Although there are some pre-natal hormonal effects on sexual behavior for lower animals, there is not convincing evidence for such an effect on sexual orientation in humans. The studies examining the effects of high doses of female hormones to pregnant women are particularly informative because these are very high doses and any hormonal effects should show up clearly. But the result is a dubious effect on women and no effects on men. Any effects on sexual orientation appear to be better explained in terms of gender non-conformity—a psychological construct. Sex drugs do increase or lower sex drive, but that appears to be about all. 92

 $^{^{85}~}$ Byne & Parsons, supra note 12, at 232.

⁸⁶ Id.

⁸⁷ Id

WHITEHEAD & WHITEHEAD, supra note 28, at 118-19.

⁸⁹ H.F.I. Meyer-Bahlburg, Psychoendocrine Research on Sexual Orientation: Current Status and Future Options, 61 PROGRESS BRAIN RES. 375 (1984).

 $^{^{90}}$ Id

 $^{^{91}}$ Whitehead & Whitehead, supra note 28, at 118-19.

⁹² Id. at 121.

In addition to Whitehead, Byne and Parsons state that "data pertaining to possible neurochemical differences between homosexual and heterosexual individuals are lacking." Therefore, another cause of homosexuality apart from prenatal hormonal exposure must be sought.

Perhaps the lesbian activist Dr. Camille Paglia summarized the biological data the best. She writes,

Homosexuality is not "normal." On the contrary, it is a challenge to the norm Nature exists, whether academics like it or not. And in nature, procreation is the single, relentless rule. That is the norm. Our sexual bodies were designed for reproduction. . . .

. . . .

No one is "born gay." The idea is ridiculous \dots .⁹⁴ [H]omosexuality \dots is an adaptation, not an inborn trait. \dots

. . .

... Is gay identity so fragile that it cannot bear the thought that some people may not wish to be gay?... Sexuality is highly fluid, and reversals are theoretically possible. However, habit is refractory, once the sensory pathways have been blazed and deepened by repetition—a phenomenon obvious in the struggle with obesity, smoking, alcoholism, or drug addiction.

... [H]elping gays learn how to function heterosexually, if they so wish, is a perfectly worthy aim. We should be honest enough to consider whether homosexuality may not indeed be a pausing at the prepubescent stage when children anxiously band together by gender.⁹⁵

Current gay cant insists that homosexuality is 'not a choice,' that no one would choose to be gay in a homophobic society. But there is an element of choice in all behavior, sexual or otherwise. It takes an effort to deal with the opposite sex; it's safer with your own kind. The issue is one of challenge versus comfort.⁹⁶

III. NATURE, NURTURE: THE CAUSE OF HOMOSEXUALITY

A. What Biology Really Determines in Sexual Orientation

What is the most probable cause of homosexual attraction? Dr. Jeffrey Satinover, a long-time researcher in the area, explains it quite clearly. Homosexuality can be traced, at least in part, to one's genetic makeup. However, this is the same thing as one of Professor Satinover's favorite analogies, that of a basketball player. No one, he says, can say that genetics do not play a role in the success of almost all National

 $^{^{93}}$ $\,$ Byne & Parsons, supra note 12, at 230.

⁹⁴ CAMILLE PAGLIA, VAMPS & TRAMPS 70-72 (1994).

 $^{^{95}}$ Id. at 76-78.

⁹⁶ Id. at 90.

⁹⁷ JEFFERY SATINOVER, HOMOSEXUALITY AND THE POLITICS OF TRUTH 73 (1996).

⁹⁸ Id. at 94

Basketball Association stars.⁹⁹ Traits such as height, hand-eye coordination, and reflex speed are highly important to a basketball player; these characteristics are determined, for the most part, by genes. Yet, just because a man is six feet nine inches tall and has very fast reflexes and incredible shooting accuracy does not mean that he must play in the NBA. No, he could go on to be a runner, perhaps, or even a researcher, and ignore these genetic traits. The genetic traits do not determine whether a person will use the traits he or she has been given. Satinover points out that since almost all behavior is genetically influenced, there probably is a series of chromosomes which make a person more likely to practice homosexuality, just as the possession of height genes encourages some to play basketball. All behavior has a biological substrate, or in other words, all behavior has connections with an individual's personal biology, but it is not necessarily dependent on them.¹⁰⁰ Traits such as shyness, sensitivity, etc., are part of human existence, but are not alone sufficient, or even necessarily likely, to cause an individual to become a homosexual.

Other influences are needed to make an individual an alcoholic or a homosexual or a basketball player. Satinover divides traits into inherited traits and "other traits." ¹⁰¹ Inherited traits may be innate (i.e. an individual may be born with them), genetic, or derived from some influence in the womb, such as drug use. 102 "Other traits" may be familial, meaning shared by the same family. 103 Again, these traits can be genetic, innate, or from influences in the family, such as moral and emotional influences. Still another set of traits identified by Satinover is traits that he calls biological, such as a virus or environmental toxin like asbestos.¹⁰⁴ In addition, all of these traits, plus the influences that come from society and friends ("the country club set" is an example), values and habits, can be either direct or indirect. 105 That is, each one of these causes may lead to a trait either directly or indirectly, such as when a short athletic person becomes a jockey. So, as Satinover concludes, when we are asking about whether a behavioral trait is genetic, we should instead ask, "To what extent, respectively, is such and such genetic and non-genetic, innate and non-innate, familial and non-familial, environmentally determined and not, direct and indirect? In the course of development, when do which influences dominate and how do their

⁹⁹ *Id*

 $^{^{100}\,}$ Byne & Parsons, supra note 12, at 228.

¹⁰¹ SATINOVER, *supra* note 97, at 73.

 $^{^{102}}$ Id.

 $^{^{103}}$ Id.

 $^{^{104}}$ *Id*.

¹⁰⁵ Id. at 74-75.

interactions affect one another?"¹⁰⁶ The answers to these questions will determine the cause of any trait or behavior, that is, if we can find the answers.

B. Various Factors Contributing to Homosexual Development

If biological factors are not the exclusive cause of homosexuality, then what other variables are involved? Satinover believes that it is a combination of many factors, but the most important is relationships. ¹⁰⁷ Regardless of factors such as biology, all humans respond to needs. The most basic needs are for food, clothing, shelter and love. Homosexuality is a response to a particular need, in most cases a need for a strong father-son relationship.

Doctor George Rekers commented in 1995 that "[g]ender nonconformity in childhood may be the single common observable factor associated with homosexuality." Dean Hamer says substantially the same thing:

Most sissies will grow up to be homosexuals, and most gay men were sissies as children.

. . . Despite the provocative and politically incorrect nature of that statement, it fits the evidence. In fact, it may be the most consistent, well-documented, and significant finding in the entire field of sexual-orientation research and perhaps in all of human psychology. 109

Hamer then went on to discuss results of a survey he had conducted:

For example, "Did you consider yourself less masculine than other boys your age, or were you ever regarded as a sissy as a child?" The answer was yes for 68 % of the gay men, compared with 5 % of the straight men. Another question was, "Did you enjoy sports such as baseball and football as a child?" Of the heterosexual men, 78 % said "very much," compared with 8 % of the homosexual subjects.

