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## ARTICLE

# HOMOSEXUALITY: INNATE AND IMMUTABLE? WHAT SCIENCE CAN AND CANNOT SAY

*A. Dean Byrd*<sup>†</sup>

### I. INTRODUCTION

Perhaps no subject in our society is more controversial than homosexuality. Indeed, it is difficult to talk about homosexuality objectively because it is so personal, involving as it does individuals, relationships, and families and extending to issues of marriage and the adoption of children.

Not only does the issue of homosexuality divide people of science from people of faith, but strong differences of opinion exist among scientists themselves and among people of faith. Homosexuality even divides families: mothers from daughters, fathers from sons.

The politics of homosexuality further complicate the issue of homosexuality. In the major mental health organizations, there is much activism masquerading as science. This activism is translated into sound bites for public consumption, which causes much confusion and uncertainty.

Once considered a mental illness, homosexuality is now not simply viewed as “healthy,” but those who disagree with this notion of healthiness

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are labeled mentally ill or homophobic.<sup>1</sup> In fact, more research dollars are spent on the study of homophobia than are spent on the study of homosexuality. A quick review of the conducted research demonstrates this last assertion.

While it is not the purpose of this Article to debate the politics of homosexuality, it is nonetheless important to understand the context in which this Article is written. Some scientists, many of whom mean well, believe that even to write such an article is harmful to self-identified homosexuals. In the long run, however, it is hard to make a case for harm, because science progresses only by asking questions, not by avoiding questions whose answers might not further a particular agenda.

Science is relative, able only to approximate the truth. Even scientific “facts” always seem to have exceptions. For example, there is good scientific evidence that smoking causes cancer, but some long-term smokers do not die from cancer. In the exploration of what science can and cannot say about homosexuality, it is important to keep in mind that there are always exceptions to scientific observations. Still, science is the best tool for understanding such a complex issue as human sexuality, which includes homosexuality.

## II. HOMOSEXUALITY AND SCIENCE: INNATE?

### A. *The Biological Argument*

For the past ten years, the biological argument—that gays are born gay—has permeated the national mental health associations and has seeped into the public domain. The advent of the Human Genome Project has added to the dominance of biological theories. Simple biological theories have become favored media sound bites, with the news reporting a gene for this and a gene for that. In fact, there has been a reported discovery of a “gay gene” as well as a “god gene.”<sup>2</sup> Upon closer scrutiny, even the layperson can see that the evidence for neither really exists. What evidence exists for the biological explanation of homosexuality?

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1. Homophobia is a much misused label given to those who do not support gay causes. See ROGERS H. WRIGHT & NICHOLAS A. CUMMINGS, DESTRUCTIVE TRENDS IN MENTAL HEALTH 78-80 (2005); see also DOUGLAS A. ABBOTT & A. DEAN BYRD, ENCOURAGING HETEROSEXUALITY 14-15 (2009).

2. Dean Hamer, Stella Hu, Victoria L. Magnuson, Nan Hu & Angela M.L. Pattatucci, *A Linkage Between DNA Markers on the X Chromosome and Male Sexual Orientation*, 251 SCIENCE 321, 321-27 (1993); see also DEAN HAMER, THE GOD GENE (2004).

The initial “evidence” used to support a biological model of homosexuality came from Simon LeVay, Dean Hamer, and the research team of J. Michael Bailey and Richard C. Pillard. Of the four researchers, three are self-identified homosexuals. This fact is not an unimportant consideration when issues of biases arise, as they often do in the research arena. Indeed, it is important to know that although only two to four percent of the population self-identify as homosexual, perhaps as much as fifty percent of the research is conducted by scientists who are homosexual.<sup>3</sup>

#### 1. LeVay’s Brain Research

At the time of his research, LeVay was a biological scientist at the Salk Institute in San Diego.<sup>4</sup> He conducted research on the brains of two groups of men: homosexual men and men whom LeVay presumed were heterosexual. With fairly small sample sizes, LeVay conducted a postmortem analysis, focusing on a particular cluster of cells in the hypothalamus known as the INAH-3.<sup>5</sup> He reported that he found subtle but significant differences between the brains of homosexual and heterosexual men.<sup>6</sup>

LeVay’s research had a number of limitations. He had very little information about the sexual histories of the research subjects.<sup>7</sup> Some of the subjects died of HIV/AIDS.<sup>8</sup> Although there were differences between the two groups studied, some of the presumed heterosexual men had small nuclei in the critical areas, and some homosexual men had nuclei large enough to be included in the normal heterosexual range.<sup>9</sup>

Nevertheless, based on this one study, activists trumpeted that the biological cause of homosexuality had been discovered.<sup>10</sup> The born-that-way argument was touted in major media outlets. Opposing views were, for the most part, silenced. Any junior-level scientist could quite quickly see

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3. J. MICHAEL BAILEY, *THE MAN WHO WOULD BE QUEEN* 106 (2003).

4. Simon LeVay, *A Difference in Hypothalamic Structure Between Heterosexual and Homosexual Men*, 153 *SCIENCE* 1034, 1034-37 (1991).

5. *Id.* The sample included nineteen homosexual men and sixteen presumed heterosexual men. *Id.*

6. *Id.*

7. *Id.*

8. *Id.*

9. *Id.* at 1036.

10. See, e.g., Sharon Begley, *What Causes People To Be Homosexual?*, *NEWSWEEK*, Sept. 9, 1991, <http://www.newsweek.com/id/126909> (last visited Apr. 2, 2010).

that this claim was far from accurate, but most dared not speak out for fear of being ostracized or even labeled homophobic.<sup>11</sup>

However, when pressed, LeVay himself contradicted the media's interpretation of his research. In his own words, LeVay declared:

[I]t 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 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 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 the 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.<sup>12</sup>

What LeVay attempted to explain here relates to a well-established scientific principle: “functionalism causes structuralism.” Translated, this means that behaviors, particularly repetitive behaviors, can produce differences in the brain. Modern technology has demonstrated this concept through the use of brain scans. LeVay continued:

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 die 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

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11. For a better understanding of homophobia, see William T. O'Donohue & Christine E. Caselles, *Homophobia: Conceptual, Definitional, and Value Issues*, in *DESTRUCTIVE TRENDS IN MENTAL HEALTH: THE WELL-INTENTIONED PATH TO HARM* 65 (R.H. Wright & N.A. Cummings eds., 2005).

