Examining the Evidence for the "Innate and Immutable" Theory

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In a world of the academy, homosexuality is an issue on which there is little genuine intellectual exchange these days. I appreciate Graceland University's attempt to have a civil dialogue on the topic. You need to know that I am not much of an activist. I am a clinical professor of medicine in a fairly good medical school. I research and write a bit. However, for more than 30 years I have been providing therapy to a unique population—men who are distressed by their unwanted homosexual attractions. Although many of these men have religious backgrounds, a substantial minority, perhaps as many as 40% do not. There have been more than 300 of them, a conservative estimate of the number of men who I have treated since the early 1970s.

For the single men who struggle, their complaint has been, "Gay relationships are not working for me. Would you help me explore my options?" For the men who are married, I hear the following: "I love my family – my wife and children. I have these homosexual attractions, and I am only able to have a sexual relationship with my wife when I fantasize about having sex with a man. I have thought about becoming involved with a gay partner, but I want to honor my commitment to my marriage and my family. I really don't want the attractions. These homosexual feelings never really felt like a part of me or who I really am. Can you help me diminish the homosexual attractions and increase my sexual attractions for my wife?"

Many in the national mental health organizations would have me refused to provide care to such individuals based on their request. They would have me say something like the following: "A homosexual orientation is fixed and unmodifiable. I can only help you become more comfortable with your homosexual attractions."

Is homosexuality innate and immutable? Or can a person with homosexual sexual orientation make significant changes in the direction of becoming heterosexual? Are the official statements issued by the major national mental health associations—which declare that there is no published evidence demonstrating that homosexuals can significantly alter their sexual orientation—in fact accurate?

There is a considerable body of ideologically inspired "scholarship" most of which leans toward the notion that homosexuality is so strongly compelled by biological factors that it is indelibly ingrained in a person's core identity, and is therefore not amenable to change. Many of these articles, though well-written, do not reflect the scientific literature. In fact, the social advocacy of the articles seem

to suggest a greater reliance on politics than on science.

The Origins of the "Born that Way" Theory

There are basically three studies that led activists to trumpet the notion that homosexuality is biologically determined. These studies were conducted by LeVay, Hamer, and Bailey and Pillard. Perhaps a brief review of the studies conducted by each researcher might be helpful (LeVay, 1991; Hamer, 1993; Bailey and Pillard, 1991).

At the time of his research, LeVay was a biological scientist at the Salk Institute in San Diego. He conducted research on the brains of two groups of men: homosexual men and men who LeVay presumed were heterosexual. With a fairly small sample size (19 homosexual men and 16 presumed heterosexual men), LeVay examined the brains of these men post-mortem, focusing on a particular cluster of cells in the hypothalamus known as the INAH-3. He reported that he had found "subtle but significant differences" between the brains of homosexual men and heterosexual men. LeVay's research had a number of important limitations.

He had very little information about the sexual histories of the subjects. Some had died of AIDS. Although there were differences between experimental and control groups, some presumed heterosexual men had small brain nuclei in the critical area, and some homosexual men had nuclei large enough to be within the normal heterosexual range.

What LeVay Actually Claimed

Listen to LeVay's criticism of his own research:

"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 real 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 the "use it or lose it" principle. Furthermore, even if the differences in the hypothalamus rise 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 INAH-3 (and perhaps other brain regions) represent a 'final common path' in the determination of sexual orientation, a path to which innumerable prior factors may contribute." (LeVay, 1996, pp. 143-145).

continued

Again, quoting LeVay:

"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 INAH-3 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 an argument that structural differences in INAH-3 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 INAH-3 in living people who can be interviewed in detail about their sexuality." (LeVay, 1996, pp. 143-145).

In summary, LeVay offered the following: "It's important to stress what I didn't find. I did not prove that homosexuality was 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 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." (Nimmons, 1994, pp. 64-71).

Commenting on the brain and sexual behavior, Mark Breedlove, a researcher at the University of California at Berkeley, demonstrated that sexual behavior can actually change brain structure. Referring to his research, Breedlove states, "These findings give us proof for what we theoretically know to be the case—that sexual experience can alter the structure of the brain, just as genes can alter it. It is possible that differences in sexual behavior cause (rather than are caused) by differences in the brain." (Breedlove, 1997, p. 801).