The gay participants recalled substantially more gender-atypical behaviors than the straight subjects. 110

Professors Richard Friedman and Jennifer Downey, publishing in the *Journal of Neuropsychiatry*, concluded that tomboyism in girls and the lack of what is called "rough and tumble play" (RTP) in boys may be implicated in the development of homosexuality. "In some subgroups, traumatic scapegoating (e.g., a boy being labeled a 'sissy' for avoiding

 107 Id. at 104.

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 $^{^{106}}$ Id. at 75.

 $^{^{108}\,}$ Handbook of Child and Adolescent Sexual Problems 300 (George A. Rekers ed., 1995) (hereinafter Handbook).

¹⁰⁹ HAMER & COPELAND, supra note 56, at 166.

¹¹⁰ Id. at 167.

RTP) may somehow influence sexual orientation."¹¹¹ In addition, they stated that it was likely that various combinations of temperament and environmental events lead different subgroups to the same sex orientation in adulthood. They further state that "[t]he authors conclude that human sexual orientation is [a] complex and diversely experienced... field."¹¹³

Some typical childhood factors related to homosexuality are:

- feeling of being different from other children
- parent, sibling, peer relationships
- perception of father as being distant, uninvolved, unapproving
- perception of parental perfection required
- · perception of mother as being too close, too involved
- premature introduction to sexuality (such as child abuse or incest)
- gender confusion
- defensive detachment, reparative drive, same-sex ambivalence
- unmet affectional needs
- diminished/distorted masculinity, femininity

Although not all of these factors appear in each case, most individuals who are homosexual have significant numbers of these factors involved in their past. Certainly, not everyone who has experienced these factors is homosexual. Joseph Nicolosi, one of the most knowledgeable people in the area of homosexual development and therapy, in his book, *Reparative Therapy of Male Homosexuality: A New Clinical Approach*, states that "[h]omosexuality is a developmental problem that is almost always the result of problems in family relations, particularly between father and son. As a result of failure with father, the boy does not fully internalize male gender-identity, and develops homosexually. This is the most commonly seen clinical model." George Rekers and Michael Lundy also observe,

The relationship of a child to his or her parents had long been postulated as critical in the development of homosexuality. . . . [T]his association is consistent with that found by other investigators. It is emphasized particularly by those who have researched the nature of gender nonconformity that is so characteristic of gender identity disorders found in young children. . . . Perhaps due to a frequently

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¹¹¹ Richard Friedman & Jennifer Downey, Neurobiology and Sexual Orientation: Current Relationships, 5 J. NEUROPSYCHIATRY & CLINICAL NEUROSCIENCES 131, 139 (1993).

 $^{^{112}}$ Id. at 149-50.

¹¹³ *Id.* at 131.

 $^{^{114}\,}$ NICOLOSI, supra note 72, at 25.

poor relationship with the father, fewer adult male homosexuals recall having been very masculine as young people.¹¹⁵

Nicolosi recounts various studies that show that as compared to heterosexuals, more homosexuals have had distant and cold relationships with their fathers. 116 This was true of both clinical patients seeking help for homosexuality as well as those who were not seeking therapy.¹¹⁷ The average healthy father-son relationship fosters such qualities as confidence, assertiveness, independence, and a search for personal power. 118 Nicolosi recounts that most homosexual men are attracted to other men who display these same characteristics, such as leadership, control of one's life, decisiveness and other similar qualities.¹¹⁹ Male homosexuals typically reject their fathers more strongly than do most heterosexual men. 120 Homosexuals also feel either very little, or not at all, like their fathers during youth. 121 However, many times the father is not aware of these feelings, or of being withdrawn or not providing some element of support. 122 In fact, they may be good fathers and have just not provided for an essential need of their son, through no fault of their own. 123

Another syndrome likely involved in men becoming homosexually oriented is that of an overly close and/or domineering mother. Nicolosi states,

Homosexuals have long been thought to have mothers who are overly close, protective, domineering. The mother's influence does seem to be a factor that can undermine the father-son relationship and sabotage the boy's autonomy, including his gender autonomy. An abnormally close mother-son relationship has been found in the early childhoods of homosexuals by many writers. Due to the binding nature of this mother-son bond, the relationship is likely to be not only close, but highly ambivalent. 124

However, this factor does not appear to be as strong as a poor father-son relationship in developing homosexual tendencies. 125

Studies also show an increased presence of abuse and incest among homosexuals. In two studies performed by Diane Shrier and Robert Johnson in 1985 and 1988, males who had been sexually abused as

 118 *Id*.

 $^{^{115}\,}$ Handbook, supra note 108, at 301.

¹¹⁶ NICOLOSI, supra note 72, at 301.

 $^{^{117}}$ Id.

¹¹⁹ *Id*.

¹²⁰ *Id.* at 45.

 $^{^{121}}$ HANDBOOK, supra note 108, at 300.

¹²² *Id.* at 50-51.

¹²³ *Id*.

¹²⁴ NICOLOSI, *supra* note 72, at 77-78 (citations omitted).

¹²⁵ Id. at 78.

children subsequently reported an almost seven times greater likelihood of being homosexual as adults.¹²⁶ In addition, Doctors Freidman and Downey also conclude that homosexual men are more likely to become sexually active at much younger ages than heterosexual men.¹²⁷ The average age of homosexual males at their first sexual encounter was 12.7, versus 15.7 for heterosexual males.¹²⁸ This evidence may suggest that abuse and early sexual experiences can contribute to homosexuality, perhaps because of familiarity with sexual acts and, in some cases, because of an initial sexual experience with someone of the same gender.

Another theory is one by Daryl Bem, which he calls the Exotic Becomes Erotic (EBE) theory. 129 His theory states that what is exotic to children becomes erotic to them as adolescents. Bem presumes that biological variants are not a factor in deciding sexual orientation, either heterosexual or homosexual, except as they code temperaments in children. 130 Thus, to children who develop as "gender-conforming," that is, they prefer sex-typical activities and peers, the opposite sex is exotic and later, when they become adolescent, becomes erotic to them. 131 Sextypical activities for girls would be such things as jump rope, quiet socializing, and playing with dolls with female peers. Some youths are gender-nonconforming, and prefer sex-atypical activities. 132 Thus, boys who play mostly with girls instead of other boys, and who tend to like the way girls play, become familiar and comfortable with femininity. Male behavior and males become exotic and thus, later in life, erotic. The reverse is true for girls who are tomboys. Such children are much more likely, according to Bem's theory, to become homosexuals as adults. 133 Of course, not all or even most gender-nonconforming children develop into homosexuals.

Another factor involved in individuals developing homosexual attractions may be the increasing tolerance and the decay of morality as a whole in society. Rekers and Lundy point out that

¹²⁶ Diane Shrier & Robert L. Johnson, Sexual Victimization of Boys: An Ongoing Study of an Adolescent Medicine Clinic Population, 80 J. NAT. MED. ASSOC. 1189 (1988); Diane Shrier & Robert L. Johnson, Sexual Victimization of Boys: Experience at an Adolescent Medicine Clinic, 6 J. ADOLESCENT HEALTH CARE 372 (1985).