12. SIMON LEVAY, *QUEER SCIENCE* 143-44 (1996).

actual behavioral patterns of copulation than to sexual orientation as such. It will not be possible to settle this issue definitely until some method becomes available to measure the size of INAH3 in living people who can be interviewed in detail about their sexuality.<sup>13</sup>

Finally, LeVay summarized his research results in the following way:

“It’s 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—INAH3 is less likely to be the sole gay nucleus of the brain than 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.”<sup>14</sup>

It is interesting that none of these limitations were offered by the activists, the academy, or the media representatives when LeVay’s research was announced. In fact, LeVay made the above explanations quietly and did not appear on television to complain that his research had been misinterpreted or that the wrong conclusions had been reached.

Although media distortions of LeVay’s research made the front page of virtually every mainstream newspaper, Dr. Leonard Sax, in his book, *Why Gender Matters*, noted that no such coverage was provided for the subsequent reports that LeVay had made a mistake.<sup>15</sup> Recent research using more rigorous and accurate methods has failed to demonstrate any differences between the brains of homosexual and heterosexual men.<sup>16</sup>

LeVay has not attempted to replicate his findings (as most scientists would be prone to do). He currently devotes much of his time to political activism on behalf of the gay movement; it is unclear whether he has abandoned his research.<sup>17</sup>

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13. *Id.* at 144-45 (footnote omitted).

14. David Nimmons, *Sex and the Brain*, 15 *DISCOVER* 64, 66 (Mar. 1994) (quoting Simon LeVay).

15. LEONARD SAX, *WHY GENDER MATTERS* 208 (2005).

16. *Id.*

17. Nimmons, *supra* note 14, at 68; *see also Gay U.—After Stunning the Scientific World, Simon LeVay Tries a New Experiment: The Institute of Gay and Lesbian Education*, *L.A. TIMES*, May 5, 1994, at A-1.

## 2. Bailey and Pillard's Identical Twin Studies

Studies of identical twins are popular ways to investigate the relative contributions of genetic factors to a particular trait.<sup>18</sup> J. Michael Bailey and Richard C. Pillard studied identical twins and found a fifty-two percent concordance rate, which means that for every homosexual twin, the chances are about fifty percent that his twin will also be homosexual.<sup>19</sup>

The most fascinating question, however, is this: if there was something in the genetic code that made an individual homosexual, why did not all the identical twins become homosexual, since identical twins have the same genetic endowment? Bailey himself acknowledged probable selection bias and noted that he recruited in venues where participants considered the sexual orientation of their co-twin before agreeing to participate in his study.<sup>20</sup> Such bias is not an unimportant consideration, particularly in areas where there is substantial activism. Bailey conducted a second study using the Australian Twin Registry, which had an anonymous response format that significantly reduced the risk of such bias.<sup>21</sup> From that study, Bailey reported a concordance rate of 20% to 37.5%, depending on how loosely one defined "homosexuality."<sup>22</sup> The first study received a great deal of press. Bailey's second study received almost no media attention.

To offer some perspective on twin studies and human traits, it might be good to examine the evidence for other characteristics. For example, the following genetic contributions to personality traits based on twin studies offer the concordance rates noted: general cognitive ability (50%), extraversion (54%), conscientiousness (49%), neuroticism (48%), openness (57%), aggression (38%), and traditionalism (54%).<sup>23</sup>

Bailey's research far from proves a biological genesis of homosexuality. Rather, his research clearly demonstrates that biology is not sufficient to

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18. N.E. Whitehead, *The Importance of Twin Studies*, Sept. 3, 2008 (updated version), <http://www.narth.com/docs/whitehead2.html> (last visited Apr. 2, 2010).

19. J. Michael Bailey & Richard C. Pillard, *A Genetic Study of Male Sexual Orientation*, 48 ARCH. GEN. PSYCHIATRY 1089, 1092 (1991).

20. J. Michael Bailey, Michael P. Dunne & Nicholas G. Martin, *Genetic and Environmental Influences on Sexual Orientation and Its Correlates in an Australian Twin Sample*, 78 J. PERSONALITY & SOC. PSYCHOL. 524, 533 (2000).

21. *Id.*

22. *Id.* at 530.

23. Thomas J. Bouchard, Jr. & Matt McGue, *Genetic and Environmental Influences on Human Psychological Differences*, 54 J. NEUROBIOLOGY 4, 16-17, 20-23 (2003).

explain the genesis of homosexuality.<sup>24</sup> If anything, the twin studies on homosexuality support the role of environment in determining which, if any, biological predispositions that are present in an individual might be expressed. Indeed, that the environment can even modify gene expression is a fact of science.<sup>25</sup>

### 3. Hamer's Genetic Study

The third study, and perhaps the most sensationalized of the studies to purport a biological basis for homosexuality, was heralded by the media as the discovery of the gay gene.<sup>26</sup> Dean Hamer and his group attempted to link male homosexuality to a stretch of DNA located at the tip of the X chromosome, the chromosome that some men inherit from their mothers.<sup>27</sup> In his study, Hamer examined forty pairs of non-identical twin, gay brothers, and asserted that thirty-three pairs—a number significantly higher than the twenty pairs that chance would dictate—had inherited the same X-linked genetic markers from their mothers.<sup>28</sup>

Criticism of Hamer's research came from a surprising source: Dr. Neil Risch, the scientist at Yale University School of Medicine who invented the method used by Hamer. Risch commented, "Hamer *et al.* suggest that their results are consistent with X-linkage 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 differences is statistically significant."<sup>29</sup>

The media touted the discovery of the gay gene, and trumpeted that yet another study had provided proof for the biological genesis of homosexuality.<sup>30</sup> Criticism of Hamer's study was not aired. Hamer, like LeVay, Bailey, and Pillard, did little to correct the misinterpretation of his research. However, when questioned directly, Hamer offered the following:

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24. In fact, Bailey even suggests that homosexuality may represent a developmental error. J. Michael Bailey, *Homosexuality and Mental Illness*, 56 ARCH. GEN. PSYCHIATRY 883, 884 (1999).

25. Scott Gilbert, *Mechanisms for the Environmental Regulation of Gene Expression: Ecological Aspects of Animal Development*, 30 J. BIOSCIENCES 65 (2005), available at <http://www.ncbi.nlm.nih.gov/pubmed/15824442> (last visited Apr. 2, 2010).