Later, in his book *Queer Science*, LeVay offers additional clarification regarding biology and homosexuality:

"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 we 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 factors such as parental treatment in the early postnatal period" (LeVay, 1996, p. 6).

Finally, LeVay made an interesting observation about the emphasis on the biology of homosexuality. He noted, "... people who think that gays and lesbians are born that way are more likely to support gay rights." (LeVay, 1996, p. 282).

The Twin Study

The next study was conducted by Bailey and Pillard where the researchers focused on identical twins, non-identical twins, and regular siblings. Basically, they studied 56 sets of identical twins and 54 sets of non-identical twins. They found a 52% concordance rate for the identical twins which means that for every homosexual twin the chances were about 50% that his twin would also be homosexual. For non-identical twins, the rate was about 22%, showing that only about 1 in 5 twins had a homosexual brother. For nontwin brothers, it was 9.2%.

Interesting enough, Bailey and Pillard found the rate in adopted brothers to be 11.2%. The most fascinating 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 endowment? Neil Whitehead provided some comparative data on other twin studies. The concordance rate for identical twins on measures of extroversion is 50%, religiosity is 50%, divorce is 52%, racial prejudice and bigotry is 58%. The only conclusion that can be reached from the Bailey and Pillard study is that environmental influences play a strong role in the development of homosexuality (Whitehead and Whitehead, 1999).

The Hamer Research

The third study and perhaps the most sensationalized of the three studies since it emerged at the time of gays in the military issues during the Clinton era was conducted by Dean Hamer of the National Cancer Institute. Hamer attempted to link male homosexuality to a stretch of DNA located at the tip of the X chromosome. In Hamer's study, he examined 40 pairs of non-identical gay brothers and asserted that 33 pairs—a number significantly higher than the 20 pairs that chance would dictate—had inherited the same X-linked genetic markers from their mothers.

Criticism of Hamer's research came from a surprising source: George 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 results are statistically significant." (Risch, 1993).

Commenting on his own research, Hamer noted, "We knew 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.....(Hamer and Copeland, 1994, p. 82). Homosexuality is not purely genetic...environmental factors play 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." (Mitchell, 1995).

Citing the failure of his research, Hamer further wrote, "The pedigree failed to produce what we originally hoped to find: simple Medelian inheritance. In fact, we never found a single family in which homosexuality was distributed in the obvious pattern that Mendel observed in his pea plants" (Hamer and Copeland, 1994, p. 104).

What is more interesting is that when Hamer's study was duplicated by Rice *et al* with research that was more robust, the genetic markers were found to be nonsignificant. Rice 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* 's, we certainly had adequate power to detect a genetic effect as large as reported by in that study. Nonetheless, our data do not support the presence of a gene of large effect influencing sexual orientation at position XQ 28" (Rice, Anderson, Risch, and Ebers, 1999, pp. 665-667).

What Does It All Mean?

In summarizing the biological studies on homosexuality, Byne and 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 heritabil-

ity for homosexuality without requiring that either genes or hormones directly influence sexual orientation *per se.*" (1993, p. 229).

So what does all of this mean about biology and the genesis of homosexuality? Critical reviews of the studies attempting to link biology and homosexuality and subsequent acknowledgments by the researchers themselves yield only one conclusion: that biology alone is not sufficient to explain the development of homosexuality. The developmental biologist from Brown University, Dr. Anne Fausto-Sterling, offers some interesting insight. Referring to the "born that way" argument she states:

"It provides a legal argument that is, at the moment, actually having some sway in court. For me, it's a very shaky place. It's bad science and bad politics. It seems to me that the way we consider homosexuality in our culture is an ethical and a moral question." When asked about how much of her thinking about change in sexuality comes from her own life, Fausto-Sterling responded, 'My interest in gender issues precede my own life changes. When I first go involved in feminism, I was married. The gender issues did to me what they did to lots of women in the 1970s: they infuriated me. My poor husband, who was a very decent guy, tried as hard as he could to be sympathetic. But he was shut out of what I was doing. The women's movement opened up the feminine in a way that was new to me, and so my involvement made possible my becoming a lesbian. My ex and I are still friends. It is true I call myself a lesbian now because that is the life I am living, and I think it is something you should own up to. At the moment, I am in a happy relationship and I don't ever imagine changing. Still, I don't think loving a man is unimaginable'." (Dreifus, 2001).