¹²⁷ Richard Friedman & Jennifer Downey, *Homosexuality*, 331 NEW ENG. J. MED. 923 (1994).

¹²⁸ *Id*.

¹²⁹ Daryl J. Bem, Exotic Becomes Erotic: A Developmental Theory of Sexual Orientation, 103 PSYCHOL. REV. 320 (1986).

¹³⁰ *Id.* at 321.

 $^{^{131}}$ Id.

 $^{^{132}}$ *Id*.

¹³³ Id. at 322.

the oldest explanation for the development of sexual orientation is found in religious thought. Gallup polls have repeatedly documented, over a span of decades, that the vast majority of American parents endorse religious beliefs and values. Homosexuality in particular has received attention in the predominant religions of the American people, the Judaic and Christian traditions. Both of these traditions share a common view of humanity that holds that things have gone greatly wrong with all individuals, and that the very nature of humanity has been corrupted. . . .

. . .

. . . Christian writers acknowledge that the once almost unquestioning rejection of homosexuality on moral grounds is increasingly dismissed as archaic, irrelevant, and at times dangerous. 134

To summarize the theories, it appears that temperament, in combination with environmental factors such as sexual and peer abuse, affords the best explanation for the development of homosexual attraction. The relationship of a child with his parents is very important, particularly the father-son relationship. Biology figures into the mix only as a provider of various traits, such as anger, passivity, and shyness. These traits, when combined with gender-nonconforming activities, can lead to homosexual behavior, although not guarantee it. Researchers William Byne and Bruce Parsons offered the following conclusion:

Recent studies postulate biologic factors as the primary basis for sexual orientation. However, there is no evidence at present to substantiate a biologic theory, just as there is no evidence to support any singular psychosocial explanation. While all behavior must have an ultimate biologic substrate, the appeal of current biologic explanations for sexual orientation may derive more from a dissatisfaction with the current status of psychosocial explanations than from a substantiating body of experimental data. Critical review shows the evidence favoring a biologic theory to be lacking. In an alternative model, temperamental and personality traits interact with the familial and social milieus and the individual's sexuality emerges. Because such traits may be heritable or developmentally influenced by hormones, the model predicts an apparent non-zero heritability for homosexuality without requiring that either genes or hormones directly influence sexual orientation per se. 135

IV. FROM ETIOLOGY TO TREATMENT: EFFECTIVENESS OF CHANGE

As the preceding data shows, the best evidence to date indicates that biological influences are predisposing, not determining, and that environmental factors are very influential. So if homosexuality is not

¹³⁴ HANDBOOK, supra note 108, at 306, 308 (citations omitted).

¹³⁵ Byne & Parson, *supra* note 12, at 223.

biologically determined, then can it be changed? Many gay activists claim that a homosexual person cannot change, and even if the homosexual person attempts to do so, he will ultimately fail. Some even go so far as to argue that not one person has truly changed from being a homosexual to heterosexual. In fact, gay activists argue that any attempt to provide therapy to change a homosexual person is fundamentally wrong, and the activists continue to try to get the APA to make it unethical to attempt to provide such therapy. This professional rule would apply even if the homosexual genuinely wanted to change his or her orientation.

The whole topic of reorientation or reparative, gender-affirmative, or conversion therapy for homosexual individuals is an enormous controversy, with much bitterness on both sides. As gay activists see it, if someone can change his or her sexual orientation from homosexual to heterosexual, then homosexuality can be considered a lifestyle choice and, thus, is not a protected class under the law. Moral and legal consequences can be placed on behavior that is morally unacceptable. The gay activists do not want homosexuality to be classified as immoral, so they claim that therapy is not effective.

What is gender-affirmative therapy? It is simply the process of helping an individual change his or her sexual orientation from homosexual to heterosexual. This is only done when the client or patient requests such treatment. Gender-affirmative therapy works with individuals who are not comfortable with their homosexual orientation and wish to change. For homosexuals who are satisfied with their orientation, gender-affirmative therapy is not mandatory; it is a choice. The basic premise of gender-affirmative therapy is that social and emotional variables affect gender identity which, in turn, determines sexual orientation. The work of the therapist is to help people understand their gender development. Subsequently, such individuals are able to make choices that are consistent with their value system. The focus of therapy is to help clients fully develop their masculine or feminine identity.

So can a homosexual person receive effective therapy? Before the 1973 decision by the APA to declassify homosexuality as a disease, most researchers agreed that homosexuality could be effectively treated. Several researchers and clinicians today maintain that it can be treated, in spite of significant pressure. Dr. Richard Isay, a homosexual activist, has served on two committees in the American Psychiatry Association, the Committee on Gay, Lesbian and Bisexual Issues and the Committee on Abuse and Misuse of Psychiatry in the U.S. He has stated that "efforts to change homosexuals to heterosexuals, I believe, represent one of the most flagrant and frequent abuses of psychiatry in America

today."¹³⁶ However, in response to claims such as these made by Dr. Isay, a survey was conducted where 422 psychiatrists were asked to state whether they had successfully treated homosexuals. They were also asked to agree or disagree with the following statement: "A homosexual patient in psychoanalysis for whatever reason can and should be changed to heterosexuality." Of the 285 responses, which concerned 1215 homosexuals, the survey stated that 23% changed to heterosexuality. An additional 84% benefited significantly by reducing their attraction to other members of their same gender, along with a concurrent decrease in homosexual activity. However, only two therapists agreed that homosexuals should be changed against their will.¹³⁷ Clearly, a substantial portion of the psychoanalytical community believed that therapy can be effective.

The foregoing study was reaffirmed by Nicolosi, Byrd, and Potts, who recently completed a study of the beliefs and practices of therapists with various training who practice sexual conversion therapy. 138 Although admittedly not a national survey of all therapists, or even a survey of all therapists who practice sexual conversion therapy, it is still instructive. Over 51% of the therapists knew of clients whose sexual orientation change had continued for over ten years, and 34% knew of clients who had successfully remained heterosexual for over twenty years. 139 Forty-five percent of the therapists reported that over 60% of their male clients had recounted a "significant decrease in unwanted homosexual thoughts, feelings, and behaviors."140 Another 19% of the therapists recounted that at least 40% of their clients reported such a decrease. 141 The therapists questioned also concluded that therapy is not appropriate for all homosexually oriented people, such as homosexuals who wish to remain homosexual. 142 Thirty-nine percent of the therapists said that at one time in their life they had experienced sexual identity confusion. Twenty-seven percent reported that at one time they perceived their own sexual orientation as partly homosexual. Eighteen percent of the therapists reported that they continue to view their sexual orientation as partly homosexual although most of these say they now view themselves as almost entirely heterosexual. 143

¹³⁶ H. MacIntosh, Attitudes and Experiences of Psychoanalysts in Analyzing Homosexual Patients, 42 J. AMER. PSYCHIATRIC ASSOC. 1183 (1995).

 $^{^{137}}$ Id

¹³⁸ Joseph Nicolosi et al., Beliefs and Practices of Therapists Who Practice Sexual Reorientation Psychotherapy, 86 PSYCHOL. REP. 689 (2000).