26. Steve Connor, *Research Confirms 'Gay Gene' Discovery*, THE INDEPENDENT, Oct. 31, 1995, <http://www.independent.co.uk/news/research-confirms-gay-gene-discovery-1580244.html> (last visited Apr. 2, 2010).

27. Hamer et al., *supra* note 2, at 323.

28. *Id.* at 324.

29. Neil Risch, Elizabeth Squires-Wheeler & Bronya J.B. Keats, *Male Sexual Orientation and Genetic Evidence*, 262 SCIENCE 2063, 2064 (1993).

30. Connor, *supra* note 26.

“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.”<sup>31</sup>

Hamer further noted, “Homosexuality is not purely genetic . . . . Environment plays a role. There is not a single master gene that makes people gay . . . . I don’t think we will ever be able to predict who will be gay.”<sup>32</sup> Citing the failure of his own research, Hamer concluded, “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.”<sup>33</sup>

What is even more intriguing is that when Rice and his associates replicated Hamer’s study with more robust research, the genetic markers were found to be insignificant.<sup>34</sup> Rice and his fellow researchers concluded:

It is unclear why our 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.<sup>35</sup>

#### 4. Overview of Biological Theories

The biological studies have been extensively reviewed by world-renowned researchers, including the Byne and Parsons team and the Friedman and Downey team. Both of these experienced teams reached a singular conclusion: a simple biological model does not fit the current research.<sup>36</sup> In fact, Friedman and Downey state,

At clinical conferences one often hears . . . discussants commenting that “homosexuality is genetic” and, therefore, that

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31. DEAN HAMER & PETER COPELAND, *THE SCIENCE OF DESIRE* 82 (1994).

32. N. Mitchell, *Genetics, Sexuality Linked, Study Says*, OGDEN STANDARD EXAMINER, Apr. 30, 1995, at B-1.

33. HAMER & COPELAND, *supra* note 31, at 104.

34. George Rice, Carol Anderson, Neil Risch & George Ebers, *Male Homosexuality: Absence of Linkage to Microsatellite Markers at XQ28*, 284 *SCIENCE* 665, 667 (1999).

35. *Id.*

36. William Byne & Bruce Parsons, *Human Sexual Orientation: The Biologic Theories Reappraised*, 50 *ARCH. GEN. PSYCHIATRY* 229, 229 (1993); Richard C. Friedman & Jennifer Downey, *Neurobiology and Sexual Orientation: Current Relationships*, 5 *J. NEUROPSYCHIATRY* 131, 131-32 (1993).

homosexual orientation is fixed and unmodifiable. Neither assertion is true. . . . The assertion that homosexuality is genetic is so reductionistic that it must be dismissed out of hand as a general principle of psychology.<sup>37</sup>

Dr. Janet Cummings further noted:

The belief that homosexuality is always inbred flies in the face of available evidence that genetics, childhood environment, and personal choice are all factors. Granted, some may be more salient than others, but from the genetic standpoint alone, the genes responsible would have disappeared throughout the millennia from lack of reproductive activity.<sup>38</sup>

Perhaps the most succinct summary of the research on the genesis of homosexuality comes from Dr. Francis S. Collins, the former director of the National Human Genome Research Institute and current director of National Institutes of Health. He offered the following:

An area of particularly strong public interest is the genetic basis of homosexuality. Evidence from twin studies does in fact support the conclusion that heritable factors play a role in male homosexuality. However, the likelihood that the identical twin of a homosexual male will also be gay is about 20 percent (compared with 2-4 percent of males in the general population), indicating that sexual orientation is genetically influenced but not hardwired by DNA, and that whatever genes are involved represent predispositions, not predeterminations.<sup>39</sup>

Collins goes on to say that both the environment—particularly childhood experiences—as well as the role of free will affect us all in profound ways.<sup>40</sup>

So why all the interest in proving that homosexuality is hardwired or that homosexuality is biologically determined? LeVay offered one answer. He noted that “people who think that gays and lesbians are ‘born that way’ are

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37. RICHARD C. FRIEDMAN & JENNIFER I. DOWNEY, *SEXUAL ORIENTATION AND PSYCHOANALYSIS: SEXUAL SCIENCE AND CLINICAL PRACTICE* 39 (2002).

38. NICHOLAS A. CUMMINGS & WILLIAM T. O'DONOHUE, *ELEVEN BLUNDERS THAT CRIPPLE PSYCHOTHERAPY IN AMERICA* 318 (2008).

39. FRANCIS S. COLLINS, *THE LANGUAGE OF GOD* 260 (2006).

40. *Id.* at 263.

also the most likely to support gay rights.”<sup>41</sup> LeVay’s conclusion is supported by lesbian psychologist Lisa Diamond, who noted:

[I]t may well be that for now, the safest way to advocate for lesbian/gay/bisexual rights is to keep propagating a deterministic model: sexual minorities are born that way and can never be otherwise. If this is an easier route to acceptance (which may in fact be the case), is it really so bad that it is inaccurate?<sup>42</sup>

The erosion of the biological argument is reflected in a recent position statement change by the American Psychological Association (APA). The former APA statement published in 1998 read, “There is also considerable recent evidence to suggest that biology, including genetic or inborn hormonal factors, play a significant role in a person’s sexuality.”<sup>43</sup> The 2008 APA statement reads:

There is no consensus among scientists about the exact reasons . . . . Although much research has examined the possible genetic, hormonal, developmental, social, and cultural influences on sexual orientation, no findings have emerged that permit scientists to conclude that sexual orientation is determined by any particular factor or factors. Many think that nature and nurture both play complex roles . . . .<sup>44</sup>

With the erosion of the biological argument, scientists are turning toward the nurture or psychological arguments. Many are beginning to recognize that there are likely many roads that lead into and out of homosexuality and that homosexuality is indeed more fluid than was once thought. Though there may be biological predispositions underlying homosexuality, the environment determines if and when those predispositions will manifest themselves.<sup>45</sup>

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41. LEVAY, *supra* note 12, at 82.

42. LISA M. DIAMOND, *SEXUAL FLUIDITY: UNDERSTANDING WOMEN’S LOVE AND DESIRE* 257 (2008).

43. AMERICAN PSYCHOLOGICAL ASSOCIATION, *Answers to Your Questions About Sexual Orientation and Homosexuality* (1998), [http://www.pflagdetroit.org/answers\\_to\\_your\\_questions\\_about.htm](http://www.pflagdetroit.org/answers_to_your_questions_about.htm).