The Predisposing Factor of Gender Nonconformity

So if biology is insufficient to explain the development of homosexual attractions, what environmental factors emerge from the literature? Gender nonconformity in childhood may be the single most common observable factor associated with homosexuality. (Rekers, 1995; Hamer, 1994). Hamer (1994) concludes, "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." (P. 166).

In Hamer's own study, he asked the following questions:

"...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 subjects recalled substantially more gender atypical behaviors than the straight subjects." (P. 167).

LeVay noted that "...gays and lesbians were more nonconformist than heterosexuals in the following gender-differentiated traits:

- 1. Participation in rough and tumble play (RTP), competitive athletics, or aggression.
- 2. Toy and activity preference.
- 3. Imagined roles and careers (significant difference for men only).
- 4. Cross-dressing.
- 5. Preference for same or opposite sex playmates.
- Social reputation as a sissy or tomboy, and gender identity (1996, P. 98).

Friedman and Downey (2002) concluded that homosexual women are much more likely than heterosexual women to report having been extreme tomboys as children. Saghir and Robins (1973) reported that 70% of homosexual women but only 16% of heterosexual women recalled being "boy-like" in childhood. Bell, Weinberg and Hammersmith (1981) found that 71% of homosexual women versus 28% of heterosexual women enjoyed typical boys' activities (e.g., team sports) in childhood "very much." For men, the data are comparable: homosexual men are much more likely to report gender-atypical behavior during childhood than are heterosexual men.

Thus Saghir and Robins (1973) found that 67% of homosexual men but only 3% of heterosexual men recalled being "girl-like" as children. Homosexual men often had no male buddies, avoided boys's games, played predominantly with girls and were teased and called "sissies" by other boys.

Bell, Weinberg, and Hammersmith (1981) reported that 70% of heterosexual men but only 11% of homosexual men had enjoyed sex stereotyped boys activities such as baseball and football in childhood. Conversely, 46% of the homosexual men but only 11% of the heterosexual men reported enjoying stereotypic girls' activities.

As reported by LeVay (1996, pp. 99-100), "Richard Green, who trained with John Money, searched for factors that might predispose to gender nonconformity in children. In his 1974 book *Sexual Identity Conflict in Children and Adults*, Green explored these factors by means of extensive interviews with gender non-conformist boys and their parents. Although he was cautious in attributing causality, Green names several factors that he believed were associated with femininity in boys: the failure of parents to discourage feminine behaviors, their active discouragement of boyish behaviors, maternal overprotection, and so on. He

explained to parents that they might have unwittingly caused or promoted their son's femininity, and that they stood the best change of correcting the problem if they started to actively discourage it and encourage masculinity instead. In particular, the fathers should take a more active role in the boy's life. You've got to get these mothers out of the way,' Green told the parents of one seven-year-old. 'Feminine kids don't need their mothers around.'"

Regarding treatment, Zucker and Bradley (1995) concluded: "It has been our experience that a sizeable number of children and their families achieve a great deal of change. In these cases, the gender identity disorder resolves fully, and nothing in the children's behavior or fantasy suggests that gender identity issues remain problematic. In a smaller number of cases, there is a minimal or no evidence of change in the children's cross-gender identification and other behavioral difficulties. All things considered, however, we take the position of helping children to become more secure in their gender identity. Research and clinical work pertaining to gender identity disorder is only a little more than 30 years old, and only a small number of professionals have worked in the area. Much remains to be done." (P. 282).

The DSM or the diagnostic manual of the American Psychiatric Association indicates that 75% of children whose nonconforming behavior rises to the level of a Gender Identity Disorder will report a homosexual or bisexual orientation (boys only) as adults. The diagnosis can be sustained by criteria such as preference for cross dressing, persistent preference for cross-sex roles, intense desire to participate in the stereotypical games and pastimes of the other sex and strong preference for playmates of the other sex. (P. 536).