 $^{^{139}}$ Id. at 696.

 $^{^{140}\,}$ Id. at 695.

 $^{^{141}}$ Id.

¹⁴² Id. at 697-98.

¹⁴³ Charles Socarides, Homosexuality: A Freedom Too Far 149 (1995).

There is an organization of psychologists and psychotherapists who specifically treat homosexual men and women. This organization, the National Association for Research and Therapy of Homosexuality (NARTH), has over 1500 members drawn from the psychological and psychotherapy professions. There are many other researchers and therapists who have successfully treated unwanted homosexuality. The most prominent of these individuals is Charles Socarides. Having treated homosexuality for over forty years, Doctor Socarides recites a success rate of 35%. Have been able to help a homosexual become heterosexual. That is, able to have complete, satisfactory sex with a woman and develop the capacity to really love her. Socarides is not alone. Jeffrey Satinover records the effects of some of the pre-1973 studies on the effectiveness of therapy for homosexuality (there are very few since 1973 due to the APA's decision that homosexuality is not a disease):

 $^{^{144}}$ Id.

¹⁴⁵ *Id*.

Author	Method Number	Success		
		Treated]	Rate
A. Freud	Psychoanalysis 8		50	
Ovesey	Psychoanalysis 3		100	
Schwartz et al. Psych	otherapy	54		65
Mayerson et al. Psych	otherapy	19		47
Bieber	Psychoanalysis 106		27	
Ellis	Psychotherapy	28		64
Ross et al.	Psychotherapy	15		73
Monroe et al.	Psychotherapy	7		57
Van den Aardweg	Psychotherapy	101		65
Composite		41		52^{146}

In this study, success was defined as including "considerable" to "complete" change. 147 Therefore, since none of these studies have been scientifically repudiated (although much political scorn has been heaped on them), there is research demonstrating that up to 52% of homosexuality is treatable by various forms of therapy. Success rates range from 30% to 70%. Still, a 30% success rate of treatment for any condition is considered a success. Satinover also discussed follow-up studies, because if treatment is to be considered effective, former homosexuals should stay heterosexuals. Citing a study from 1976, and one from 1984 by Masters and Johnson, he found that between 61% and 65% are exclusively heterosexual, while the rest (around 35% to 39%) are either non-sexually active or have had both heterosexual and homosexual encounters. 148

Other studies of treatment report the same or similar results. In 1978, Elizabeth James meta-analyzed over 100 outcome studies which were published between 1930 and 1976. He concluded that when all the research was combined, approximately 35% of the homosexual clients "recovered" and 27% "improved." Significant improvement and even complete recovery [from homosexual orientation] are entirely possible." 151

 148 Id. at 187.

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¹⁴⁶ SATINOVER, supra note 97, at 186 (1996) (summarizing A. Cantom-Dutari, Combined Intervention for Controlling Unwanted Homosexual Behavior: An Extended Follow-up, 5 ARCHIVES SEXUAL BEHAV. 269-74 (1976) and M.F. Schwartz & W.H. Masters, The Masters and Johnson Treatment Program for Dissatisfied Homosexual Men, 141 AM. J. PSYCHIATRY 173-81(1984)).

¹⁴⁷ *Id*.

¹⁴⁹ Elizabeth James, Treatment of Homosexuality: A Reanalysis and Synthesis of Outcome Studies (1978) (unpublished Ph.D. dissertation, Brigham Young University) (on file with Brigham Young University Library).

¹⁵⁰ *Id*.

¹⁵¹ Id. at 183.

NARTH conducted a survey in 1997 of 822 individuals who had received therapy for homosexuality. Before counseling, 68% of the participants in the survey perceived themselves as exclusively homosexual, and another 22% stated that they were more homosexual than heterosexual. After their treatment or therapy, only 13% perceived themselves as exclusively homosexual, while 34% described themselves as exclusively heterosexual. This data is very instructive, although since the survey was self-addressed, it cannot be generalized or its conclusions extrapolated for people beyond the size of the sample.

Perhaps the most significant study to date was reported by Robert L. Spitzer, M.D. at the American Psychiatric Association. Dr. Spitzer is a self-identified secular humanist, atheist Jew. Spitzer was the psychiatrist who led the 1973 effort to remove homosexuality from the list of psychiatric disorders. In his research, Dr. Spitzer studied 200 men and women who had participated in gender-affirmative therapy. He concluded that 66% of the men and 44% of the women had arrived at what he called good heterosexual functioning. In addition, 89% of the men and 95% of the women said they were bothered slightly, or not at all, by unwanted homosexual feelings. 155 "Like most psychiatrists," says Dr. Spitzer, "I thought that homosexual behavior could be resisted, but sexual orientation could not be changed. I now believe that's untrue some people can and do change."156 In the sample that he studied, Spitzer concluded that "many made substantial changes in sexual arousal and fantasy, not merely behavior. Even subjects who made less substantial change believed it to be extremely beneficial." ¹⁵⁷ Most revealing was Spitzer's response when asked by a journalist, "What would you do if your adolescent boy tells you he is homosexual?" Dr. Spitzer responded, "The honest answer would be, I guess, I would hope that they (he) would be interested in changing. And if they would be, that they would get some help."158

¹⁵² Joseph Nicolosi et al., Retrospective Self-Reports of Changes in Homosexual Orientation, 86 PSYCHOL. REP. 1071 (2000).

 $^{^{153}}$ Id. at 1078.

¹⁵⁴ *Id*.

 $^{^{155}}$ Malcolm Ritter, Study: Some Gays Can Go Straight, ASSOC. PRESS, May 9, 2001, at A10.

¹⁵⁶ Press Release, National Association for Research & Therapy of Homosexuality, Prominent Psychiatrist Announce New Study Results: "Some Gays Can Change" (May 9, 2001), available at http://www.narth.com/docs/spitzerrelease.html (last updated May 8, 2001).

¹⁵⁷ Robert L. Spitzer, Psychiatry and Homosexuality, WALL St. J., May 23, 2001, at A26.

¹⁵⁸ Interview by Christl R. Vonholdt with Dr. Robert Spitzer, Professor of Psychiatry at Columbia University (Feb. 29, 1999).