44. AMERICAN PSYCHOLOGICAL ASSOCIATION, *ANSWERS TO YOUR QUESTIONS FOR A BETTER UNDERSTANDING OF SEXUAL ORIENTATION AND HOMOSEXUALITY 2* (2008), *available at* <http://www.apa.org/topics/sexuality/orientation.pdf>.

45. FRIEDMAN & DOWNEY, *supra* note 37.

### B. *The Psychological Argument*

Psychological theories of homosexuality can be placed into one of three categories: psychoanalytic,<sup>46</sup> social learning,<sup>47</sup> and interactional.<sup>48</sup> Each framework has made contributions to understanding possible routes to the development of homosexual attractions, and there is some scientific evidence to support each.

#### 1. Psychoanalytic Theory

From a psychoanalytical perspective, homosexuality emerges from a context of difficult family relationships, particularly a detached, disconnected father and an over-involved mother.<sup>49</sup> These unhealthy relationships contribute to the rejection of a masculine or feminine gender identity.<sup>50</sup>

There is some research that supports the notion of disordered parent-child relationships where the child rejects identification with the same-sex parent and turns to same-sex peers or adults for love, support, and affirmation. For example, Weinstein and Hammersmith found that seventy-two percent of the homosexual men in their studies recalled feeling very little or not at all like their fathers.<sup>51</sup> Rekers concluded that the child's relationship to the father was predictive of the sexual-identity outcome.<sup>52</sup> Dickson and his associates' research also found differences between mother-child relations when comparing homosexual men to heterosexual men.<sup>53</sup>

However, psychoanalysis suffers from a lack of rigorous studies to support this theory. Nonetheless, there is an abundance of clinical case reports that support the psychoanalytical theory of homosexuality,

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46. *See infra* Part II.B.1.

47. *See infra* Part II.B.2.

48. *See infra* Part II.B.3.

49. George A. Rekers, *The Formation of a Homosexual Orientation*, in HOPE FOR HOMOSEXUALITY 1, 4 (Patrick F. Fagan ed., 1988); Irving Bieber, *A Discussion of "Homosexuality: The Ethical Challenge,"* 44 J. CONSULTING & CLINICAL PSYCHOL. 163, 163 (1976); *see generally* JOSEPH NICOLosi, REPARATIVE THERAPY OF MALE HOMOSEXUALITY 25-86 (1991).

50. NICOLosi, *supra* note 49, at 29-30.

51. ALAN P. BELL, MARTIN S. WEINBERG & SUE K. HAMMERSMITH, SEXUAL PREFERENCE: ITS DEVELOPMENT IN MEN AND WOMEN 60 (1981).

52. Rekers, *supra* note 49, at 4 (citing studies finding the fathers of homosexual men were indifferent, uninvolved, unaffectionate, or even absent from the home).

53. Gregory L. Dickson, A. Dean Byrd, Ryan Howes & Heidi Drake, *An Empirical Study of the Mother-Son Dyad in Relation to the Development of Adult Male Homosexuality*, 30 J. ASS'N MORMON COUNSELORS & PSYCHOTHERAPISTS 48, 51, 54 (2006).

particularly those cases that precede the 1973 deletion of homosexuality from the APA Psychiatric Manual.

## 2. Social-Learning Theory

Social-learning theory explains how individuals learn through observations and adopt actions and attitudes from significant others.<sup>54</sup> This theory maintains that behavioral conditioning, both direct and indirect, accounts for the attractions we develop and the behaviors we adopt.<sup>55</sup> From this perspective, children and adolescents learn about sexual behavior and sexual preference from parents, peers, and the media.<sup>56</sup> They get rewarded or punished by significant others for their sexual attitudes and behaviors.<sup>57</sup> A young boy, for example, may have been involved with masturbation activities with his peers and learned homosexual activity from such interactions. Social-learning theory suggests that peers and the media have tremendous influences on the sexual attitudes and behavior of adolescents.

Social learning can also account for the role of serious trauma, such as sexual abuse, in the development of homosexual behavior.<sup>58</sup> Some researchers have observed a higher prevalence of sexual abuse in the histories of both male and female homosexuals. For example, Shrier and Johnson found that boys who were sexually abused were seven times more likely to self-identify as homosexual or bisexual.<sup>59</sup> Friedman and Downey concluded that boys who later identified as homosexual became sexually active at an earlier age than did their heterosexual counterparts.<sup>60</sup> Using a nonclinical population, Tomeo, Templer, Anderson, and Kotler noted that forty-six percent of gay men and twenty-two percent of lesbians were sexually abused as children, compared to seven percent of the matched

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54. ALBERT BANDURA, SOCIAL LEARNING THEORY 24 (1977).

55. *Id.* at 54.

56. *Id.* at 44; *see also* ALBERT BANDURA, SOCIAL FOUNDATIONS OF THOUGHT AND ACTION: A SOCIAL COGNITIVE THEORY 55 (1986).

57. ALBERT BANDURA & RICHARD H. WALTERS, SOCIAL LEARNING AND PERSONALITY DEVELOPMENT 150 (1963).

58. *Id.* at 154.

59. Diane Shrier & Robert L. Johnson, *Sexual Victimization of Boys: An Ongoing Study of an Adolescent Medicine Clinic Population*, 80 J. NAT'L MED. ASS'N 1189, 1190-91 (November 1988).

60. Richard C. Friedman & Jennifer I. Downey, *Homosexuality*, 331 NEW ENG. J. MED. 923 (1994) ("Gay males are more likely than heterosexual males to become sexually active at a younger age (12.7 vs. 15.7 years).").

heterosexual men and one percent of the matched heterosexual women.<sup>61</sup> Particularly intriguing was the finding that sixty-eight percent of the homosexual men and thirty-seven percent of the lesbians did not self-identify as gay or lesbian until after the molestation.<sup>62</sup>

Perhaps there is no better example of the role of sexual abuse in the lives of self-identified homosexuals than the story of Greg Louganis, which supports both classical psychoanalytical theory and learning theory. Consider the following excerpt from his book as Louganis describes sexual abuse by a perpetrator who was the age of Louganis's father:

He put his arms around me and kissed me. I really liked being held, and I was thrilled that this guy found me attractive.