Should GID Children be Treated?

There is some discussion in the mental health professional community whether or not parents should seek therapy for GID kids. Green (1987) concluded: "Should parents have the prerogative of choosing therapy for their genderatypical son? Suppose the boys who play with dolls rather than trucks, who role play as mother rather than father, and who play with girls tend disproportionately to evolve as homosexual men. Suppose the parents notice or suspect this. The rights of parents to oversee the development of their children is a long established principle. Who is to dictate that parents may not try to raise their children in a manner that maximizes the possibility of a heterosexual outcome? If that prerogative is denied, should parents also be denied the right to raise their children as atheists? Or priests?" (P. 260).

Let me share with you some of the research responses of GID kids. First, girls. Here is the question. In what ways do you think you were different from girls your age?

The answers were as follows:

"I played outdoors more. I was much more of a tomboy."

"I disturbed the Brownie meetings by bringing along some of my boyfriends."

"I didn't like girl things such as, sewing parties or paper dolls."

"To me girl activities were nonsense."

"I still like to wear pants."

"Girls my age were so feminine and pretty and I was horsy. I wanted to be feminine but hated frills."

"I didn't express myself the way other girls would. For example, I never showed my feelings. I wasn't emotional."

For the boys, here's the question: In what ways do you think you were different from other boys your age?

The answers were, for example:

"I wanted no involvement in sports where you have to prove your strength."

"I hated physical education and sports."

"I remember writing a good composition and having guys put it down. They said it was like a girl's, so I suppressed my writing and creative talents."

"I wasn't as aggressive as other boys, not as active as they were, not rambunctious and boisterous."

"I just didn't feel I was like other boys. I was very fond of pretty things like ribbons and flowers and music."

"I was more emotional. I was too goody-goody to be one of the boys."

Another area where there has been substantial research is the area of sexual abuse. Shrier and Johnson (1988) found that:

- homosexually assaulted males identified themselves as subsequently homosexual seven times as often as the nonassaulted group.
- In half of the molestations, physical force was used.
- The mean age at which the molestation was reported was 18.2 with a range of 15 to 24.
- The age at the time of molestation was from 4 to 16 with a mean age of 10.

• Of this extension group, "...one half of the victims currently identified themselves as homosexual and often linked their homosexuality to their sexual victimization experiences."

Friedman and Downey (1994) found that gay males are more likely than heterosexual males to become sexually active at a younger age (12.7 vs. 15.7). This statistic certainly relates to a premature introduction to sexuality which has implications frequently is associated with sexual abuse.

Tomeo *et al* (2001) conducted research with 942 nonclinical adults (97% of the men were participating in a gay pride celebration). Gay men and lesbian women reported a significantly higher rate of childhood molestation than did heterosexual men and women. Forty-six percent of the homosexual men in contrast to 7% of the heterosexual men reported homosexual molestation.

Twenty-two percent of the lesbian women in contrast to 1% of heterosexual women reported homosexual molestation. So did the molestation cause or contribute to the respondents' own homosexuality some years later in adulthood? The question is particularly intriguing because 68% of the male study subjects and 38% of the females did not identify as homosexual until after the molestation.

Let me provide you with a personal glimpse through the eyes of the Olympic diver, Greg Louganis. At sixteen he was propositioned by an Olympic judge: "The whole thing was surreal...but did divers actually sleep with a judge to get a higher score?" (Louganis, p. 61). The experience of having sex with an older man was confusing to him. Greg describes that relationship: "He put his arms around me and kissed me. I really like being held, and I was thrilled that this guy found me attractive."

Then he says, "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 separation and secrecy, but I kept going back for the affection, the holding, the cuddling—more than the sex. I was starved for affection, and he was happy to give it to me."

Louganis adds, "It upset me that he was so much older, not because I felt molested or anything. I had been more than a willing partner, but the difference in our ages made the experience even more shameful." (P. 79). "I looked forward to my furtive meetings with the older man from the beach, but he wasn't someone I could really talk to." (P. 89). "At 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." (P. 79).