V. THE NORMALIZATION OF HOMOSEXUALITY

A. The American Psychiatric Association and Normalization

With the effectiveness of treatment for those who desire it established, the question arises as to why more therapists and psychologists do not recommend it. The history of the normalization of homosexuality is instructive. The most important event in the political and social acceptance of homosexuality was the decision in 1973 by the American Psychiatric Association (APA) to remove homosexuality from the list of disorders contained in the *Diagnostic and Statistical Manual (DSM)*. The story behind this decision reveals an impressive piece of politics. It also shows how little true science matters to the gay movement. In fact, Simon LeVay, the man who was responsible for the homosexual brain studies, states in his book, *Queer Science*, "Gay activism was clearly the force that propelled the APA to declassify homosexuality." ¹⁵⁹

In the early 1970s a heated battle was fought over whether homosexuality was still a disorder. The gay activists decided (correctly, as it turned out) that if APA policy could be changed, then all the other mental health organizations would follow, as eventually they did. The strategy used for effecting this change was violent protests and disruption of meetings. From interrupting speeches to not even allowing meetings to proceed, activists intimidated the psychiatrists into starting a review process for a change in nomenclature on homosexuality-in other words, it would not be a disorder. The committee charged with reviewing the topic, it turned out, included Dr. Robert Spitzer. Spitzer proceeded to write a proposal with the help of the Gay and Lesbian Task Force and then submitted it to the APA body as the report of the committee. Objectors were given only fifteen minutes to rebut the entire proposal. The outcome was obvious, and an inevitable appeal to the membership followed. Each member of the Association received a letter signed by several candidates for president of the association and other prominent psychiatrists pleading for the change to stand. What members did not realize was that the letters had been drafted by the Gay and Lesbian Task Force, who also paid for the postage and had specifically raised money for the letters. Thus the only official communication on the vote, a supposed search for the truth, came from the activists, who later even admitted that they rammed the change through. The result was inevitable, and headlines announced that homosexuality had been cured. The stigma of a disease was gone due to politics.

¹⁵⁹ LEVAY, supra note 14, at 224.

In 1994, the activists tried to go even further. The Board of Trustees of the APA wanted to amend the profession's code of ethics to make it unethical to attempt to change a homosexual into a heterosexual, even if the patient so requested. The much-debated rule, in its final form, stated, "The APA does not endorse any psychiatric treatment which is based either upon a psychiatrist's assumption that homosexuality is a mental disorder or a psychiatrist's intent to change a person's sexual orientation." This rule would have opened the door for malpractice suits and would have led to ethical violations by psychiatrists who followed patient requests for help. These claims could have been brought by anyone, not just the patient. The gay activists retreated from their position on the rule only when many people and psychiatrists threatened to reopen the entire debate over whether homosexuality is a disorder.

B. Political Correctness and Opposing Views

Gay activists react preemptively to anything that they consider against their political agenda, and anyone who is not in total agreement with them is against them. This is unfortunate, since the current gay activist leadership is not an accurate representation of most homosexuals. The activist strategy is combative and intolerant of any disagreement, no matter who is disagreeing or how helpful to the gay political agenda they may have been.

Dr. Robert Spitzer, to cite a current example, is generally credited with playing a significant part in the APA's decision to delete homosexuality from that organization's Diagnosis and Statistical Manual (DSM) in 1973. As such, he is a respected man in the gay activists' community, who, one would think, carries some influence. However, he has changed his mind about gender-affirmative therapy or, at least, has kept his mind open to the fact that there may be some value and effectiveness in such therapy. Dr. Spitzer is still convinced of the gay rights platform, and continues to work for the advancement of gay rights. However, he is concerned about the current proposal by the APA to make it unethical for a psychiatrist to attempt to provide therapy for any homosexual who genuinely wants to change. On February 4, 1999, Dr. Spitzer appeared on the newsmagazine TV show 20/20. There, he talked about his preliminary study of twenty-two ex-gays, mostly men, who had been referred to him as successes of therapy. 161 He concluded, "I am personally convinced that for many of them, they made rather remarkable changes in their sexual orientation."162

¹⁶⁰ SATINOVER, supra note 97, at 36.

¹⁶¹ 20/20 (ABC television broadcast, Feb. 4, 1999) (on file with author).

¹⁶² Id.

Based in part on preliminary results of his study, Dr. Spitzer is concerned that there has not been adequate discussion about the ethics of therapy for homosexuals who sincerely want to change. Therefore, he submitted to the APA a proposal for a symposium on the topic, which was later changed to a debate, where Dr. Spitzer would be the moderator. 163 There were to be two professors on each side of the debate, which was to take place in May 2000. The title of the debate was to be "Sexual Orientation Therapy of Homosexuality Works and is Ethical." The debate did not take place. On March 21, 2000, both doctors disagreeing with reparative therapy withdrew and impugned Dr. Spitzer's impartiality. 164 In an e-mail to Dr. Spitzer, the lead professor stated, "I had assumed also, apparently incorrectly, that as moderator you would be impartial in this debate. The fact that you plan to present 'data' supporting the NARTH position means that the debate will be biased in that favor."165 Dr. Spitzer replied, saying that he had never intended to present data of any sort at the debate and, in fact, felt that as moderator he could keep time sufficiently (the traditional role of a moderator). 166 Dr. Spitzer offered to withdraw from the moderator position and cleared up other misunderstandings the professor had mentioned. However, despite appeals from both Dr. Spitzer and the other two professors scheduled to debate, the debate never took place. When asked to change the debate to an open forum, so as to at least voice the side agreeing with reparative therapy, the request was denied.¹⁶⁷ This happened in spite of the fact that Dr. Spitzer assured the professors who withdrew that he still fully supported the decision to remove homosexuality from the list of mental disorders. Dr. Spitzer has since heard "that other gay psychiatrists convinced him [the professor who withdrew from the debate that to participate in the debate was to legitimize the very question of whether sexual reorientation therapy was ever effective and ethical, something the gay community had no interest in doing."168

As another example of the gay activist movement turning on its own, even a strident lesbian and activist, Camille Paglia, has been

¹⁶³ Letter from Dr. Robert Spitzer, Professor of Psychiatry at Columbia University, to A. Dean Byrd, Vice President of NARTH (May 2000) (on file with author) (citing a letter from Dr. Marshall Forstein, Assistant Professor of Psychiatry at Harvard Medical School and Medical Director of Mental Health and Addictions at Fenway Community Health, to Dr. Robert Spitzer).

¹⁶⁴ *Id*.

¹⁶⁵ *Id*.

 $^{^{166}}$ Id.

¹⁶⁷ *Id*.

¹⁶⁸ Id.

accused of being a homophobe. In her book, *Vamps and Tramps*, published in 1994, she states,

As a tomboy in the Fifties, I questioned my own gender and had early infatuations with women and later purely physical attractions to men, whom I dated intermittently. One reason I so dislike recent gay activism is that my self-identification as a lesbian preceded Stonewall: I was the only openly gay person at the Yale Graduate School (1968-72), a candor that was professionally costly. That anyone with my aggressive and scandalous history could be called "homophobic," as has repeatedly been done, shows just how insanely Stalinist gay activism has become. 169

Ms. Paglia is correct: anyone who disagrees with the gay activist agenda is labeled a "homophobe." This is true whether you happen to be a true homophobe or an openly supportive gay individual who argues for gay rights but disagrees with some of the ideas or policies of the movement. The politically incorrect tag is used as a weapon. As Ms. Paglia poignantly asks, "Is gay identity so fragile that it cannot bear the thought that some people may not wish to be gay?"¹⁷⁰

C. Kinsey Revisited

One of the most cited arguments used by the gay activists is that since 10% of the population is homosexual, homosexuality must be normal and is acceptable. This figure appears to come from the work of Alfred Kinsey, who performed a famous study of human sex patterns in the 1940's. A massive research project, it was and still is regarded as one of the most important studies ever done on the subject of human sexual behavior. Kinsey, in that study, estimated that about 10% of the population of the United States had experienced homosexual activity at some point within the last five years. This was widely misinterpreted to mean that 10% of the population is homosexual. However, in recent years, other studies have disputed Kinsey's numbers, and more

71. ¹⁷⁰ *Id*. at 77.