. . . It upset me that he was so much older, not because I felt molested or anything—I had been a more-than-willing participant—but the difference in our ages somehow made the experience even more shameful. . . .

. . . .

I thought that over time I'd feel less ashamed about what I was doing, but it only got worse. The age difference bothered me more, and he couldn't exactly be a part of my life. I felt stupid telling him what I was doing at school, and I couldn't introduce him to any of my classmates. I hated the separateness and the secrecy, but I kept going back for the affection, the holding, the cuddling—more those than the sex. I was starved for affection, and he was happy to give it to me.<sup>63</sup>

Louganis further wrote, “[a]t some point he told me he was concerned about seeing me because I was under eighteen. Apparently, he'd been jailed in the past for picking up minors.”<sup>64</sup>

Sexual abuse also creates havoc in the lives of children through the introduction of confusion, particularly gender confusion.<sup>65</sup> Social-learning theories also explain how needs for attention and affection get mixed up

61. Marie E. Tomeo, Donald I. Templer, Susan Anderson & Debra Kotler, *Comparative Data of Childhood and Adolescence Molestation in Heterosexual and Homosexual Persons*, 30 ARCH. SEXUAL BEHAV. 535, 539 (Oct. 2001).

62. *Id.* at 540.

63. GREG LOUGANIS WITH ERIC MARCUS, *BREAKING THE SURFACE* 79-80 (1995).

64. *Id.* at 79.

65. FRANK BOLTON, LARRY MORRIS & ANNA MACEachron, *MALES AT RISK: THE OTHER SIDE OF CHILD SEXUAL ABUSE* 14 (1989); MATTHEW MENDEL, *THE MALE SURVIVOR: THE IMPACT OF SEXUAL ABUSE* 205 (1994).

with sexuality when sexual abuse occurs. Children can develop an affinity for homosexual relationships because physical stimulation can be reinforcing.<sup>66</sup> Boys in particular are prone to cognitive errors when they confuse the physical stimulation with the sexual abuse.<sup>67</sup> The physical stimulation from the sexual abuse is simply an indicator that the body is working; the body makes no judgment on the abusive act itself. It is clear that the gender confusion emerges from sexual abuse and that such confusion is often seen in the backgrounds of homosexual men.

There is evidence to support the role of peers in the development of homosexual attractions as well. Research suggests that the lack of connections with same-sex peers sets the stage for later development of homosexual attractions.<sup>68</sup> Young men experiencing peer neglect or peer abuse, such as teasing and bullying, often feel disconnected from their own masculinity.<sup>69</sup> Such trauma, particularly during the early preadolescent years, can cause gender confusion and subsequent problems with sexual orientation.<sup>70</sup> More recently, support for the contributions of peer abuse to the development of homosexuality has emerged from the work of Pennsylvania psychiatrist Richard Fitzgibbons.<sup>71</sup>

It is important to understand that the data from many such studies is correlational, and no cause-and-effect conclusions can be drawn. That is, modeling, sexual abuse, and peer abuse may be contributing factors to homosexual attractions and homosexual behaviors, but these factors have not been shown to directly cause the attractions. Yet such experiences often contribute to gender confusion, and such confusion actually makes young boys vulnerable to a variety of challenges, including homosexuality.

### 3. Interactional Theory

Interactional theory combines the indirect or predisposing effects of biology with environmental factors to explain homosexuality.<sup>72</sup> Daryl C.

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66. BELL, WEINBERG & HAMMERSMITH, *supra* note 51, at 102.

67. MIC HUNTER, *ABUSED BOYS: THE NEGLECTED VICTIMS OF SEXUAL ABUSE* 37 (1990).

68. Rekers, *supra* note 49, at 5 (“Forty-two percent of the men with exclusive homosexual orientation reported interest in being with girls, joining in activities and games of girls more than with boys as compared to 1.5 percent of men who were exclusively heterosexual in orientation.”).

69. *See id.*

70. George Rekers, *The Development of a Homosexual Orientation*, in *HOMOSEXUALITY AND AMERICAN PUBLIC LIFE* 62, 70 (Christopher Wolfe ed., 1999).

71. Richard Fitzgibbons, *The Origins and Therapy of Same-Sex Attraction Disorder*, in *HOMOSEXUALITY AND AMERICAN PUBLIC LIFE*, *supra* note 70, at 85, 88.

72. Daryl J. Bem, *Exotic Becomes Erotic: A Developmental Theory of Sexual Orientation*, 103 *PSYCHOL. REV.* 320, 320 (1996).

Bem, a self-identified gay researcher at Cornell University, postulates that genes do not directly cause homosexuality but rather set the stage for homosexuality by influencing temperament.<sup>73</sup> His theory, known as “Exotic Becomes Erotic,” suggests that when temperament is associated with gender nonconformity (where boys identify with girls and girls with boys in terms of their activities) the child is prevented from interacting with same-sex peers and thus fails to bond or identify with same-sex peers.<sup>74</sup> During adolescence, these young people sexualize “otherness,” or those with whom they are not identified.<sup>75</sup> In other words, these preadolescents sexualize that with which they are not familiar.<sup>76</sup> Bem’s research is supportive of a developmental trajectory where boys in particular see themselves as different from their male peers, and this difference becomes sexualized, later leading to the development of homosexual attractions.<sup>77</sup>

This interactional theory seems a logical alternative to the biological, psychoanalytical, and social-learning theories. The interactional theory postulates that biologically predisposed personality or temperament traits are nurtured in relationships and environmental contexts.<sup>78</sup> Thus, this model accounts for a variety of factors, or what some have labeled the “conspiracy of factors,” that later combine to shape homosexual attractions and homosexual behaviors. However, the primary drawback is the failure of interactional theory to consider the role of agency or choice in the development of homosexuality.

### C. Agency and Homosexual Behavior: A Neglected Area

Biological theory suggests the force of nature (genes, prenatal hormones) in the development of homosexual attractions and behavior. In addition, environmental theory suggests the influence of family and peer relationships, as well as the importance of modeling and the media, in said development.<sup>79</sup> Further, the interactional model posits some contribution from each in the cultivation of homosexual attractions and behavior.<sup>80</sup> However, these theories leave one essential question unanswered: what is

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73. *Id.*

74. *Id.* at 321.

75. *Id.*

76. *Id.*

77. *Id.* at 323.

78. *Id.* at 322.

79. *See supra* p. 490.