Peer Abuse

Another area where there has been considerable research is peer abuse. As boys, many homosexual men report name-calling, feeling rejected, being excluded. This peer abuse adds to the feeling of being different. Basically, Bem's theory hypothesizes that you are likely to feel an attraction for those who were different, exotic, opposite—whether or not they were of the same sex.

The theory basically proposes that biological variables, such as genes, prenatal hormones, and brain neuroanatomy, do not code for sexual orientation *per se* but for child-hood temperaments that influence a child's preferences for sex-typical or sex-atypical activities and peers. These preferences lead children to feel different from opposite or same-sex peers and thus to perceive them as dissimilar, unfamiliar, and erotic. This, in turn, produces heightened nonspecific autonomic arousal that subsequently gets eroticized in that same class of dissimilar peers: "exotic becomes erotic" (Bem, 1996). In essence, you sexualize that with which you are not familiar. Psychiatrist Richard Fitzgibbons has done significant work in this area (1997).

Family Factors

The final area where there is some research is family relationships. Please understand that I am not talking about culpability. There appears to be a disconnect between fathers and sons and an overconnect with mothers and sons. The old psychoanalytic literature still seems to hold in many cases. There is the perception of the father as being distant, uninvolved and unapproving. Fathers seem to have a difficult time connecting with a gender atypical boy. And mothers will often try to compensate (Rekers, 1995; Satinover, 1996).

Bell, Weinstein & Hammersmith (1981) and Rekers (1988) concluded that the relationship of the child to the father may be more critically predictive of outcome than any aspects of relationships with the mother.

In Bell, Weinstein & Hammersmith's research they found that 72% of homosexual males recalled feeling "very little" or "not at all" like their fathers." (1981).

Summarizing the Contributing Factors

So what does all of this mean? Regarding homosexuality, there are simply no variables that are by themselves, totally predictive. What we know is that homosexuality is likely polygenic and multifactorial which means that the answer to the nature/nurture controversy is "yes." It is probable that the genesis of homosexuality lies in temperament in combination with environmental factors such as sexual abuse and peer abuse along with familial factors.

Leaving aside the etiologic discussion, is homosexuality

immutable? Is it fixed, or is it amenable to change? The 1973 decision to delete homosexuality almost entirely from the diagnostic manual had a devastating effect on research. For reasons not clear, there has been a substantial increase in research on homosexuality within the last two years. The research seems focused on the fluidity of homosexual attractions in some gay men and lesbians. I should note that the APA decision was not made based on new scientific evidence. In fact, gay-activist researcher LeVay admitted that "gay activism was clearly the force that propelled the APA to declassify homosexuality" (LeVay, 1996, p. 224).

What About Change?

What does the data conclude about homosexuality and change? In reviewing the research, Satinover (1996) reported 52% success rate in the treatment of unwanted homosexual attraction. Masters and Johnson (1984), the famed sex researchers, reported a 65% success rate after a five-year follow-up. Other professionals report success rates ranging from 30% to 70% (James, 1978).

Our own peer-reviewed research provided some interesting data (Nicolosi and Byrd, 2000). We conducted a survey of 882 dissatisfied homosexual people whom we queried about their beliefs regarding conversion therapy and the possibility of change in sexual orientation. There were 70 closed-ended questions on the survey and 5 open-ended ones. Of the 882 participants, 726 of them reported that they had received conversion therapy from a professional therapist or a pastoral counselor. Of the participants 779 or 89% viewed themselves as more homosexual than heterosexual, almost exclusively homosexual or exclusively homosexual in their orientation before receiving conversion therapy or making self-help efforts to change. After receiving therapy or engaging in self-help, 305 (35.1%) continued to view themselves in this manner.

As a group, the participants reported large and statistically significant reductions in the frequency of their homosexual thoughts and fantasies that they attributed to conversion therapy or self-help. They also reported large improvements in their psychological, interpersonal and spiritual well-being. These responses, for several reasons, cannot be generalized beyond the present sample, but the attitudes and ideas are useful in developing testable hypotheses for further research.