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 $^{^{169}\,}$ PAGLIA, supra note 94, at 73. Here is another quote from the book:

Given the intense hormonal surge of puberty, the total absence of adult heterosexual desire is neither normal nor natural, and it requires explanation. Gay activists are guilty of Stalinist disinformation when they assert that homosexuality is no different than and equivalent to heterosexuality, and that anus and vagina are interchangeable, except for our political conditioning to the contrary. Toleration of dissenting behavior, which I am calling for, does not necessarily mean approval by society. Pagan and Judeo-Christian will never, and should never, agree. Disapproval is not "ignorance" or "bigotry," gay activists tiresome crutch terms, when it is motivated by principle. Similarly, there are legitimate medical questions about the safety and sanitation of tissue-rupturing anal sex, even though the latter belongs, in my view, to the private realm outside government control.

Id. at 71.

information has come out about his methods. Studies such as E.O. Laumann's from the University of Chicago have concluded that in reality only 1% to 3% of the population is homosexual.¹⁷¹ In addition, research has come forward showing that Kinsey used improper methods to arrive at his numbers. Kinsey's sample of 5300 men included several hundred prostitutes, 1200 convicted sex offenders, high numbers of pedophiles and exhibitionists, and a quarter of his sample were prison inmates, who are disproportionately homosexual.¹⁷² He was ideologically trying to change the social fabric of America.¹⁷³

James H. Jones summarized parts of his critically acclaimed biography of Kinsey in an article in *The New Yorker* and provided a vivid description of the man and his mission:

According to William Dellenback, the institute's photographer, Kinsey was becoming overtly exhibitionistic—to the point of having himself filmed, always from the chest down, while engaged in masochistic masturbation. The world's foremost expert on sexual behavior would insert an object such as a pipe cleaner or swizzle stick into his urethra, tie a rope around his scrotum, and then tug hard on the rope. . . .

Toward the end of his life, Kinsey's boundaries shifted again—to the point where he was apparently prepared to withhold moral disapproval of adult-child sexual contacts. . . .

. . .

Kinsey died believing that his crusade to promote more enlightened sexual attitudes had not succeeded. Yet in 1957, a year after his death, the Supreme Court's Roth decision narrowed the legal definition of obscenity, expanding the umbrella of constitutional protection to cover a broader range of works portraying sex in art, literature, and film. In 1960, the birth-control pill was introduced, offering a highly effective method of contraception. In 1961, Illinois became the first state to repeal its sodomy statutes. The next year, the Supreme Court ruled that a magazine featuring photographs of male nudes was not obscene and was therefore not subject to censorship. Then, in 1973, in a dramatic reversal, the American Psychiatric Association removed homosexuality from its list of psychopathologies. Kinsey, the anguished man of science, had prevailed. 174

¹⁷¹ E.O. LAUMANN ET AL., THE SOCIAL ORGANIZATION OF HOMOSEXUALITY 305 (1994).
See also Milton Diamond, Homosexuality and Bisexuality in Different Populations, 22
ARCHIVES SEXUAL BEHAV. 291 (1993); Robert E. Fay et al., Prevalence and Patterns of Same-Gender Sexual Contact Among Men, 243 SCIENCE 338 (1989); S.M. Rogers & C.F.
Turner, Male-Male Contact in the USA: Findings From Five Sample Surveys, 1970-1990, 28 J. SEX RES. 491 (1991).

 $^{^{172}}$ Whitehead & Whitehead, supra note 28, at 33-36.

¹⁷³ Joseph Epstein, The Secret Life of Alfred Kinsey, COMMENT., Jan. 1998, at 35.

 $^{^{174}}$ James H. Jones, Annals of Sexology: Dr. Yes, New Yorker, Aug. 25 & Sept. 1, 1997, at 98, 113.

Most researchers now recognize that Kinsey's numbers and conclusions, at least those conclusions he drew about the incidence of homosexuality in the male population, are too high. Even various gay researchers have come to that conclusion. Dean Hamer, in his search for the gay gene, used a figure of 2% incidence of male homosexuality. He states.

To be extra careful, I actually made three separate calculations; the first used the lowest background rate of 2.0 percent, the second used the higher background rate of 2.6 percent, and the third made a direct comparison between the relatives of the gay men and of the lesbians for each type of family member.¹⁷⁶

Hamer also relates how he got a study from a friend of his, who gave a range of incidence of homosexuality from 1% to 3.9%. 177 He then concluded, "Since I suspected that somewhere down the road we'd be challenged about our low figure for the population incidence of male homosexuality, it was comforting to have supporting data from someone I trusted." 178

Simon LeVay also agrees that the incidence of male homosexuality is far lower than the 10% estimated by Kinsey. In his book, *Queer Science*, LeVay runs down the list of recent research on the incidence of homosexuality:

Recent surveys in the United States have also come up with prevalence figures well below 10 percent. Most studies agree that about 2 percent of the population have had at least one homosexual experience in the previous few years. In a large survey conducted by the National Opinion Research Center in 1992, 2.8 percent of men and 1.4 percent of women identified as "homosexual" or "bisexual." Another 3.2 percent of men and 4.1 percent of women identified as "heterosexual" but acknowledged some degree of same-sex attraction. The highest percentages reported in recent random-sample studies come from a market-research firm, Yankelovich Partners, Inc., who stated that 5.7 percent of their respondents identified as "gay/homosexual/lesbian." This survey did not offer any "bisexual" option, however; it is likely that a significant fraction of those choosing the "homosexual" option would have switched to "bisexual" if it had been available. 179

Therefore, most modern studies appear to quantify the incidence of homosexuality in the United States anywhere from 1% to 3%, instead of the 10% that various gay activists insist on.

¹⁷⁵ HAMER & COPELAND, supra note 56, at 101.

¹⁷⁶ *Id*.

¹⁷⁷ Id. at 102.

¹⁷⁸ *Id*.

¹⁷⁹ LEVAY, supra note 14, at 62 (footnotes omitted).