80. *See supra* Part II.B.3.

the role of agency, choice, or the person's own participation in the development of sexual preference?

Choice does not necessarily mean conscious choice. Sexual attractions may not be chosen, but responses to those attractions do involve choice. Unbidden attractions may come because of situational factors and prior sexual experiences.<sup>81</sup> There may even be some kind of biological predisposition that makes such attractions more probable than not.<sup>82</sup> But these attractions may be increased or decreased by the choices that people make.

Byne and Parsons make this argument: "Conspicuously absent from most theorizing on the origins of sexual orientation is an active role of the individual in constructing his or her own [sexual] identity."<sup>83</sup> Diamond, as well, noted that while biology may predispose a person's sexual orientation, an individual is flexible in responding to such biological predispositions and environmental influences.<sup>84</sup> Perhaps lesbian activist Camille Paglia said it best when she concluded "[t]here is an element of choice in all behavior, sexual or otherwise."<sup>85</sup>

If we are indeed free to choose, there must be choices. In some cases of homosexuality, there may be no identified antecedents such as adverse life events, no abuse, no difficult parental or peer relationships, and no identifiable causes.<sup>86</sup> One may be uncertain as to why he or she experiences homosexual attractions. The answer to this uncertainty is quite complex; research has pointed to possible biological factors, possible psychological factors, and the role of agency in the genesis of homosexuality. The interaction model, accompanied by individual choice in responding to these contributions, is the most likely scenario.

### III. A BIOPSYCHOSOCIAL MODEL MEDIATED BY AGENCY BEST FITS THE SCIENTIFIC DATA

A biopsychosocial model mediated by choice best represents the current state of the research on homosexuality. Homosexuality is not explained by either a simple biological model or a simple psychological model, nor can homosexuality be reduced to a simple matter of choice. Emerging scientific

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81. See Shrier & Johnson, *supra* note 59, at 1190, 1191.

82. See Bem, *supra* note 72, at 320.

83. Byne & Parsons, *supra* note 36, at 236.

84. See generally DIAMOND, *supra* note 42, at 3, 250, 253.

85. CAMILLE PAGLIA, *VAMPS & TRAMPS* 90 (1994).

86. See Rekers, *supra* note 49, at 1.

evidence supports the notion that homosexuality is not easily or simply defined and that homosexuals are not a homogeneous population.<sup>87</sup>

In addition, the terms “homosexual attraction,” “homosexual orientation,” and “homosexual identity” refer to distinctly different realities. *Homosexual attractions* may emerge during adolescence and disappear.<sup>88</sup> A *homosexual orientation*, which is a general affective response to members of one’s own sex, appears to be fluid—it may wax or wane.<sup>89</sup> A *homosexual identity* is a sociopolitical statement that one wishes to be gay-identified. Frequently, the three distinct categories are merged in both the media and academia, making it difficult to even discuss the term *homosexuality*.

The most likely explanation of homosexuality is that it results from a complex combination of biological factors (such as temperament), environmental traumas (such as trauma associated with sexual or peer abuse), and difficult parental relationships, all of which vary with the individual. And in considering these explanations, one must not exclude the role of agency or choice in response to such attractions.

Yet these explanations ultimately fail to demonstrate the evolving nature of same-sex attraction. Perhaps the more important questions are as follows: What can scientists say about the malleability of homosexuality? Once established, are homosexual attractions modifiable or changeable? Or, can an individual who is predominantly homosexual become predominantly heterosexual?

#### IV. HOMOSEXUALITY AND SCIENCE: IMMUTABLE?

In order to understand the methods of providing care for those with unwanted homosexual attractions, it is essential to discuss the history of psychological care for homosexuality. Prior to 1973, psychological care was routinely provided for those who were unhappy with their unwanted homosexual attractions.<sup>90</sup> But the American Psychiatric Association (APA) was lobbied by gay activists to delete homosexuality from the APA Psychiatric Manual.<sup>91</sup> In 1973, the APA partially complied with the activists’ demands but still maintained the category of “ego-dystonic” homosexuality, which meant that if an individual was distressed by his or her unwanted homosexual attractions, he or she had the right to have

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87. See DIAMOND, *supra* note 42, at 3.

88. *Id.*

89. *Id.*

90. RONALD BAYER, *HOMOSEXUALITY AND AMERICAN PSYCHIATRY: THE POLITICS OF DIAGNOSIS* 39-40, 194 (1981).

91. *Id.* at 102.

psychological care.<sup>92</sup> However, because of pressure from gay activists, even the ego-dystonic category was deleted in 1987.<sup>93</sup>

The modification of this category and the subsequent complete deletion of the diagnosis of homosexuality from the psychiatric manual resulted in a dearth of scientific studies of therapeutic outcomes. However, some efforts have been and are being made to evaluate the efficacy of psychological care in diminishing unwanted homosexuality. Interestingly enough, the historical research that evaluated treatment success of psychological care for those unhappy with their homosexual attractions is very similar to the outcome research for other difficult psychological challenges. That is, like other struggles, unwanted homosexual attractions are amenable to psychological interventions.

Satinover reviewed this research and reported a composite success rate of fifty percent.<sup>94</sup> Masters and Johnson, the famed sex researchers, reported a success rate of sixty-five percent after a five-year follow-up.<sup>95</sup> Elizabeth James conducted an analysis of over a hundred studies and concluded that when all the research was combined, approximately thirty-five percent of those with homosexual attractions “recovered”; an additional twenty-seven percent “improved.”<sup>96</sup> She concluded that significant improvement and even complete recovery from a homosexual orientation was entirely possible.<sup>97</sup>

More than thirty years ago, Freund, using penile plethysmography, found that some homosexual men could voluntarily alter their penile responses to respond to heterosexual stimuli without ever receiving reorientation therapy.<sup>98</sup> More recently, Lisa Diamond, a researcher and gay activist, concluded that sexual identity is far from fixed in women who are not exclusively heterosexual.<sup>99</sup> Although Diamond does not want her study to

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92. *Id.* at 176.

93. American Psychological Association, *Uses of Diagnoses “Homosexuality” & “Ego-Dystonic Homosexuality,”* <http://www.apa.org/about/governance/council/policy/diagnoses.aspx> (last visited Apr. 2, 2010).