Last year we completed a meta-analysis (Byrd and Nicolosi, 2002) where we examined and synthesized studies of treatment of individuals identified as homosexual using meta-analytic technique. A large number of studies (146) evaluating treatment efficacy were identified, most published prior to 1975 and 14 of which met the inclusion criteria and provided statistics that could be used in a meta-analysis. These 14 outcome studies were published between 1969 and 1982 and used primarily behavioral interventions. Analysis indicated that treatment for homosexual

sexuality was significantly more effective than alternative treatments or control groups for homosexuality (ES = .72), and significant differences were found across pre- to post analysis (ES = .89).

In other words, the average patient receiving treatment was better off than 79% of those in the alternative treatments or as compared to pretreatment scores on the several outcome measures. This meta-analysis of 14 studies provides empirical support for a group of 146 studies which have narratively suggested that treatment for homosexuality is effective. Throckmorton (2002) studied the empirical and clinical findings concerning the change process for exgays. His analysis suggests that some kind of change appears to occur for many who identify themselves as exgay.

A study by Lisa Diamond (2000) concluded that sexual identity is far from fixed in women who aren't exclusively heterosexual. Her research suggests that there is much more fluidity in non-heterosexual women than was thought.

Sexual plasticity in homosexual men is not a new or novel idea. More than 30 years ago, Kurt Freund (1963, 1971), using penile plethysmography, found that some homosexual men could voluntarily alter their penile responses to respond to heterosexual stimuli without ever receiving reorientation therapy. While it would be erroneous to generalize from such a clinical sample to suggest that homosexual orientation is malleable in all people, still, historical and current research would suggest that it is equally erroneous to conclude that change in sexual orientation is not possible for some men.

There are a number of qualitative studies documenting that individuals experienced significant transitions in many aspects of sexual orientation without the benefit of formal or even informal therapy (e..g. Blumstein & Schwartz, 1976, 1977; Charbonneau & Lauder, 1991; Diamond, 2000, Kinnish and Strassberg, 2002; Kitzinger & Wilkerson, 1995). If change in many aspects of sexual orientation is possible without therapy, sometimes without even intention, then certainly such change is possible for some of those who will invest years of concentrated effort toward bringing about such change.

The Spitzer Study

Perhaps the most significant study done to date is the one conducted by Robert L. Spitzer of Columbia University School of Medicine (Spitzer, 2003). In fact, the following remarks come from a commentary which I was invited to submit to the *Archives of Sexual Behavior* in conjunction with the publication of the Spitzer study. Spitzer is a self-identified secular humanist atheist Jew who was the psychiatrist who led the movement to remove homosexuality from the list of psychiatric disorders in 1973.

Spitzer studied 200 men and women who participated in reorientation therapy. As you might imagine, his research has ignited a heated discussion about the possibility of diminishing a homosexual orientation and developing heterosexual attractions. Indeed, Spitzer provides evidence that some gay men and lesbians are not only able to change self-identity, but are able to modify core features of sexual orientation, including fantasies. His research makes an important contribution to a plethora of other studies and case reports on change.

Spitzer's sample size was larger than most in prior studies. He carefully considered the affective components of the homosexual experience and was considerably more detailed in his assessment than were other studies. His use of a structured interview demonstrates clearly how the subjects were evaluated. He limited his pool of participants to those who reported at least 5 years of sustained change from a homosexual to a heterosexual orientation. Virtually any bias in the interview coding was eliminated by the near perfect interrater scores.

A unique feature of his research is that the entire set of data used in the study is available to other researchers. Spitzer 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 that they were bothered slightly, or not at all, by unwanted homosexual feelings. The study indicates that some gay men and lesbians following therapy, report that they have made major changes from a predominantly homosexual orientation to a predominantly heterosexual orientation. The changes following therapy were not limited to sexual behavior and sexual orientation self-identity. The changes encompassed sexual attraction arousal, fantasy, yearning, and being bothered by homosexual feelings. The changes encompassed the core aspects of sexual orientation.

Even subjects who only made a limited change nevertheless regarded the therapy as extremely beneficial. Subjects reported benefit from nonsexual changes, such as decreased depression, a greater sense of masculinity in males, and femininity in females, and developing intimate nonsexual relations with the same sex. The findings of this study have implications for clinical practice.