VI. EFFECTS OF HOMOSEXUALITY ON PHYSICAL AND MENTAL HEALTH

A. Homosexuality and Social Issues

Since only 1% to 3% of the population practices homosexuality, the question naturally arises as to the effects of such practices. In other words, are homosexual practices desirable from the standpoint of mental and physical health? The health outcomes of male homosexual behavior are a cause for concern. As greater numbers of people embrace homosexuality, the corresponding social ills increase. As Jeffrey Satinover points out, a practicing homosexual has some very disheartening things to look forward to:

- a significantly decreased likelihood of establishing or preserving a successful marriage,
- a *twenty-five to thirty* year decrease in life expectancy,
- a much higher incidence of suicide,
- a very low likelihood that [homosexuality's] adverse effects can be eliminated unless the condition [homosexual activity] itself is,
- [a]n at least 50 percent likelihood of being eliminated through lengthy, often costly, and very time consuming treatment in an otherwise unselected group of sufferers (although a very high rate, in some cases nearing 100 percent, for groups of highly motivated, carefully selected individuals). 180

A survey of over 5,000 adults revealed that incest was more common among bisexuals and homosexuals of both sexes than among heterosexuals. Although only 7.7% of the male sample was homosexual, they accounted for: 1) 55% of men reporting relations with a brother, 2) 25% of those reporting sexual relations with a sister, 3) 60% of those reporting sex with their father, and 4) 100% of those respondents who reported having sexual relations with their mother. 182 Of those men (homosexual and heterosexual) who had brothers, 12% of homosexuals and only 0.8% of heterosexuals reported having sexual relations with a brother. Cameron reports that these findings are consistent with studies conducted by other researchers in that disproportionately more incidents of incest are reported among homosexuals than heterosexuals. 183 Cameron concludes that incest

¹⁸⁰ SATINOVER, *supra* note 97, at 51.

¹⁸¹ Paul Cameron & Kirk Cameron, Does Incest Cause Homosexuality?, 76 PSYCHOL. REP. 611 (1995).

¹⁸² *Id*.

¹⁸³ Id.

cannot be excluded as a significant factor, and possible consequence, of homosexuality.¹⁸⁴

Suicide is also associated with homosexuality. One of the more enlightening studies to emerge recently was published in the Archives of General Psychiatry in October 1999. This issue focused on the mental health results of sexual orientation and contained two articles on the subject, with several comments following the studies. The first article, by R. Herrell et al., found that "same-gender sexual orientation is significantly associated with each of the suicidal measures."185 They concluded, "The substantially increased lifetime risk of suicidal behaviors in homosexual men is unlikely to be due solely to substance abuse or other psychiatric co-morbidity."186 The second article, by Fergusson et al., reports that "[g]ay, lesbian, and bisexual young people were at increased risks of major depression, generalized anxiety disorder, conduct disorder, nicotine dependence, other substance abuse and/or dependence, multiple disorders, suicide ideation, and suicide attempts."187 They then conclude, "Findings support recent evidence suggesting that gay, lesbian, and bisexual young people are at increased risk of mental health problems, with these associations being particularly evident for measures of suicidal behavior and multiple disorder."188

There were three commentaries to these studies, one of which was by Michael Bailey, one of the two researchers who did the study on homosexual twins. He commented on the homosexuality and suicide studies and possible explanations:

[H]omosexuality represents a deviation from normal development and is associated with other such deviations that may lead to mental illness

Another developmental hypothesis concerns gender. On average, homosexual people are sex-atypical with respect to some traits, both during childhood and adulthood

. .

Another possible explanation is that increased psychopathology among homosexual people is a consequence of lifestyle differences associated with sexual orientation. For example, gay men are probably not innately more vulnerable to the human immunodeficiency virus, but some have been more likely to become infected because of 2

¹⁸⁴ Id.

¹⁸⁵ Richard Herrell et al., Sexual Orientation and Suicidality: A Co-twin Control Study in Adult Men, 56 Archives Gen. Psychiatry 867 (1999).

¹⁸⁶ Id. at 867.

¹⁸⁷ David M. Fergusson et al., *Is Sexual Orientation Related to Mental Health Problems and Suicidality in Young People?* 56 ARCHIVES GEN. PSYCHIATRY 876 (1999) (odds ratios and confidence intervals omitted).

¹⁸⁸ Id. at 876.

behavioral risk factors associated with male homosexuality: receptive anal sex and promiscuity

. .

... Perhaps social ostracism causes gay men and lesbians to become depressed, but why would it cause gay men to have eating disorders? 189

Bailey's favored explanation was that homosexual youth more often commit suicide because of societal oppression. However, a study of youth conducted in The Netherlands makes this hypothesis unlikely. The study shows a higher rate of youth suicide among homosexuals than in the normal population in The Netherlands. The Netherlands is notably tolerant of homosexuality, a gay-affirming society with little if any societal oppression aimed at homosexuals. It then seems obvious that there must be another explanation, as there is really no homophobia in The Netherlands. Bailey reaches the conclusion that "[t]hese studies contain the best published data on the association between homosexuality and psychopathology, and both converge on the same unhappy conclusion; homosexual people are at a substantially higher risk for some forms of emotional problems, including suicidality, major depression, and anxiety disorder." He further concludes,

First, more research is needed to understand the fascinating and important findings of Fergusson et al. and Herrell et al. Second, it would be a shame—most of all for gay men and lesbians whose mental health is at stake—if sociopolitical concerns prevented researchers from conscientious consideration of any reasonable hypotheses.¹⁹¹

Another commentator, Gary Remafedi, concluded, "The evidence is sufficiently compelling to warrant the education of mental health professionals as well as the development of preventive interventions for GLB (gay, lesbian and bisexual) youths. It is time to put the controversy aside and be about the business of saving lives." 192

And a third commentator stated, "The major findings reported by Herrell et al. and by Fergusson et al. are compatible with other recently reported data. There is clearly a need for additional investigation of the associations between sexual orientation, suicidality, and psychopathology." 193

¹⁸⁹ J. Michael Bailey, Commentary: Homosexuality and Mental Illness, 56 Archives Gen. Psychiatry 883, 884 (1999).

¹⁹⁰ T.G. Sandfort et al., Same-Sex Sexual Behavior and Psychiatric Disorders: Findings from the Netherlands Mental Health Survey and Incidence Study, 58 ARCHIVES GEN. PSYCHIATRY 85-91 (2001).

 $^{^{191}}$ Bailey, supra note 189, at 884.

¹⁹² Gary Remafedi, Suicide and Sexual Orientation: Nearing the End of Controversy? 56 ARCHIVES GEN. PSYCHIATRY 885, 886 (1999).

¹⁹³ Richard C. Friedman, Homosexuality, Psychopathology, and Suicidality, 56 ARCHIVES GEN. PSYCHIATRY 887, 888 (1999).

B. Homosexuality and Physical Health

Not only is the homosexual lifestyle associated with societal problems such as incest and suicide, there is also evidence that a practicing homosexual may have a shorter life span. In a study published in *Omega: The Journal of Death and Dying*, Paul Cameron reported a tabulation of over 6500 obituaries of homosexual men and women from eighteen separate homosexually oriented journals and magazines, covering a period of over eleven years. His conclusions in that study were as follows:

On its face, the consistency of the median age of death for homosexuals indexed by the obituaries of 18 independent homosexual journals over an eleven year period, suggests an average life-span locating in the mid-40s if AIDS fails to intervene, late 30s-to-early-40s if it does. The more limited evidence regarding lesbian deaths suggests an average life-span of under 50 years Our results suggest that AIDS has reduced the homosexual life-span by about 3 to 5 years, making homosexuality appreciably more dangerous today than in the past [if we assume an average age of death of 42 before AIDS, then AIDS is associated with a 7% to 12% reduction in life-span].