94. J.S. SATINOVER, *HOMOSEXUALITY AND THE POLITICS OF TRUTH* 186 (1996).

95. Mark F. Schwartz & William H. Masters, *The Masters and Johnson Treatment for Dissatisfied Homosexual Men*, 141 *AM. J. PSYCHIATRY* 173, 173 (1994).

96. Elizabeth James, *Treatment of Homosexuality: A Reanalysis and Synthesis of Outcome Studies* (1978) (unpublished dissertation, Brigham Young University) (on file with author).

97. *Id.*

98. Kurt Freund, *A Laboratory Method of Diagnosing Predominance of Homo- or Hetero-Erotic Interest in the Male*, 1 *BEHAV. RES. & THERAPY* 85 (1963).

99. Lisa M. Diamond, *Sexual Identity, Attractions, and Behavior Among Sexual Minority Women over a 2-Year Period*, 36 *DEVELOPMENTAL PSYCHOL.* 241, 241-50 (2000).

be used to support the notion of the fluidity of homosexual attractions, her longitudinal research does just that.<sup>100</sup> Diamond is not alone. Researcher Ellen Schecter conducted in-depth research for ten years with women who self-identified as lesbians and were currently in a heterosexual relationship lasting for at least a year.<sup>101</sup> She concluded that labels, such as “lesbian,” may oversimplify women’s sexual identity and experience.<sup>102</sup>

In 2000, a study that surveyed clients that had undergone reorientation therapy revealed the following: prior to reorientation therapy, over sixty-seven percent of the participants perceived themselves as either exclusively or “entirely homosexual at one time in their lives,” and another 2.2% stated they were more homosexual than heterosexual prior to therapy.<sup>103</sup> After therapy, only 12.8% perceived themselves as exclusively or entirely homosexual, while 34.3% described themselves as exclusively or entirely heterosexual.<sup>104</sup> Ninety-nine percent of the respondents in the study reported that they believed therapy to change homosexual attraction can be effective and valuable.<sup>105</sup>

A meta-analysis<sup>106</sup> coauthored by the current writer also supported the notion of malleability of homosexual attractions.<sup>107</sup> The analysis, which combined a number of studies, reached a similar conclusion: homosexuality is more fluid than fixed, and psychological care for those distressed by unwanted homosexual attractions is indeed successful for some individuals.<sup>108</sup>

In 2000, the APA was set to ban reorientation therapy.<sup>109</sup> During the APA’s meeting in Chicago, the convention goers were greeted by busloads

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100. DIAMOND, *supra* note 42, at 257.

101. Mark Greer, *Labels May Oversimplify Women’s Sexual Identity, Experiences*, 35 MONITOR ON PSYCHOL. 28 (2004).

102. *Id.*

103. Joseph Nicolosi, A. Dean Byrd & Richard W. Potts, *Retrospective Self-reports of Changes in Homosexual Orientation: A Consumer Survey of Conversion Clients*, 86 PSYCHOL. REP. 1071, 1078 (2000).

104. *Id.*

105. *Id.*

106. “*Meta-analysis* refers to the analysis of analyses . . . the statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings.” FREDRIC M. WOLF, *META-ANALYSIS: QUANTITATIVE METHODS FOR RESEARCH SYNTHESIS* 11 (1986) (internal quotation marks omitted).

107. A. Dean Byrd & Joseph Nicolosi, *A Meta-analytic Review of Treatment of Homosexuality*, 90 PSYCHOL. REP. 1139, 1141, 1149 (2002).

108. *Id.*

109. Press Release, NARTH, Psychiatric Association Schedules May 2000 Debate on Reorientation Therapy: Gay-Affirming Psychiatrists Refuse To Participate (May 2000), <http://www.narth.com/docs/debate.html>.

of evangelical Christians protesting this attempt to ban such care. Robert L. Spitzer (along with the current author) met with some of the protestors, and he found their stories of change to be credible and decided that he would do a study to see if indeed homosexuality was fixed in all individuals. Though skeptical, Spitzer conducted his research and was surprised at the results. He found that sixty-six percent of the men and forty-four percent of the women had achieved good heterosexual functioning.<sup>110</sup> He also concluded that after reorientation therapy sixty-two percent of the men and forty-six percent of the women were “slightly” bothered by unwanted homosexual attractions,<sup>111</sup> and that twenty-six percent of the men studied and forty-nine percent of the women were bothered “not at all” by homosexual feelings.<sup>112</sup>

Contrary to the assertions by some that reorientation therapy was harmful,<sup>113</sup> Spitzer did not find this to be the case at all. In fact, many of the participants in his study were depressed when they began psychological care. Virtually none were depressed at the termination of the care. He concluded that changes were made, not just in behavior, but rather in core features of sexual orientation, including arousal and fantasy.<sup>114</sup> This is perhaps the single most important recent study conducted to investigate the effectiveness of reorientation therapy in changing a homosexual orientation to a heterosexual orientation. Ironically, Spitzer was the same psychiatrist who led the charge to remove homosexuality from the psychiatric manual in 1973.<sup>115</sup>

Spitzer’s research caused a firestorm of controversy, and he was assailed by many personal attacks.<sup>116</sup> However, his research was rigorously and thoroughly peer-reviewed and was published in *Archives of Sexual Behavior*, perhaps the most prestigious psychology journal in the world. Though most of the attacks were mounted against Spitzer personally, with little or no critique of his research, there was one notable exception: the critique of Dr. Scott Hershberger.<sup>117</sup> Prior to conducting his study, Spitzer

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110. Robert L. Spitzer, *Can Some Gay Men and Lesbians Change Their Sexual Orientation? 200 Participants Reporting a Change from Homosexual to Heterosexual Orientation*, 32 ARCH. SEXUAL BEHAV. 403, 411 (2003).

111. *Id.* at 410.

112. *Id.*

113. *Id.* at 403.

114. *Id.* at 414.

115. R.L. Spitzer, *Psychiatry and Homosexuality*, WALL ST. J., May 23, 2001, at A26.

116. Press Release, NARTH, Spitzer Study Critiqued in the Journal of Gay and Lesbian Psychotherapy (updated version, Sept. 3, 2008), <http://www.narth.com/docs/spitzer4.html>.