First, it questions the current conventional view that desire for therapy to change sexual orientation is always succumbing to societal pressure and irrational internalized homophobia. For some individuals, changing sexual orientation can be a rational, self-directed goal. Second, it suggests that the mental health professions should stop moving in the direction of banning sexual reorientation therapy.

Many patients, provided with informed consent about the possibility that they will be disappointed if the therapy does not succeed, can make a rational choice to work toward developing their heterosexual potential and minimizing their unwanted homosexual attractions. In fact, the ability to make such a choice should be considered fundamental to client autonomy and self-determination. "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."

In the sample 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 (NARTH, 2001). Most revealing was Spitzer's response when he was asked by a journalist, "What would you do if your adolescent boy tells you he is homosexual?" Dr. Spitzer's responded, "The honest answer would be, I guess, I would hope that he would be interested in changing and that he would get some help" (Vonholdt, 1999). I should note that Dr. Spitzer has been and continues to be a supporter of gay rights.

Not All Gay Activists Object to Reorientation Therapy

So, where does all of this lead us? I would like to quote from four gay and lesbian activists on change therapy.

Camille Paglia (1994) offered the following observations:

"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...homosexuality is an adaptation, not an inborn trait.

"Is the 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 with obesity, smoking, alcoholism, or drug addiction...helping gays to learn how to function heterosexually, if they 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 where children band together by gender—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 is safer with your own kind. The issue is one of challenge versus comfort."

From gay activist Douglas Haldeman (2000, p. 3):

"A corollary issue for many is a sense of religious or spiritual identity that is sometimes as deeply felt as is sexual orientation. For some it is easier, and less emotionally disruptive, to contemplate changing sexual orientation, than to disengage from a religious way of life that is seen as completely central to the individual's sense of self and purpose...

"However we may view this choice or the psychological underpinnings thereof, do we have the right to deny such an individual treatment that may help him adapt in the way he has decided is right for him? I would say that we do not."

From gay activist LeVay (2000, p. 12):

"First, science itself cannot render judgments about human worth or about what constitutes normality or disease. These are value judgments that individuals must make for themselves, while possibly taking scientific findings into account.

"Second, I believe that we should as far as possible, respect people's personal autonomy, even it that includes what I would call misguided desires such as the desire to change one's sexual orientation."

From gay activist Dean Hamer (1994, p. 214): "...biology is amoral; if offers no help in distinguishing between right and wrong. Only people, guided by their values and beliefs can decide what is moral and what is not."

Conclusion

I would be supportive of many of the points above. Homosexuality is an issue of ethics and morality. Individuals who experience unwanted homosexual attactions have a right to treatment aimed at diminishing those attractions. Whether or not others agree with that choice is not as important as respecting their right to make the choice. In fact, tolerance and diversity demand that they do so.

The confounding of politics, psychology and therapeutics has occurred, I believe, because of anti-homosexual bias in some cases, and gay activism in others. In both instances, there has been a confusing co-mingling of facts and theories by anti- or pro-homosexual political groups—both of which claim to have science on their side.

Contrary to the prevailing climate, the data on homosexuality is far from complete. Ethicality would suggest that the suppression of data and discouragement of further scientific research should not be tolerated. With appropriate guidelines in place (Institutional Review Boards), it is not only ethical but well within the purview of science to encourage the study of issues such as the change from homosexuality.

The well-intentioned caretakers of our national organizations slide down a slippery slope when advocating what amounts a virtual censorship of scientific investigation of politically unpopular views. Science progresses by asking interesting questions, not by avoiding questions whose answers might not be helpful in achieving a political agenda. Being supportive of gay rights does not require a commitment to the false notion that sexual orientation is invariably fixed in all people.

Regarding the question of whether homosexuality is innate and immutable, the Columbia University scientists, Friedman and Downey, responded, "Neither assertion is true." Further they note that "the assertion that homosexuality is genetic is so reductionistic that it must be dismissed as a general principle of psychology" (P. 39).

As a final note, I personally repudiate any uncivility, religious or otherwise, toward gay men or lesbians. Many of these individuals are acting from different moral perspectives, from very different moral premises. At the same time, suppression of any research data must not be tolerated. Under no circumstances should science be pre-empted by activism. No one benefits when that this debate is politicized, distorted or suppressed.