The discrepancy between the median life-span of married men and homosexuals (i.e., 75-42=33 years ignoring AIDS deaths) or married women and lesbians (i.e. 79-45=34 years) is considerably larger than any registered discrepancy between "conventional" life-styles (e.g., smokers v. non-smokers; high fat v. low fat diet) which we could locate in the literature. In terms of "unconventional" lifestyles, homosexuality appears similar to the shortened and more violent lives of intravenous drug users. 195

Cameron concludes that, based on obituaries, less than 2% of homosexual men reach old age, defined as age sixty-five or older. ¹⁹⁶ If deaths from AIDS are not included, then at the most, less than 12% of homosexuals reach old age. ¹⁹⁷ He could find no evidence for a bias in the journals against reporting older homosexuals' deaths. Cameron also studied various studies of homosexuality ranging from the 1800's to his own study. ¹⁹⁸ Kinsey's results in the 1930-40's, as biased as they were towards homosexuality and lesbianism, still had less than 1% of homosexuals reaching age sixty-five. ¹⁹⁹ Other studies from the Mattachine Society to the Kinsey Institute report similar results, all

¹⁹⁸ Id. at 262-67.

¹⁹⁴ Paul Cameron, The Longevity of Homosexuals: Before and After the AIDS Epidemic, 29 OMEGA J. DEATH & DYING 249 (1994).

 $^{^{195}}$ Id. at 259-60.

 $^{^{196}}$ Id. at 258.

¹⁹⁷ *Id*.

 $^{^{199}}$ Id. at 264.

conducted before the AIDS epidemic really began.²⁰⁰ Each study evidenced that there are very few homosexuals who are over the age of sixty-five. This leads to the conclusion that, as Cameron puts it, "[d]rug abusers and homosexuals are disproportionately affected by AIDS. It also appears that they shared and currently share a sharply reduced life span associated with their lifestyles."²⁰¹ Another study by Cameron in 1998 again examined whether homosexual activity shortens life; he reached the same conclusions as he did before.²⁰²

In addition to the shorter life spans of homosexuals, there are other physical ailments involved with the practice of homosexuality. An article in the *Washington Blade*, the homosexual and lesbian magazine of Washington, D.C., recites evidence from a study by the National Cancer Institute that suggests that one in three lesbians will be diagnosed with breast cancer before they die.²⁰³ Jeffrey Satinover also points out other ailments afflicting homosexuals:

- chronic, potentially fatal, liver disease, infectious hepatitis, which increases the risk of liver cancer,
- inevitably fatal immune disease including associated cancers [AIDS],
- frequently fatal rectal cancer,
- multiple bowel and other infectious diseases.²⁰⁴

Another article summarizes some of the problems homosexuals face aside from AIDS: "Because of their large numbers of sexual partners and sexual practices such as anilingus and anal intercourse, homosexual men are at particularly high risk of acquiring hepatitis B, giardiasis, amebiasis, shigellosis, campylobacteriosis, and anorectal infections with Neisseria gonorrhoeae, Chlamydia trachomatis, Treponema pallidum, herpes simples virus, and human papilloma viruses." ²⁰⁵

And of course AIDS is the most famous affliction of all. AIDS was first recognized and diagnosed in 1981, and continues to spread today. Almost invariably fatal, AIDS has contributed to a general decrease in the life span of homosexuals. The high risk behaviors associated with the disease were, and still are, intravenous drug use and unprotected sexual activity with men. A study released by the Centers for Disease Control

²⁰¹ Id. at 269-70.

²⁰⁰ Id. at 264-65.

 $^{^{202}}$ Paul Cameron et al., $Does\ Homosexual\ Activity\ Shorten\ Life?, 83$ PSYCHOL. REP. 847, 865 (1998).

 $^{^{203}}$ Kristina Campbell, $Specialists\ Weighing\ Mammogram\ Advice,$ WASH. BLADE, Dec. 2, 1994, at 19.

 $^{^{204}}$ Satinover, supra note 97, at 51.

²⁰⁵ Id. at 68 (citing F.N. Judson, Sexually Transmitted Viral Hepatitis and Enteric Pathogens, 11 UROLOGY CLINICS N. Am. 177 (1984)).

and Prevention shows that high-risk activities continue to this day.²⁰⁶ Although the total number diagnosed with AIDS declined to 5% in 1998 from 8% in 1990, at the height of the epidemic, the CDC attributed the fall to anti-retroviral therapies.²⁰⁷ The survey showed that within the five-year period before 2000, 76% of those diagnosed with AIDS were men who had sex with men.²⁰⁸

Although male homosexuals certainly have no monopoly on the effects of dangerous practices, it appears that homosexual conduct poses significant risks for those who participate in such practices. The risks involved in homosexual behaviors seem on par with other practices such as intravenous drug use and smoking in terms of the average life span reduction and mental and social problems associated with them.

VII. CONCLUSION

Neil and Briar Whitehead state in the introduction to their book, *My Genes Made Me Do It! A Scientific Look at Sexual Orientation*,

Here is a very basic truth. There is nothing fixed or final about the homosexual orientation and its natural expression, homosexual behavior. No one has to stay homosexual or lesbian, in orientation or behavior, if he or she doesn't want to and informed support is available. No politician, church leader, church member, judge, counselor, homosexual person, friend of family of a homosexual person, needs to feel forced into a position on homosexuality based on the apparent immutability of the homosexual orientation. Homosexuality is not inborn, not genetically dictated, not immutable. Nor, for that matter, is heterosexuality or any other human behavior. In fact, our genes do not make us do anything. Whether it's homosexuality, a foul temper, bedwetting, or addition to chocolate, our genes have very little to do with it.²⁰⁹

Although the popular perception of homosexuality has been that, at least in men, homosexuality is caused by biological factors, the most current and best scientific evidence appears to show that at most homosexuality is only influenced by biology in a predisposing way. The research efforts which have attempted to determine a biological cause for homosexual attraction have failed. Indeed, one of the authors of the studies concluded that there was no current evidence of Mendelian-type inheritability of homosexuality. Due to the apparent lack of scientific any genetic or biological demonstrating basis for homosexuality, the question then becomes whether homosexuality is a reversible orientation. Evidence and experience many

²⁰⁸ Id.

²⁰⁶ Japan Outscores USA on Longevity Ranking, USA TODAY, June 5, 2000, at D6.

 $^{^{207}}$ Id.

²⁰⁹ WHITEHEAD & WHITEHEAD, supra note 28, at 9.

psychotherapists demonstrates that if a homosexually oriented person truly desires to change, then, with the help of therapy, it is possible. Unfortunately, many therapists and the general public have been misled to believe that homosexuality is not changeable. Evidence suggests that this perception is heavily influenced by political decisions, not by true scientific research, and that this political pressure is still present today. Evidence is increasing that the homosexual lifestyle leads to many ill effects on practitioners of homosexuality, including both physical and mental health problems, quite apart from the distressing disease of AIDS. With the current controversies surrounding the homosexual lifestyle and various activists on both sides of the ideological fence, it is imperative that citizenry of political, social, religious, and judicial organizations be prepared as much as possible. It is hoped that the scientific evidence included in this article will lead to further open and informed discussion of the homosexual lifestyle without political pressures and distortions being exerted.