117. Scott L. Hershberger, *Guttman Scalability Confirms the Effectiveness of Reparative Therapy*, 32 ARCH. SEXUAL BEHAV. 440 (2003).

had agreed to make the data from his study available for any scientist to review. Hershberger responded to Spitzer's invitation to further scrutinize the data. It is important to note Hershberger is a distinguished scholar and statistician, as well as a self-identified "essentialist."<sup>118</sup> Hershberger subjected Spitzer's data to a Guttman analysis.<sup>119</sup>

Hershberger reported:

The orderly, law-like pattern of changes in homosexual behavior [and] homosexual self-identification . . . observed in Spitzer's study is strong evidence that reparative therapy can assist individuals in changing their homosexual orientation to a heterosexual orientation. Now it is up to those skeptical of reparative therapy to provide comparably strong evidence to support their position. In my opinion, they have yet to do so.<sup>120</sup>

Additional research has followed the Spitzer study, such as that by Dr. Elan Karten of Fordham University, who identified factors in the change process.<sup>121</sup> For example, Karten concluded, among other factors, that the development of healthy nonsexual relationships with men was an important part of the treatment process.<sup>122</sup>

One of the more interesting studies to emerge since the Spitzer study was a longitudinal study conducted by the research team of Jones and Yarhouse. These researchers investigated the question of whether some individuals can alter aspects of their homosexual orientation through religious ministries similar to Alcoholics Anonymous (AA).<sup>123</sup> Their conclusion was yes. Using standard psychological measures, the authors found "empirical evidence that change of homosexual orientation may be possible through involvement in Exodus ministries . . ."<sup>124</sup>

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118. An "essentialist" is one who believes that homosexuality is biologically determined.

119. A Guttman analysis is a statistical procedure used to determine whether the changes reported by the study participants occurred in an orderly fashion so as to determine whether the participants were lying. See Daniel E. Byrne, *Yet Another Attempt To Discredit the Spitzer Study Fails*, Sept. 3, 2008 (updated version), <http://www.narth.com/docs/yetanother.html> (last visited Apr. 2, 2010).

120. Hershberger, *supra* note 117, at 440.

121. Elan Y. Karten & Jay C. Wade, *Sexual Orientation Change Efforts in Men: A Client Perspective*, 18 J. MEN'S STUDIES 84 (2010).

122. *Id.* at 86, 94-95, 98.

123. STANTON L. JONES & MARK A. YARHOUSE, *EX-GAYS: A LONGITUDINAL STUDY OF RELIGIOUSLY MEDIATED CHANGE IN SEXUAL ORIENTATION* 364 (2007).

124. *Id.*

Finally, the current author and his associates completed a study and published it in a peer-reviewed psychology journal in 2008.<sup>125</sup> In the study, they determined from client reports that those factors that impacted the change process included having a support group, having a caring or nurturing therapist, and having a spiritual leader.<sup>126</sup> Particularly noteworthy were the spiritual interventions that were listed as important. Those interventions included prayer, scripture study, faith, forgiveness, and a full commitment to the healing power of God.<sup>127</sup>

#### V. CONCLUSION

Scientific study of homosexuality has not revealed that homosexuality has a single cause. It is probable that the allopathic model, or a simple cause-and-effect model, simply does not work. Rather, a risk-factor model better fits the data. That is, there are likely many factors, the combination of which may culminate in the emergence of homosexual attractions. Simply stated, a biopsychosocial model mediated by agency or choice best fits the scientific data.<sup>128</sup> Translated, this means that whatever biological contributions present are predisposing, not predetermining. Homosexuality likely results from biologically influenced temperamental factors, environmental factors such as sexual abuse or peer abuse, and strained parental relationships.<sup>129</sup> (In this way, homosexuality is no different from other challenges like alcoholism or obesity.) And choice—agency, or the active role of the individual in constructing his or her own identity—is an important consideration as well.<sup>130</sup> While there may not necessarily be a conscious choice in the development of the attractions themselves, there is nevertheless a choice in how the individual responds to the biological and environmental influences around him. And even when the attractions develop, there is a choice in how the individual will respond to those attractions: either to accept and act on them or to choose not to act on them and to focus on eliminating or diminishing the attractions.

The more important scientific question is this: once established, are homosexual attractions malleable or changeable? The answer is that both

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125. A. Dean Byrd, Joseph Nicolosi & Richard W. Potts, *Clients' Perceptions of How Reorientation Therapy and Self-Help Can Promote Changes in Sexual Orientation*, 102 PSYCHOL. REP. 3 (2008).

126. *Id.* at 9-14.

127. *Id.* at 14-18.

128. *See supra* Part III.

129. *See supra* Part II.B.3.

130. *See supra* Part II.C.

historical and current research demonstrates that homosexuality is not invariably fixed in all people. Perhaps the best scientific summary of the research on whether individuals can change a homosexual orientation to a heterosexual orientation was offered by Spitzer. He concluded, "Like most psychiatrists, I thought that homosexual behavior could only be resisted, and that no one could really change their [sic] sexual orientation. I now believe that to be false. Some people can and do change."<sup>131</sup>

The APA, which is the largest doctoral-level mental health organization in the United States, has begun to report that homosexuality is not immutable.<sup>132</sup> The Cybercast News Services reported the following:

Clinton Anderson, director of the APA Lesbian, Gay and Bisexual Concerns Office, told Cybercast News Service APA does not dispute that some people leave homosexuality. Their concern is how that change comes about. "I don't think that anyone disagrees with the idea that people can change because we know that straight people become gays and lesbians," Anderson said, "so it seems totally reasonable that some gay and lesbian people would become straight."<sup>133</sup>

That some people can and do change should be an impetus for scientists to further investigate the agents and process of change. Whether the current atmosphere of activism will permit such research remains to be seen. Regarding the study of homosexuality, Bailey, one of the more prominent researchers in the area, declared that "it would be a shame . . . if sociopolitical concerns prevented researchers from conscientious consideration of any reasonable hypothesis."<sup>134</sup>

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131. Press Release, NARTH, Prominent Psychiatrist Announces New Study Results: Some Gays Can Change (updated version Sept. 3, 2008), <http://www.narth.com/docs/spitzer2.html>.

132. *Id.*

133. M. Bansai, *Psychologists Disagree over Therapy for Homosexuals*, CYBERCAST NEWS SERVICE, Aug. 15, 2006, <http://www.cnsnews.com/View/Culture.asp?Page=/Culture/archive/2> (retrieved Sept. 24, 2006).

134. J. Michael Bailey, *Homosexuality and Mental Illness*, 56 ARCH. GEN. PSYCHIATRY 883, 884 (1999).